

Appendix A – Defining the user experience for consumer consent Agenda



CDR Open Banking Workshop: Defining the user experience for consumer consent

Date/Location Sydney - 30 October 2018
 Melbourne - 1 November 2018

Facilitator Meena Tharmarajah

About the Workshop

The Consumer Data Right (CDR) User Experience work stream for Open Banking is currently focused on user journeys for consent, authentication and authorization of consumer banking data.

We are calling on the User Experience and Consumer Research community, especially those with expertise in banking and finance to participate in the development of consumer research, written advice, user journeys and wireframes that form our deliverables.

In this workshop we will be focused on:

- Review of existing user flows, interfaces and wireframes describing consent models and standardised language for accredited parties to use in seeking consumer consent to access their information (specifically Open banking UK Customer Experience Guidelines).
- User research into consumer comprehension of consent and experiences navigating various authentication and authorisation flows being explored within the information security work stream

Workshop Goals

- Identification of concerns and gaps in CDR User Experience assets based on existing UX research and knowledge.
- Identification and review of best practice user flows and wireframes around consent, authorisation and authentication.
- Identify methods that Data61 can best collaborate with stakeholders and consumers for an optimum consumer experience.

Before the workshop

- Attend a briefing meeting prior to the workshop
- Receive and review existing use cases, use case maps and relevant Open Banking UK Customer Experience Guidelines.
- Collect relevant research, use cases, wireframes and user flows to be shared in workshop.

Background

At a high level, there are several use cases that Open Banking in Australia is intended to support and which have already been spelt out by Treasury in its communications regarding the Consumer Data Right, namely:

- Comparison tools for credit cards and mortgages, with product recommendations tailored to consumers actual spending and repayment patterns;
- Comparison tools to assist small businesses identifying better business lending products, taking into account historical borrowing needs;
- Budgeting tools that show consumers all their financial products on one screen and help them better manage their finances by providing insights into current spending habits;
- Services that use small businesses transaction data to provide insights or meet compliance obligations.

On July 19 Data61 facilitated a kick-off workshop with a range of banking participants to explore these use cases further. Results from this workshop have been used to develop use cases and use case maps.

Agenda

Time	Activity / Talk	
9.15am	Set up	
9.45am	Introductions	
10.00am	Use Case Review (1hr) Review and revision of existing use cases <i>Participants should :</i> <i>- Bring any material they currently hold on consumer banking use cases.</i> <i>- The Use Case Map is a general view of how broad use cases intersect, and how data relates to them. The Use Cases for Testing are potential scenarios that may form the basis of consumer research. There is also an optional folder with over 150 Use Cases to review for use cases that should be included in this set.</i>	Review: - Use Cases for Testing - Use Case Map V3.2
11.00am	Break	
11.15am	User Flow and Interface Review (2 hrs) Review of existing user flows and wireframes around consent, authorisation and authentication, in the UK's Open Banking Customer Experience Guidelines. <i>Participants should:</i> <i>- Bring relevant and existing wireframes and user flows and journeys for comparison and discussion.</i>	Review: - Customer Experience Guidelines: 2.0 Authentication Models; 3.0 Account Information Services
1.15pm	Lunch	
1.45pm	Consumer Language and Payloads (1hr) Participants review existing Payload proposals to discuss and suggest appropriate consumer language and clusters using the UK's Open Banking Customer Experience Guidelines as a starting point.	Review: - Payload proposals in folder 'Consumer Language and Payloads' - Customer Experience Guidelines, Section 3.2 (p59-61)

2.45pm **Break**

3.00pm **Consumer Research Review (1hr)**

Review draft research plan and scope for consumer consent, authorisation and authentication.

Identify existing relevant research, especially unpublished research.

Discuss methods that Data61 can collaborate with stakeholders and consumers for an optimum consumer experience.

- How would stakeholders like to engage with consumer research?

- Are there existing cohorts of users/ Beta panel groups that can be used?

