

INNOVATE
FINANCE



The Roadmap to Open Finance in the UK

KPMG & Innovate Finance



Foreword

Open Banking in the UK has been a driving force for innovation. New legislation will shortly give ministers the powers to extend open or smart data to other areas of financial services as well as other sectors like energy and retail¹. This can provide the basis for Open Finance across all financial services including savings, mortgages and assets, credit, insurance and investment. This has the power to unlock huge economic and social benefit, enabling consumers and businesses to easily view and manage their entire balance sheet and make finance work better for them.

To realise the benefits, we have to answer the question: how do we get there? How do we extend consent-based, data-driven services across datasets currently held in numerous financial service providers to unlock new use cases and innovative services and products. We need a roadmap for Open Finance, setting out the journey to data sharing in and across all financial services.

Work is just starting to develop this roadmap. This report is designed to aid that process. It aims to:

- Summarise where we are starting the journey: what has already been achieved or is underway.
- Highlight additional building blocks needed to enable the implementation of Open Finance.



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CEO, Innovate Finance

- Identify a set of scenarios or route options for the roadmap.
- Identify some of the common principles and infrastructures needed for any journey option.
- Provide a framework for deciding on the UK's route to Open Finance - identifying the trade-offs involved in different approaches and how data sets and use cases can be prioritised.

Our aim is to provide a framework and provocation for conversation and debate, to help develop thinking on what the right roadmap (or roadmaps) should be for Open Finance in the UK. We want a big conversation across the ecosystem: with users and consumers; all financial services and institutions; FinTechs; BigTech; regulators; policymakers and government. We want to involve as many people as possible to help refine and develop the UK roadmap for Open Finance and to provide a framework and input to any task force that may take this forward.

We will be organising further discussions and we hope you will use this as a tool for your own discussions. Let us know what you think - what is your preferred route to Open Finance?



Ellie Hewitt

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Introduction

Open Finance is one of the most potentially transformative innovations currently facing the financial sector. Open Finance refers to the portability of data, within and across financial services, with the consumer in charge of their own data. New solutions could incorporate real time financing embedded at the point of sale, democratise financial advice, streamline lending and offer more holistic money management. This means the consumer will be able to manage their finances more effectively by obtaining financial advice currently restricted to those that can pay. This would benefit near term cost of living challenges and long term consumer savings. An Open Finance economy would also drive productivity benefits for millions of small businesses across the country.

The use case potential for Open Finance is vast. Report by CFIT stated that delivering Open Finance and personal data mobility could boost UK GDP by £30.5bn a year². Smart data will drive the next generation of innovation, creating huge value for society and the economy through interoperable, portable, quality data. Within a secure and trusted framework, and in combination with Artificial Intelligence, tokenised assets and smart contracts, this will drive a range of macroeconomic objectives for UK PLC:

- Small business productivity gains, with more efficient reconciliation, real time financing and streamlined payments.
- Holistic financial management for consumers, improving financial literacy, democratising financial advice supporting long term financial resilience of all citizens.
- FinTech investment and growth, aligned to key government priority areas.
- Promoting Financial inclusion through tailored financial management and improved access to credit
- Opportunity for the UK to continue our global leadership in real time payments and Open Banking innovation.

We already see other countries working towards a smart data economy transition: Australia introduced the Consumer Data Rights legislation as a step towards Open Finance; the European Commission has proposed a new Open Finance framework; Brazil has extended Open Banking to all financial services; and Singapore has invested in the world's first public digital infrastructure, allowing secure data sharing between government agencies and financial institutions. **The global trend towards Open Finance is clear, and it is crucial that the UK takes the right steps now in order to set up for future success.**

The UK is globally recognised as a leader in this space – the first country to introduce Open Banking and supporting a thriving FinTech sector. In 2023, UK FinTech received more than \$5bn of investment³ – more than the next 28 countries in Europe combined. However, a clear strategy and deliberate action is required for the UK to continue along this journey and set up for success as we navigate from Open Banking to a richer Open Finance enabled economy. Open Finance spans more than just Open Banking, or smart data – it is a holistic, dynamic, and

multi-faceted opportunity, that requires equally holistic, pan-industry response to maximise its potential. A successful rollout therefore requires close collaboration between key stakeholders across public and private sectors: government, regulators and industry players.

Innovate Finance recently published its [General Election FinTech Manifesto](#), calling on the next government to focus on three key areas towards achieving this vision. These areas have been identified as enablers for the UK to lead the next wave of FinTech innovation and solidify the country as the best place in the world to start, scale and build a FinTech.

To build the world's first smart data economy, Innovate Finance called for a 5-year roadmap of extending Open Banking to Open Finance – with open data in all financial sectors by 2030, including credit, savings, mortgages and insurance and investments; enabling citizens to have a complete picture of their personal balance sheet in one place. The Centre for Finance, Innovation and Technology (CFIT) has also called for task force to develop a roadmap for Open Finance⁴.

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1. Build the world's first smart data economy.
 2. Make the UK the most secure place in the world for consumers and businesses to use digital finance.
 3. Make the UK the world leader in adopting new technology in finance.

This paper aims to set out what is required to achieve an Open Finance economy, and the path to get us there. There are multiple initiatives underway across payments, smart data, and digital identity; and we have identified a number of additional building blocks required to set the UK up for success.

The multi-faceted nature of Open Finance inevitably means there are multiple paths forward to realise this vision. In this paper we set forward three different paths to achieving an Open Finance economy, focusing on the outcomes-based principles required to deliver tangible market action.

Current state of play – the Open Finance building blocks already underway

There are multiple initiatives already underway across the market that provide a foundation for Open Finance. Ensuring that these initiatives are fully realised, with the appropriate guardrails and design of future extensibility, is a critical requirement for success.

01 Open Banking

The UK led the world into Open Banking and is recognised as a global leader.

