



# The feasibility and implementation of Open Finance in Rwanda

Insights validation workshop

25 August 2023



# Workshop objective & agenda

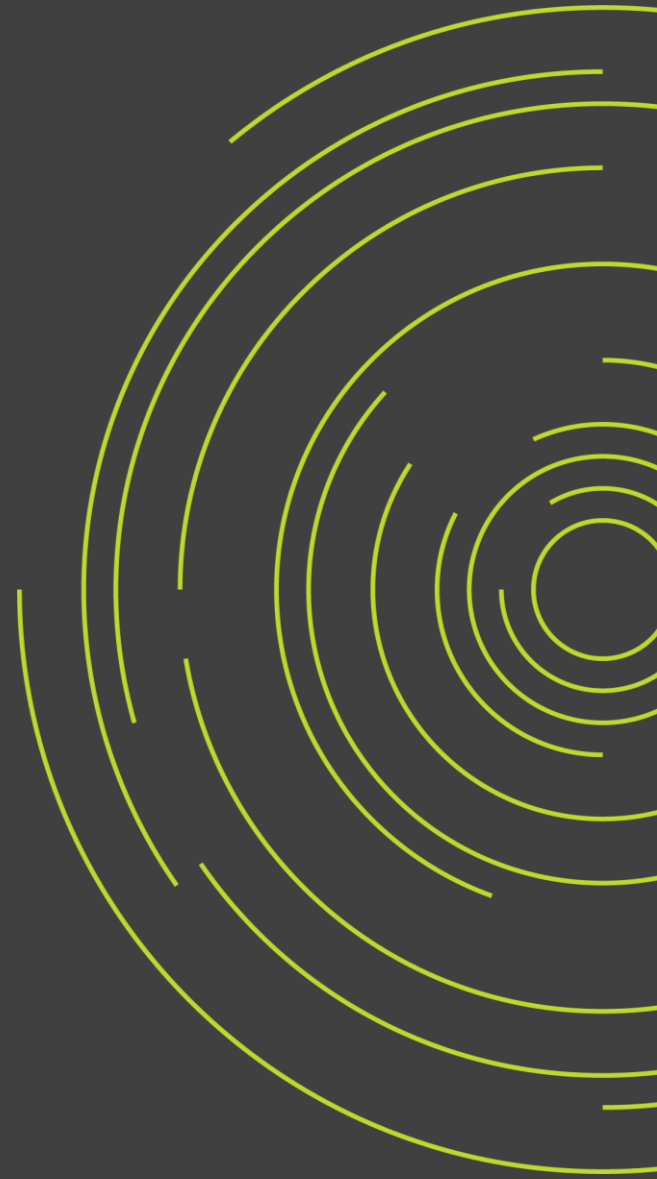
**Objective:** our intention today is to validate insights gathered from the public and private sector to date on the feasibility of an open finance regime in Rwanda, and to test emerging considerations on its implementation approach

Time	Agenda item
08:30 - 9:00	Arrival and welcome <i>Opening remarks by Director Financial Inclusion and Development at the National Bank of Rwanda, Mr. Kimenyi Valence</i>
09:00 - 10:45	Presentation
10:45 - 11:00	Q&A
11:00 - 11:15	Comfort break
11:15 - 12:00	Breakout discussion
12:00 - 12:30	Sharing from the breakout discussion <i>Closing remarks by MINECOFIN Chief Economist, Dr. Patrick Hitayezu</i>
12:30 - 13:30	Lunch