- What existing stakeholder resources can be leveraged by Open Banking? (e.g. existing interview rooms, workshop rooms, usability testing facilities, regional offices)

Review:

- Consumer Research Brief Draft 2.3

4.00 pm **Next Steps**

4.15pm **Finish**

Appendix B – Open Banking Consumer Research Brief

Request for Proposal Consumer Data Right Open Banking Consumer Research

25 October 2018, Prepared by Meena Tharmarajah

1. Objectives

The CDR Consumer Experience workstream is developing guidelines around a standard experience for consumers to consent to the sharing and use of their banking data. This workstream will be sponsoring a program of research into consumer understanding, expectations, and preferences to inform decision making around this consumer experience in banking including:

- Consumer Experience standards and guidelines focused on areas of interaction between Banks and Third Party Providers (TPPs), including consumer consent models.
- Standardised language to describe data to be shared, consumer consent, and terms and conditions of that consent.
- Consent, authentication and authorisation processes

A successful consumer experience will result in a clear way in which consumers can:

- Understand what they are consenting to and why
- Determine which data they are sharing and what will happen to it
- Determine the level of trust they have in the parties they are sharing data with
- Control and change data permissions

2. Background

In 2018 the Treasurer announced that the Government had accepted the recommendations of the Open Banking Review, with a phased implementation from July 2019, as part of the introduction of a planned Consumer Data Right. While the application of the Consumer Data Right begins in banking, it will be extended to the energy and telecommunications sectors, with further sectors designated on a case by case basis.

The Customer Experience workstream held a kick off workshop on Thursday 19 July 2018 in Sydney, with 34 attendees including 4 participants from Data61. Other attendees comprised banks, consumer groups, fintechs, aggregator intermediaries and other banking stakeholders.

3. Scope

The scope of the research will be to support the objectives outlined above by providing evidence actionable by the Consumer Experience work stream, rather than looking at areas that are the clear responsibility of the Bank or TPP participants and/or in the competitive space.

Consumer take-up will be influenced by the overall consumer experience. This will largely be within the control of the Banks and TPPs (e.g. budgeting tools, accounting services). It is the areas of the consumer experience where these parties interact, in particular consent to the sharing of data, that will be influenced by the standards and policies developed in the context of the Consumer Data Right.

3.1 Use Cases

There are several use cases that Open Banking in Australia is intended to support and which have already been spelt out by Treasury in its communications regarding the Consumer Data Right: namely,

- Comparison tools for credit cards and mortgages, with product recommendations tailored to consumers actual spending and repayment patterns
- Comparison tools to assist small businesses identifying better business lending products, taking into account historical borrowing needs
- Budgeting tools that show consumers all their financial products on one screen and help them better manage their finances by providing insights into current spending habits
- Services that use small businesses transaction data to provide insights or meet compliance obligations

The use cases described provide context for the creation of standards and guidelines. While Consumer Data Standards efforts in Australia will support the main use cases outlined above, a subset of these use cases will be implemented by July 2019. These are likely to include:

- Credit card and account comparison and switching
- Budgeting and planning tools
- Compliance tools (E.g. Superannuation, Tax returns and BAS services)

The Use Case map accompanying this brief shows how consumer needs and activities may intersect with banking products, potential new services and data.

3.2 The Consumer

The definition of 'consumer' under the Australian regime extends to businesses as well. Given the degree of complexity associated with larger and more complex businesses, the immediate priority for standards will be individuals and small businesses.

There are several consumer typologies that should be considered when recruiting:

- Early adopters of technology: Attitudinally open to newer forms of tech, behaviourally have latest devices / gadgets e.g. using wearables, early adopters of mobile payments

- Technophobes: Resistant to adopting new technology e.g. late adopters of smart phones, preference for more traditional communications and payments
- The multi-banked: Those who hold more than 1 current account, with multiple providers (and make use of them - i.e. the accounts aren't just dormant, but have a specific role)
- Heavy online shoppers: Attitudinally very comfortable shopping online, and would describe it as their preferred form of shopping. They shop a wide range of retailers on a monthly basis (e.g. grocery, clothing, household etc.)
- Serial switchers: Those who have changed bank accounts, insurance (motor, home, contents) or utilities within the last 6 months

In addition characteristics of the sample should be representative of the Australian population and should consider:

- Literacy across a variety of different areas: English, financial, digital
- Cultural and linguistic diversity
- Mix of life stages: pre-family, family, post family, empty nesters
- Education and income
- Consumers with disabilities
- Gender
- Responsibility for financial decision making
- Mix of industries for SME subjects
- Mix of metro, regional and remote consumers

4. Areas of Focus

We need to understand how the Consumer Experience will influence levels of trust and engagement and use this insight to inform the standards being developed.