As of January 2024, there are now over 9 million active users of Open Banking in the UK with volumes and adoption growing year on year amongst both consumers and businesses⁵. Ecospend, a payment initiation services provider, reported that in January 2024 alone £3.3bn of tax self-assessment payments were made to HMRC via Open Banking⁶. Meanwhile the availability of services continues to expand with services focusing on payments, borrowing and financial decision making. Nonetheless, challenges remain around governance, commercial incentives, consumer protection and consistency in technical implementation. To tackle these hurdles and promote the ongoing adoption of Open Banking, the Joint Regulatory Oversight Committee (JROC) published a roadmap for the next phase of UK banking last year⁷. The industry is now working through the 29 activities, on the five key themes – levelling up availability and performance, mitigating the risk of financial crime, ensuring effective consumer protection, improving information flow to regulated Third Party Providers (TPPs) and end users, promoting additional products and services as well as finalising the design of the future entity.

As implementation of these complex roadmap activities progress, a positive sign has been active engagement across the industry towards a premium (Application Programming Interface) API framework for broader data and variable recurring payments use cases. A functional, scalable, and resilient Open Banking infrastructure is a critical foundation for Open Finance, and this evolution must continue as a priority.

02 The Data Protection & Digital Information Bill

As part of the government's commitment to an economy where consumers' own data works for them, and innovative businesses thrive, the Data Protection and Digital Information (DPDI) bill is currently being considered by Parliament⁸.

DPDI provisions consist of 3 pillars of data security and innovation.

The Data Protection & Digital Information Bill



Data Protection

Updating and simplifying the current legislation to reduce compliance costs and improve flexibility
Maintain high consumer data protection and privacy standards



Digital Identity

Introducing reliable advanced authentication and digital ID verification
Foundation for a cross-sector re-usable Digital Identity framework enabling secure and efficient financial transactions



Smart Data

Unlocking benefits of Open Banking in other sectors and enabling a cross-sector secure data sharing

The bill will provide the legal powers for ministers to introduce smart data schemes in different industries, enabling Open Finance to be introduced across industries beyond Open Banking and the current Competition and Markets Authority requirements (the 'CMA Order'). In addition, it will provide the legal basis for digital ID schemes that could support Open Finance applications. The bill is expected to be passed by summer 2024.

03 Smart Data Council

The Smart Data Council has been set up by the Department for Business and Trade to advise on leading, developing, and co-ordinating new and innovative schemes that utilise the power of Smart Data. The Council features representatives from Citizen's Advice, Innovate Finance, Open Banking Limited, CFIT and other stakeholders to drive forward open data standards and use cases. It is helping Government develop a roadmap for smart data, and identifying the cross-cutting standards, infrastructure needed to support industry schemes and a framework for interoperability and consistency across various Smart Data initiatives.

04 Centre for Finance, Innovation and Technology (CFIT)

CFIT was established to unblock barriers to growth for financial technology and promote the UK's financial innovation leadership. The CFIT Open Finance coalition brings together stakeholders from across the ecosystem to support the delivery of Open Finance by developing solutions to main challenges and unlocking priority use cases. The coalition's report on 'Embracing the UK's Open Finance Opportunity' outlines how enhanced data-sharing can support democratisation of financial advice to consumers as well as SME credit access⁹. This sets out a number of 'Proof of Concept' models for Open Finance services, including SME credit and a Citizens Advice financial diagnostic, which could now provide the basis for FinTech to build prototypes. These prototypes will show how the industry can design new Open Finance products and services that make use of the available datasets.

05 ISO 20022 Messaging Standard

ISO 20022 is an open international messaging standard that facilitates exchange of enhanced data in a richer, more structured format. ISO 20022 has the potential to create a single common language for most payments globally, enabling global interconnectedness of Open Banking payments and financial services. With 70+ countries having already adopted ISO 20022, it harmonises the language for payments internationally¹⁰. As the Bank of England (BoE) is progressing with the implementation of the standard within CHAPS (the payment system for high value payments) and RTGS (the Real Time Gross Settlement that settles funds between banks and other financial institutions), sending of enhanced data remains optional, with certain elements gradually being mandated.

ISO 20022 provides the foundation to propel Open Finance services and innovation, as many of the potential use cases leverage flexibility of standards, functionality of enriched data and straight-through processing.

Implementation of ISO 20022 enables Open Finance use cases such as personalised offerings based on transaction analytics. Its straight-through processing translates into fewer manual interventions leading to lower probability of delays for the end customer. This unlocks product innovation such as developing a dashboard with a real-time view on customer's financial position. As the extent to which benefits are realised depends on the industry using the data in a consistent manner, the BoE, with the industry support, is compiling guidance for specific use-cases of the standard to support coherent adoption.

06 National Payments Vision

In November 2023, the Future of Payments Review was published as part of the 2023 Autumn Statement¹¹. Commissioned by HM Treasury and led by Joe Garner. The Review provides several recommendations on the next steps for the UK to successfully deliver a world leading retail payments ecosystem. The Review's key finding was that the UK's payments landscape is congested and would benefit from a clear overall strategy. The government is committed to maintaining the UK's reputation for a world-leading payments ecosystem, and so has accepted the recommendation to publish a National Payments Vision this year.

Open Banking will play a major role in the National Payments Vision, building important foundations for the UK ecosystem to grow into Open Finance. Enabling an environment for Open Banking payments to thrive will foster competition, add rich functionality, and benefit the customer experience, particularly for peer-to-peer (P2P) and retail payments. The report calls for the introduction of consumer purchase protections on Open Banking transactions and a sustainable commercial model that incentivises engagement, quality, and innovation across the market.

The Review also called for action around regulatory simplicity, fraud mitigation, enhancements to digital customer experiences and streamlining the barriers to entry for FinTechs – all additional building blocks to support the trajectory of Open Finance in a flourishing UK payments ecosystem.