# Project Partners

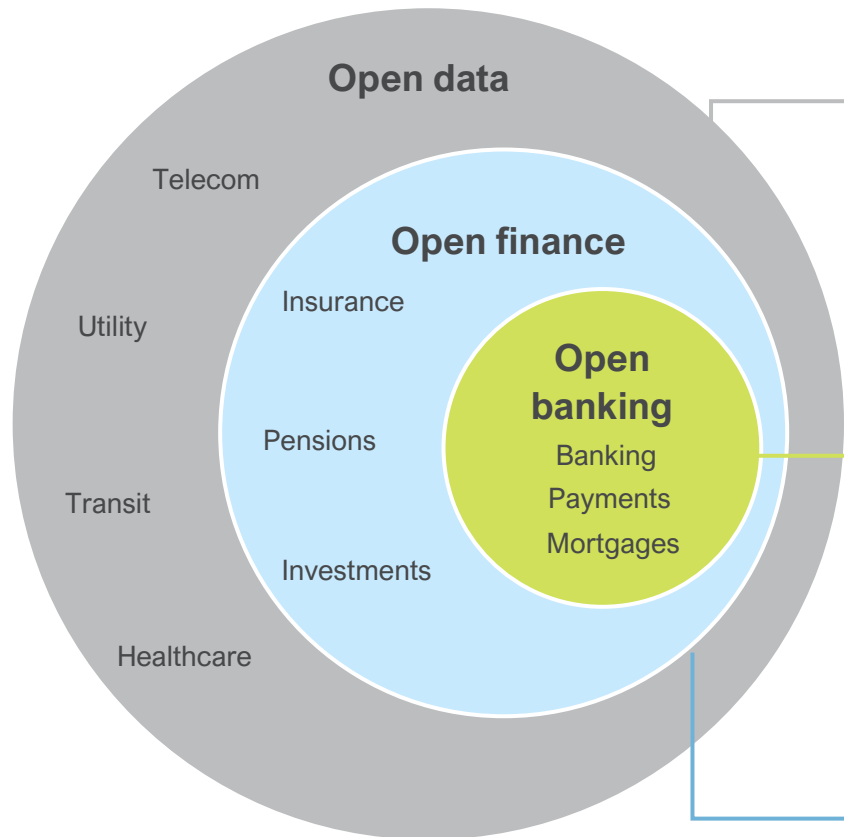


# What is Open Finance?



# Open Finance vs Open Banking vs Open Data

Consensual consumer-led data exchanges between FSPs and 3<sup>rd</sup> party providers



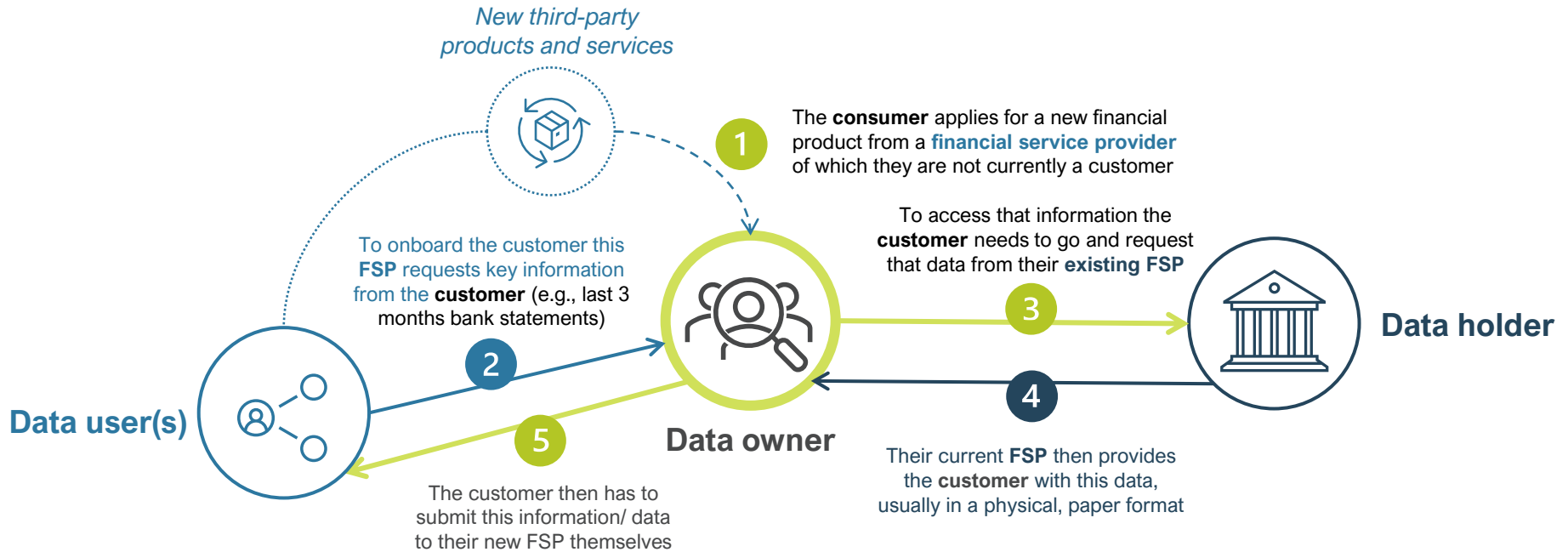
**Open data** is data that can be freely used, re-used or re-distributed. It includes the exchange of consumer data between private sector financial and non-financial institutions on the basis of consumer consent. Open data allows for the sharing of all types of data.