4.1 Consent Model

Our immediate priority is to look at the Consent Model – i.e. a consumer giving consent to TPP to access data. This will be a stand-alone tactical piece of work that we aim to execute by January 2019, and will be based on the [UK Open Banking Customer Experience Guidelines](#). Other aspects of the Consumer Experience will be tested in line with the execution of deliverables from the other workstreams.

It is expected that testing of the Consent Model will answer a number of key questions including:

- Did consumers understand the scope of the consent they were giving – e.g. the data that would be shared, what it would be used for and for how long?
- Did consumers understand the language used to describe particular data elements and clusters.

- Was the purpose of each element of the process clearly communicated (especially consent, authentication and authorisation)?
- Did consumers understand how they could review and revoke consent?
- Did re-authentication flows meet expectations? Currently users will be required to re-authenticate data access for TPPs every 90 days.
- Did redirection and decoupled flows meet expectations? What is the preference for their use, and what level of friction is required and expected?
- Did it meet consumer expectations of the roles and responsibilities of Banks and TPPs?
- Were Bank and TPP brands used effectively to reinforce trust?
- Did it meet expectations around security of bank credentials?

The testing will focus on the consent elements, and how appropriate they are for each use case, rather than the actual proposition (e.g. account switching, account aggregation)

4.2 Consumer Insights

The objective of this research is to understand how customer expectations and attitudes will influence the development of standards and guidelines for Open Banking. Consumers will be faced with new experiences where:

- They will be interacting with familiar third parties offering new services
- They will encounter new third parties asking for consent to act on their behalf
- They will be re-directed to their Bank to provide consent to third parties
- They will be asked by a third party to use their Bank security credentials outside of their normal internet banking experience

The success of new propositions will be dependent on consumers developing a trust framework for this new ecosystem, as well as the perceived value they deliver. This research will provide the CDR with insight that will guide the development of standards and guidelines that will support and enhance that trust framework.

The research will inform developments in the following areas:

- What do consumers trust and distrust about the concept of Open Banking?
- What risks do consumers consider important with regard to the sharing of data? What do they consider appropriate measures to mitigate these risks?
- Roles and responsibilities of Banks and TPPs within an Open Banking framework
- The mechanism by which minors may give consent
- The manner in which joint account holders give consent with special consideration for (1) domestic violence situations and (2) businesses who may have complex account permissions.
- Non-digital consent models

- Withdrawal of consent and the de-identification or deletion of consumer data
- Management of multiple consent permissions across a variety of banks and TPPs

5. Approach

Proponents may propose to do some or all of the items described below.

5.1 Consumer Language and Payloads

Consumers need to understand exactly what data they are agreeing to share and why so that they can issue genuine consent. The data clusters they will share will map to APIs and their related payloads. It is expected that 10 consumers will be asked to do a card sorting and naming exercise where they determine how they would like to group data, and the language they would use to describe those groups. Proposals for API Standards including payloads have been published in GitHub. This research activity is intended to validate those payloads with consumers and provide recommendations for improvements.

Date Due: 23 November 2018

Deliverable: Report with results and recommendations

Useful links: [API Standards Open and Proposed Decision points in GitHub](#)

5.2 Consent Prototype Design and Build

Once language and data clusters have been defined, a consent model and accompanying prototypes will need to be developed for testing. These are expected to be non-functional interactive prototypes.

The Open Banking Customer Experience Guidelines will be used to create these initial prototypes with relevant changes to be made for the Australian context. Relevant sections are: 2.0 Authentication Methods; and 3.0 Account Information Services.

Date Due: 7 December 2018

Deliverable: Prototypes for consumer testing. Editable files should be provided to data61 as well as the interactive prototype.

Useful links:

[Open Banking UK Customer Experience Guidelines](#)

[OBIE Prototype showing account aggregation journey](#)

5.3 Consent Prototype Testing and Consumer Interviews

It is expected that 20 consumers (10 individuals, and 10 SMEs) will participate in one on one sessions that incorporate interviews and prototype testing. Interviews should deal with the consumer insight area of focus. Prototype testing will focus on questions around usability and the consent model. Research planning, and recruitment is expected to occur prior to 5.2 being completed. While the final report is due at the end of January, it is expected that there will be weekly communication of high level findings for internal knowledge sharing.