07 Project Perseus

Project Perseus is a project run by Bankers for Net Zero Icebreaker One and supported by a powerful coalition of banks, FinTechs, trade associations, accountancy bodies, and small business associations¹². It aims to transform data sharing and sustainability practices for SMEs by taking smart meter energy data to create and automate rapidly scalable, low effort, low cost, low friction sustainability and emissions reporting. Successful implementation will enable banks and lenders to assess the carbon emissions of their lending portfolio. Additionally, it will be possible to identify and track the biggest opportunities for emissions savings amongst small firms unlocking transition finance for the green economy.



08 Pensions Dashboard

The UK Pensions Dashboard will facilitate easier access to pension information for individuals across the United Kingdom. This programme, led by the Money and Pensions Service (MaPS) seeks to aggregate pension data from various sources, including private and state pension providers, into a single digital platform accessible to individual users. The Dashboards will provide users with secure, clear, and simple information about an individual's multiple pension savings. By consolidating pension information, the programme aims to empower individuals by providing them with a comprehensive view of their savings, enabling better financial planning and decision making. It is intended that most pension schemes and providers will connect to the dashboard by October 2026, with a first cohort in April 2025¹³.

There is growing interest and debate surrounding the potential expansion of the Pensions Dashboard Programme to incorporate elements of Open Finance. The inclusion of the additional financial data within the Pension Dashboard could offer users a more holistic view of their finances and enable better money management across the different life-stages.

09 Digital Assets

Digital assets leverage Distributed Ledger Technology (DLT) to open up myriad opportunities for industry innovation, including improving cross-border payments, streamlining trade finance, enhancing anti-money laundering compliance, enabling digital identity, tokenisation and creating new products and services. While digital assets comprise a broad spectrum of use cases and applications, tokenised assets and Central Bank Digital Currencies (CBDCs) arguably represent the greatest opportunity for Open Finance.

Blockchain technology, underpinning tokenised assets and CBDCs, enhances flexibility, efficiency, security, and transparency of transactions. It has a potential to propel the implementation of Open Finance by facilitating interoperability between systems and enabling the secure exchange of information and enable more Open Finance use cases. By leveraging smart contracts, lenders and borrowers will be able to operate via a decentralised platform, which can significantly reduce costs. Another example is evident in home buying, where smart contracts can automate the legal process lowering the legal fees.

10 Fraud and Economic Crime

The Economic Crime and Corporate Transparency Act 2023 (ECCTA) came into force in October 2023. It introduces amendments to the corporate liability law and anti-money laundering regulation¹⁴. Proposed provisions look to improve the reliability and security of the Companies House, tackle the misuse of limited partnerships, introduce a registry of overseas entities, improve effectiveness of Unexplained Wealth Orders (UWOs), and provide additional powers to seize criminal crypto assets. This may enable better digital companies data from Companies House, supporting Open Finance applications, and support data sharing.

Other initiatives are also underway to develop data sharing solutions to tackle fraud: in Open Banking, Transaction Risk Indicators have been developed as part of the JROC programme, to enable real time identification of potential fraud. The Payment Systems Regulator (PSR) is also advancing further work to develop data sharing to identify potentially fraudulent APP (Authorised Push Payment) transactions.

Additional Building Blocks

Alongside these inflight initiatives, there are several additional components required to enable an Open Finance ecosystem. We have set out the additional areas of functionality or standards that will serve as the 'building blocks' required for Open Finance.

01 Consumer Protections and Dispute Management

Consumer protection varies depending on the payment method used. In the UK, the card schemes provide the most advanced levels of consumer protection, with additional protection on credit cards purchases (Section 75 of the Consumer Credit Act) and well-defined dispute management mechanisms in the form of the chargeback service. If Open Banking is to compete in the retail payments market against payment methods such as cards, it is crucial that adequate and appropriate purchase protections are put in place to build customer trust and encourage further adoption of Open Banking services.

More widely, a dispute mechanism is needed for Open Finance applications and services – for consumers if something goes wrong; and for service providers and data holders if there is a commercial dispute.

This trust framework is developed, maintained and overseen by Opening Banking Limited, a not-for-profit entity that sets the standards, scheme rules, accreditation of participants, and performance monitoring.

A universal trust framework that sets standards for performance and reliability of the service and promotes interoperability is key to setting clear expectations and reducing friction for participants across the ecosystem. This trust framework would need to be underpinned by firms having strong governance and compliance frameworks in place to effectively manage risk, data, fraud, and the appropriate response plans in place to notify and respond to incidents should they occur.

There are JROC activities underway to build upon existing data platforms that capture API performance and certification for broader data sharing use cases in fraud mitigation, financial crime and improving information flows to TPPs. This platform, currently operated by Open Banking Limited, could be the technology enabler for broader and commercial data sharing requirements within Open Finance.

02 Trust Frameworks for Data Sharing


As we shift towards an open ecosystem, there needs to be appropriate guardrails implemented to protect consumer trust. In an ever-changing digital world, the threat of cyber-attacks, data breaches, fraud, scams and system failures pose increasingly more significant threats to the overall integrity of the open ecosystem.

Ensuring trust within an Open Finance economy is critical for adoption and success. A consumer's willingness to consent to sharing additional personal financial data will directly relate to their understanding of the benefits of Open Finance solutions and the confidence and trust of their service providers. As a result, it is crucial that firms invest in scalable, resilient services that are capable of securely managing and protecting consumer data.

03 Commercial Models

Given Open Banking was introduced in the UK as a regulatory activity with open access to the suite of mandatory APIs, pricing models and commercial incentive structures have not matured. With the growth of premium Open Banking propositions beyond the CMA Order, and further expansion into Open Finance, the requirement for a sustainable economic model that appropriately compensates different parties along the value chain, as well as incentivises engagement and innovation, is paramount.

