

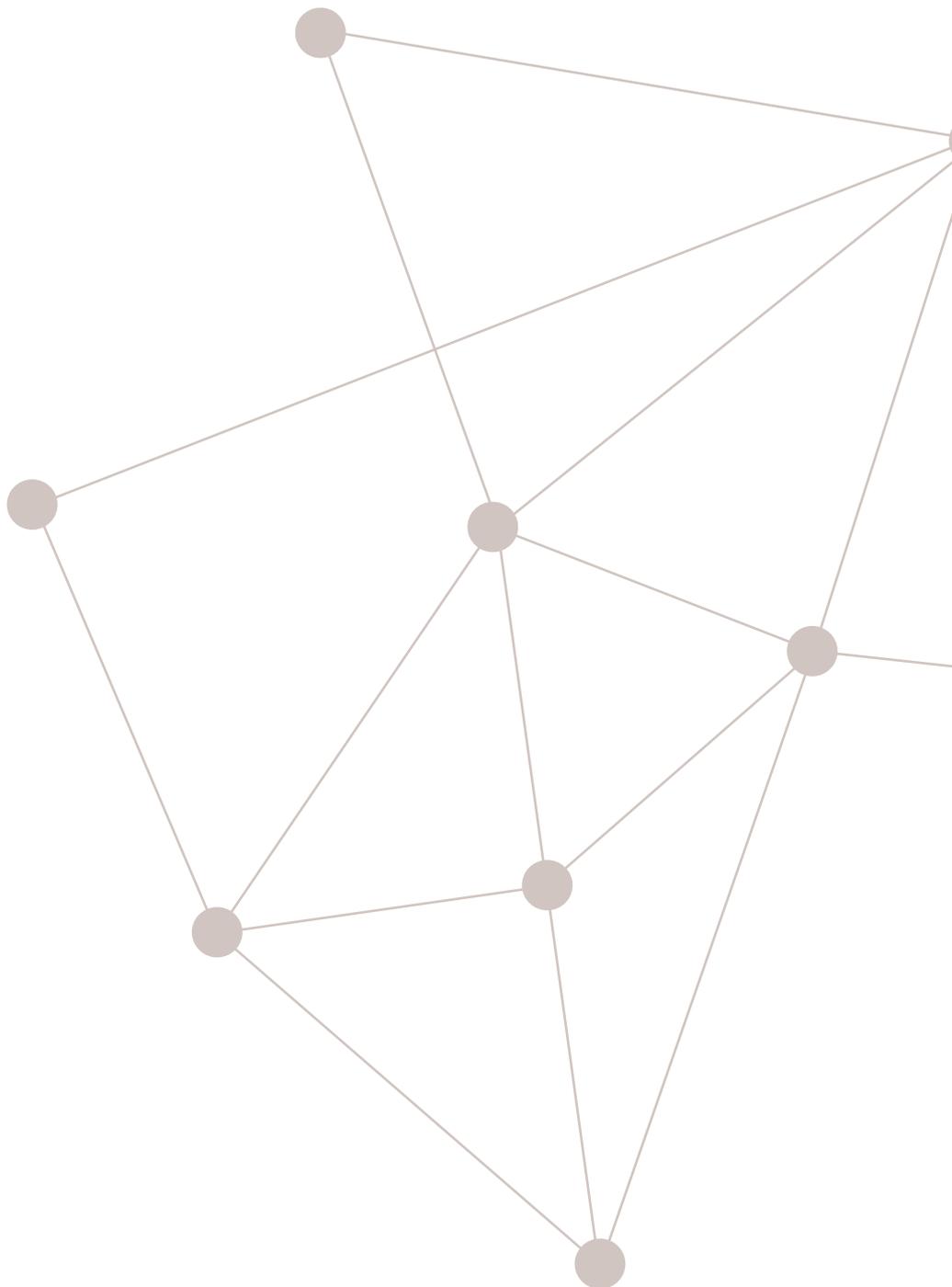
Open Banking Future State Report

A report outlining recommendations for a proposed model to support the future provision of Open Banking Services following the closure of the Implementation Roadmap

June 2020

In the recent publication of the Final Open Banking Roadmap and statements by the Implementation Trustee, the Competition and Markets Authority has made it clear that the successful completion of the Final Roadmap will bring the implementation phase of Open Banking to a close.

It is essential for the banking and finance industry that the services and functions of Open Banking are maintained and that they are able to extend to future regulatory and commercial mandates. Against that background, UK Finance was asked by its members, including the CMA9, to carry out this work and report accordingly. On behalf of its members, UK Finance then commissioned Accenture (UK) Limited (“Accenture”) to develop an end state operating model for open banking, consulting key stakeholders and exploring how this transition could be achieved.



Contents

Contents	3
Executive Summary	4
1 Introduction	6
2 Project Approach	8
3 As is Model	11
4 To-be Model	14
4.1 Drivers for Change	14
4.2 Options for the To-Be Model	14
4.3 Options Assessment	14
4.4 Proposed Model	15
4.5 Funding & Financial Model	18
4.6 Model Assessment	22
4.7 Risk Assessment	23
4.8 Transition Plan	24
5 Further Work & Next Steps	26
5.1 Completion of the Review Phase	26
5.2 Further Design Work	26
5.3 Industry Engagement	26
6 Appendix	27
6.1 Detailed Options Assessment	27
6.2 Design Principles	36
6.3 Assessment Criteria	38
6.4 Transition Plan	44
6.5 List of Stakeholders	47

Executive Summary

Since 2016 the UK has been developing a world leading open banking ecosystem. The Open Banking Implementation Entity (OBIE), overseen by the Implementation Trustee, has played a key enabling role in: developing the standards, providing operational and technical services (such as the Directory), and generally supporting the open banking community.

There have been some major developments in this journey, including the extension of OBIE in the November 2017 Roadmap to cover PSD2 standards, and a second revision of the Roadmap in 2018. The CMA has recently published the proposed third and final Roadmap. The Trustee has said that after this Roadmap is successfully delivered, it will bring the Open Banking implementation phase to a close.

At the end of the delivery of the Roadmap, the OBIE cannot be simply wound up. Functions that the wider ecosystem depend on will need to continue: such as maintenance of Open API Standards and the provision of a directory of whitelisted Open Banking participants. Additionally, there is a case to be made that a future Open Banking Limited (OBL) has a further role to play in continuing to expand and develop a progressive, competitive banking landscape.

Objectives & Methodology

This report has been written to outline a proposal for the future running of Open Banking services. The project team has gathered views from a broad set of stakeholders. These included: banks (ASPSPs), Third Party Providers (TPPs), Technical Service Providers (TSPs), regulators, the OBIE, representatives of end-users and other stakeholders.

The proposed model has been developed iteratively, and collaboratively with participants. Based on the current scope of services provided by OBIE, a list of possible options for future provision of those services (including discontinuation) was drawn up and assessed against agreed criteria. This discounted some options and led the way for a model that was built and reworked. The proposed model was then shared for comment that has been incorporated into this report. The final feedback on the report is summarised in a separate UK Finance paper.

Proposed Model

The core principles of the model are: i) there should be standardisation to drive end-user benefit, security, competition and innovation in the wider open banking environment, ii) there should be industry ownership and

governance transitioning from a CMA Special Purpose Vehicle to a market-led one, and, iii) Open Banking ecosystem participants should pay fairly and equitably for the assets and services of Open Banking.

There are 5 major parts to the proposed model:

1. A monitoring function that reviews the performance of the CMA9's ongoing compliance with the CMA Order. This will be separate from, and independent to the provision of Open Banking services.
2. A set of membership groups / schemes acting as customers to receive services from Open Banking Limited. These groups could already exist and be supported by trade associations or other organisations like Pay.UK for Confirmation of Payee.
3. Firms will pay 'fair and equitably' for their use of central services, this shall be proportional to usage and size of firm, including ASPSPs and TPPs.
4. A 'service company' i.e. Open Banking Limited, that shall provide services to customers in line with their mandates. At a minimum, this shall include PSD2 and Open Banking services relating to a directory, Open API Standards development and a dispute management system.
5. The re-use of the capabilities of OBL to meet other industry and regulatory mandates as they emerge. This could be market driven ('Commercial APIs') or borne from regulator / government direction (Open Finance / Smart Data).

Open Banking Limited shall have an independent governance model to ensure decisions are taken in the interest of the entire Open Banking community. OBL will not be a regulated entity, it will be a supplier to firms that are themselves regulated by the CMA or FCA. The entity will be not for profit. Costs to cover the PSD2 services (including provision for the 'Read only data standard' as a sub-set) shall be paid for by PSD2 ASPSPs on a proportional basis, with other users of services paying for the services they use. The users of services could be TPPs using the directory, or 'customer groups' (sets of companies) that request support in developing, maintaining and publishing APIs.

These customer groups would bring their own governance and funding arrangements. It is expected that there will be an Open Banking & PSD2 group to ensure the Open Banking / PSD2 API standards continue to be updated, e.g. in line with emerging data and security protocols. We propose that the customer groups are made up of a wide range of ecosystem participants with tiered structures in place for membership, with fees set on a proportional basis relative to size of firm. The governance must support decision making – led by an independent chair, to ensure there is no ‘stalling’.

The same scope of services currently required for PSD2 and Open Banking will continue to be provided. The scope could be expanded to support future proposals for commercial APIs or wider open finance or smart data initiatives.

OBL will continue to provide a point of escalation for TPPs to ensure continuity of service for end-users and that API service standards are met. Both TPPs and end-users will have representatives at various levels of governance, and an independent report could be commissioned annually to ensure that Open Banking continues to deliver outcomes to all parties.

Monitoring of the CMA9 compliance with the Order will continue to take place. How this is done will be a matter for the CMA. It is assumed monitoring of ASPSPs requirements for PSD2 shall continue to take place by the FCA without change.

Transition to the New Model

It is expected that the current model will continue to operate until the end of the final Roadmap.

Whilst the proposed model shall not ‘go-live’ until after the Roadmap is complete, there would be some activity required ahead of this date to deliver the proposed

model. Some of this could take place in parallel to the delivery of the Roadmap. Apart from further design work to define the model in more detail, this activity would likely include: running procurement processes to identify and negotiate with third parties and ensure contractual arrangements are in place, undertaking organisational transformation work within OBL – to ensure the right resources are in place in the right roles within the organisation (along with sufficient training and knowledge transfer), and ensuring that any specific activities to develop and enable customer groups have taken place.

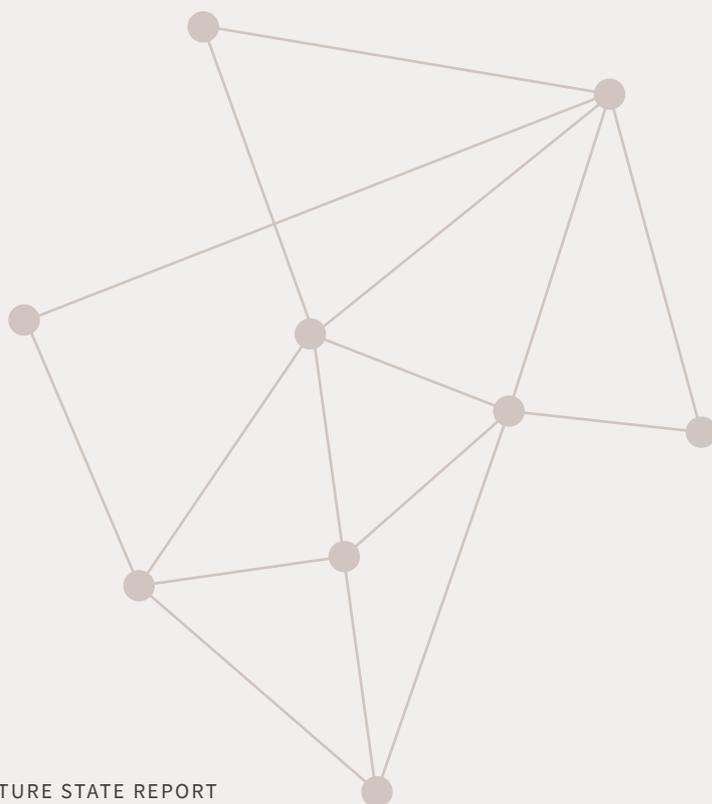
Next Steps

This report proposes one high-level model that could command the support of stakeholders, enabling further work to be undertaken and the transition to move forward.

Further work should take place to bottom-out outstanding design issues. Further detail should be provided on: the governance model of the ‘customer groups’ and their relationship with OBL, the financial model – covering funding, revenue and costs, as well the transition plan to get to the proposed model. Engagement with relevant bodies to understand possible impacts of the Roadmap, Open Finance and Smart Data should continue to take place.

Summary

One high-level model has been articulated that ensures the continued provision of Open Banking services. It supports the needs of TPPs and allows ASPSPs to meet their regulatory obligations. It puts in place a monitoring function to assist the CMA, and it provides a foundation to be used for a wider set of ‘open’ initiatives. Further work is needed to close out outstanding design issues.



1. Introduction

1.1 Background to Open Banking

In 2016, the Competition and Market Authority (CMA) published a report following an investigation into the UK Retail Banking Market¹. As outlined in the subsequent CMA Order², several remedial activities were required to be put in place, to mitigate the adverse effects of competition within the market.

One of these remedies was the incorporation of Open Banking standards³, requiring the largest UK banks (the ‘CMA9’) as ASPSPs³ to develop ‘Open APIs’ to provide access to Third Party Providers (TPPs) for retail and SME⁴ customer accounts.

The Open Banking Implementation Entity (OBIE) was created as a Special Purpose Vehicle to instruct and monitor the delivery of the programme in line with the requirements of the regulation. The legal entity created to host the OBIE was Open Banking Limited (OBL), a private company⁵, registered on Companies House.

Alongside the delivery of Open Banking for the CMA9 within the UK, OBIE has also supported the delivery of the Second Payments Service Directive (PSD2). The PSD2 API standards have been developed by the OBIE, which also supports the wider operating model.

1.2 Context for the project

At some point (assumed to be in 2020 or 2021), the OBIE will have been deemed to have implemented the CMA order by designing and building the open banking framework. This moment will see completion of the Roadmap⁶.

Although the OBIE will have served its primary purpose as an implementation entity, understanding the future role of Open Banking Limited still needs to be defined. There are ‘residual functions’ that it currently performs that will still be required, in some form, to support the operation, maintenance and monitoring of the ecosystem. As outlined in the Order⁷, these include the updating of the Open API Standards⁸, the provision of an authentication and authorisation service, a whitelisting service, and a customer redress mechanism.

Additionally, it has been noted that some of the existing resources could be used to facilitate further development of the ecosystem (e.g. premium or commercial APIs that are out of scope of PSD2 or the Open Banking regulation), and there are capabilities that have been developed (e.g. the Directory, Dispute Management System (DMS)) that could perhaps be repurposed for other ‘open’ initiatives⁹.

1.3 Purpose of this report

This report has been created to outline options for the future model to run Open Banking services, following the completion of the Roadmap.

The report outlines a proposed solution that continues to provide services required to run Open Banking and contribute to wider ecosystem objectives. Alongside this recommendation, there is an articulation of risks and issues with the proposed model, along with further areas of investigation that have been identified.

1. “Retail banking market investigation, Final report” CMA (2016)

2. “The Retail Banking Market Investigation Order 2017”, CMA (2017)

3. ASPSP: Account Servicing Payment Service Provider

4. SME: Small and Medium Enterprises

5. Company Number: 10440081. Registered at: 2 Thomas More Square, London E1W 1YN, UK

6. “Agreed Timetable and Project Plan”, Open Banking Implementation Entity, (first published 2017)

7. Part 2, Section 10.2 of “The Retail Banking Market Investigation Order”, CMA (2017)

8. The term Open API Standards has been used in this document to broadly cover the Read-only Data Standard and Read / Write Data Standard within the CMA Order (Part 2, 10.2). Where applicable this covers equivalent standards for PSD2. The scope of this term, as used in this report, is broader than just the technical specification and may include supporting guides etc.

9. For example: “Call for Input: Open finance”, FCA (2019), BEIS consultation on Smart Data (2019)

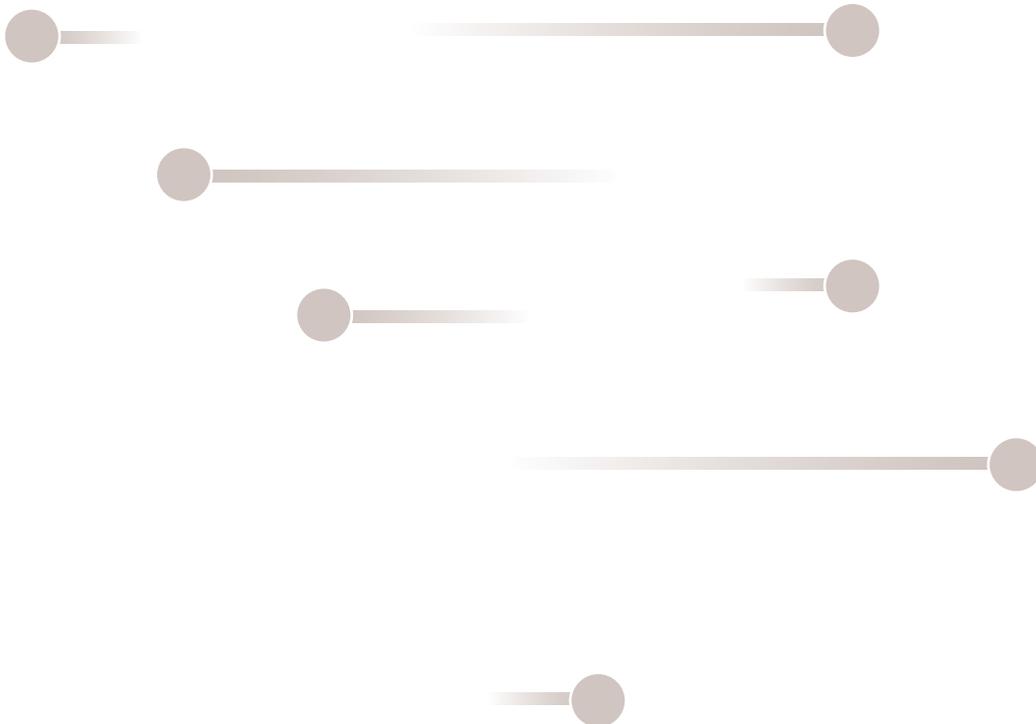
1.4 Scope of this report

This report covers:

1. A description of current OBIE services to be continued in a BAU 'Run' model.
2. An overview of how the wider Open Banking ecosystem could run in the future, and the different participants involved.
3. A target governance model and structure.
4. A summary of the to-be business and operating model of Open Banking Limited.
5. An articulation of how this model could be used to support wider 'open' initiatives, either regulatory or market driven in nature.
6. Principles for financials and commercials supporting the to-be model.
7. A defined transition approach to move towards the end-state model.
8. A summary of options and assessment of these.