**Open banking** is the exchange of consumer data between banks and other financial service providers (FSPs) and regulated providers on the basis of consumer consent. Open banking typically only allows for the exchange of transactional and bank payment financial data.

**Open finance** is the exchange of **consumer data** between financial service providers and third-party providers on the basis of consumer consent. Open finance allows for the sharing of **all financial data** (mortgages, pensions, savings, insurance, credit, etc).

# Current approach to accessing customer data

Currently data owners manually share information with limited direct provider interaction



Key definitions:



Financial service consumer



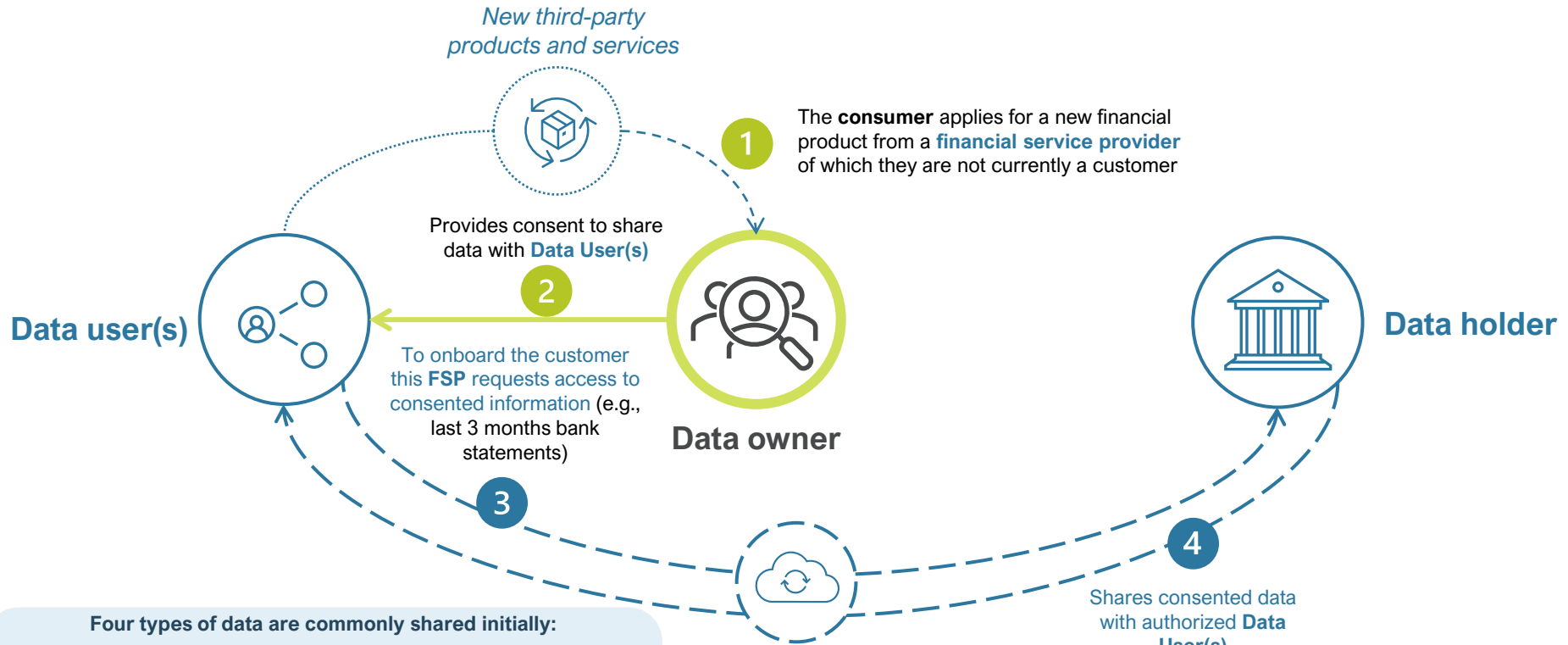
Responsible for sending data to recipient at request of data owner