In future, government and regulators may (or may not) choose to mandate defined service providers to provide defined Open Finance services. Mandated activities may be applied to all market players where law makers and regulators consider this is necessary to ensure a 'public good' which cannot be achieved by the open market alone, or they may be applied to those seen as having significant market power (and / or significant holders of relevant data) in order to open up new services or increase competition in existing services. Commercial models can – and should – work where there is no such mandatory or public interest requirements.

 Open Banking has implemented a trust framework that can be a blueprint for Open Finance. Open Banking is underpinned by 6 principles:

1. The customer never has to share their username and password with any entity other than their bank.
2. Open Banking is opt in, not opt out.
3. It depends on explicit consent given by the customer.
4. It is as easy to revoke permission as to give it.
5. Only authorised entities can participate: only authorised service providers can register on the Open Banking Directory, so unauthorised firms cannot trick customers into sharing their data with them.
6. If anything goes wrong there is a customer redress mechanism.



Open Finance services and use cases need to be capable of operating on a commercial basis whether or not some of the framework is prescribed by regulators or law makers. Unless there is a wider public policy case (as did exist in terms of competition in the current account bank market), data holders (often market incumbents) should be able to (at a minimum) recover their costs for providing data to a third party, and be suitably incentivised to engage, participate and innovate within the Open Finance ecosystem. Equally, third party providers should be able to access data on behalf of a citizen at a fair and reasonable price that reflects the data holder costs and does not act as a barrier by making the business model loss making.

There will be numerous other factors affecting commercial viability. One such factor is scale – where at the outset services may be uneconomical due to low volumes, yet become cost effective and commercially viable once a scale and volume is reached.

In short there is no ‘silver bullet’ to introduce sustainable commercial models. Each use case and market will need to be appraised of the commercial or regulatory model that best fits the potential benefits, costs incurred, and wider market considerations – and these will need to be reviewed over time. For example, to potentially change the commercial or regulatory balance as a market scales (reducing costs) or develops (either as a competitive market or as a monopoly or oligopoly develops).

There can however be some common principles established to avoid reinventing the wheel. This may include assessing whether a commercial model has been tried; considerations of cost allocation and fair pricing (including what costs are included in the cost of providing access to data by the data holder), and the extent to which any commercial model empowers the individual consumer or data owner. Leveraging the JROC principles for funding models may also be a constructive starting point to be extrapolated to broader Open Finance initiatives: fair, proportionate, clear and transparent; simple to access; will not lead to bad behaviours; simple to administer; avoids barriers to entry; recognises different business models.

04 Digital ID

A digital ID framework could serve as the cornerstone for secure and efficient financial transactions in an open data ecosystem in the UK. Reusable digital verification can enable consumers to access smart data and Open Finance services easily and securely, it can help tackle fraud, and it opens up opportunities to tackle financial exclusion (often caused by people not having a variety of paper based documentation). This lays the foundation for implementing advanced authentication and digital ID verification methods while ensuring compliance with the latest regulatory standards which will in turn, increase trust and confidence in digital UK financial services. A digital ID could provide a trusted mechanism that will allow mass adoption of Open Finance solutions across the ecosystem. However as the UK shift towards this operating model, there needs to be strong collaboration amongst market participants to promote trust and manage risk across the value chain.

05 Global Interoperability

In looking at international standards for compatibility, there are two aspects that will be important for the future success of Open Finance in the UK:

- For cross border services, ensuring that regimes for cross border transactions provide equivalent protections.
- For products being offered for domestic services in more than one country, for example enabling UK FinTechs to export their products and services to other jurisdictions.

For cross border services, there is a wider set of standards or scheme rules that need to be recognised to provide trust and confidence of consumers, commercial participants and government and regulators. Data protection regimes (and equivalence of these) will also be an important building block.

ISO 20022 provides the initial technical standards for relevant API interoperability. However, this may require development of bilateral or multilateral international agreements covering aspects such as trust frameworks specifically for data use, commercial disputes resolution, consumer redress, fraud protections as well as balancing the respective requirements of domestic sovereignty and resilience requirements with international interoperability.

06 Governance Oversight

Within financial services we already have a number of industry bodies that in some way provide ‘governance’ or cross-industry agreement of specific markets, in some cases intertwined with regulatory requirements. Open Banking Limited is one such example. For the pensions dashboard, the Money and Pensions Service has established a Pension Dashboard Programme. Outside of Open Finance, SCOR (Steering Committee on Reciprocity) brings together the Credit Rating Agencies and some other market participants to agree rules on the sharing of credit data – something that is being reviewed by an independent working group set up by the Financial Conduct Authority (FCA). As we expand from Open Banking to Open Finance, an independent governance body or bodies will be needed to set the strategic direction, enforce standards and trust frameworks, manage certification and access, oversee commercial disputes and potentially manage operational activities, such as service directories and system security.

The JROC industry working group on the Future Entity for Open Banking has carefully considered the question of governance of future Open Banking entity. This provides a good working model for future governance of sector schemes within financial services and has been designed with expansion to other Open Finance areas in mind.

There may be a case for a single high level overarching governance model providing a framework for all Open Finance schemes. This is possibly not something that can be built at the outset but may – or may not – evolve over time. At the minimum, consistency and collaboration between entities will be critical, not least in ensuring that different data sets can be combined in single services; and whilst more than one entity may be needed, avoiding a profusion of multiple entities will be desirable.

A Path to Open Finance in the UK

Open Finance is a multi-faceted, cross-industry concept, and consequently there are multiple different scenarios to achieve this vision for the UK. There are various implementation factors to consider, from governance models, commercial incentives, priority use cases, whether the impetus for innovation is regulatory or market driven, and, most importantly, the desired outcomes for customers and the market.