This report does not cover:

1. An assessment of what is left to be delivered under the Roadmap for implementing Open Banking.
2. A recommendation on the delivery of any services for Open Finance, Smart Data or other 'open' initiatives.
3. A detailed 'ways of working' description for the model.
4. Detailed financial model forecasting costs and revenue.
5. A transition plan that incorporates timelines for key activities.



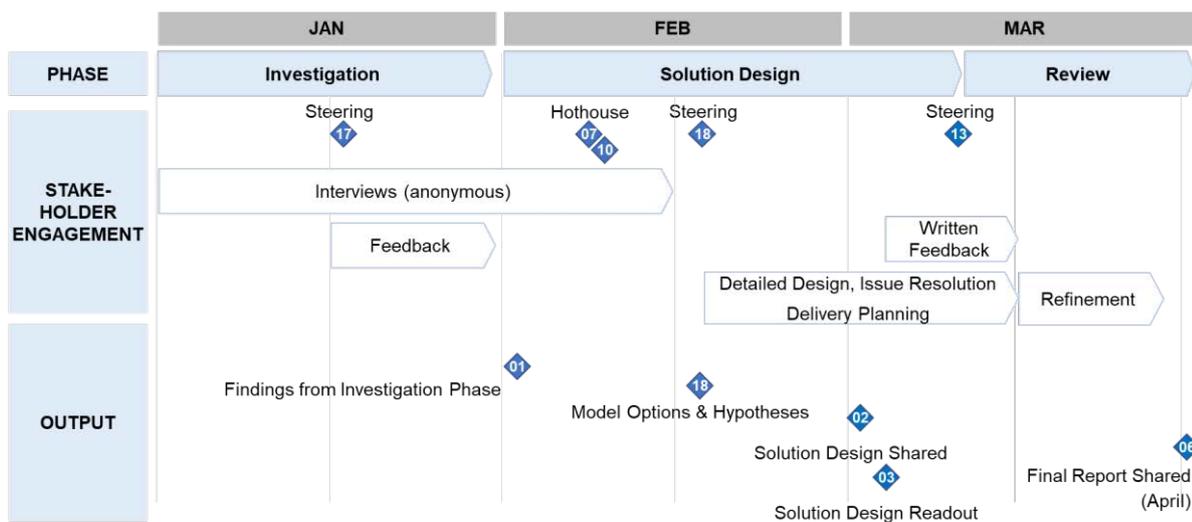
2. Project Approach

2.1 Methodology for production of report

The project was mobilised in December 2019 with a kick-off steering¹⁰ meeting. Following that the project was split into three phases, an investigation phase, a solution design phase, and a review phase. The planned timing for these phases is detailed below in figure 2.1.

The dates shown cover until the end of March. The project concluded on 27 May due to the impact of Covid-19. This reduced activity within the 'Review' phase, allowing participants to focus on addressing issues relating to the pandemic.

Figure 2.1: Project Timelines



2.2 Investigation

To determine what the purpose of the successor to OBIE could be, anonymous interviews were conducted with ~30 stakeholders representing key members of the Open Banking Ecosystem, including CMA9 banks, challenger banks, regulators, fintechs, trade bodies, end-user representatives, and other interested parties.

Questions asked in the interviews were focused on, but not limited to:

1. What are the current services you use from OBIE, what works well, what are the areas for improvement?
2. After the CMA order is deemed implemented, what, if any, services currently being provided by the OBIE do you think should be continued in order to either maintain the regime the CMA has created, or provide a foundation for further developments in open banking? Why? And who should provide them?
3. Are there any services / functions that should be discontinued or materially changed? What factors will need to be considered as part of this decision?
4. Are there any new services to support open banking you would like from the OBIE's successor, if there is one, or another body?
5. For the services that are continued, how do you think these services should be governed and paid for? / paid for?
6. Have you seen other models work elsewhere? (other industry bodies (payments?), regulatory / oversight entities). Or do you have any ideas / suggested changes for improvements in the model?
7. Can you think of any functions the OBIE currently performs, or the assets it has gathered that could be re-used in other analogous initiatives? Which?

10. UK Finance Open Banking Futures Steering Committee, 12 December 2019

In addition to this, the project team performed desk-based research on different models that are available to draw a precedent from across financial services globally and other industries. These included industry bodies (e.g. Pay.UK), comparable service providers (e.g. Preta), or other central service providers (e.g. the old Payment Schemes). Again, lessons learnt and insights from these were used in assessing the different models. A summary of these models and their benefits were used to facilitate a working session at the Steering Group on 17/01/20 to gather further information on possible services and models.

The team also captured a list of services provided and activities carried out by OBIE, and how they were performed. This was based on the responses of interview participants and public knowledge¹¹.

2.3 Solution Design

Scope of Services

The start of the design phase looked to break down the problem into two key questions: i) What services should be provided in the future? And, ii) How should these be provided?

In looking at what services should be provided, input from the mobilisation steering was considered. The information presented there broke the challenge down to three main activities that are currently performed by OBIE. These were: i) 'Design', ii) 'Build' and, iii) 'Operate, Monitor and Maintain'. During the same first meeting Design Principles¹² were agreed, which provided a basis for designing the future model.

The 'what services' challenge was then split into three main areas, relating to:

1. **Open API Standard Maintenance.** This category relates to the support for the ongoing update, maintenance, development and publishing of the Open API Standards for Open Banking (as well as PSD2 and Confirmation of Payee). This includes supporting activities relating to user adoption guides, and the performance of wider processes and creation of relevant artefacts.
2. **Monitoring.** Monitoring as a broad term covers the creation of MI, the collation of it, the review of the data and advice of subsequent action off the back of this. OBIE currently performs this as a part of the Implementation Trustee's role. Within the scope of what was looked at monitoring was limited to the CMA Order, rather than monitoring for PSD2 compliance, as that is covered by the FCA.

3. **Operations and Infrastructure.** This category covers the provision of the Directory service for authentication and authorisation of ecosystem participants, as well as a white-listing service. Supporting this includes activities relating to onboarding and helpdesk support. The Dispute Management System to help support customer redress is also covered within this topic.

During the second steering group¹³ these high-level groups of services were broken down and discussed in working groups. The focus of these groups was to discuss whether any sub-services that took place today, should / could be closed, changed (and in what way), or whether new sub-services should be introduced. Participants of these groups were invited to suggest alternative ways of providing these services based on their experience and other case studies they had observed in the industry.

The working groups recommended that the scope of the services should at least be maintained. And furthermore, that the number of services and customers could be increased to help support wider initiatives: including commercial / premium APIs, and broader regulatory mandates such as Open Finance, or Smart Data. The groups also highlighted that there may not be one model in the future, and that each of the services should be considered separately to understand the optimal approach.

To-Be Model – Solution Options

A list of different options for the future model was created using input from interviews, industry case studies, and the feedback from the working groups that took place in the January steering. These were collated into an options paper. The options paper set out a variety of ways in which the model could work. These looked at the challenge from different angles: i) structure and governance, ii) service provision, and, iii) the funding arrangements. The different sub-services were then broken down and investigated separately.

During this same steering meeting in January, the steering participants agreed a set of assessment criteria¹⁴ through a facilitated discussion. This would be used when reviewing the different options for the future model, to help qualify out certain options, through comparative assessment.

The comparative assessment looked at thirty-six different options across the three high level areas identified: API / Standard maintenance and development, monitoring, operations and infrastructure – the findings for this were collated into an options matrix.

11. The OBIE has not performed a fact check of this section. The scope or detail of the services, the categorisation of them, or the terminology used, may be different to those currently used by the OBIE.

12. See Appendix: 'Design Principles'

13. UK Finance Open Banking Futures Steering Committee, 17 January 2020

14. See Appendix: 'Assessment Criteria'

The result of this activity was that options relating to limiting the scope of services only to Open Banking, and not to support a wider Open Finance agenda were discounted. Specifically, this did not align with the design principle, and the steering group participants preference, that the capabilities developed for Open Banking should be leveraged for other 'Open' / API initiatives, as they have for PSD2 & Confirmation of Payee.

The matrix was used to write a future model paper, that had a more detailed assessment of each of the options and outlined which options should be discounted and which should be progressed. For those that should be progressed a recommendation along with rationale was made, to be used as a working hypothesis. This was to help get one model that could work written down and defined, so that it could be reiterated. Noting these limitations, risks and issues were captured, and areas for further investigation and consideration were identified.

To-Be Model – Model Definition

A working hypothesis was created and discussed with several steering group members through two workshops. The working hypothesis was refined based on feedback provided, to make improvements and to mitigate the risks and issues identified.

The model was shared for review, and presented during the February steering¹⁵ meeting to provide a voiceover. A working session during this meeting then asked participants to outline: i) what was good about the model and should be kept, ii) what the risks and issues of the model were, and iii) how these risks and issues could be mitigated.

The responses were considered, and suggested changes captured into an updated model. This provided more detail on how the future Open Banking ecosystem could work, alongside the implications for different stakeholders.

This was shared for review with participants, with written feedback requested. A clarification call was held to answer questions. The feedback form asked participants to outline suggested changes to the model, as well as answer outstanding questions that had been raised throughout the process.

The participants' feedback was collated and reviewed, and the model was reiterated. The changes and proposed model were presented back to the Steering¹⁶ Group for further comment and discussion. Subsequent changes have been factored into this final report.

A transition plan was drafted. This looked at the differences between the as is and the to-be model, and what activities would be required to move from one to the other – it does not however consider timelines.

2.4 Review

The proposed model was reviewed against both the assessment criteria and the original design principles. During this process, there were no instances identified where the model did not meet the criteria / principles.

Further to this, the model was 'tested' through working through a set of scenarios. These focused on maintenance of the Open Banking ecosystem, growth of the ecosystem, as well as looking at how the model worked to promotion competition of the services and within the broader industry landscape.

The model was also discussed with a wider set of open banking ecosystem participants than the steering group, to gather as much feedback as possible. This was considered with updates incorporated.

The content throughout the process was gathered and incorporated into this report, which has been reiterated throughout a review process.



15. UK Finance Open Banking Futures Steering Committee, 18 February 2020

16. UK Finance Open Banking Futures Steering Committee, 13 March 2020

3. As is Model

3.1 Introduction

This section outlines conceptually how the Open Banking and PSD2 model currently works in the UK. The figure below is a representation of the model, intended to be used to articulate the current set up of OBIE with a high-level view of services and structure¹⁷. The governance, funding and full scope of these services are further detailed in the subsequent sections.

Currently, OBIE provides services relating to Open Banking, PSD2 and Confirmation of Payee. The users of these services are referred to as participants¹⁸. The ASPSPs include CMA9 banks, and other providers of financial services. TPPs include AISP and PISPs, in addition TSPs participate in the Open Banking and PSD2 ecosystem¹⁹.

OBIE also interacts with various other stakeholders for different reasons, this includes regulators (e.g. CMA, FCA), as well as Pay.UK and other Confirmation of Payee relevant parties, industry bodies / partners, trade associations, the media, and consumer and SME end-user representatives.

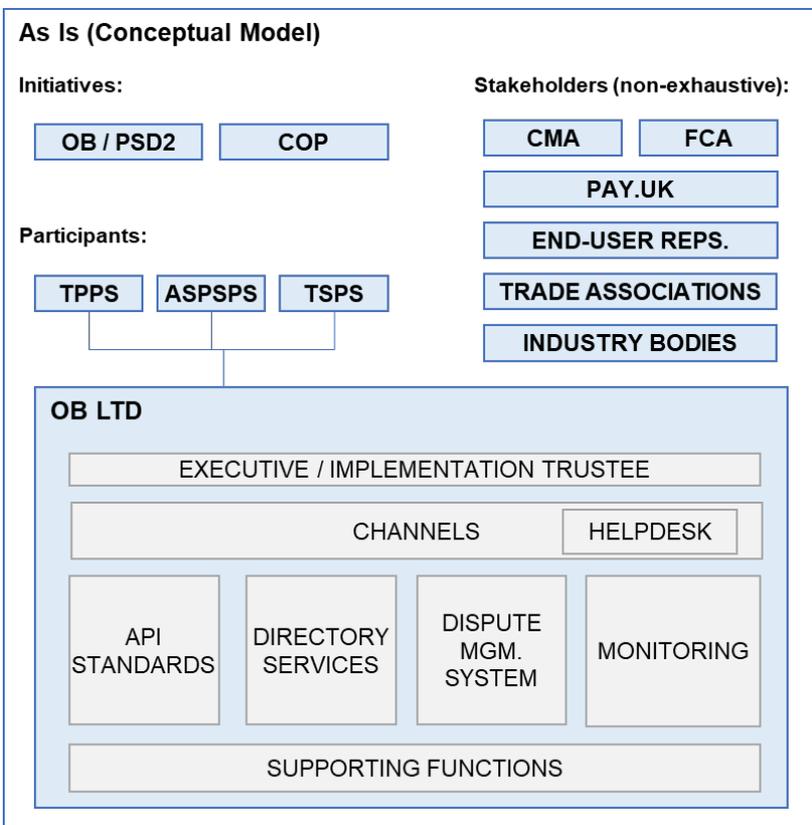
3.2 Structure & Governance

Open Banking Limited is the company set up in 2016 to deliver Open Banking, through the special purpose delivery vehicle – the Open Banking Implementation Entity.

Open Banking Limited is registered on Companies House. It is listed as a private company, limited by guarantee without share capital. The Implementation Trustee is a Director and Chairman of Open Banking Limited.

The Implementation Entity Steering Group (IESG) is the highest-level steering group, which includes the Trustee and the CMA9 amongst others. The Trustee has decision-making powers as outlined within the CMA Order (and, where applicable, subject to agreement with the CMA). Underneath the IESG is the Programme Management Group (PMG), run by IE programme directors. In addition, OBIE runs several working groups and consultative forums, including (but not limited to): Testing Working Group, Delivery Working Group, Technical Design Authority and the Standards and Implementation Forum²⁰.

Figure 3.1: Conceptual As is Model



17. The full set of functions within OBIE, and services provided to various participants is much broader than this illustrative list. The high-level categorisation referenced has been used throughout the process to try and break down the problem into manageable sections.

18. In the future model we have used the term 'customers' rather than 'participants' this is to help articulate the shift to users of the services paying for those they consume, and the move to a more commercially driven organisation.

19. AISP: Account Information Service Provider, PISP: Payment Initiation Service Provider, TSP: Technical Service Providers.

20. The above list is not exhaustive, there are additional forums and groups that are convened for various other purposes, e.g. stakeholder groups for communications.

3.3 Funding

The CMA mandated that Open Banking Limited is funded by the large nine banks in the UK (by market share): RBS Group, Lloyds Banking Group, Barclays, HSBC Group, Nationwide, Santander, Danske, Bank of Ireland and AIB Group. The running of the services in 2018 was estimated at £37 million.

There is some revenue generation for the provision of services beyond the scope of Open Banking paid for by non-CMA banks, including requirements to meet PSD2 obligations, and for the provision of Confirmation of Payee services.

3.4 Services Summary

The scope of services currently delivered by Open Banking Limited covers a variety of 'implementation' and 'run' services. Those in scope for this report are the 'run' services that will be in place following the closure of the Roadmap. As such, implementation activities such as Order Program Management are excluded from this assessment.

The services may be roughly categorised into three areas: (1) Monitoring of Open Banking, (2) Operations and Infrastructure, (3) Maintenance of Open API Standards. We have also included additional services in an 'other' category.

1. Monitoring of Open Banking

- **Monitoring of Performance by the Office of the Trustee²¹** - The CMA9 banks produce MI for OBIE to collect and publish. The MI includes key metrics such as volumes of API calls, downtime, response times and errors. OBIE reviews this along with other MI and considers if further action is required to resolve issues. The service is supported by a secretariat function. The cost of monitoring (both their own, and the central activity) is covered by the CMA9 banks. For obligations under PSD2, banks are required to comply with FCA rules.

2. Operations and Infrastructure

- **Directory:** There are different parts to the directory service. There is an authentication and authorisation service that enables participants to identify trusted parties in the ecosystem. OBIE does this by issuing credentials for Open Banking services for exchange between TPPs and ASPSPs. As an alternative to using credentials issued by OBIE, a TPP and ASPSP may bilaterally exchange EIDAS certificates, there are commercial providers of these services supporting

other API enabled services. OBIE also provides a whitelisting service, that provides details of the relevant permission(s) of trusted parties in the ecosystem. To provide Open Banking services, TPPs must have gained the relevant permissions from the FCA, or other relevant National Competent Authorities (NCAs)²². These permissions are stored on the FCA, or other NCA registers. Before responding to API calls from TPPs, ASPSPs check that they have the right permissions to fulfil the services that are requested.

The OBIE directory service has been extended beyond Open Banking to also provide a solution for PSD2 and Confirmation of Payee services.

The CMA9 banks currently cover the costs of the Directory. Some revenue is generated by charging PSD2 and Confirmation of Payee participants for the services they use.

- **Dispute Management System** - OBIE provides a Dispute Management System to deal with disputes between market participants. This provides a structured pathway to mediation, adjudication or arbitration between Open Banking entities. The payment service user may raise a complaint to a TPP or ASPSP in the case of payment failure, consent disputes, data breaches or presentation of erroneous information. The dispute is then settled via an inter-bank process based on best practice and code of conduct principles. For non-CMA9 participants it is a voluntary mechanism: it is not compulsory for entities to join. The CMA9 have paid for the implementation and running costs for the dispute management system.
- **Helpdesk / Service Desk** - Currently OBIE provides ongoing support to various stakeholders within the ecosystem for both PSD2 and Open Banking. This support relates to onboarding, running of the services, raising of issues and other activities. This is for the benefit of the wider Open Banking ecosystem and has been cited as a useful activity for the TPPs. The initial line of support is outsourced, with escalations being centrally run by the OBIE and an appointed 'Complaints Resolution Committee'.
- **Other:** within OBIE's current Operations function there is also Order Program Management which is responsible for tracking, delivery against the Roadmap, change requests, and OBIE ongoing activities. This function also operates the Program Management Group

21. This is one role of many for the Implementation Trustee, who has a range of responsibilities, as outlined in Schedule 1 of the CMA Order, 'Implementation Trustee Functions'. These include driving forward Open Banking 'in the interest of customers and the promotion of competition' as well as taking consideration from a wide set of stakeholders. Within the scope of this, the Trustee has been responsible for delivering not only a set of service outcomes (in terms of API specification), but also guidelines for usage in line with requirements from TPPs. The role also includes defining the Roadmap and managing and monitoring the delivery against it.