Date Due: Weekly drops of high level findings when available, with the first drop before 21 December 2018, Final report due 25 January 2019

Deliverable: Report on usability, consent model and language, and consumer insights around expectations and appetite to adopt the concepts being tested. The final report should include an executive summary, methodology, findings and evidence, immediate actions, and strategic considerations or suggestions.

5.4 Recruitment

Proponents may put in a proposal for recruitment. If a third party or partner is to be involved in recruitment this should be specified. If a proposal requires Data61 to handle recruitment this should also be specified.

5.4 Further Research

Proponents may include suggestions for a recommended program of further research based on the areas of focus. Proponents are advised to discuss potential plans with Meena Tharmarajah prior to submission.

6. Resources and expenses

6.1 Travel

Consumers participating in the research will need to be representative of the Australian population. With this in mind it is expected that travel will be required to metropolitan, regional and remote parts of Australia. Indicative travel requirements including transport and accommodation should be described in the proposal.

6.2 Office Space

Data 61 has office space, workshop spaces, and usability testing labs that may be used if required.

7. Evaluation

A decision will be made on the successful proposal by 6 November 2018

The panel will evaluate proposals against the following criteria:

- Ability to deliver tactical research outcomes that will inform the Open Banking consent model
- Ability to use quality research methodologies to deliver consumer insights that will inform the Open Banking regime and the broader Consumer Data Right.
- Ability and experience engaging consumers representative of Australia, including vulnerable consumers
- Ability to create wireframes and prototypes for testing (for proposals covering 5.2)
- Ability to work closely with Data61 Researchers and UX Designers.

- Cost and time efficiency
- Expertise of organisation and specified personnel in Banking, Energy, Telecommunications, Consent Models, Trust frameworks, Open data, user experience design and research.
- Proponents will be asked to disclose any conflicts of interests including clients that are addressing open banking concerns

8. Submission

A Request for Proposal process will be undertaken with at least three appropriate agencies. Proponents may propose to do some or all of the items described in the approach, and should quote on each of these items separately (5.1, 5.2, 5.3 and 5.4 should be costed separately).

The final candidates may be asked to discuss their proposal with the panel, prior to a decision being made on the successful proposal on 6 November 2018.

8.1 Due Date:

Proposals need to be submitted by 2 November, 5pm.

8.2 Lodgement:

Proposals should be lodged with:

Terri McLachlan
Coordinator, Business Development and Commercialisation
CSIRO Data61
Email: terri.mclachlan@data61.csiro.au
Telephone: +61 2 9490 5722
Australian Technology Park
Level 5, 13 Garden Street, Eveleigh NSW 2015

8.3 Queries

Proponents are encouraged to ask questions if they need further clarification. Queries should be directed to:

Meena Tharmarajah
Consumer Experience Special Advisor, Consumer Data Right
CSIRO Data61
Email: meena@kingkind.com.au
Telephone: +61 403 941 363

9. Supporting Material

Useful links and documents are described below. All unlinked documents have been included in the accompanying folder.

9.1 Report

[Report of the Review into Open banking \(Farrell Report\)](#)

9.2 Use Cases

Use Case Map _V3.3.pdf

Use Cases for Testing.pdf

9.3 UX guidelines and Prototypes

[Open Banking UK Customer Experience Guidelines](#)

[OBIE Prototype showing account aggregation journey](#)

9.4 APIs and Payloads

[API Standards Open and Proposed Decision points in GitHub](#)

Decision.Proposal.026.-.Customer.Payloads.pdf

Decision.Proposal.027.-.Basic.Account.Payloads.pdf

Decision.Proposal.028.-.Transaction.Payloads.pdf

Decision.Proposal.029.-.Direct.Debit.Authorisation.Payloads.pdf

Decision Proposal 030 - Product Reference Payloads.pdf

Decision Proposal 031 - Detailed Account Payload.pdf

Appendix C – Use Case Map

DRAFT CDR Map of Consumer Use Cases, Products and Data

Version 3.2
20 October 2018
Prepared by Meena Tharmarajah

About this Map

The map is intended to give the broad context in which data is to be shared. It illustrates the banking needs of consumers, however it will evolve to capture energy and telecommunications use cases. The map aims to capture general themes rather than describe every use case and product that may occur within the system.