Regardless of the path, underpinning the successful realisation of Open Finance, we have identified three prerequisite criteria that must underpin development:

- **Trust Frameworks and Standards:** Increasingly, trust is the currency we trade in within payments and Open Finance. Ensuring trust – from end-users, between market participants and by regulators, is critical for adoption. Consistency of standards, and associated interoperability will support innovation, drive efficiency, and keep barriers to entry for new FinTechs and innovators low.
- **Performance and Reliability:** As with any critical infrastructure, availability and resilience criteria are must-have table stakes for success. Open Banking Limited has led the world in terms of Open API performance metrics to date, however much more work is needed to deliver consistent performance standards that will enable mass adoption and payments services. Credibility and trust can be quickly undermined by poor performance or resilience issues, with potential to cause significant and immediate detriment to large sections of the population if they are unable to make payments or engage with their finances.
- **Governance and Oversight:** Having an accountable body to oversee the industry, mediate disputes and drive innovation forward will be critical. To some extent several different bodies will be needed – We propose that there is a role for government to set outcomes and objectives, for regulators to set the framework around that and industry to innovate within. Building out existing forums and leveraging areas for efficiency, shared services, and single ownership of ‘horizontal’ issues such as trust frameworks or digital ID is advised, alongside a single government minister to oversee the UK’s Open Finance strategy.



For governments to assess the best model for the UK market, a matrix of prioritisation criteria should be applied:




- **Ease of implementation:** Too often, the industry has sought to tackle large-scale transformation programmes, and got stuck in the quagmire of requirements definition, collaborative decision making and descope scenarios. Setting manageable, practical, and feasible goals that do not overburden change resources and investment capacity of industry stakeholders will be important criterion for success.
- **Incentives & Participation Drivers:** Understanding the incentive levers that apply to different parties across the Open Finance value chain will be key to encouraging participation, engagement, and innovation. These could manifest from commercial, customer, efficiency, or regulatory drivers, with recognition that a combination of these incentives will likely be required to enable a flourishing market. Economic sustainability will be prerequisite for the long-term success of Open Finance.
- **Outcomes & Macroeconomic Impact:** We know that an outcomes-led approach is critical for the successful introduction of any new solution or market proposition. As governments, regulators and market leaders consider the prioritisation of different use cases and sectors for Open Finance, keeping the end-user outcomes or macro-economic objectives at the front of mind will be critical. There are some use cases that will drive greater socio-economic outcomes than commercial outcomes – and vice versa. Promotion of financial inclusion or ESG outcomes is equally important but must be led by outcome realisation analysis.



Three Scenarios to Achieve a Roadmap to Open Finance in the UK

In this paper, we have set out three potential scenarios to implement Open Finance in the UK, outlining advantages, disadvantages, and implications of each. We recognise that there are different benefits to different parties across the value chain from each of the three scenarios, and each scenario will result in different use cases and macroeconomic outcomes. They are also not mutually exclusive or exhaustive of all scenario options. Nonetheless, the hypotheses below aim to provide the platform for discussion and debate for legislators, innovators, and all industry stakeholders to progress a pathway forward.

Three potential scenarios to deliver an Open Finance economy

 <h3>Universal Mandate</h3> <p>Introduction of a broad, data sharing mandate across all sectors, whereby innovative market players can develop data-led commercial propositions</p> <p>Government role introducing mandate for universal data request rights, followed by market-led innovation</p> <ul style="list-style-type: none"> ✓ Commercial drivers as incentive for innovation ✗ No standardised approach to API standards or performance – long adoption tail and potential role for market standards (e.g. FDX) ✗ High operational complexity and cost of access for TPPs <h3>Winning Use Cases</h3> <p>Far reaching consumer super-apps that incorporate financial management, lifestyle & payments use cases</p>	 <h3>Individual & Incremental</h3> <p>Independent initiatives to extend Open Banking capabilities into new use cases or sectors, where the lower hanging fruit use cases will be addressed first – either by regulators or market drivers</p> <p>Individual sector or use case initiatives, driven by market initiatives or sector regulators</p> <ul style="list-style-type: none"> ✓ Rapid development of low hanging use cases, driven by ease of implementation or largest commercial gain ✗ Siloed development of use cases – No interoperability or alignment, potential duplication <h3>Winning Use Cases</h3> <p>Savings, wealth and insurance as adjacent use case to Open Banking, with existing API infrastructure</p>	 <h3>Strategic Plan</h3> <p>A cross-sector vision and roadmap for Open Finance use cases, maximising interoperability and enabling prioritisation of the most complex, but high impact use cases</p> <p>Central, pan-government future entity owning prioritised roadmap, and ensuring common standards and implementation</p> <ul style="list-style-type: none"> ✓ Higher social & macro-economic impact use cases ✓ Regulatory clarity ✗ Long implementation timelines, high investment requirements & bureaucratic complexity for cross-sector use cases <h3>Winning Use Cases</h3> <p>Embedded credit decisioning within carbon emissions tracking, enabling financing for net-zero positive behaviours</p>
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Option for sequential, phased implementation approach



Scenario 1: Universal Mandate

The first scenario is the introduction of a broad, data sharing mandate simultaneously across all sectors, from which innovative market players can develop data-led commercial propositions. Whilst not as broad as the universal data right we have proposed here, the Consumer Data Right Legislation in Australia is a comparative example of this approach, enabling data sharing across banking, telecommunications, and utility providers.