22. After the Brexit Transition Period, the arrangements put in place for permissions granted by National Competent Authorities outside the UK may change, subject to relevant Passporting regulation to be determined in a UK / EU trade deal.

3. Open API Standards

- **OB & PSD2 Open API Standards Maintenance**

- OBIE's policy remit per the Order is to 'agree, consult upon, implement, maintain and make widely available, without charge, open and common banking standards'. These include provisions on data format, security and governance and are required to be compliant with PSD2.

This process has taken the standards from V1.0 to V3.X. Feedback on this process is that it has worked well in hitting timelines, and the UK is ahead of other jurisdictions as a result.

Within this report, the scope of Open API Standards Maintenance should be considered a broad term. It is not just the technical API specifications, but incorporates wider artefacts including user customer experience guidelines, operating guidelines etc.

The CMA9 currently pay for this activity, and they contribute technical expertise to the process. The maintenance of Standards has been extended to PSD2, given the overlap of scope. The API standards are 'Open Licence' for use by the ecosystem.

- **Non-OB / PSD2 Standards Development** - There are currently no provisions under the order controlling the development of non-Open Banking or premium / commercial API standards development.

However, under the Explanatory Notes²³ there is reference that the OBIE should remain close to wider industry initiatives and, should alternative arrangements be in place, it may be appropriate for the CMA to amend or revoke parts of the Order.

Furthermore, the Open Banking Implementation Entity has delivered a solution for Confirmation of Payee for Pay.UK.

4. Other

- **Onboarding** – OBIE supports participant onboarding. This includes identity validation and certificate issues, as well as billing for non-CMA9 OB services. The service is used by ASPSPs, TPPs and COP ecosystem members. TPPs request support from OBIE to issue certificates, upon validation certificates issued and are published. The helpdesk / service desk is there to support this process.
- **Participant Testing** - OBIE coordinates participant communications and shares best practice while offering a support function. This drives key initiatives including the FCA Adjustment period, eIDAS introduction etc. It provides a support and communications mechanism for onboarding participants and provides a sandbox to test

connectivity and functionality securely and with dummy data. It is used by ASPSPs and TPPs for onboarding testing (during onboarding and version releases). Regulators and Trade Associations are also involved in the support for key initiatives e.g. FCA Adjustment Period.

- **Policy and Strategy** - The central policy and strategy function provides guidance via working groups on the various services in line with required changes, including, scheme and product guidelines and codes of conduct.

The policy function is responsible for supporting the Trustee in determining overarching policy, and how to implement this into the Roadmap. It involves consulting with participants on policy and evaluations, interpreting regulatory requirements, and engagement with regulators, trade associations, the media and government departments. In addition, OBIE runs the 'Open Up' Open Banking innovation challenge.

- **Risk Management** - OBIE risk management involves the provision of counter fraud services to the ecosystem and management of risk management framework. OBIE operates an ecosystem wide risk management framework and runs the Security and Fraud Working Group, and updating of APIs standards following advice by this group. This ensures a secure ecosystem while minimising risk of risk breaches and fraudulent activity²⁴.
- **External Communications** - OBIE provides a website to educate customers (end-users: SMEs + retail consumers) and providers (TPPs, ASPSPs, TSPs) about Open Banking. It includes information relating to the Directory, Dispute Management, the Standards and other Open Banking services.

The OBIE has also supported the wider remit of the order to drive competition and innovation by raising awareness in the fintech community to help drive adoption.

OBIE also publishes performance metrics on the ecosystem, including usage volumes and non-functional performance metrics. This covers the 'proactive' support carried out by OBIE. The more 'reactive' support around responding to prospective participant queries, and to develop engagement / how-to materials have been covered in various sections above.

- **Shared Services** - As with any business there will be supporting shared services required to enable the running of the business. For example, this would include internal capabilities for HR, legal, risk, property, audit, accounting, finance, change, property and other services.

23. "Retail banking market investigation, Explanatory Note", Paragraph 39, CMA

24. These counter fraud services include anti-impersonation and risk intelligence services relevant to KYC and other anti-money laundering and counter financing of terrorism (AML / CFT) requirements. However, they do not include any compliance advice or guidance, either for TPPs or for AISP. This is because advice and guidance on these issues are reserved for the FCA as the AML / CFT supervisor for both AISPs and TPPs.

4. To-be Model

4.1 Drivers for Change

There are various reasons participants have cited for needing a change in the model.

- **Implementation Model to Run Model** – OBIE was put in place as a Special Purpose Vehicle (SPV) to support the delivery of Open Banking. As we reach the end of the implementation phase, certain OBIE services may no longer be required, such as on-going definition of the Roadmap.
- **Optimise Current Services** – an entity with a focus on implementation and programme delivery, to that of one for on-going service provision, are quite different. There needs to be a shift to focus on stability, resilience and efficiency rather than driving towards milestones for delivery (although it must be acknowledged that OBIE is currently running these ‘run’ services successfully today).
- **Support Future Programmes such as Open Finance and Smart Data** – The UK is generally accepted as a global leader in the provision of Open Banking services and Open API Standards. To maintain this position the capabilities and experiences of OBIE could be used to deliver new services in the future. A movement away from the SPV to a more permanent structure should be made to support this.

4.2 Options for the To-Be Model

There are various options for the to-be model. These can be seen from parallels elsewhere in UK banking (e.g. provision of payments, or payments related services), in other countries (e.g. Europe, Mexico, Australia), or in other industries. These options can be assessed based on the scope of the services provided, the funding model and / or the governance arrangements.

The various options discussed at the steering meetings could be placed on a spectrum. On one end there is a solution for Open Banking, that meets the bare minimum compliance, and is governed and paid for by the CMA9 in line with their regulatory obligations – referred to below as the ‘the Minimal Viable Solution’. At the other end of the spectrum is a solution that provides open API services throughout the UK across finance and non-financial industries. It has an open governance model that allows all participants to have a say in future development ‘the Maximum Viable Solution’.

4.3 Options Assessment

Looking at these two models can help to direct where the future model should be. Understanding the benefits and the issues associated with being at either ends of the spectrum is helpful. It ensures that parts of the solution can be used to capture the opportunities presented, whilst mitigation can be put in place to overcome the risks.

4.3.1 The Minimal Viable Solution

Benefits - If the bare minimum is carried out, the model benefits from simplicity. It is clear the CMA9 share the costs and the collective responsibilities for meeting the requirements under the CMA Order only. The banks are obligated to consider the needs of TPPs and end-users, and they must maintain the Open API standards (relating to Current Accounts), the Open Banking directory and a customer redress system.

Risk – This model creates a risk of a lack of harmonisation with Open Banking and PSD2, as well as a gap in the solution for PSD2 participants reliant on the directory (ASPSPs and TPPs). Furthermore, the industry loses the ability to leverage the skills, knowledge, experiences, processes and capabilities, that have been developed over the last few years, and which allowed the UK to be seen as a world leader.

4.3.2 The Maximum Viable Solution

Benefits - Expanding the model to service all open data and API enabled services in the future can have a significant benefit in ensuring that standards are aligned in customer interest. It also can achieve significant benefits in economies of scale and efficiencies, as well as a high degree in specialisation of services. NB: the purpose of this report is not to provide a recommendation on the provision of a wider set of services than Open Banking and PSD2.

Risks - For this to happen, there would need to be a regulatory mandate put in place. There would be a utility that would monopolise the industry. Industry participants have commented that there are competing providers for the services provided by OBL and as such, the market should be more open. Further, in a model where governance is completely open, there is a concern that decision making cannot happen effectively or quickly enough. Lastly, understanding the financials for a broad company, along with the funding requirements, liabilities and commercials would present significant complexities.

4.3.3 The Proposed Model

The proposed model should allow the benefits above to be realised and the risks to be mitigated. The proposed model has been created based on input from interviews, industry comparisons, and in alignment with the project design principles. These include:

1. The guiding principle is the promotion of standardisation to drive customer benefit, security, competition and innovation in the wider open banking environment.
2. There should be industry-wide ownership and governance transitioning from a CMA Special Purpose Vehicle / governance to a market-led one.
3. Monitoring against the Order would be separated from the governance and functional maintenance or development of the standards required by industry and / or regulators.
4. Every entity in the eco-system should pay fairly and equitably for the assets and services of open banking.²⁵

4.4 Proposed Model

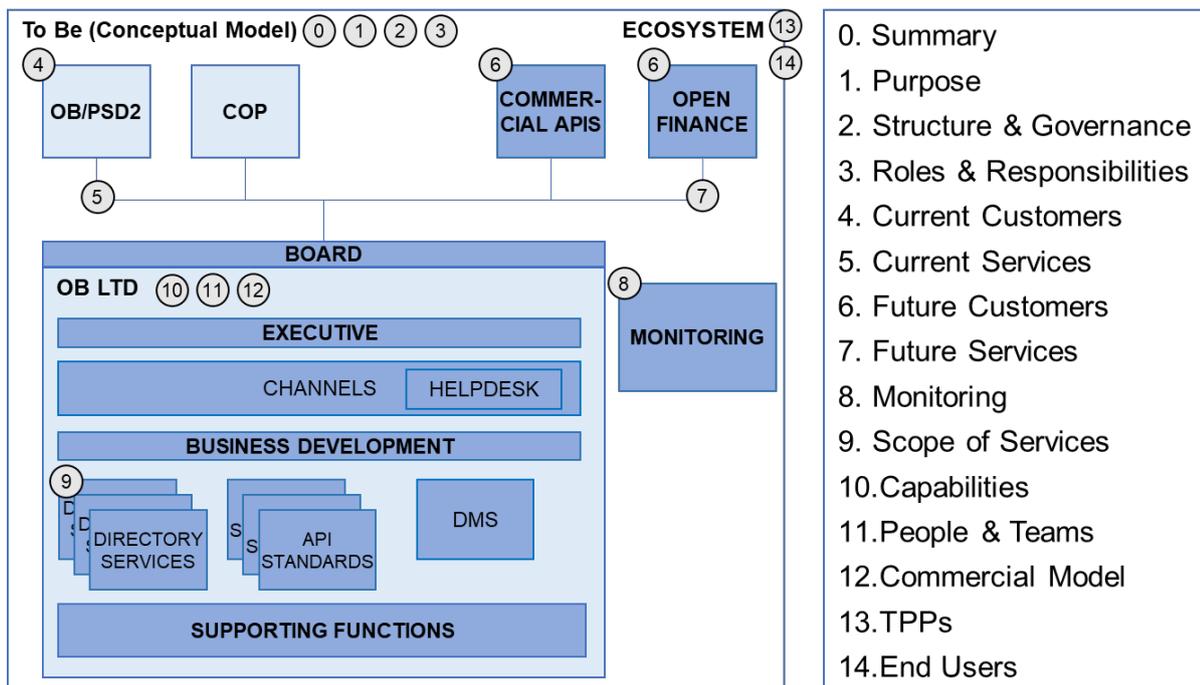
Based on the options assessed, we built a hypothesis for a future model. This was tested and reiterated at two working hothouse sessions before being presented to the Steering Group at a working session on 16/02/20.

Further amendments and iterations were made to the model, which was shared as a PowerPoint²⁶ document, with 14 sections covering the different areas of the model. These sections were used to build the conceptual model shown below in figure 4.4.

After the model was shared, Steering Group participants, as well as a wider audience of TPPs and user representatives were asked to provide written feedback on the model.

The key comments and challenges raised by the group were discussed at Steering Group on 13/03/20. These points were then either incorporated as changes in the proposed model, outlined as alternative future models, or captured as areas for further investigation.

Figure 4.4 – Conceptual To-Be Model



25. Design Principles taken from December 2019 Steering Group

26. Open Banking Future – Model Working Proposal v1.2.pdf (Shared with SG Participants 03/03/20)

Model Summary

There are five main parts to the future model:

- 1. A monitoring function** that reviews the performance of the CMA9's ongoing compliance with the outcomes of the CMA order once the implementation phase is complete. This monitoring will be separated from the governance and functional maintenance or development of the standards required by industry and / or regulators. It builds on the separation of the Office of the Trustee within OBIE.
- 2. A set of customer / membership groups / schemes** that advise Open Banking Limited on the development of services, including standards, consulting the regulators as necessary to ensure the standards continue to align to, and support regulatory requirements.
- 3. A 'service company' i.e. Open Banking Limited**, that shall provide services to customers in line with their mandates. At a minimum, this shall include PSD2 and Open Banking services relating to a directory, API / Standards development and a dispute management system.
- 4. Commercial model.** The payment for services under contract consistent with the roles played by the firms under PSD2 and their use of services in a fair and equitable way.
- 5. Ecosystem role.** An ability to use the capabilities of OB Ltd to meet other industry and regulatory mandates as they emerge from consideration of open finance and open data.

The following sections break down the 14 areas of the model in further detail.

4.4.1 Structure and Governance

1,2. Purpose, Structure and Governance

It is important to be clear on the purpose for each entity within the future Open Banking model, and to some extent that helps determine the most appropriate governance and funding model.

'Governance' can be quite a broad term. Within the context of the future Open Banking model described, we should consider various aspects.

1. The ownership / corporate structure of Open Banking Limited
2. The ownership / corporate structure of the Open Banking & PSD2 Customer Group
3. The decision-making process for maintenance of Open Banking & PSD2 Standards

1. Open Banking Limited

Purpose - The purpose for Open Banking Limited is to ensure efficient and effective development and delivery of API standards for the financial services industry,

in the first instance PSD2 participants. This should enhance competition, innovation and be adequately and equitably resourced by participants.

OBL should not be a passive service supplier but work with industry and regulators collaboratively to ensure the UK maintains its place as a world leader in the provision of innovative financial services. As such, it should be able to use its capabilities to support open finance standards and services where this does not encroach on the market.

Company Structure - The company is assumed to be a 'not for profit'. It should have a board of directors, that ensures the directory and DMS systems continue to be run, along with forums to maintain the PSD2 and Open Banking standards (including the updating of artefacts etc).

It is assumed that OBL will not be a regulated entity, but a supplier to firms who are themselves regulated by the CMA and FCA.

The Board - The Board should not comprise industry participants who determine what the updates to the standards should be (that is the responsibility of the forums themselves), but to ensure that they are being maintained effectively. Within this context, the Board make-up should be more independent, rather than necessarily representative of industry participants or interests. It should, however, have the expertise to provide direction and decision-making to the Executive. The Board members should have industry and oversight experience. There should be experience within running operations and technology provision. They should have financial services and API knowledge, as well as understanding of the regulatory environment. A representative of ASPSPs, TPPs and end-users could be included too.

The role of the independent chair is especially important given the role currently played by the Implementation Trustee as an advocate for data-sharing and providing direction. The Chair should provide vision and direction, as a trusted partner and collaborator for industry and regulators alike. They will have a key role to play in encouraging and challenging industry to collaborate and provide world class open banking / finance products and services. This could be a natural development from the role of Implementation Trustee.

Guarantors - The company should be guaranteed by the PSD2 participants who use the company to meet their regulatory requirements. The guarantor model should be open and inclusive.

Funding - The cost to run the company should be recovered from charging fees for the services, to be shared 'fairly and equitably' based on usage of the services. This could be done based on fees for the year – charged to customers (ASPSPs, TPPs depending on their role, for both PSD2, OB and COP) in advance.

Further detailed work will be necessary to define a target operating model, including the full arrangements for independent governance.

2. PSD2 and Open Banking Customer Group

Purpose - The purpose of the PSD2 / Open Banking Customer Group is to provide direction on the maintenance of the Open API standards for PSD2, the directory and DMS, allowing regulated entities to meet their collective responsibilities in the interest of improved end-user financial services.

Solution Options - In principle, the model requires that OBL as a service provider is 'instructed' by 'customers' to carry out services in line with its PSD2 and OB regulatory obligations. How this is done should be determined on a case by case basis, each 'customer group' would bring their own funding and governance model. OBL may support in determining the most appropriate solution.

There are various ways in which this could be done, and there is further design work required to understand the best model.

Example Option 1: One model that has been proven to work is using an existing body and setting up a sub-group within that entity to provide coordination. This most relevant example here is Pay.UK working with OBIE to develop the Confirmation of Payee API and supporting use of the directory.

Group structure: Pay.UK to coordinate a scheme, committee, or a programme, within the organisation with its own governance and funding arrangements.

Example Option 2: Another possible model could be based on setting up a 'scheme'. This would be similar to e.g. Faster Payments Scheme Ltd instructing VocaLink to provide payments services.

Group structure: the group could be set up as a 'scheme', with its own company, formed by shareholders of different ecosystem participants.

Other options: As called out, these are only two ways in which the requirements could be met, and there are alternatives. Using an existing body could be another e.g. UK Finance which runs major projects on behalf of subsets of its members, for example on wholesale cash and strong customer authentication. An alternative could be the more independent Lending Standards Board, with a board of independents and members made up of the lenders, in this instance the lenders would be replaced with the ASPSPs and the TPPs.

In each option it is assumed that there should be a final governance level, which may be a board. This should be made of industry participants to jointly agree how to discharge their obligations for collective components of PSD2 and Open Banking to Open Banking Limited. This could include an independent chair.

There would likely be different participation levels based on technical sub-groups / working groups.

Membership should be open, and participation would be subject to a weighted fee based on firm size, with fees to cover the running costs.

3. Governance over the Open API Standards

As outlined in the CMA Order, and to the extent that this is a subset of PSD2, there is a requirement to maintain the Open API Standards. This maintenance needs to ensure the Open API Standards continue to meet emerging data, technical and security updates. (The standards include the wider requirements around the whitelist, authentication and authorisation, as well as the technical standards). The maintenance of these standards does not include developing new functionality.

Under the new model, PSD2 and Open Banking Customer Group shall instruct OBL to update these. It is expected that a similar process would be run to that of today, with different stakeholders contributing to the updates, and going through an approval process.

The sign-off for these would require a governance model that enables 'decision making' so the updates do not 'stall'. The decision-making process would be outlined by the customer group, with the proposed changes going through working groups, and the sign-off of changes being performed by the PSD2 / Open Banking Board.

4.4.2 Operating Model

3. Roles & Responsibilities

The roles and responsibilities of each stakeholder group are broken down below:

ASPSPs – accountable for their continued compliance under PSD2 and Open Banking. The model proposes widening funding from the CMA9 to all PSD2 ASPSPs. They should form part of the member groups that instruct Open Banking limited as a service provider to carry out any activities to fulfil their obligations. The CMA9 remain responsible for their obligations under the Order and should continue to fund the monitoring service.

Customer Groups / Schemes – to provide instruction to Open Banking Limited and contract with them for a set of services as described in contractual arrangements. To be run in line with their codes / set-out in their terms of reference.