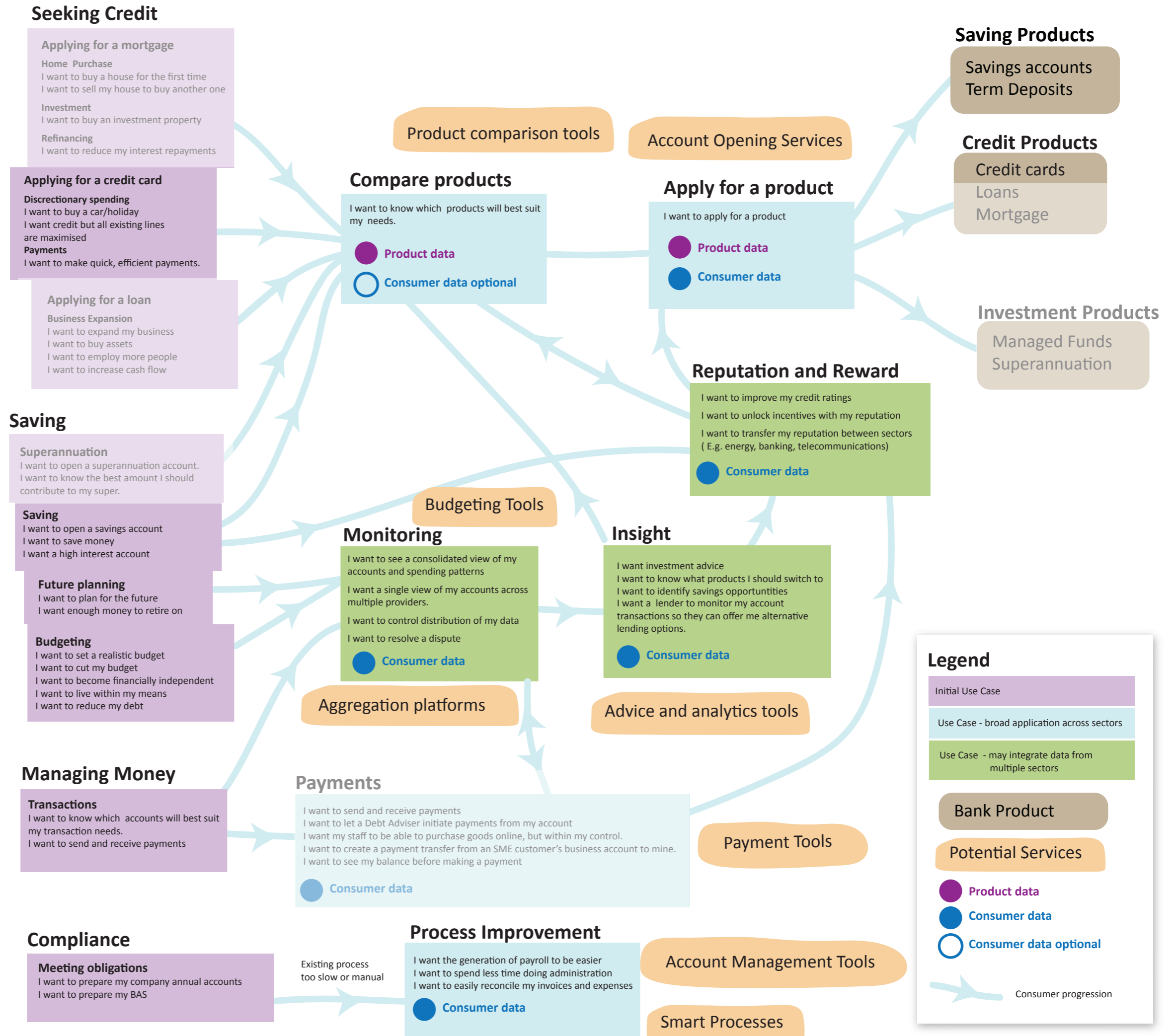
Concerns

- Small businesses with multiple account owners can create authorisation complexities.
- In instances of divorce and domestic violence, whatever policies banks have in place to restrict transfers of money should also engage for data.
- Richer data could have long term impacts for people entering the lending market - could certain consumer segments be excluded systematically?
- Consumers may want to revoke consent. However the meaning of 'revoke' needs to be specified. Does it mean the data held by that entity has to be deleted?
- Consent must be in simple, accessible language and granular/specific to the use being requested
- There is a need to develop consistent language both in communicating the regime broadly and with consumers