Phase 1: Introduction

Government introduction of data sharing mandate, enabling data request rights to all licensed parties, across sectors

- ✓ Mitigates the data asymmetry imbalance that exists today where some parties, with significant customer data repositories beyond banking, can also access Open Banking data without reciprocity
- ✗ One size fits all approach does not accommodate for the nuances and complexity of different sectors



Phase 2: Implementation

Market-led innovation, with use case development driven by user needs. Commercial negotiation around premium APIs and customer propositions would be bilateral, between data holder and data recipient

- ✓ Market driven innovation, with commercial outcomes as the primary driver for use case development – this means innovators must be outcomes led, and will only develop propositions that satisfy the unmet needs of consumers
- ✓ Consumers will see the advantage of highly innovative and competitive product offerings, central to where the greatest demand and willingness to buy lies
- ✓ Fintechs and innovators can prioritise the most commercially viable use cases, and can participate more broadly across various sectors that did not previously enable data access
- ✓ Potential for immediate uptake of commercial use cases, with a long tail of widespread adoption
- ✗ Alternatively, without regulatory mandate or government incentivisation, there is no guarantee of adoption
- ✗ No standardised approach would lead to disparity in API standards or performance
- ✗ Potentially higher cost of data access, in the absence of a regulated standard
- ✗ TPPs would have technological complexity to meet different standards and have a high commercial burden of commercial negotiation on a bilateral basis
- ✗ Potential financial exclusion risks, as priority use cases are exclusively commercially driven



Phase 3: Run

Even under a market-driven scenario, there is a requirement for central arbitration, likely provided by government

- ✓ Potential role for market driven standardisation, akin to the FDX model in the United States
- ✗ The existing challenges we see with Open Banking today around funding, governance and remit of central oversight bodies would still apply
- ✗ High operational complexity and cost of access for TPPs could lead to higher barriers to entry and consolidation in the sector



In this scenario, we hypothesise the winning use case is a far-reaching 'super app' where consumers have access to all of their data in one centralised place, enabling simple management of the lifestyle they lead. The initial investment required for such a proposition is high, and thus likely suited to parties who already deploy customer propositions across financial and lifestyle sectors, as well as offering embedded payments.

Given the market-led approach of this scenario, consumers will also see the advantage of highly innovative and competitive product offerings, central to where the greatest demand and willingness to buy lies.

There is clear opportunity for BigTech players in this scenario, working towards a 'super app'. In addition, larger FinTechs will likely have a greater opportunity to enter new sectors they did not previously play in. However, there will also be opportunity for the smaller players in the market to follow niche, commercially feasible opportunities and carve out market share.

There also lies the risk, that in this market-led approach, there won't be action. We have seen the limitation of voluntary engagement by incumbent banks within the UK's Open Banking mandate and acknowledge how a greater regulatory presence may be required to steer progress in this space.

The contractual, operational and technology complexity of managing various use cases across different commercial relationships with third parties would also be high. Whilst a large opportunity lies for smaller TPPs to come to market, the

various contracts that would need to be negotiated with each different counterparty, may present an access to data cost that is unfeasible high.

Finally, whilst consumers ultimately win as a result of Open Finance, with this scenario there will likely only be access to, and investment into, those that are commercially viable for the TPPs. This leaves a gap in the market for social benefit solutions, such as ESG use cases, which could have a wider positive impact on the UK.