Open Banking Limited – A service company to deliver services to customer groups in line with their contractual arrangements. This would include running the processes to update the Open API Standards, as well as maintaining the supporting infrastructure re: directory services and dispute management system. It is expected that this shall include providing advisory services on the future provision in line with emerging

trends, wider initiatives and other factors. It should include a role in managing fraud and risk of the Open Banking ecosystem, including support for industry work towards economic crime intelligence sharing for Open Banking, and supporting a consistent ecosystem response to regulatory and policy changes related to economic crime²⁷. Open Banking Limited to run itself as a company, in line with the articles, and at the direction of the executive, overseen by the board. OBL is not regulated by the CMA / FCA, the firms are regulated and OBL is a supplier.

Monitoring Trustee – the Monitoring Trustee is responsible for reviewing the performance of the CMA9, in line with their requirements under the order. The Monitoring Trustee shall provide information to the CMA re: compliance with the order. (Monitoring of PSD2 is separate, it is undertaken by the FCA. To the extent that there is any overlap for the CMA9, it would be reasonable for the FCA and CMA to agree a single monitoring process.)

CMA – based on the performance of the CMA9 banks, and the changes in the market, the CMA may provide further directions as required to close or amend the CMA Order. For the avoidance of doubt the CMA shall monitor the CMA9 banks not OBL. These further directions are not a reference to any Roadmap activity but possible future changes in line with normal CMA Order monitoring processes.

TPPs & TSPs – Third Party Providers play a key role in the Open Banking ecosystem to promote and provide service to end-users (consumers and businesses), TSPs play a role in enabling this. Along with providing these services, there is a wider role in supporting the development of the ecosystem by advising on the performance of services and being involved in the future direction for changes through participation in customer groups.

End-User Representatives – Open Banking was created with an intention of improving the level of provision of financial services for consumers and businesses. As such, end-user representatives should continue to form a part of the OB ecosystem, with the intention of ensuring there is continued promotion of positive outcomes for SMEs and retail customers. This could either be through continued support at relevant forums, and / or on a more consultative ad-hoc basis as required.

4.5. Current Customers & Services

The set of services expected to be provided at the conclusion of the roadmap are outlined below. These services will be provided to customer groups. There is expected to be a combined Open Banking & PSD2 customer group, and Pay.UK will continue to act as a customer for Confirmation of Payee services.

There are three main services / propositions that Open Banking Limited shall provide to customers:

API Standards Maintenance & Development - A broad topic that covers development, maintenance and publishing of Open API standards, along with supporting materials for user guidance, adoption, user manuals etc.

It is expected that the Open Banking customer group shall instruct Open Banking Limited to run a process based on the one that is done today, to update the Open Banking & PSD2 APIs and Standards in line with good practice. This should include engaging with the wider ecosystem, as well as considering user needs (using the customer experience guidelines, the customer evaluation framework etc), security and data upgrades and other elements to the broad model.

This is similar to Pay.UK requesting Open Banking Limited's support for the development of Confirmation of Payee. A helpdesk function is also provided to support wider ecosystem participants navigate the website, interpret documentation, etc.

Where there is non-compliance there is also a mechanism for escalating this. All the current supporting services / processes are expected to continue in the future model.

Directory Services - The mechanism to authenticate and authorise participants within the ecosystem, through the sharing of electronic credentials, will need to continue. In addition to this, a Whitelisting service shall continue to be provided. This supports ASPSPs and TPPs for both PSD2 and Open Banking.

These systems should be maintained by OBL ensuring that the systems are high-performing, resilient and secure. These services are currently provided to different customer groups. The proposition covers a wide set of activities. It includes KYC, onboarding and assurance (through testing) of ecosystem participants. There is also a helpdesk function for participants to raise queries and questions. It is assumed that individual organisations (ASPSPs and TPPs) shall contract directly with OBL, as customers in line with similar process as today.

There should be agreement between the PSD2 customer group re: performance of these systems, with any changes beyond mandatory to be approved through that governance. OBL to determine how (insourced / outsourced) the services are provided in the most effective and efficient way, so long as they meet the requirements set out by the customer group. OBL shall charge participants directly for the use of these services.

Dispute Management System - Outlined in the CMA order is the requirement to run a 'customer redress mechanism', which is known as the Dispute Management

27. Relevant changes already identified include: future economic crime monitoring and response functionality in the New Payments Architecture, the Voluntary Code on APP Scams and other industry counter-fraud standards impacting on the Open Banking customer journey, reform of the Suspicious Activity Reporting regime, the scope and distribution of an Economic Crime Levy, and FCA advice and guidance to AISPs and TPPs on AML / CFT compliance requirements in the Open Banking ecosystem.

System. This will continue to be provided for the benefit of end-users. While the contract would be owned by OBL, any enhancements should be driven by the customer groups.

6.7. Future Customers & Services

Stakeholder feedback was that the future model should have the flexibility to adapt to changes in the landscape of the financial services industry. As such, the customer group model is designed to allow for expansion into wider activities, be they through commercial APIs or wider regulatory mandates pertaining to Open Finance or Smart Data services.

As previously outlined the regulatory body or group of industry participants could contract with Open Banking Limited for support in developing the Open API Standards, and for the provision of associated services (including directory, DMS etc.). Funding and governance for these would be decided on a case by case basis. In the case of Confirmation of Payee, Pay.UK outlined the governance model and funding arrangements between their members.

In the new model, if a set of participants have developed (for example) a data set for credit scoring customers, then OBL could support in developing a standard for this, along with supporting directory services. OBL would charge the providers and consumers of this for the services they used. This model is in principle how Confirmation of Payee works, with OBL charging Pay.UK's members for the services. NB any costs for the API look-up would be determined between the two parties.

8. Monitoring

Principles of Open Banking compliance monitoring

The CMA shall monitor the CMA9 banks and not OBL. The Monitoring Trustee shall stipulate what MI is required in order to monitor compliance with the order.

It is expected that CMA9 banks shall produce pre-determined MI as is required by the Monitoring Trustee – this could relate to service availability and response time of the Read / Write APIs. It could also include wider reporting of SLAs to monitor wider performance e.g. overall usage, usage of particular functionality, numbers of TPPs. Any MI should be proportionate, and directly related to need.

Monitoring the performance of PSD2 services is outside the scope of the CMA Open Banking Order. The mechanism for monitoring of compliance for PSD2 falls within the remit of the FCA.

This MI may be collated by Open Banking Limited, or provided directly to the Monitoring Trustee as required. The Monitoring Trustee shall review the performance of the services and query / advise the banks on changes to be made in line with ensuring ongoing compliance.

If appropriate the Monitoring Trustee may advise the CMA of issues that require attention or resolution. The CMA may issue further directions to the CMA9 as is required to close or amend the CMA Order.

To assess the wider performance of the ecosystem and how well it is working, the Monitoring Trustee or the CMA, may assess wider factors e.g. MI & feedback from TPPs, or MI & outcomes for end-users, to determine appropriate further action (amendment or closure of the order if agreed through formal CMA process). MI should be assessed and scoped to ensure the focus is on compliance.

The CMA9 banks shall cover the costs for monitoring of the Order.

Ways of working for compliance monitoring

It is common for the CMA to appoint a Monitoring Trustee, often an independent audit / professional and advisory firm, with the skills and experience to provide oversight services. Additional third parties could be used to support the monitoring: technology providers or research companies.

Technology firms could be appointed to perform performance testing and monitoring of APIs, both functional and non-functional. These could provide a consistent set of MI based on the performance as seen by a third party.

Research companies (including universities) could write an annual report on the performance of the Open Banking ecosystem from the different perspectives of i) TPPs, and ii) end-users. This could provide the basis for both the CMA9, Open Banking Limited and the CMA to make changes to the services or the way they are performed.

Where possible, the production of MI should be automated and in line with the PSD2 requirements. This will maximise efficiencies in the process, and reduce the risk of confusion as a result of different performance metrics.

9. Scope of Services

Contractual Arrangements - It is not expected that Open Banking Limited shall be 'regulated' by the CMA (or the FCA). So, without an Implementation Trustee in place to advise on the provision of services, the CMA9 banks must take on ownership and accountability for Open Banking compliance. This is the same of ASPSPs and their obligations for PSD2.

In order to do this, they should be comfortable that any service provider shall adhere to their responsibilities in the delivery of these services. Contractual arrangements should therefore be arranged between Open Banking Limited and the customer groups. It is expected that there would be different arrangements in place for the different services provided.

The contract for Open API Standards maintenance could outline Terms of References for different forums, ways of working, output description, timelines, etc (but run in a similar way as today). They should also include the ability for Open Banking Limited to suggest changes – for example to meet emerging security standards, or more broad ecosystem changes (e.g. Open Finance).

It is expected the provision of the directory services and a dispute management system shall be similar to today, with the contractual arrangements more akin to more traditional technology and outsourcing arrangement. These services shall require supporting processes such as onboarding, and ongoing support that should be charged for (without breaching any applicable regulation).

Good practice for service provision should be included within the arrangements to cover off MI sharing (against SLAs and KPIs, and for billing and reporting purposes), dispute management, termination, disaster recovery and business continuity arrangements and other good practices such as service improvement incentives.

Service Outcomes - Open API Standards maintenance

- Open Banking Limited should run a process to update the Open Banking and PSD2 Read / Write standards. These should be updated in line with emerging security policies, data requirements, or other industry changes. User guidelines and other supporting documentation should be maintained too. These should be made available on an open licence basis.

Other customer groups could pay OBL to run similar processes for developing, publishing and maintaining other API / data sharing standards. This is in place for Confirmation of Payee, and could be extended to other Open Finance, Smart Data, or Premium / Commercial API standards.

A customer group may choose how much of the work to provide to Open Banking Limited versus performing themselves. The benefit of getting Open Banking Limited to perform this service is there is technical (API) expertise to leverage, a proven methodology and experience in the process, as well as the templates and experience in creating supporting documentation for user guides etc. The other advantage is that there can be harmonisation in processes, e.g. the customer consent mechanisms.

Service Outcomes – Directory Services - Alongside the development of API standards, each customer group may request wider support in the running of the wider propositions.

For Open Banking, the CMA order outlines requirements for authentication and authorisation services. Open Banking Limited should support the electronic exchange of credentials to run the services, as well as providing information relating to the permission of the TPPs ('whitelisting').

In order for Open Banking limited to do this, there must be onboarding of TPPs to the ecosystem, including participant testing and other activities to reduce risk and ensure the resilience of the system.

As additional customer groups want to support permission-based API services, they may ask Open Banking Limited to extend the directory services, in-line with the mandates they provide. For example, Open Banking Limited could support an age verification API, adding in age verification permission to entities (e.g. online alcohol shops, the National Lottery, gambling companies etc.) in accordance with contractual and commercial models to support the running of the service.

Should the market provide a competitive solution that is preferred by the ecosystem to the OBL's offering, then it is expected that this will be the go forward offering. OBL would scale down its service.

10. Capabilities

There are several capabilities required within Open Banking Limited to run as a business and provide services within the Open Banking & PSD2 ecosystem.

Channels – An Open Banking website will be maintained to support external communications, sharing of information and data, store key documentation etc. Email and phone channels as part of the service and helpdesk for registered users and guests will also continue to be provided.

Relationship Managers and Business Development – should be employed to support the running of OBL and growth of the ecosystem.

Business Development and Customer Relationship Management (from marketing, through sales, onboarding and servicing, billing, MI production etc) Business development activities should be as a result of customer group proposals. While product management and development (more manual for API service, more technical based for Directory and DMS services) should also be considered.

Operations and Technology - Operations teams to support the running of the services, maintenance of the technology enabling the services, change team to support changes, new product development, service improvement etc.

Corporate Functions - Supporting functions including, but not limited to: HR, finance, risk, procurement, audit, legal, CIO, property, strategy will also be required to support the development and running of OBL.

Some of these capabilities may be supported by third parties as is required by peaks in demand or when it is deemed economically prudent.

11. People & Teams

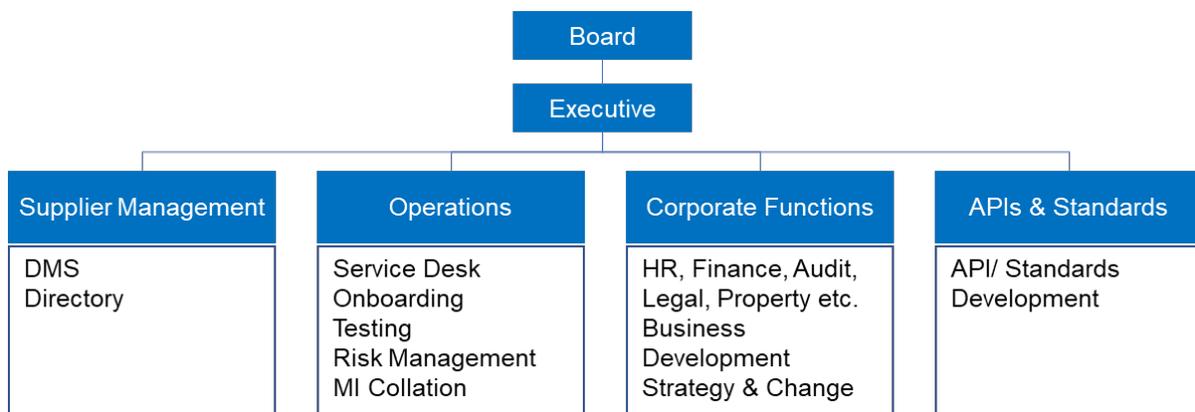
Based on our interviews and follow ups with participants the general consensus was that OBL should have around 40-50 staff. Further information on the current model, alongside organisation work, is needed to perform an accurate estimation. An indicative organisational structure based on the required functions and teams outlined in the responses is drafted below.

It was outlined that there should be a knowledge transfer process to ensure that the experience gained from the implementation phase within OBIE is not lost. In order to maximise this retention, permanent staff

should be employed where possible and particularly for business-critical functions. Third parties and contractors should not be discounted in order to manage peaks and troughs in business function and / or where it commercially prudent to utilise them.

(Section 12 – Commercial Model has been moved to be included within the Financial Model, Part 4.5 of this report).

Figure 4.4.2: Indicative Organisational Structure



4.4.3 Ecosystem

13. TPPs

In order to continue to develop and expand the ecosystem the OBL model must work for TPPs.

In the proposed model a clear escalation route is provided for TPPs to utilise in the event of any API downtime or other service impacting issues via continuation of the helpdesk function. This is alongside escalation routes to the CMA. A future governance structure will put in place a clear model of accountability for non-performing bank APIs. Non-performance will be a matter for the CMA and FCA.

The customer groups, with support from OBL, should ensure functional consistency cross-APIs, while non-functional performance MI will be recorded and made available to the ecosystem. TPPs will have the ability to join working group forums in order to have a say in the provision of future API Standards.

A research paper to gather the views of TPPs could be published for consideration by the Monitoring Trustee, customer groups and OBIE.

14. End-Users

The CMA Order was implemented to increase competition in the provision of personal and business current accounts services within the UK. This should improve the overall financial wellbeing of UK end-users (consumers and businesses), the model will continue to support this.

There is a proposal for end-user representation on the board of the future OBL to ensure that strategy and policy level decisions are made in the interest of consumers / businesses. There will also be options for end-user representation at working group level also to ensure that Standards are being defined with end-users in mind. Per the requirements of the Order, a customer redress mechanism would be maintained.

OBL should support harmonisation with Open Finance / Smart Data (as applicable). This should include consent mechanisms, dispute resolution routes etc to optimise the user experience across offerings.

An annual report into end-user outcomes may be commissioned by the monitoring function in order to provide an independent qualitative and quantitative view of outcomes. This report should be provided to

stakeholders including the OB customer group as well as OBL to help determine future changes. The monitoring function would consider these findings when providing information to the CMA.

4.5 Funding & Financial Model

4.5.1 Funding & Financial Model

In the proposed model, PSD2 ASPSPs act as guarantors of OBL. The running costs of the company should be covered by the users of the services. This does not include any services that PSD2 regulation or the CMA Order outline should be provided 'without charge' e.g. access to open sourced Standards. In addition, the CMA9 shall pay for all activity that is only applicable to the CMA Order, e.g. monitoring of compliance with the Order.

For funding to be equitable (as is an agreed design principle), users should pay proportionately for their use of the services. The costs to maintain the PSD2 APIs (with Open Banking being a subset), should be shared by the PSD2 ASPSPs and those TPPs that wish to contribute to the standards. Larger firms would pay more than smaller firms according to fair and proportionate criteria. The costs of the directory services, including supplementary activities (e.g. the helpdesk), should be split by ASPSPs using this for their PSD2 obligations, again by size. These costs should be offset by any revenue received from TPPs (which could include a registration / joining fee, as well as ongoing support costs). Again, this would be on a tiered basis, with larger TPPs paying more than smaller TPPs. Tiering could be based on number of customers, turnover, API usage or other mechanisms – to be determined in a next phase of work. For the avoidance of doubt, TPPs shall not be charged for activity that is outlined as 'without charge' under the CMA order or applicable PSD2 regulation.

There are various options for billing and accounting, one options is that fees could be paid for in advance based on projected costs with a reconciliation and true-up based on actual costs.

4.5.2 Revenue Generation

As outlined, in order to generate an equitable funding model, users should pay for their use of OBL services. These should include:

1. Running of forums to create and manage the API Standards. Participants should be charged based on size and type of firm joining.
2. The DMS should be centrally funded but should have the ability to recover costs as part of dispute settlements.
3. Connecting to the directory should be funded on a per use basis. This could be charged as a membership fee.
4. Support for TPPs and other ecosystem participants beyond services outlined as without charge in the CMA Order or other applicable regulation.

It is not expected that revenue generated from provision of services would lead to profit for OBL. Should annual revenue exceed annual costs, given the not for profit status, remedial action would be taken (e.g. reduction in fees, or investment in improved security and resilience etc).

4.5.3 Costs

It is anticipated that post completion of the Roadmap, overall costs will decrease as much of the implementation activity is completed. There is also the opportunity to decrease costs due to efficiency measures as a result of a maturing operating model. The costs of running the future entity will include:

1. Directory costs to cover running of the infrastructure, as well as service / helpdesk activities, testing, onboarding etc.
2. API Standard Maintenance cover running of various forums on a regular basis, updating artefacts / websites etc.
3. Dispute Management System is assumed to be a cost to a third party and supporting running costs.
4. Corporate functions to cover costs for technology and property, as well as support for HR, legal, risk, audit, finance, procurement etc.
5. Monitoring, which will be performed by a third-party provider, and outside of the core cost of OBL.

As the business moves to a more commercially driven entity, additional costs may be incurred to support supplier management and other activity.

Some costs are activity dependent such as participant onboarding, testing and ongoing service issue support. These therefore depend on the number of TPPs in the Open Banking ecosystem, as well as the performance of ASPSPs. There may also be incremental costs to support additional services for new customer groups.