Data Descriptions

(Based on current API end points)

- Product data**
Financial Product Information
- Consumer data**
Account details
Balances
Transactions + Details
Direct Debits + Details
Payees + Details
Consumer Personal Details



Items at 50% opacity are not in scope for 1 July 2019.

Appendix D – Use Cases for testing

Use Cases for Consumer Testing			
Category	Consumer Use Case	SME Use Case	Notes
Comparing Products	<p>Use of Transaction Data for Product Comparison and Account Switching</p> <p>As a consumer, I want to compare bank accounts so that I can work out which accounts best suit my personalised banking needs</p> <p>As a price/product comparison website, I want to be able to access the consumers' transactional history and banking product information (such as fees and interest rates) so that I can recommend products that best meet their needs and offer tangible benefits.</p> <p><i>Special Case : Older retired person – e.g. not digitally savvy but financially savvy</i></p>	<p>Use of Transaction Data for Product Comparison and Account Switching</p> <p>As a SME consumer, I want to compare bank accounts so that I can work out what business accounts best suit my banking needs</p> <p>As a price/product comparison website, I want to be able to access the consumers' transactional history and banking product information (such as fees and interest rates) so that I can recommend products that best meet their needs and offer tangible benefits.</p> <p><i>Special Case : Sole trader or small businesses mainly dealing in cash (with underused business account)</i></p>	Use of Transaction Data for Product Comparison and (potential) Account Switching (Non-lending)
Saving/ Monitoring	<p>Consumer Account Aggregation Dashboard</p> <p>As a multi banked consumer, I want to see a consolidated view of my accounts and spending patterns so that I can understand what I spend on and where I could look for savings opportunities.</p> <p>As an account aggregation tool provider, I want to be able to access the consumers' transactional history from all their banks so that I can provide an aggregated dashboard of the overall spending and provide tools that can help them save such as overdraft alerts and automated funds transfers between saving and current accounts to avoid them from getting overdrawn.</p> <p><i>Special Case : A debt counselling service such as the National Debt Helpline providing assistance to an indebted consumer</i></p>		Account information and Payment Initiation - Budget / Accountancy Packages
Compliance		<p>Business Accounts Package Integration and Reconciliation</p> <p>As a SME business, I want my accounts package to access my bank transactions so that I can easily reconcile my invoices and expenses to simplify my accounting tasks As an account package provider, I want to be able to access the consumers' transactional history from all their banks so I can help my clients accounting needs</p> <p><i>Special Case : Sole trader preparing company annual accounts</i></p>	Business Accounts Package Integration