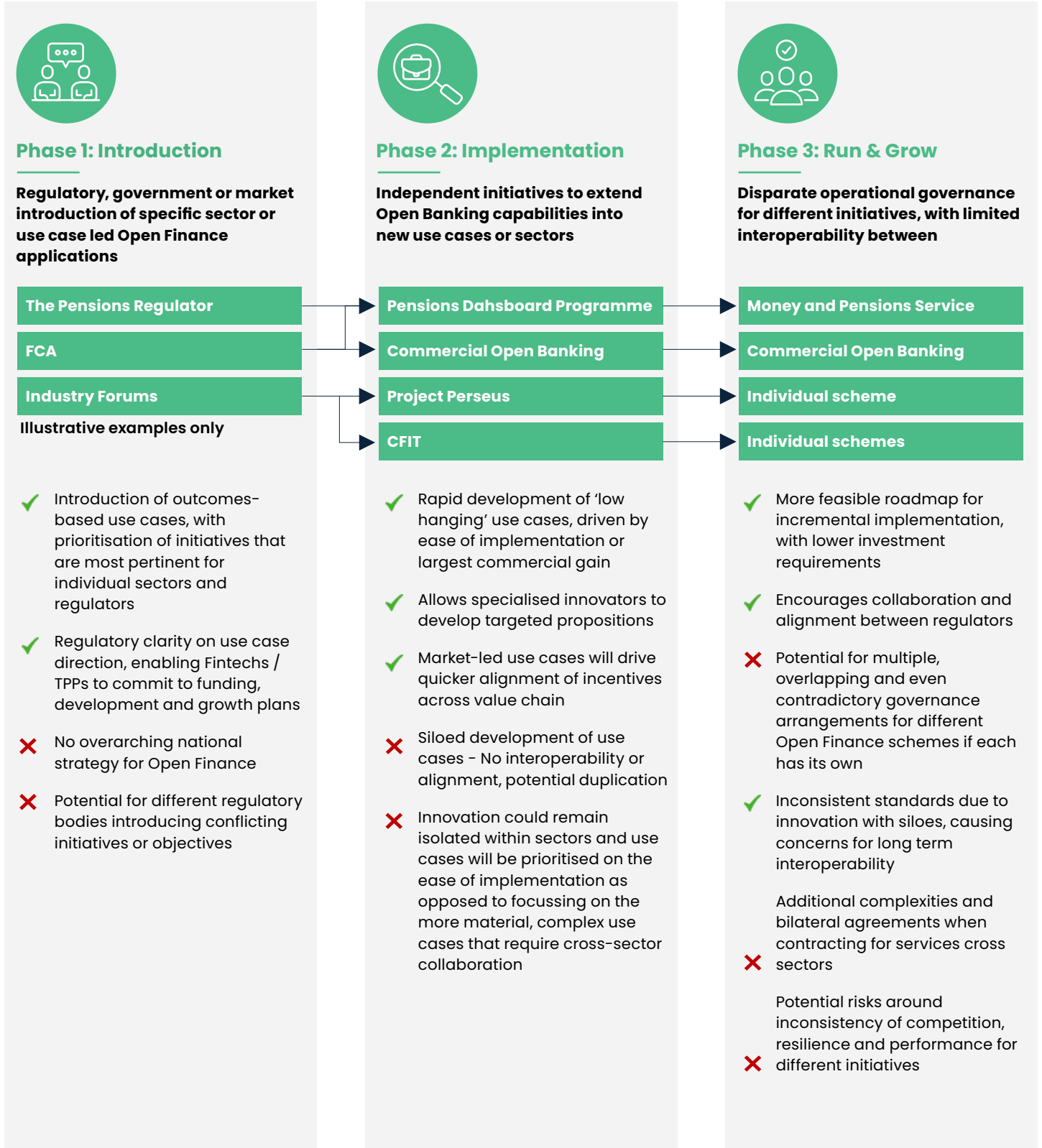
Spotlight on: FDX

The Financial Data Exchange (FDX) in the US and Canada, is a non-profit industry body, established to support the migration towards a financial data sharing economy. FDX works to provide a common interoperable standard for TPPs to work off the FDX API. This approach has allowed TPPs to use the rails of an API with significant uptake, allowing market-led product offerings to be pursued quickly at a relatively low cost, resulting in commercially viable offerings, and an innovative economy. Whilst the FDX is not market-mandated and so not utilised across the US/Canadian market fully, a high proportion of members from across the ecosystem have coalesced around this standard, from large financial institutions to small FinTechs; giving a smaller-scale glimpse into the outcomes of an Open Finance economy.



Scenario 2: Individual & Incremental

The second scenario would see individual sector or use case initiatives being mobilised, driven either by regulators or market initiatives. Ease of implementation and synergies with existing use cases will see rapid adoption of many low hanging fruit use cases in Open Finance. This is most akin to the current state of the UK ecosystem, where deeper focus on Open Banking use cases has been the priority and where the Pensions Dashboard is being developed as a separate initiative.



Use cases that can leverage existing open infrastructure will be the clear winners here. Propositions that are adjacent to existing Open Banking frameworks, such as savings, account switching and investment¹⁵, and can leverage the contractual basis and technological build of commercial Variable Recurring Payments (VRPs) will be quickly identified as low hanging fruit. Likewise, sectors that already have API-based infrastructure – such as energy smart meters – will be able to evolve propositions more quickly into embedded finance. Alternatively, use cases such as green lending or financial inclusion would continue to face friction in delivering and co-ordinating cross-sector activities. Broader financial services capabilities, such as insurance and mortgages, would likely be longer term implementations – the risk and regulatory profile, complex operational structure and nuanced requirements of these sectors would inevitably see these as longer-term developments.

The biggest challenge under this scenario is interoperability and extensibility. With the continued development of individual initiatives, there will be vast amounts of varied data sources across multiple sectors. In the absence of a co-ordinated governance oversight and roadmap prioritisation mechanism, either led through regulation or by an empowered, accountable body, there would be a high level of complexity. This would result in different regulators being responsible for managing their respective sectors – close monitoring and communication would be essential to ensure that interoperability, market competition and resilience of the market are monitored as the Open Finance ecosystem incrementally develops.



Spotlight on: Regulatory Alignment

- The UK Regulators Network (UKRN) brings together a broad range of UK regulators, for the benefit of consumers and the economy. Established by members in 2014, UKRN have developed strong relationships and a culture of collaboration and learning. UKRN work together to share knowledge and innovation, explore cross-cutting issues, and build better ways of working.
- The PSR and FCA would play key roles in ensuring the priorities, standards and approaches are set to foster innovation and competition in the markets.
- The CMA would need to ensure that competition is closely monitored as the Open Finance ecosystem develops.
- The Prudential Regulation Authority (PRA) would need to closely monitor how the Open Finance ecosystem develops, with a watchful eye on systemic resilience and third-party management.



Scenario 3: Strategic Plan

The full potential of Open Finance lies in the cross-sector use cases leveraging financial and non-financial data. Cross-sector use cases require collaborative pan-government leadership setting out a long-term vision, a north star to drive a sustainable impact on the economy and society. This scenario maximises the interoperability and collaboration between sectors and enables the prioritisation of the most complex cross-sector use cases. Whilst more arduous, implementation of propositions bringing together several industries would drive more material impact on all stakeholders and the wider society than the other approaches.

The governance and leadership of the strategic cross-sector vision would sit with a central pan-governmental body set up of which would leverage lessons drawn from Open Banking. This institution would comprise of diverse set of voices representing an array of stakeholder groups, including consumers, SMEs, trade bodies, FinTech, BigTech and regulators. The diversity would support inclusion alleviating the asymmetry of power and lowering the probability of frictions among market participants. There would be a single, regulatory strategy with

prioritisation conducted centrally. The central institution would be responsible for laying out a roadmap for Open Finance use cases. While they would hold the ultimate accountability for the effective implementation, the key to the success would lie in the collaboration and input from key stakeholder groups starting from the vision co-creation. To mobilise action and collaboration the vision and roadmap would take into account all market participants. This could mean convening cross-sector working groups.

Should new regulation be required, the central institution would mobilise relevant parties, enforce the legislation and address violations. This could include imposing penalties on non-compliant firms and escalate disputes to appropriate institutions. The central entity would be responsible for consistent implementation of common standards. They would define and manage an incentive framework. To enhance efficiency, tactical activities could be delegated to sectors, schemes or specific market players. Interoperability would promote continued innovation within and across sectors, results of which could be fed into the roadmap.