4.6 Model Assessment

We have assessed the model against some of the components of the 'purpose' outlined above:

1. Is the model efficient and effective?
2. Does the model promote competition and innovation?
3. Is the model funded equitably?

1. Is the model effective and efficient?

The model can be considered efficient and effective if it continues to promote development and delivery of the API standards for the FS industry. The right governance will prevent paralysis in decision making, whilst still considering views from different industry participants. The OBL executive and leadership team shall be responsible and incentivised for running high quality and efficient services.

This model has been proven via Pay.UK using OBIE for developing standards for Confirmation of Payee, and the use of the directory to facilitate its ongoing use.

2. Does the model promote competition and innovation?

The model continues to allow TPPs and ASPSPs to work together to bring new propositions to the market. It has been said that the current directory allows this more simply than the exchange of EIDAS, therefore lowering the barriers to entry. The 'fair' funding model should not create any cost barriers for participants. The model allows for future expansion of services either through regulatory or commercially driven activity to drive further innovation within the market. The inclusion of end-users, TPPs and ASPSPs within the end-to-end governance model should ensure that different viewpoints in the ecosystem are considered. All this should support the continued promotion of competition and innovation of banking services for consumers and businesses.

3. Is the model funded equitably?

The model is funded equitably where the users pay proportionality for the services consumed. The larger ASPSPs shall pay more than the smaller ASPSPs. The larger TPPs shall pay more than the smaller TPPs. The funding model shall include consideration to users of services covering PSD2 and Open Banking obligations. The CMA9 shall bear all the costs of the activities that solely relate the CMA Order (e.g. monitoring). For the avoidance of doubt, TPPs shall not be charged for activity that is outlined as 'without charge' under the CMA order or applicable PSD2 regulation.

4.7 Risk Assessment

There have been some risks highlighted with the proposed model. These have been listed below along with appropriate mitigation.

4.7.1 Competition Risks

Role and Activity of Open Banking Limited

It has been suggested that in the proposed model, OBL may limit competition in the market. Specifically, the risks are i) OBL may exploit its dominant position as it will hold significant market share and a natural monopoly, ii) OBL can price anti-competitively as it doesn't have to recover 'investment costs'.

Ensuring that the adverse impacts of these risks do not materialise is important. This would warrant intervention by the competition authorities. These include i) treating customers unfairly by pricing differently, ii) making customers buy products they don't want, and / or iii) charging low prices to drive out competition.

Mitigation

There are various preventative measures to consider:

1. Within the role of the OBL leadership there should be a Risk officer, who will have responsibility for managing compliance with all regulation, including anti-competitive practices. This is not unique, in the UK there are several industry utilities or natural monopolies that need to manage this. Measures should include monitoring and company-wide training.
2. The market that OBL operates in is itself a competitive one. The customer groups should not have any barriers to exit, allowing them to switch. This can be done through limiting contract lengths. There are consultancies or other bodies that could take on maintenance of APIs, the dispute management system has itself been competitively sourced, and there are competing directory providers, as well as alternative solutions (e.g. EIDAS) that could be used.
3. In the case of the directory for Confirmation of Payee, interoperability specifications were put in place so that alternative providers could co-exist.
4. Pricing principles to ensure that services are not provided below cost.

Lastly, it is important to recognise that the CMA is actively monitoring the Open Banking ecosystem due to the CMA order. This in itself provides a solution to monitor risk and deterrent to anti-competitive practices.

Additional Competition Risk

There was an additional risk raised that "the model does not allow a competitive market in which TSPs can provide a solution to merchants and other TPPs, that is independent from banks and deliver value to all participants, not just the CMA9". We do not believe that the new model alters the ability for TSPs to be competitive in the market. The new model allows for TSPs to operate in the market and provide solutions to any industry participants and in a way that is independent of the banks (noting the requirement, by definition to connect in with ASPSPs).

4.7.2 Performance Risks

A risk was raised moving to a model where the role of the compliance monitoring is more removed from the running of the services, and this could cause detriment to the performance of Open Banking. Some of the highlighted impacts for this could include:

1. API Standard developments will 'stall'
2. ASPSP performance / conformance levels will fall
3. TPPs will not have an escalation route

Assessment

API Standard developments will ‘stall’ -The PSD2 / Open Banking customer group shall be accountable for updating standards. The running of this will operationally be performed by Open Banking Limited, with contractual terms in place to ensure it is achieved. The risk of stalling shall come with the sign-off for any changes. An ‘independent’ person / body could be tasked with decision making in the event of a lack of consensus. The CMA order mandates that these are updated, and so this will be monitored by the CMA for current accounts.

ASPSP performance / conformance levels will fall - The first point to note is that in feedback from TPPs, the performance of the ASPSPs has improved, and that is expected to continue and be monitored throughout the rest of the Implementation phase. As the Roadmap is concluded it will give the banks a chance to further increase the maturity of their Open Bank capabilities, reducing the risk of poor performance. It is up to each of the ASPSPs to meet their PSD2 obligations, and the CMA9 to meet their PSD2 and OB obligations. This is in-line with other regulatory requirements overseen by the FCA and the CMA. To support in the monitoring compliance of Open Banking, a third party shall specifically be put in place with this role.

TPPs will not have an escalation route - TPPs will continue to have access to the service desk as an escalation route that supports them in their resolution of issues in using the standards, or interfacing with ASPSPs. The monitoring function shall be in place to review performance MI. A customer redress system is in place to support any end-user losses as a result of non-performance. The FCA and the CMA shall continue to play a role in assessing non-performance with applicable regulation, and providing further recourse or directions as appropriate.

4.8 Transition Plan

The diagram below highlights three areas of change required to deliver the to-be model 1) OBL Transformation Activity, 2) Mobilisation of Customer Groups, and, 3) Creation of a Monitoring Trustee.

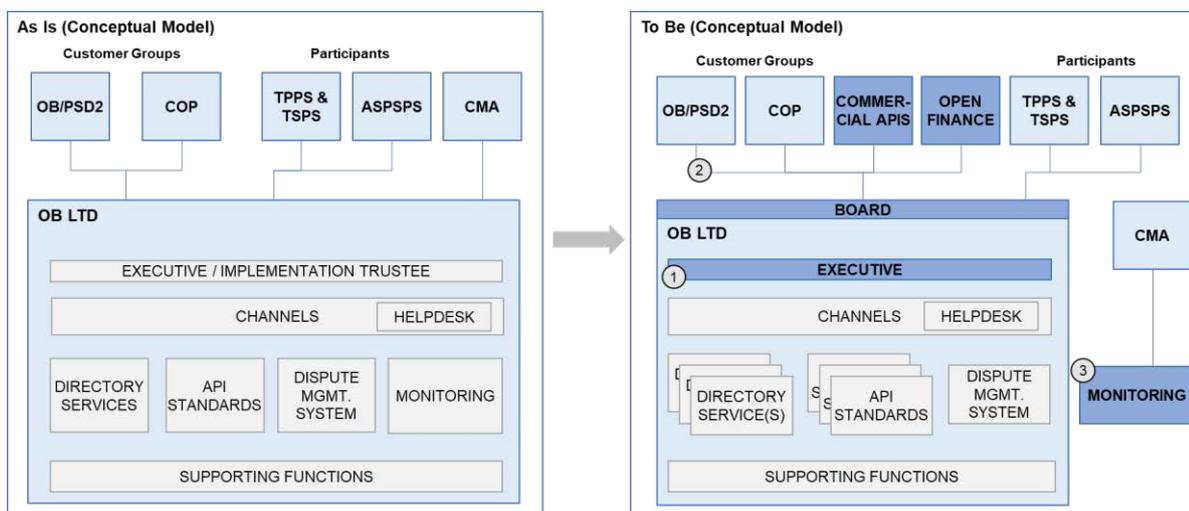
OBL Transformation Activity

1. Recruitment of staff to support future internal BAU functions, both from the Implementation Entity and externally as required.
2. Knowledge transfer from implementation staff to new internal BAU functions.
3. Implement new roles and responsibilities for new board and other staff.
4. Associated business transformation change, such as property and technology services, e.g. securing premises, provision of laptops and software.
5. Establish contracts between OBL and any other third parties (e.g. providers of helpdesk services).

Mobilisation of Customer Groups

1. Determination of voting rights, decision rights and fee structure for customer groups.
2. Provision of contracts between OBL and customer groups governing service provision. Includes agreeing pricing of services for API development, directory provision etc.
3. Governance and funding to be brought to OBL by the respective consumer groups.
4. Implementation of rules of the schemes (or equivalent, if applicable).

Figure 4.8.2: As is to To-Be



Creation of a Monitoring Trustee

1. Moving out of Monitoring Trustee to separate entity.
2. Knowledge transfer from Implementation Trustee to Monitoring Trustee body.
3. Appointment of third party for Monitoring of performance and MI.
4. Provision of contracts between Monitoring Trustee, third parties and customer groups detailing e.g. what MI is to be collected and the way this is provided / reviewed.

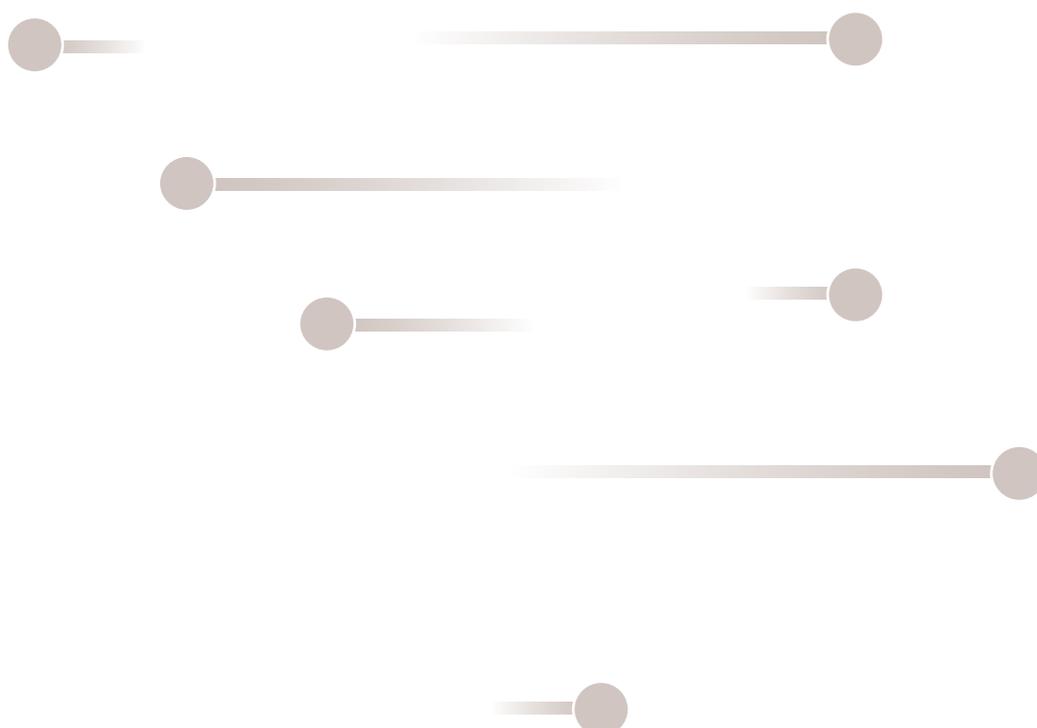
4.8.3 Future Changes to the Model

As we move from transformation to run, we assume that any further changes required will be governed by a standard BAU change process. It is important to consider what these changes might be, to try and future-proof the model as much as possible.

Further changes to the ecosystem and to the structure of OBL might include:

1. Further changes to the CMA Order. This is a matter for the CMA. It could include further directions, or rescinding of some. This will depend on how the market for the provision of current account services develops.
2. Other impacting legislation e.g. PSD2, which may have a knock-on impact on the Open Banking ecosystem. This might require a collective change within the industry that Open Banking Limited could support, at the direction of the customer group.

3. There will be changes required for updates to payments (e.g. as a result of the New Payments Architecture), data (movement to ISO20022) or security standards. Supporting these changes should be incorporated into the BAU process for the maintenance of the Open API Standards.
4. Wider changes to the industry, either market led or mandated. This could lead to the creation of new customer group for OBL to provide services to.
5. The creation of a wider open finance or smart data body. If an 'Open Economy' entity is set up, the impact on OBL would need to be assessed.
6. Considerations over whether the scope and governance of OBL should be subsumed by Pay. UK (or another body). This could be considered a feasible option in the future to provide efficiencies within the ecosystem.
7. Provision of OBL services could be limited to a procurement process, allowing for competition in the provision of these services. This could occur where a preferable market solution e.g. for Open API Standards maintenance or directory services exists. This is already the case for DMS.
8. OBL could become a regulated entity if much of the industry is dependent on the provision of the Directory to support customer propositions.



5. Further Work & Next Steps

Over the last three months industry participants involved in the process have been asked for their views on the current model, agreed design principles for the future, and supported the creation of a proposed to-be model.

It was the intention at the beginning of the project to create a model that all participants supported, despite the nature of their business, with the aim of gaining consensus.

Unfortunately, due to the Covid-19 pandemic, parts of the final 'Review' phase of this project have been reduced.

At the right time, two main categories of work should be carried out to take this forward:

1. Further design work to close-out outstanding design issues and plan for transition.
2. Industry engagement to impact assess other initiatives.

5.2 Further Design and Transition Work

There are several areas of the model that require more detailed design to be completed through working sessions. These include:

1. Customer groups, and the way mandates for service provisions as well as internal governance are conducted. There are different options for how these could work, with implications for corporate structure, governance and funding.
2. The funding split between firms and the tiering structure for pricing of services. Further information on the costs and drivers for costs is needed. Assessment should be performed on a bottom-up basis to understand how these relate to the provision of services and to run OBL.
3. The liability structure for provision of core services. Work needs to be done to understand the contractual arrangements and liability model (including how to manage and mitigate any losses). This would need to be done for each type of participant, customer groups, OBL and any other third parties involved in the provision of services. Engagement with regulators would help to answer some of the outstanding questions regarding this issue.

4. Transition plan. Documenting the activities to move from the as is to the to-be model, along with owners, and timelines has not yet been completed. Understanding the sequencing of these to try and avoid a 'big-bang' style movement should be carried out. Lastly, the possible implications for other moving parts in the industry will need to be worked through too.

5.3 Industry Engagement

There are various external initiatives that could impact the future model. Some of these may be less mature than others. Whilst not a prerequisite ahead of future work, getting a directional view (where possible) may help to minimise throw-away work and future-proof the proposed solution.

These include:

1. The closure of the Roadmap. This could impact scope and timing to move to the new model. Furthermore, the impact of Covid-19 on the banking industry could create further delays to the completion of the implementation phase.
2. The FCA's call for input on Open Finance. This could put in place alternative solutions that may be leveraged, changes to commercial models, or opportunities to expand service provision for Open Banking Limited.
3. The UK government's review of Smart Data. As with the Open Finance consultation, further changes to the UK's 'Open Economy' could present opportunities or risks for the proposed future model for Open Banking.

6. Appendix

The Appendix includes:

6.1 Detailed Options Assessment - a summary of the different options for the To-Be Open Banking model, which have been created based on feedback from participants and case studies seen elsewhere. There is assessment at a high-level for the overall model, and then in more detail at a service level. Recommendations, along with supporting rationale, that formed the basis for the first model that was iterated through the process, has been included in Sections 6.1.5, and 6.1.6.

6.2 Design Principles - the list of design principles that were discussed and agreed during the first steering meeting have been included. In addition, there is commentary on how the proposed model meets these principles.

6.3 Assessment Criteria - during the second steering meeting, various assessment criteria were decided that would help down select options that would form the basis for the first model. These criteria have been used in the matrices in Section 6.1.4. Analysis of how the model meets the criteria has been included in Section 6.3.1. Section 6.3.2 contains four scenarios that have been used to test how the model would work in practice.

6.4 Transition Plan - this section includes a set of assumptions and transition states relating to the

movement from the current model to the to-be solution. Whilst phases of work and activities have been included, timelines, owners of activities or programme delivery costs have not been considered.

6.5 List of Stakeholders - the list of Open Banking participants (covering a variety of stakeholders) that have been interviewed, or contributed to the process through formal or informal feedback has been included. This section also lists out the organisations invited to participate in the Open Banking Futures Steering Group that has been overseeing the project.

6.1 Detailed Options Assessment

We assessed various options for the to-be model. This was done at two levels. I) At a higher level we reviewed the structure and role of Open Banking Limited, the scope of service provision, and the funding model. II) We then looked at a lower level detail on the provision of a set of services and how they could be delivered.

6.1.1 High Level Options

Based on feedback from interviews, we assessed a list of options for the future models: Structure & Governance, Service Provision and Funding. The high-level options for these areas are outlined as below and were assessed to come up with the first model for iteration in workshops.

Structure & Governance	Service Provision	Funding
<ol style="list-style-type: none"> Continue As is Split out the different services (e.g. Monitoring from Operating) Create a new 'for profit' company Move to existing body Combination of the above 	<ol style="list-style-type: none"> Continue the same set of services Expand offering: <ol style="list-style-type: none"> Open Finance / Smart Data Premium APIs Provide a smaller set-of services 	<ol style="list-style-type: none"> Continue with the same arrangements Change the arrangements

6.1.2 High Level Options Analysis

Each of these options have been assessed below:

1. Structure

- **Continue As is** - Continuing 'as is', is perhaps not quite the right term. In practice this would require closure of the 'Implementation Trustee' at the time the Roadmap is finished. After this point it is assumed that the 'Implementation' activities have finished (unless in-line with Explanatory Note 39, the role of the Implementation Trustee is expanded from its current form to support a wider role to oversee the structure and development of APIs). After an implementation phase, it is more common for the CMA to have 'Monitoring' Trustees. In an as is model this would form part of the same 'run' entity. In an as is model, the same funding and governance principles would apply. This model would not deliver the increase in transparency that some interviewees have suggested would be their preference.
- **Split out the different services (e.g. Monitoring from Operating, Infrastructure, and guidelines)** - In this model the 'Monitoring' activities could move to a separate entity. The remaining activity could be split up further. Each could have different funding and governance arrangements from today (e.g. move to a shareholding structure). The splitting of monitoring from the running of the services could allow a more transparent operating structure – with the CMA9 banks able to deliver the outcomes required in line with the order in a different way. This would be in-line with the set-up for an independent office 'The Groceries Code Adjudicator' to enforce / monitor the code of practice for grocery supply.
- **Create a new 'not for profit' entity** – it is assumed a not for profit is the preferred model. This is because the CMA9 shall continue to fund the Open Banking services. For it to make a profit would not be in line with the purpose of the regulation, or for someone else to make profit from their funding does not make sense either. In some regard this is the way the company is operating 'as is'. It is a not for profit yet generates revenue to offset the costs. This revenue is generated from PSD2 and Confirmation of Payee services. Should this company ever make revenue that would exceed the costs, then a set of options would be presented – from moving away from a not for profit by a company re-registration (this presents additional complexities), to reduce the fees for the services, to increasing investment in the quality (e.g. resilience, fraud, risk) of the services.
- **Move to existing body** - One or more services could be handed over to another body to run. A candidate for a holistic movement could be Pay.UK. However, further inspection suggests that: there could be competing management time and effort

given other changes that are going on, that they do not have the capabilities (hence the outsourcing of the Confirmation of Payee directory services), or the experience – for example – in monitoring CMA orders. This option could materialise in the future as a broader Smart Data, or Open Finance, model matures in the UK.