Use Cases for Consumer Testing			
Category	Consumer Use Case	SME Use Case	Notes
Payments	<p>Online Purchase from a Retailer - Consumer</p> <p>As a consumer, I want to pay for goods that I buy from a retailer using my bank account, and see the balance on my account before confirming the payment, so that I can be aware whether I will be overdrawn after making the payment.</p> <p>As a retailer, I want to create a payment transfer from the consumer's account to mine, so that I can be sure of the payment before fulfilment of their purchase</p> <p><i>Special Case : Younger person – e.g. digitally savvy but not financially savvy (prone to getting overdrawn)</i></p>	<p>Online Purchase from a Retailer - Business</p> <p>As a business, I want my staff to be able to purchase goods online, but within my control and without them having full access to the account, so that I can be confident that misuse cannot happen and the confidentiality of the account is maintained.</p> <p>As a retailer, I want to create a payment transfer from the SME consumer's business account to mine, so that I can be sure of the payment before fulfilment of their purchase.</p>	<p>Payment Initiation - Online Purchase.</p> <p>OUT OF SCOPE for Version 1</p>
Seeking Credit / Apply for a Product	<p>Lending</p> <p>As a consumer, I consent to share my bank account transactions to help qualify my income, expenditure and ability to repay a loan so that the lender I can make an accurate assessment of my financial status before providing a quote for a personal loan</p> <p>As a Loan Provider, I want to view transaction data from an applicant's accounts, so that I can apply my own criteria to assess whether I want to lend to them.</p> <p><i>Special Case : consumers who have been refused a loan by another provider</i></p>	<p>Lending</p> <p>As a business consumer, I consent to share my transactional to help qualify my income, expenditure and ability to repay a loan so that the lender is can make an accurate assessment of my financial status before providing a quote for a loan</p> <p>As a Loan Provider, I want to view transaction data from an applicant's accounts, so that I can apply my own criteria to assess whether I want to lend to them.</p> <p><i>Special Case : consumers who have been refused a loan by another provider</i></p>	<p>Account Information - Lending</p>
Seeking credit / Reputation and Reward	<p>Alternative Lending</p> <p>As a consumer, I want to find alternatives to bank account overdrafts by giving consent to a lender to monitor my account transactions so they can offer me alternative lending options.</p> <p>As a third party lender, I want the ability to monitor transactions, so that I can offer an alternative solution to overdrafts, send over-draft notifications, make lending offers, push payments into clients' accounts and initiate repayment when the balance rises above a threshold.</p> <p><i>Special Case : Consumer desperate for credit but all existing lines are maximised.</i></p>		<p>Account Information - Alternative Lending</p>

Use Cases for Consumer Testing			
Category	Consumer Use Case	SME Use Case	Notes
Monitoring	<p>Debt Advice Tools for financially distressed</p> <p>As a struggling consumer in financial distress, I want to consent that my bank provides my transaction data to populate income and expenditure tools used by Debt Advisers (for use in Standard Financial Statement). I also want to allow the Debt Advisers to initiate payments from my account to facilitate repayment when my circumstances allow it.</p>		Debt Advice
Budgeting	<p>Micro Saving Budget Tools for financially distressed</p> <p>For struggling consumers with complex personal situations: As a struggling consumer in financial distress, I want to use a budgeting tool that would provide me a consolidated view of all my current and savings accounts and credit/prepaid cards and save (transfer) small amounts of money into a separate account e.g. save the change, scraping balance at end of period (multiple small amounts that may vary in amount and frequency)</p>		Micro Saving
Seeking credit / Reputation and Reward/ Compliance /Insight	<p>Account Information during life of loan to protect from debt</p> <p>As a consumer, I want to provide consent to my Loan Provider to access my transactional data at an agreed frequency during the duration of my loan, so that they perform analysis of my income and expenditure and offer restructuring of my payment schedule if required to help me avoid failing to repay my loan. This will reduce my risk profile and I may get a better deal from my loan provider.</p> <p>As a Loan Provider, I want to fulfil my compliance requirements, behave responsibly and mitigate the risk to the organisation of the consumer defaulting on the payment of a loan. I also want to use the analysis of the income and expenditure to restructure the consumer's payment schedule (if required) to avoid them falling in debt and defaulting on their loan.</p>		Account Information during life of loan
Seeking credit / Reputation and Reward/ Compliance /Insight	<p>Account Information for collecting on a loan debt</p> <p>As a consumer I want to provide consent to my Loan Provider to access my transactional data so that they can assess my inability to make repayments on a loan that I have defaulted.</p> <p>As a Loan Provider, I wish to source a summary of transactional data to qualify the consumer's income and expenditure and ability to collect on a debt as a result of the consumer defaulting on their monthly repayments on a loan</p>		Account Information for collecting on a loan debt

Appendix E – Consumer Language and Payloads

[Decision Proposal 026 – Customer Payloads](#)

[Decision Proposal 027 – Basic Account Payloads](#)

[Decision Proposal 028 – Transaction Payloads](#)

[Decision Proposal 029 – Direct Debit Authorisation Payloads](#)

[Decision Proposal 030 - Product Reference Payloads](#)

[Decision Proposal 031 - Detailed Account Payload](#)

Appendix F – Customer Experience Guidelines



[Open Banking UK Customer Experience Guidelines](#)