Phase 1: Introduction

A central, pan-governmental future entity develops the cross-sector vision and roadmap for Open Finance use cases

- ✓ A single, regulatory strategy provides clarity, with clear roadmap of future use cases and release schedule for new requirements and standards. This enables all parties to better plan longer term investment funding, technology build, resource allocation and product development. This would drive operational efficiency, overhead cost reduction and business productivity
- ✗ Long implementation timelines to establish the entity, set up governance, regulatory foundations, establish vision and devise a roadmap
- ✗ Bureaucratic complexity to mobilise strategy and operating entity for cross-sector use cases



Phase 2: Implementation

A clear roadmap of prioritised (and interoperable) use cases, aligned with the strategic vision

- ✓ Higher social & macro-economic impact use cases
- ✓ Interoperability would promote continued innovation within and across sectors
- ✓ Effective articulation of the vision would support a dissemination of a clear message to the public, in turn aiding public understanding and accelerating adoption
- ✗ Higher investment required to develop complex use cases, disadvantaging smaller FinTechs or new entrants
- ✗ Some quick wins may not be realised early on if they are not prioritised in the roadmap, which may impact short term economic gains in more advanced sectors
- ✗ Potential Competition Law challenges around collaboration
- ✗ Practical implementation challenges in terms of feasibility and complexity of scope, capacity and timelines – eg 'action paralysis'
- ✗ Future innovation may be hampered if the roadmap reviews do not account for possible market changes and new use case development that would call for iterations



Phase 3: Run & Grow

Future pan-governmental oversight entity responsible for ensuring consistent standards, access and certification, disputes and working with the market to ideate new roadmap innovation

- ✓ Central Entity would comprise of diverse set of voices representing an array of stakeholder groups
- ✓ Pan-sector governance can ensure fair and equitable arrangements for all market participants and alignment of interest across the ecosystem
- ✓ Clear and proportionate regulation enforced consistently across sectors and all market players could mitigate the risk of data asymmetry
- ✓ Productivity and efficiency benefits of collaboration
- ✗ Long lead times to facilitate collaborative agreement across all relevant stakeholders in a cross-sector initiative

Under this scenario, we see complex, cross-sector and high social impact use cases having the most value. We hypothesise a winning use case being embedded credit decisioning within carbon emissions tracking, enabling financing for net-zero positive behaviours. As an example, access to real-time and accurate transaction and investment data enables development of a comprehensive financial dashboard. A holistic view of a financial situation would give customers greater control of their budget, and can drive personalised insights or nudges enhancing financial literacy and overall financial health.

Combining financial data with accurate and standardised business activity reporting would enable more reliable tracking of carbon impact. Project Perseus would propel this use case by unlocking SME energy data sharing. Improving accuracy and

efficiency of credit decisions reduces credit, operational, regulatory, and reputational risks of lenders. On a market level it stabilises financial markets and improves resilience of the financial system. From the borrower's perspective, the ability to obtain the right loan in a timely manner improves financial inclusion leading to cost efficiencies and enhanced productivity. Additionally, access to capital fosters competition, innovation, and entrepreneurship. Providing reliable information on one's carbon footprint would help market participants in reaching Net Zero goals. At the same time, lenders would be able to draw an accurate picture of a borrower's credit worthiness and reliably evaluate climate change related risks of their loan portfolios impacting their risk management practices. This could transform the availability of finance for Net Zero transition investment - in both businesses and in homes.

Conclusion

In assessing the three scenarios, it is clear there are multiple permutations of a roadmap, each with respective advantages and disadvantages. Yet the question remains - what is the best roadmap to enable widespread adoption and scaling of Open Finance? Considering the benefits of deep, industry specific initiatives against the realisation of broad-based mandates will be key.

Ultimately, when considering the respective advantages of different roadmap scenarios and the prioritisation matrix (Ease of Implementation, Incentives and Participation Drivers, Outcomes and Macroeconomic Impact) the potential for a sequential, phased approach across the three scenarios is foreseeable. Tackling low-hanging fruit use cases under an incremental model, in parallel with activity to design a strategic roadmap and enable interoperability across use cases, seems a pragmatic approach to drive momentum towards Open Finance. Open Finance will create new business models that will connect different verticals, and a phased approach will enable the growth of both deep and broad innovators. In some circumstances, innovation will be specialist and personalised, inspiring propositions tailored to specific sectors, such as mortgage brokerage. On the other hand, we'll also see the emergence of FinTechs providing more generic data sharing or ID verification services broadly across all industries.

Irrespective of the model chosen, the development should be underpinned by key principles of a Trust Framework & Standards, Performance & Reliability, as well as Governance & Oversight.

In practice we can expect the UK to adopt an approach that combines different elements of the scenarios we set out in this paper. What we now need is discussion and agreement on the direction of travel and key principles for Open Finance in the UK; together with a prioritisation and phasing of use cases and data sets.

The momentum behind Open Finance in the UK is clear. While the various initiatives and building blocks already underway will continue to iteratively evolve, we encourage legislators, innovators, and industry participants to come together and engage to progress a pathway forward. Undoubtedly, Open Finance represents a huge area of opportunity for the UK, and we look forward to working with stakeholders across the industry to engage, prepare, innovate, and grow.



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Innovate Finance is the independent industry body that represents and advances the global FinTech community in the UK. Its mission is to accelerate the UK's leading role in the financial services sector by directly supporting the next generation of technology-led innovators.

Footnotes

1. [Data Protection and Digital Information Bill](#)
2. [CFIT: Embracing the UK's Open Finance Opportunity](#)
3. [FinTech Investment Landscape 2023](#)
4. [CFIT Open Finance Blueprint](#)
5. [Open Banking: 'Smart Data: Unleashing the full potential of Open Banking' – event round-up.](#)
6. [Ecospend reports rise in value of tax payments made to HMRC via Pay by Bank](#)
7. [JROC: Update on actions to enable the next phase of Open Banking in the UK](#)
8. [Data Protection and Digital Information Bill](#)
9. [CFIT: Embracing the UK's Open Finance Opportunity.](#)
10. [Bank of England: CHAPS transitions to latest global financial messaging standard.](#)
11. [Joe Garner: Future of Payments Review](#)
12. [Icebreaker One: Perseus: automating SME emissions reporting](#)
13. [Paul Maynard: Pensions Dashboard Update](#)
14. [GOV.UK: Economic Crime and Corporate Transparency Bill overarching](#)
15. [TISA: Open Savings, Investments and Pensions \(OSIP\)](#)