- **Combination of the above** - Aspects of some of the items above could be combined. A model that is similar to today's structure might be a first transition step. An independent board could be put in place to run Open Banking limited, with a trustee responsible for ensuring the company continues to meet its obligation of the Articles of the company, which should be based on the order requirements. The trustee should not be involved in the day to day running of the company. Commercial services continue to be run.

2. Service Provision

- **Continue the same set of services.** This would ensure that existing businesses that rely on the current services to run, do not have disruption of their business model. However, without the expansion of services to other initiatives, there could be inefficiencies, as well as duplication of activities. This would be applicable to the process for defining and maintaining API standards, directory services and the use of the dispute management system. Furthermore, this could lead to complexities in a future model where there could be a lack of harmonisation (for example in customer consent models) with parallel activities.
- **Expand Service Offering**
 - Wider Open Finance / Smart Data – whilst not in the scope of the CMA order, this could support other government initiatives in the interest of the public (in line with Explanatory Note 39 of the order)²⁸
 - Premium APIs – again, whilst not in scope for the order, there may be a role for a set of services to be provided to a group that is looking to develop an API proposition across different industry participants
 - This could be comparable to Bacs, which provided payments infrastructure but also expanded scope of services to support other industry initiatives such as CASS. The precedent, you could argue, has been set by expanding the scope of offering to include Confirmation of Payee.
- **Provide a smaller set of services.** Reducing the scope of services to only cover the CMA order would disrupt organisations relying on the current services to support PSD2 and Confirmation of Payee services. It would not support wider innovation objectives or other government mandates. However, it would

28. "Retail banking market investigation, Explanatory Note" CMA

simplify governance and funding.

3. Funding

- **Continue with the same arrangements.** Under the CMA order, the CMA9 banks must continue to fund the services for Open Banking. The principle of charging users of the services outside of the scope of this is in place for both PSD2 and Confirmation of Payee. In these instances, any new services that are provided would come with their own funding arrangements.
- **Change the arrangements** (possibly by each service) could include assessing funding from CMA9, non CMA9, other FCA regulated firms, TPPs, trade bodies, central government funding e.g. Innovate UK. This option could be considered to move to a fairer and more equitable model – where users of the services pay for them, in proportion to their consumption of the service and the size of firm.

6.1.3 Service Level Options

In addition to the high-level options, we assessed the options for each service:

1. Monitoring of Open Banking

- Implementation Trustee to continue current role as a Monitoring Trustee
- Move to another model:
 - CMA to expand current monitoring unit to take ownership 'in-house'
 - Banks report against their performance in line with other 'critical' FCA functions. Outages and poor performance to be reported by the CMA9 banks themselves (to FCA and CMA)
 - Pay.UK to provide a mechanism in line with availability / performance of Payments services
 - Appoint a 3rd party audit firm / a technology provider to monitor and measure performance
 - And / or 3rd party representatives to provide a report to the CMA on the quality of APIs from a TPP perspective

2. Operations and Infrastructure

a. Directory

- Continue as is: covering CMA9 + Non CMA9, for OB, PSD2 + COP
- Outsource to a commercial entity
- Let each ASPSP look up directly to FCA and other NCA registries
- Commercialise the offering to include other services

(building on CoP), including other initiatives e.g. Open Finance

- 'Transfer' ownership to Pay.UK
- Scale back to OB only scope
- Adopt a solution put in place for Open Finance or other initiatives
- Change future funding / charging models

b. Dispute Management System

- Maintain the solution that is in place at the end of the 'Implementation Period'
- Change all / part of solution that is in place at the end of the Implementation Period

3. API Standards Maintenance & Development

a. OB & PSD2 Open API Standards Maintenance

- Continue current arrangement within the scope of the CMA order and Open Banking, under the same governance and funding model.
- Move everything to Pay.UK.
- Move the scope of the Payments API into Pay.UK, and account information to a wider 'Smart Data' programme – governance and funding to fall in line with those models.
- Move the scope of the Payments API into Pay.UK (following existing Pay.UK funding and governance arrangements), and account information to be run as is.
- Move both to a Berlin Group model – run and paid for by a group of voluntary members.
- Outsource to a professional services firm / standards institution (e.g. STET?).
- Options for funding:
 - Paid for by CMA9
 - Paid for by all ASPSP
 - Paid for by all ASPSPs + TPPs
 - Contributions from government to support FinTech, FCA levy

b. Non-OB/PSD2 Standards Development

- Do not do anything – leave to other mechanisms to develop (e.g. Digital Markets Unit)
- For other regulatory APIs – copy a similar model to OB where funding is brought along with mandates
- For premium APIs – Create a new forum / model to develop, being run and paid for by a group of members

6.1.4 Assessment Matrices

Assessment criteria was used to determine whether the new Open Banking entity delivers its objectives based on objective principles defined by stakeholders. The following matrices show whether they meet the assessment criteria. Each option is given a score from 1-3, where:

1. Delivers outcomes in-line with assessment criteria.
2. Does not meet assessment criteria but may with mitigating actions taken.
3. Would not meet assessment criteria.



Monitoring

Potential options assessed against criteria gathered from OBIE Steering Group		Supports wider RBI report remedies (competition and customer outcomes)	Ensures ongoing compliance to the Order (mandated actions & responsibilities)	Does not remove functionality that businesses rely on	Does not increase the cost of doing business for industry participants	Services provided must not compete in an unfair way with competing providers	Structure and governance is independent, transparent, and no conflicts of interest	Ability to resolve issues, identify prohibitors and solve without recourse / escalation	Beneficial capabilities to other activities are not lost in the future model	Supports the ecosystem for potential market collaboration on premium APIs	Supports wider set of regulatory responsibilities; fin crime, or upcoming regulation	Funding / commercial model supports those who use and benefit from the model
Current model	Implementation Trustee to continue monitoring as in current role	3	3	3	3	3	2	3	2	N/A	N/A	2
Other options	Cut down role of Implementation trustee to cover oversight of the order, rather than specific performance monitoring	2	3	3	3	3	3	3	2	N/A	N/A	3
	CMA to expand current monitoring unit to take ownership	2	2	3	3	3	3	3	2	N/A	N/A	3
	Banks report against their performance in line with other 'critical' FCA functions. Outages and poor performance to be reported by the CMA9 banks themselves.	2	2	2	2	3	3	2	2	N/A	N/A	3
	Pay UK to provide a mechanism in line with availability / performance of Payments services	2	2	3	3	3	2	3	2	N/A	N/A	3
	Appoint a 3rd party for monitoring (audit firm?) of outcomes, and / or use a technology provider to measure performance	2	3	3	3	3	3	3	2	N/A	N/A	3
	And / or (to a-d) , 3rd party / End-user representatives to report to the CMA on the delivery of wider customer outcomes	3	3	3	2	3	3	2	3	N/A	N/A	3
	Stop the services	1	1	1	2	N/A	N/A	1	1	N/A	N/A	N/A

Key	
1	Does not meet minimum outcome required
2	May not meet criteria / can be mitigated with further action
3	Delivers outcome in line with required assessment criteria

Notes

Assumption that the ability to develop and update technology / infrastructure is part of ways of working, rather than as part of assessment criteria

Assumption that CMA / Pay UK / another entity may not have skills / capabilities readily available to take over monitoring activities

Assessment criteria on supporting development of standards and guidelines taken out as not relevant for monitoring

Operations & Infrastructure

Potential options assessed against criteria gathered from OBIE Steering Group		Supports wider RBI report remedies (competition and customer outcomes)	Ensures ongoing compliance to the Order (mandated actions & responsibilities)	Does not remove functionality that businesses rely on	Does not increase the cost of doing business for industry participants	Services provided must not compete in an unfair way with competing providers	Structure and governance is independent, transparent, and no conflicts of interest	Ability to resolve issues, identify prohibitors and solve without recourse / escalation	Beneficial capabilities to other activities are not lost in the future model	Supports the ecosystem for potential market collaboration on premium APIs	Supports wider set of regulatory responsibilities; fin crime, or upcoming regulation	Funding / commercial model supports those who use and benefit from the model
Directory Whitelist Services	Continue as is	3	3	3	3	1	2	3	2	2	2	2
	Outsource to a commercial entity	3	3	3	2	3	3	3	2	2	2	2
	Let each ASPSP look up directly to FCA & other NCA registries	1	2	1	2	3	3	2	1	1	1	3
	Commercialise the offering to include other services (building on CoP), including other initiatives e.g. Open Finance	3	3	3	2	2	2	3	3	3	3	3
	'Transfer' ownership to Pay UK	3	3	3	3	2	2	3	2	3	3	3
	Adopt a solution put in place for Open Finance or other initiative	3	2	2	2	2	1	2	3	3	3	3
	Scale back to OB only scope	2	3	2	2	2	2	3	1	1	1	3
	Change future funding / charging models	3	3	3	2	2	2	3	3	3	3	3
Directory Authentication	Continue as-is; covering CMA9 + Non CMA9, for OB, PSD2 + COP	3	3	3	3	2	2	3	2	2	2	1
	Reduce scope to only cover CMA9 / OB	2	3	2	2	2	3	3	2	1	1	3
	Discontinue and let the market provide solutions e.g. eIDAS	1	2	1	2	3	N/A	N/A	1	1	1	3
	Change funding / charging models	3	3	3	2	2	2	3	3	2	2	3
Helpdesk	Stop the offering – leaving the banks to manage questions themselves + appropriate escalation for issues	1	2	2	2	2	N/A	1	1	1	1	N/A
	Continue as is	2	3	3	3	2	2	3	2	1	1	1
	Outsource	2	3	3	3	3	2	2	2	1	1	2
	Expand Helpdesk	3	3	3	3	2	2	3	3	3	3	2
Change funding model	3	3	3	2	3	2	3	3	1	1	3	
Dispute Management	Out of scope to date											

Key	
1	Does not meet minimum outcome required
2	May not meet criteria / can be mitigated with further action
3	Delivers outcome in line with required assessment criteria

Notes

Helpdesk would only be expanded if an option was chosen to retain the directory and development of API standards/guidelines within the scope of an OBIE successor entity

Assumption that the ability to develop and update technology / infrastructure is part of ways of working, rather than as part of assessment criteria

Assessment criteria on supporting development of standards and guidelines taken out as not relevant for monitoring

API Standards Maintenance & Development

Potential options assessed against criteria gathered from OBIE Steering Group		Supports wider RBI report remedies (competition and customer outcomes)	Ensures ongoing compliance to the Order (mandated actions & responsibilities)	Does not remove functionality that businesses rely on	Does not increase the cost of doing business for industry participants	Services provided must not compete in an unfair way with competing providers	Structure and governance is independent, transparent, and no conflicts of interest	Ability to resolve issues, identify prohibitors and solve without recourse / escalation	Beneficial capabilities to other activities are not lost in the future model	Supports the ecosystem for potential market collaboration on premium APIs	Supports wider set of regulatory responsibilities; fin crime, or upcoming regulation	Funding / commercial model supports those who use and benefit from the model
OB API standards development & assurance tools	Continue current arrangement within the scope of the CMA order and Open Banking, under the same governance and funding model	2	3	3	3	3	2	3	2	N/A	N/A	2
	Move everything to Pay UK	2	2	3	3	3	2	3	2	N/A	N/A	2
	Move the scope of the Payments API into Pay UK, and Account information to a wider 'Smart Data' programme – governance and funding to fall in line with those models	3	3	3	2	3	2	3	2	N/A	N/A	3
	Move the scope of the Payments API into Pay UK (following Pay UK funding and governance arrangements), and Account information to be run as-is;	2	3	3	2	3	2	3	2	N/A	N/A	3
	Move both to a Berlin Group model – run and paid for by a group of voluntary members	3	2	3	2	3	3	3	2	N/A	N/A	3
	Outsource to a professional services firm / standards institution (e.g. STET?)	3	3	3	2	3	3	3	2	N/A	N/A	3
	Expansion to include PSD2	3	3	3	3	3	2	3	3	N/A	N/A	3
	Change funding model	3	2	3	2	3	2	3	3	N/A	N/A	3
Non-OB standards development	Do nothing – leave to other mechanisms to develop (e.g. Digital Markets Unit)	2	3	2	2	3	2	2	1	1	1	3
	For Other Regulatory APIs – copy a similar model to OB where funding is brought along with mandates	2	3	3	3	2	2	2	2	3	3	3
	For Premium APIs: Create a new forum / model to develop, following a 'Berlin Group' model – being run and paid for by a group of members	3	3	3	3	2	2	2	2	3	3	3

Key	
1	Does not meet minimum outcome required
2	May not meet criteria / can be mitigated with further action
3	Delivers outcome in line with required assessment criteria

Notes

Assumption that the ability to develop and update technology / infrastructure is part of ways of working, rather than as part of assessment criteria

Assumption that CMA / Pay UK/ another entity may not have skills to take over monitoring activities

Assessment criteria on supporting development of standards and guidelines taken out as this is the basis for overall assessment

6.1.5 To-Be Model Options: Assessment & Recommendations

The following section outlines our full analysis of the options. It includes our recommendation for the future provision approach, as well as any risks, considerations and mitigations, as well as a plan for transition and any future changes.

1. Structure

Recommendation - As a first step, run Open Banking Limited as a private, not for profit company. The costs for doing business should be recovered from users of the services. The participants reliant on the services to meet their regulatory obligations should be guarantors – this covers PSD2 and Open Banking ASPSPs.

The company could have a ‘director / trustee’ to ensure the articles of association based on running the CMA order and other regulatory services are maintained. This company would be different to a CMA appointed Monitoring Trustee that shall be separated from the running of this business.

Risks, Considerations, Outstanding Questions - Having a company that is run by the large banks has previously come under criticism for not promoting competition and end-user needs – mitigation for this comes through separating governance and structure. Structurally a wider PSD2 community of ASPSPs, PISPs, AISPs and CBPIIs²⁹ should be guarantors. From a governance perspective, this could be addressed through the make-up of the board.

Transition Approach / Future Changes - The timing for movement to the ‘run’ model and the transfer of ownership of services needs to be defined. Possible future changes could include movement of specific services to other bodies in line with their maturity and broader industry changes. Should the company ever generate significant profit, further changes to be investigated. How this could align with a wider ‘Open Finance’ or Smart Data model would also need to be determined.

2. Service Provision

Recommendation - Continue to provide all services currently being offered by Open Banking Limited to support Open Banking, PSD2 and Confirmation of Payee. Should other initiatives wish to use any of these capabilities that would be based on a ‘service agreement’ basis, with each initiative bringing their own funding and mandate. It shall be up to any initiative to determine what services to be consumed by whom. A business development team as part of Open Banking may be put in place to drive new opportunities.

Risks, Considerations, Outstanding Questions - Any services provided should be in line with market principles for competition. Open Banking Limited should not have an unfair advantage in competing for these.

Transition Approach / Future Changes - If no other initiatives are mobilised, or business won, then it is assumed that the current service provision shall remain. The organisation should continue to monitor the optimal service provision structure in line with developing initiatives, as well as how their own services are provided. If other bodies mobilise functions that provide overlapping / duplication of services, then further investigation should take place whether to move to those arrangements.

3. Funding

Recommendation - The costs of running the business should be recovered by users of the services. Guarantors should be in place to ensure ongoing running of Open Banking limited, to ensure regulatory obligations are met. The CMA9 banks should continue to fund the provision of Open Banking specific services.

The funding requirement from a specific entity may reduce over time based on: revenue generation from the provision of services (either to other government initiatives, or industry / market led ones), or cost saving mechanisms put in place by the management team and approved by the Board.

Risks, Considerations, Outstanding Questions - The funding required and break-down by costs split between the services for the CMA order, for PSD2 and other areas, to support in allocation for costs is not yet clear.

To be attractive from a service provision perspective, a company would have to be well capitalised to avoid being a ‘risky’ third party, particularly when this might be for the provision on critical functions. This can provide a further burden on funding requirements.

Transition Approach / Future Changes - Movement from a guarantee to another funding mechanism can provide complexities for in year accounting to be worked through.

If the FCA creates a wider Open Finance initiative, then the FCA levy could be used to provide additional funding.

29. CBPII: Card Based Payment Instrument Issuer

6.1.6 Service Level Options: Assessment & Recommendation

We created and assessed a list of options for provision of future services:

1. Compliance Monitoring

Recommendation – Monitoring the compliance with the CMA order, per direction from the CMA needs to continue. Compliance monitoring for PSD2 is a matter for the FCA and is out of scope for this model. Given the closeness of the PSD2 and CMA Order, it would make sense to minimise duplication in reporting. MI to be generated, reviewed and published should be defined in advance of moving to the new model to allow all parties to put the right operating in model to support it. A third-party technology provider should be put in place to provide a report of the (functional & non-functional) performance of the CMA9 banks – this would be from a TPP perspective and allow standardisation of reporting. This data should be provided to a Monitoring Trustee, which under standard CMA practices could be an appointed third party professional and advisory firm. Alongside this, there could be an annual report on the impact of Open Banking. This would include feedback from end-users (/ representatives) and TPPs. It could be used to show how the market for the provision of current account services has moved on, or any issues that need further resolution with a view to eventually change / closing / rescinding (all, or parts of) the order.

Risks, Considerations, Outstanding Questions - Ensuring the quality of APIs is maintained is critical, so any change to the model must have the appropriate escalation and governance mechanisms for resolution in place.

Transition Approach / Future Changes - Knowledge transfer of the current performance and monitoring / publishing of the MI should be provided consistently through any changes. As the model matures, perhaps moving to a self-monitoring function, in line with PSD2 regulation could be considered.

2. Operations and Infrastructure

a. Directory

Recommendation - Maintaining the offering and expanding the scope is preferred. This will help drive standardisation of services across different initiatives for end-user benefit (e.g. management for permissions in an Open Finance context). However, Open Banking Limited should not have the 'right' to decide who uses it, and any initiative / customer should be making the decision to use the services in line with normal procurement practices. NB there may not be other users if the service is not up to quality / cost expectations. This is in line with current direction – what was originally set-up for Open Banking has been expanded to PSD2, and now

Confirmation of Payee as well. This solution should be interoperable and work alongside alternative providers, as well as alternative solutions (EIDAS).

Risks, Considerations, Outstanding Questions - Any services need to be provided in line with a competitive market, and Open Banking Limited must not compete in an unfair way. Additional capabilities may need to be put in place such as business development, and a more mature billing system would be required. Interoperability with other directory services should be considered. Risks associated with monopolistic service providers should be monitored too.

Transition Approach / Future Changes - In line with good business practice, there may be a preference to outsource the service in the future – to be determined by the management of Open Banking Limited. This could be to align with a new solution put in place by another Open Finance or Smart Data initiative.

b. Dispute Management System

Recommendation - Further proving of the model is required. It is important a dispute system works well for a customer. If there are too many in place, then that can be confusing for them to deal with. Therefore, continuing the same would be good, and offering that out on a commercial basis, or moving to another solution depending on what is available could be considered.

Risks, Considerations, Outstanding Questions - Having multiple dispute management systems in place could create confusion for a customer. There are already different processes for Direct Debits protection, Consumer Credit act and credit card protection, to then have additional ones for different Open Banking, PSD2 or Open Finance initiatives could lead to a poor customer experience, therefore cross initiative harmonisation should be a focus for the future OBL.

Transition Approach / Future Changes - A decision on the future of the Dispute Management System for only Open Banking should be revisited after increased usage – at the back end of 2020 could be a good time.

If a parallel initiative comes up, then Open Banking Limited should engage with that to understand commonality in using a single solution.

3. Open API Standards

a. OB + PSD2 Open API Standards development

Recommendation - A model where PSD2 standards subsumes the Open Banking standards, with the exception of the Read standard, and a members owned group is convened with a mandate to update the OB APIs. The operational activity and responsibility for doing this is discharged to OBL. This would leverage the current experience, knowledge and capabilities.

Notwithstanding the function's role is to maintain the stability of the ecosystem and ensure the standards are upgraded, it is recommended feedback from the TPP community, end-users and other ecosystem participants is included. Wider Standards artefacts and materials e.g. adoption guides should also be updated to support the ecosystem. NB it is not necessarily the role of this forum to develop new functionality outside the scope of the regulatory requirements – which should be handled in a different way (see non-OB+PSD2 API development).

Risks, Considerations, Outstanding Questions – It is important harmonisation takes place to ensure that the model aligns with other initiatives: either payments, international development, or Smart Data / Open Finance initiatives. E.g. the user consent model.

A strong decision making / governance mechanism must be in place to avoid 'stalling' of API development in trying to gain full consensus.

Transition Approach / Future Changes - Continuing the current model seems to make sense for updating of the standards. As the process matures and the roadmap comes to an end, it is expected the effort for this should reduce.

If there is a Smart Data, Open Finance or European PSD2 body that matures and provides a framework to deliver this, then those options should be investigated if they materialise.

b. Non-OB + PSD2 API standards development

Recommendation - There is a preference to increase the scope of APIs more widely. However, Open Banking Limited should be seen to support the enablement of this, rather than mandating the delivery. Open Banking Limited has the resource, experience and capabilities in order to deliver these services and it would make sense for this to be leveraged for those that need it, and to maintain the UK's position as a global leader in API Standards.

Risks, Considerations, Outstanding Questions - Additional capabilities may need to be put in place such as business development, and a more mature billing system would be required. Open Banking Limited must operate in a fair way, competing with other market providers.

Prioritisation activity must also be considered, API development is a hot topic, so how to handle multiple requests and where to get resource from to support is a consideration.

Transition Approach / Future Changes - As a broader Open Finance / Smart Data ecosystem develops, understanding overlap with that, and / or other activities shall be important.

6.2 Design Principles

Agreed at Steering December 2019:

1. The guiding principle is the promotion of standardisation to drive customer benefit, security, competition and innovation in the open banking environment.
2. There should be greater inter-operability, for example through the wider use internationally of the open banking standards.
3. The barriers to entry for new firms should be kept as low as possible, minimising any central infrastructure and reducing the technical build of any implementers of the standards.
4. Compliance with the CMA order and wider industry PSD2 obligations should continue to be met. The end state model would maintain the open banking standards (and other infrastructure) and update the standards to take account of new legislative or regulatory requirements. This should include other functions and services necessary to grow the open banking eco-system and deliver the CMA Order outcomes.
5. Over time any previous standard or infrastructure could be unnecessary to support the 'open banking' ecosystem.
6. OBIE assets and functions need not be re-purposed or necessarily maintained by one entity. Some, for example the directory, may not be required in the medium-term.
7. A coordinating function for the industry during the development, and implementation of, industry standards should be maintained: noting that 300 third party providers were enrolled in the directory.
8. There should be flexibility for the end state model to respond commercially to both industry and regulatory mandates, for example the Pensions Dashboard and Confirmation of Payee.
9. Non-CMA Order functions and services should demonstrate commercial value to market participants and have a self-funding model.
10. There should be a revised governance for the future end state model. There could be a transitional funding and governance (and a timeline for review).
11. There should be industry ownership and governance transitioning from a CMA Special Purpose Vehicle / governance to a market-led one.
12. Monitoring against the Order would be separated from the governance and functional maintenance or development of the standards required by industry and / or regulators.
13. There should be a clear list of service and functions and a transparent funding methodology.

14. Every entity in the eco-system should pay fairly and equitably for the assets and services of open banking.

6.2.1 Design Principle Assessment

The table below assesses whether the proposed model meets the design principles.

Design Principle	Status	Assessment
1. The guiding principle is the promotion of standardisation to drive customer benefit, security, competition and innovation in the open banking environment.	Met.	The model supports this principle, however a difference from today is that this is a more market driven model rather than advised by an Implementation Trustee.
2. There should be greater inter-operability, for example through the wider use internationally of the open banking standards.	Met.	This principle should be met through continued API development as required by the customer groups and oversight provided by Monitoring Trustee.
3. The barriers to entry for new firms should be kept as low as possible, minimising any central infrastructure and reducing the technical build of any implementers of the standards.	Met.	It is assumed the model shall not introduce any increased barriers to entry to the Open Banking ecosystem. Not having Open Banking Limited as a regulated entity shall also reduce barriers to entry for potential competitors to OBL.
4. Compliance with the CMA order and wider industry PSD2 obligations should continue to be met. The end state model would maintain the open banking standards (and other infrastructure) and update the standards to take account of new legislative or regulatory requirements. This should include other functions and services necessary to grow the open banking eco-system and deliver the CMA Order outcomes.	Met.	<p>The CMA9 shall still have to maintain compliance with the CMA Order. ASPSPs shall need to maintain compliance with PSD2. The CMA and FCA respectively shall regulate this.</p> <p>Whilst some activities shall be completed by Open Banking Limited, this shall be on a supplier basis. It is assumed Open Banking Limited shall not be a regulated entity.</p> <p>TPPs shall be able to provide new services that customers can use to meet the order outcomes.</p>
5. Over time any previous standard or infrastructure could be unnecessary to support the 'open banking' ecosystem.	Met.	Open Banking Limited should review how the services are being used, and how they are operating, with the ability to change them in line with good practice.
6. OBIE assets and functions need not be re-purposed or necessarily maintained by one entity. Some, for example the directory, may not be required in the medium-term.	Met.	Under the new model the compliance monitoring function moves out. The customer groups may choose the direction for service provision (and in line with their regulatory reqs).
7. A co-ordinating function for the industry during the development, and implementation of, industry standards should be maintained: noting that 300 third party providers were enrolled in the directory.	Met.	The customer groups can coordinate needs of different stakeholders. Open Banking Limited shall also have a role in coordinating 'direct' customers (e.g. for onboarding), as well as applying a harmonisation function across multiple activities.
8. There should be flexibility for the end state model to respond commercially to both industry and regulatory mandates, for example the Pensions Dashboard and Confirmation of Payee.	Met.	Open Banking Limited shall have a business development function to respond to future opportunities. However, it shall be up to each body / entity / regulator to decide on which, if any, services should be provided by whom.
9. Non-CMA Order functions and services should demonstrate commercial value to market participants and have a self-funding model.	Met.	As a principle, non-CMA Order services shall be charged to the users of them. This should be on a cost+ margin basis. If users chose not to consume them, then they could be considered for closure from OBL.

Design Principle	Status	Assessment
10. There should be a revised governance for the future end state model. There could be a transitional funding and governance (and a timeline for review).	Met.	The to-be model has a different governance model. Splitting out activities to three main types of parties: a Monitoring Trustee, Open Banking Limited, and Customer Groups (with separate governance structures).
11. There should be industry ownership and governance transitioning from a CMA Special Purpose Vehicle / governance to a market-led one.	Met.	Splitting into different areas which will all have different ownership structures, some existing and some new. (Noting there is further design work to be carried out on the customer group governance model)
12. Monitoring against the Order would be separated from the governance and functional maintenance or development of the standards required by industry and / or regulators.	Met.	The model splits out the Monitoring Trustee (who, along with the CMA shall monitor compliance of the Order), from Open Banking Limited (who shall carry out the maintenance and development of standards).
13. There should be a clear list of services and functions and a transparent funding methodology.	Met.	Contractual and commercial arrangements should be put in place within the participants of the model.
14. Every entity in the eco-system should pay fairly and equitably for the assets and services of open banking.	Met.	Unless contradictory to the CMA order, or other applicable regulation, the users of the services shall pay for them .

6.3 Assessment Criteria

Agreed at Steering January 2020.

Applicable for PSD2 & Open Banking

- Ensures ongoing compliance to the CMA order, and the wider market investigation outcomes for customers and competition
- Does not remove functionality that businesses and their business models currently rely on
- Does not increase the cost of doing business for industry participants (i.e. to either join or operate in the ecosystem of open banking)
- The services provided by the future OBIE entity must not compete in an unfair way with competing service providers
- Has a structure and governance that is independent and transparent, and is operated in a way that does not raise / cause any conflicts of interest
- Supports continued maintenance and upgrade of Open API Standards

- Has the ability to resolve issues, identify prohibitors and solve quickly without recourse / escalation to regulators

Applicable to a wider data sharing, or Open API ecosystem

- Beneficial capabilities to other activities are not lost in the future model
- Supports the ecosystem for potential market collaboration on premium APIs
- Has the ability to support a wider set of regulatory responsibilities: financial crime, or upcoming regulation that exist in the ecosystem
- Funding model needs to support those who use and benefit from the model

6.3.1 Assessment Criteria Assessment

The table below assesses whether the model meets the assessment criteria.

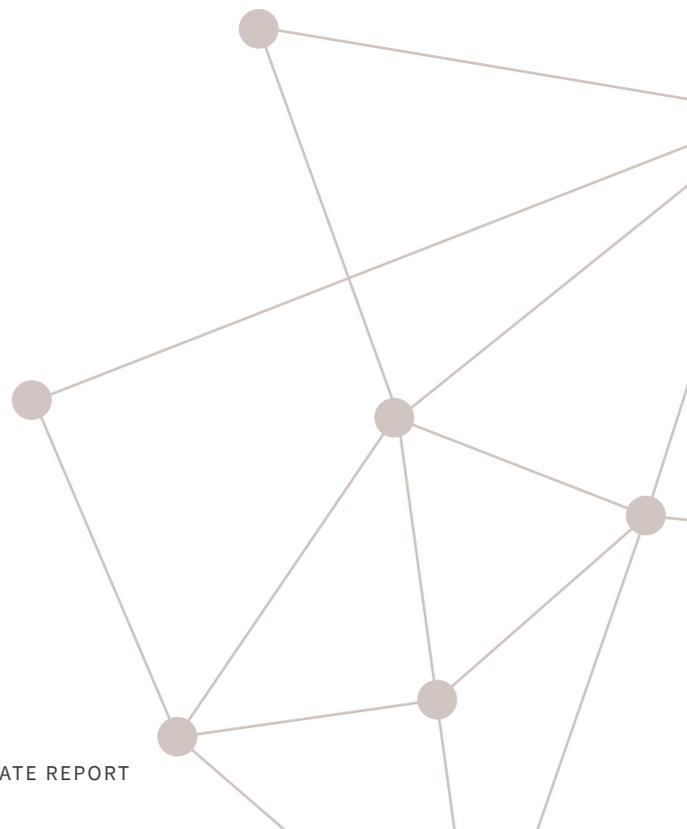
Assessment Criteria	Status	Assessment
1. Ensures ongoing compliance to the CMA order, and the wider market investigation	Met	CMA9 banks are required to maintain compliance with the CMA Order overseen by the CMA and an independent Monitoring Trustee.
2. Does not remove functionality that businesses rely on	Met	All current core functionalities (DMS, Directory, Helpdesk etc) are to be maintained. Applicable for Open Banking, PSD2 and COP.

Assessment Criteria	Status	Assessment
3. The services provided by the future OBIE entity must not compete in an unfair way with competing service providers	Partially Met	Customers of OBL, should, where possible have a choice of providers. Current and potential customers would be expected to assess the market before procuring services. Controls shall be in place to stop OBL competing unfairly e.g. pricing shall not be below cost. By neither regulating OBL, nor determining its services as critical central infrastructure, barriers for competition should be kept low. CMA is responsible for monitoring competition.
4. Does not increase the cost of doing business for industry participants	Partially Met	Under PSD2 / OB what is outlined to be available without charge shall continue to be so. The API standards shall remain Open Licence. It is expected the costs for ASPSPs and OBL shall reduce following closure of the Roadmap.
5. Has a structure and governance that is independent and transparent, and is operated in a way that does not raise / cause any conflicts of interest	Met	In the proposed model, OBL should have an independent board. The customer groups should have membership from a spectrum of ecosystem participants, e.g. CMA9, ASPSPs, PISPs, TPPs, Consumer Reps etc. Sub-committees and working groups currently in place should be maintained.
6. Supports continued maintenance and upgrade of standards	Met	OBL will continue to maintain and update the Open API Standards. This will be as instructed by a PSD2&OB customer group. It is expected current API standards forums will be preserved.
7. Has the ability to resolve issues, identify prohibitors and solve quickly without recourse / escalation to regulators	Met	To adhere to PSD2 and OB there is a clear incentive for ASPSPs / CMA9 to maintain high service quality. A helpdesk function to provide ecosystem support (including issue notification and resolution) will continue to be provided. Issue escalation routes to the monitoring trustee and CMA (as well as the FCA for PSD2) shall continue to be available. Service levels should be monitored by individual entities, customer groups, OBL as well as monitoring functions, all of which should drive improvements in service.
8. Beneficial capabilities to other activities are not lost in the future model	Met	The model maintains ongoing support for non-Open Banking activities such as Confirmation of Payee.
9. Supports the ecosystem for potential market collaboration on premium APIs	Met	The model provides for an expansion into commercial API offerings. As a customer group there is the opportunity for ecosystem participants to develop commercial APIs and use services provided by OBL. The customer groups shall define governance and funding.
10. Has the ability to support a wider set of regulatory responsibilities: financial crime, or upcoming regulation that exist in the ecosystem	Met	The model provides for future changes in regulation. If necessary, the customer group could add in new features to support e.g. financial crime. This would work in a similar way to Vocalink (as a supplier) supporting a wider set of services than just payments processing (to FPSL as the 'customer'). .
11. Funding model needs to support those who use and benefit from the model	Met	The funding model for customer groups shall be on a case by case basis (this may not equate to decision making rights). Costs for services from OBL shall be tiered based on usage of the services and the size of the firm. Funding for monitoring activities to be paid for by CMA9.

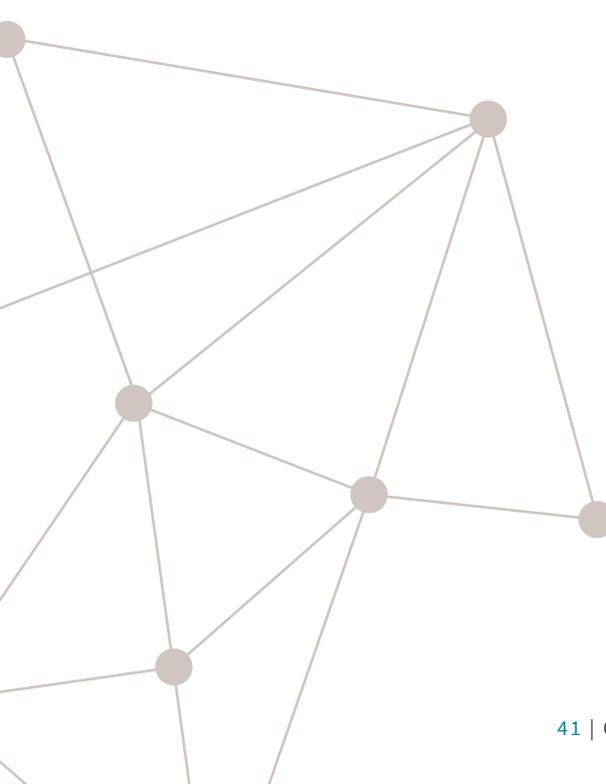
6.3.2 Scenario Testing

To assess the solution, four scenarios have been used to test how the model would work in practice.

Scenario 1: New Payments Requirements	
Description	Pay.UK outlines new payments requirements based on ISO20022 for faster payments.
Process	<ol style="list-style-type: none"> 1. New payments requirements outlined by Pay.UK (which should be factored into the OB / PSD2 API Standards to ensure ongoing maintenance of the service) 2. When the contract / commercial arrangements between the OB / PSD2 customer group and OBL were agreed – there was a service to include updates and maintenance of the OB / PSD2 Open APIs Standards. 3. The Pay.UK requirements are reviewed by the Open Banking / PSD2 working group (set-up by OBL in line with Point 2) 4. The group work to agree the changes to the standards (including to supporting user guides, documents etc) 5. Updated requirements pass through relevant forums (TDA, TWG etc) and Standards are updated in line with changes. 6. Changes to Standards are communicated to members via communication channels. 7. OBL mechanisms provides updated payment standards to payment servicing entities in order to ensure ongoing regulatory compliance. 8. Ongoing support to ecosystem participants (TPPs + ASPSPs) in utilising updated standards provided via the helpdesk.
Assessment	<p>Strengths of the model:</p> <ul style="list-style-type: none"> • Updates are made to Standards in line with mandated requirements, ensuring ongoing compliance with OB / PSD2 regulation. • OBL provides updates via communication channels and ongoing support to ecosystem. • Ability to support changes for all participants. <p>Weaknesses of the model:</p> <ul style="list-style-type: none"> • Without the right decision-making process within the governance, the time to deliver the required changes could be slow



Scenario 2: API Outages	
Description	a) A PISP raises an issue with the API availability of a CMA9 ASPSP preventing them from making a retail consumer payment b) OBL monitor the performance of the ASPSP
Process	<p>Scenario A – Issue Reporting and Resolution</p> <ol style="list-style-type: none"> 1. The TPP identifies an issue and reports to the OBL via calling the Helpdesk. 2. OBL triage issue, working with the ASPSP. 3. The ASPSP resolves the issue. 4. If applicable in line with regulation ASPSP will inform the FCA / CMA of the service issue. 5. If there has been a customer detriment, a redress case may be created in the Dispute Management System by the TPP. 6. The DMS process is worked through to resolution. <p>Scenario B – Monitoring</p> <ol style="list-style-type: none"> 1. ASPSP provides MI to OBL for API performance. 2. OBL collates and provides to the Monitoring Trustee. 3. The Monitoring Trustee would work with the CMA to advise on remediation or further direction as required. 4. The FCA may take action against the ASPSP (which may involve: impairment costs, further remedial activity and resilience / issues prevention measures).
Assessment	<p>Strengths of the model:</p> <ul style="list-style-type: none"> • The TPP is able to report the issue quickly. • ASPSP is incentivised to resolve as quickly as possible (for compliance purposes). • The same model works for TPPs and ASPSPs for Open Banking as well as PSD2 – save for the different regulator in escalation / monitoring. • This is of benefit to the end-user, TPP and ASPSP. <p>Weaknesses of the model:</p> <ul style="list-style-type: none"> • The TPP may feel that the issue is not resolved quickly enough.

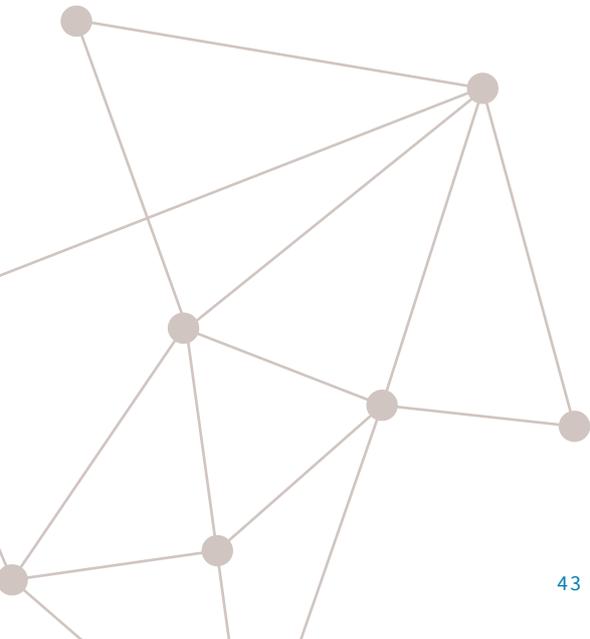


Scenario 3: New European Payments Application	
Description	A European PISP wants to provide ‘request to pay’ services in the UK (to CMA9 and non CMA9 banks), based on faster payments from current accounts.
Process	<p>Scenario A – Registration</p> <ol style="list-style-type: none"> 1. European PISP has the relevant approval from an NCA 2. OBL provides support for UK OB onboarding (participant testing, authorisation, authentication, and understanding of the use guides etc) 3. OBL includes the European PISP within the directory of whitelisted PISPs. 4. OBL may charge the TPP for the provision of some services if they are beyond the scope / regulation of PSD2 and OB. <p>Scenario B – Provision of Service</p> <ol style="list-style-type: none"> 1. In order to process payments ASPSPs look up the European PISP in the OBL directory when a request is made by a PSU. 2. OBL provides the relevant certificate of authentications to support the PISP / ASPSP APIs.
Assessment	<p>Strengths of the model:</p> <ul style="list-style-type: none"> • OBL supports the TPPs with onboarding, allowing growth in the ecosystem and improvements in competition and end-user experiences. • International clearances, and cohesion with European standards are allowed for. • OBL may generate revenue from the provision of these services <p>Weaknesses of the model:</p> <ul style="list-style-type: none"> • Competitors for directory services may be procured by the PISP should the OBL not offer competitive value on performance or price (e.g. bilateral exchange of eIDAS certificates). In this case, the OBL would forgo revenue.



Scenario 4: Creation of a Pensions Dashboard

Description	A tender is put out for the provision of directory services to support an industry wide initiative to a) create and b) run a universal pensions dashboard.
Process	<p>Scenario A – Creation</p> <ol style="list-style-type: none"> 1. An RFP is published to supply directory services for an industry wide pensions dashboard. 2. OBL, with technical capabilities and industry experience / knowledge responds to tender, via business development function. 3. The tendering body reviews OBL’s proposal and compares against other competing entities in the market and selects the OBL as the preferred provider. 4. OBL agrees contractual and commercial terms with the body who distributed the tender, forming a ‘customer group’. 5. In line with the agreed mandate, OBL mobilises a working group to design the pensions dashboard, including API / Standards development. It is up to the pension customer group (which may be an industry / member group or regulatory body) to determine membership to ASPSPs and TPPs (or equivalent). 6. OBL shall provide delivery services to coordinate the industry, and deliver changes to central infrastructure to provide directory services. 7. A pensions dashboard is created and utilised by end-users, promoting the development of wider open finance initiatives. <p>Scenario B – Running</p> <ol style="list-style-type: none"> 8. OBL provides ongoing support to the ecosystem for directory services, including supporting ASPSPs / TPPs (or equivalents) in onboarding, testing and gaining authorisation. 9. OBL directory provides list of whitelisted ecosystem participant, enabling users to view relevant permissions of parties. 10. Pensions Dashboard pays OBL for the provision and ongoing use of these services.
Assessment	<p>Strengths of the model:</p> <ul style="list-style-type: none"> • The industry leverages existing capabilities to deliver an Open Finance agenda for the benefit of end-users (processes are harmonised). • OBL competes fairly in the market, generates revenue through the provision of services. • The Pensions customer group maintains control of their services. <p>Weaknesses of the model:</p> <ul style="list-style-type: none"> • Open Banking Limited will have to compete on price / quality to enable the industry efficiencies and generate revenue

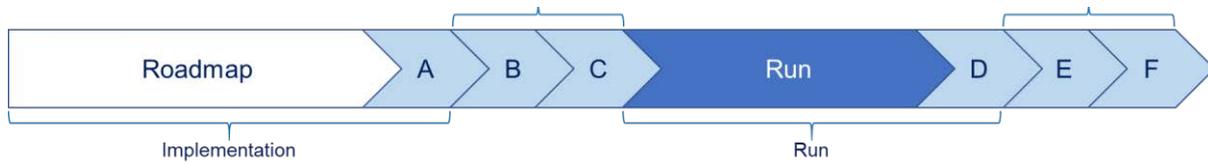


6.4 Transition Plan

Timeline

The timeline below outlines a full timeline for transition and implementation broken down into the following constituent parts.

Figure 6.4.1 - Full Timeline



Implementation

Implementation activity is outlined to run until summer 2021, per the latest proposed Roadmap.

- A. It is assumed that there will be a period of embedding, where the outcomes of the roadmap and associated technologies are allowed to mature.
- B. Initial transformation occurs, including new board (with the appointment of the independent chair) and governance structure being put in place, contracts agreed with third parties, Monitoring Trustee moving out of the OBL, etc.
- C. Transformation maturation period, new customer groups are developed, and internal mechanisms and structures mature.

Run

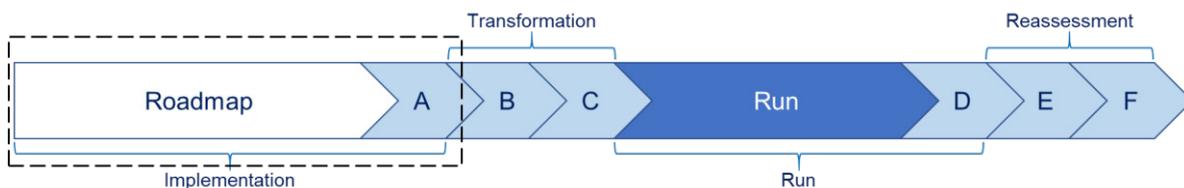
Beyond point C we assume the OBL runs per the proposed BAU model.

- D. Point D could represent BAU change e.g. the creation of new customer groups for commercial APIs.
- E. Further changes to the model may result from changes to PSD2 / CMA legislation, e.g. further scope added to PSD2.
- F. Wider changes to the ecosystem as a result of Open Finance initiatives etc may necessitate the model being revisited.

Transition Assumptions & Principles

We further break down the roadmap into 3 sections in order to analyse the transition activities involved in greater detail.

Figure 6.4.2 - Closure of the Roadmap



It is important to note that the scope of this report does not cover the conclusion of the roadmap nor a recommendation for how this should be managed.

We assume following the conclusion of the roadmap, there is a period of consolidation, 'A', required for technologies and processes to mature and embed, both centrally, and for each participant individually.

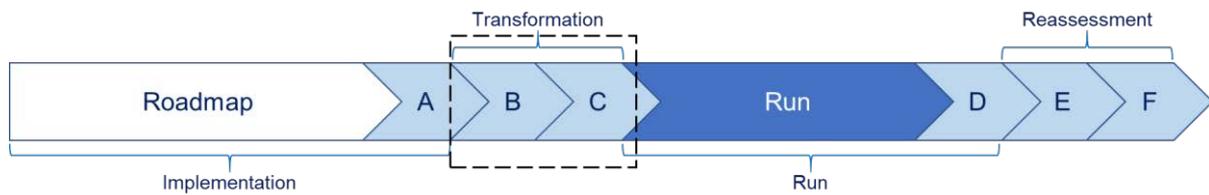
We assume that following this period, the Open Banking ecosystem will be more mature, with reduced cost and effort requirements for onboarding and other support activities, as well as reduced delivery requirements for the CMA9.

The transformation window needs to align with timelines of banks and the wider industry, it should not clash with any key upgrades or technological changes.

We assume there will be a requirement for knowledge transfer, both for banks and for the OBL where contractors (or P&A firms) have been employed in the development and initial running of OB programmes.

We assume there would be a non-technical go live following the conclusion of this period where the changes outlined below will occur.

Figure 6.4.3 – Transformation / Delivery of the To-Be Model



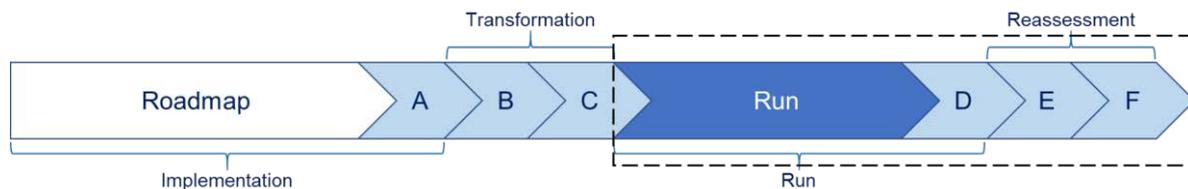
The requirements of an initial non-technical go live would involve a number of organisational changes for OBL including but not limited to:

1. Separation of the Monitoring Trustee from OBL governance.
2. Appointing third parties for monitoring and measuring of performance MI.
3. Setting up of Customer Groups and schemes
4. Defining dependencies between entities, e.g. contracts between customers, setting up of schemes, fee structures, governance arrangements for customer groups.
5. Performing training / knowledge transfer e.g. from Implementation trustee and OBIE secretariat to equivalent functions.

6. Organisational changes, e.g. recruitment, defining roles & responsibilities, agreeing contracts and roles for OBIE contractors moving to permanent functions.
7. Define contracts & communications arrangements between OBL and customer groups, e.g. as has been done for Pay.UK and users of OBL to fulfil confirmation of payee requirements.

We assume that these go live events will not require large scale data migrations or technological changes. They will be limited to the outlined roles & responsibilities, governance and funding transformations. It will be critical to maintain the services OBIE performs with as little disruption as possible.

Figure 6.4.4 – BAU Run of the To-Be Model



As we move from transformation to run, we assume that any further changes will be governed by standard BAU change processes as outlined in the model.

These changes may include, the introduction of a new customer group that contracts with OBL for the provision of a commercial API, e.g. an Age Verification API – outlined above as point 'D'. It is assumed that the customer group will bring their own governance and funding arrangements, and OBL BAU change processes will control contractual arrangements between the entities and any changes required to internal API / Standards teams etc.

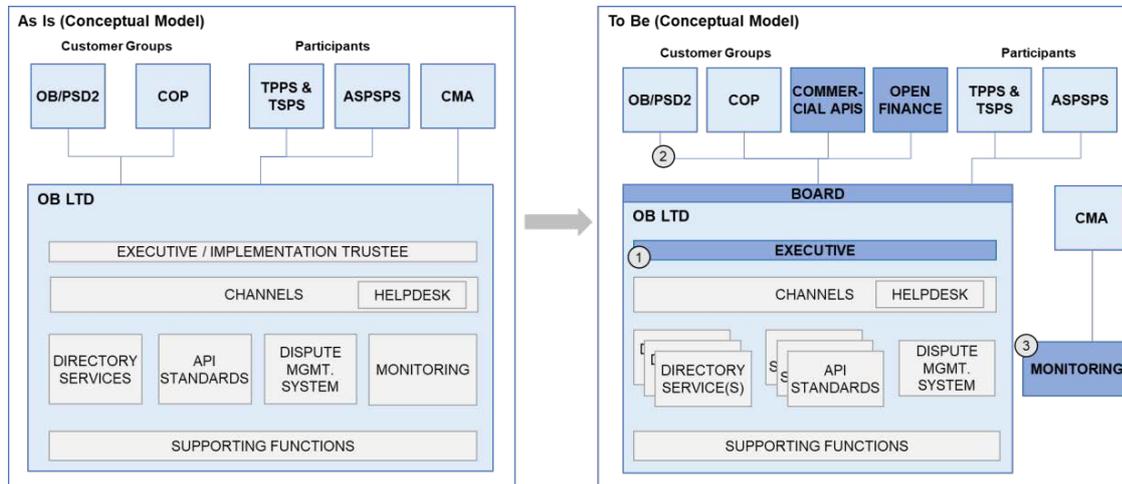
Point 'E' represents any further changes to PSD2 / CMA Order, which may have a knock-on impact to the Open Banking ecosystem.

Point 'F' represents any wider changes to the industry, either market led or mandated. This may include for example wider open finance or smart data initiatives, for which an 'Open Economy' entity is set up that may subsume / leverage some / all of the OBL's remit.

Transition Activity

The diagram below highlights three areas of change required to deliver the to-be model: 1) OBL Transformation Activity, 2) Mobilisation of Customer Groups, and, 3) Creation of a Monitoring Trustee.

Figure 6.4.5 – As is to To-Be



OBL Transition Activity

1. Recruitment of staff / migrating OBIE contractors to permanent roles, to support future internal BAU functions, both from the Implementation Entity and externally as required.
2. Knowledge transfer from implementation staff to new internal BAU functions.
3. Implement new roles and responsibilities for new board and other staff.
4. Associated business transformation change, such as property and technology services, e.g. securing premises, provision of laptops and software.
5. Establish contracts between OBL and any other third parties (e.g. providers of helpdesk services).

Mobilisation of Customer Groups

1. Determination of voting rights, decision rights and fee structure for customer groups.
2. Provision of contracts between OBL and customer groups governing service provision. Includes agreeing pricing of services for API development, directory provision etc.
3. Governance and funding to be brought to OBL by the respective consumer groups.
4. Implementation of rules of the schemes (or equivalent, if applicable).

Creation of a Monitoring Trustee

1. Moving out of Monitoring Trustee to separate entity.
2. Knowledge transfer from Implementation Trustee to Monitoring Trustee body.
3. Appointment of third party for Monitoring of performance and MI.
4. Provision of contracts between Monitoring Trustee, third parties and Customer groups detailing what MI is to be collected and the way this is provided / reviewed (e.g. ASPSPs what they need to report to provide MI).

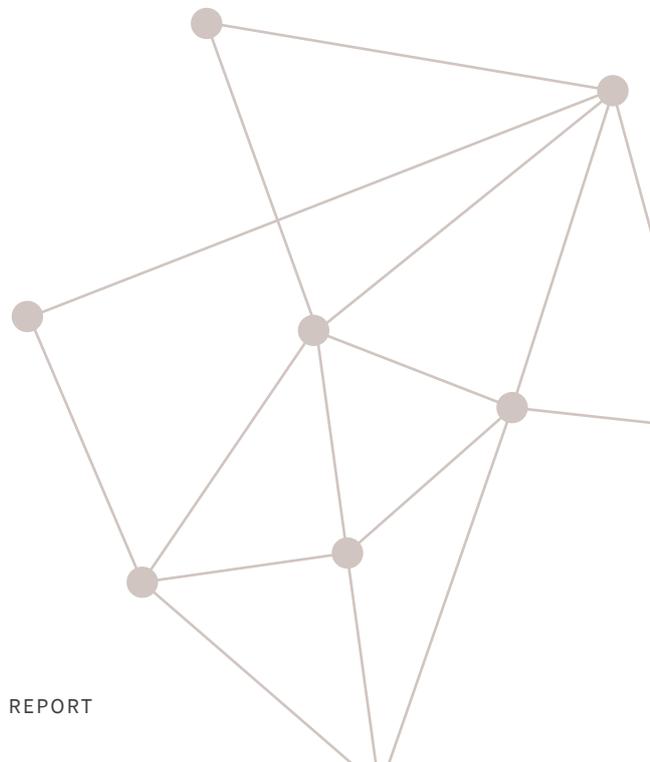
6.5 List of Stakeholders

Various types of stakeholders were interviewed as part of the project:

Organisation Interviewed		
American Express	British Retail Consortium	Consumer End-User Rep.
FData	Fire	HSBC UK
Iwoca	Konsensus	Mastercard
NatWest Group	OpenWrks	Ordo
Santander	SME End-User Rep.	Token
Trilo	Virgin Money	
In addition to the named organisations, we also engaged with 2 further ASPSPs, 5 further (unnamed) Open Banking ecosystem participants. A further 4 Open Banking SMEs with experience across Italy, US, Nordics & Singapore, were also interviewed.		

Members from the following organisations were invited to the Steering Group:

Steering Group Participants	
Accenture	Addleshaw Goddard
American Express	Banking & Payments Federation Ireland
Barclays	Competition & Markets Authority
Dept. for Bus., Energy & Industrial Strategy	Electronic Money Association
Emerging Payments Association	FData
Financial Conduct Authority	Fire
HSBC UK	HM Treasury
JP Morgan	Lloyds Banking Group
Mastercard	Nationwide Building Society
NatWest Group	Open Banking Implementation Entity
Payment Systems Regulator	Santander UK
Tink	Transferwise
TSB Bank	UK Finance
Virgin Money	Visa



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