Permitted to receive and use the financial information of data owner

# Vs Open Finance

Open finance enables the flow of data among the three stakeholders



### Four types of data are commonly shared initially:

- Generic services data:** publicly available information on financial services like product pricing, location
- Customer data:** personally identifiable data required for account opening and administration purposes
- Transaction data:** data on financial transactions made by consumers
- Payments initiation:** Account data to facilitate direct payments

**Open APIs** are developed by **Data Holders** and used to share **Owner data** with **Data User(s)**

These include an authentication and authorization security layer

Key definitions:



Financial service consumer

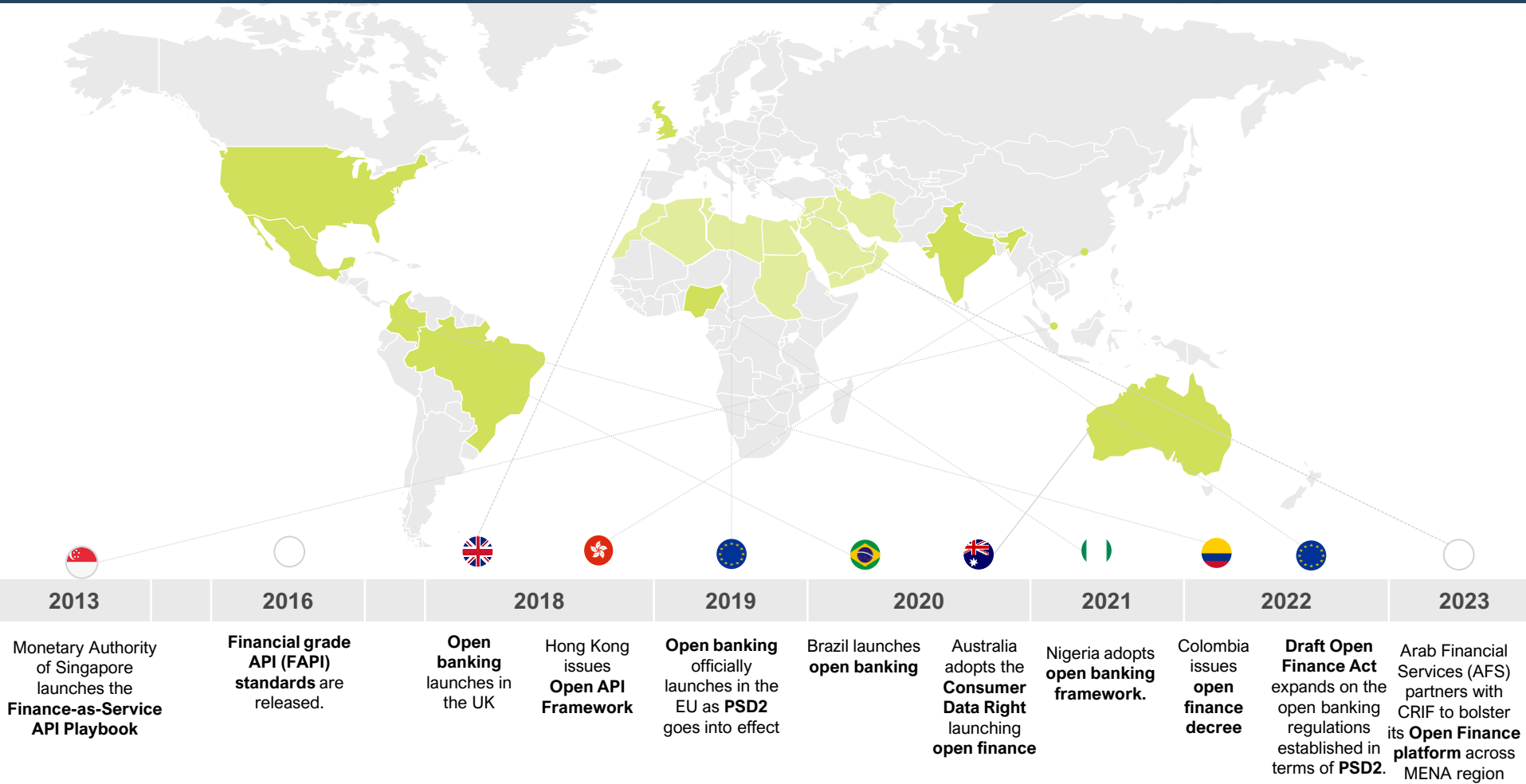


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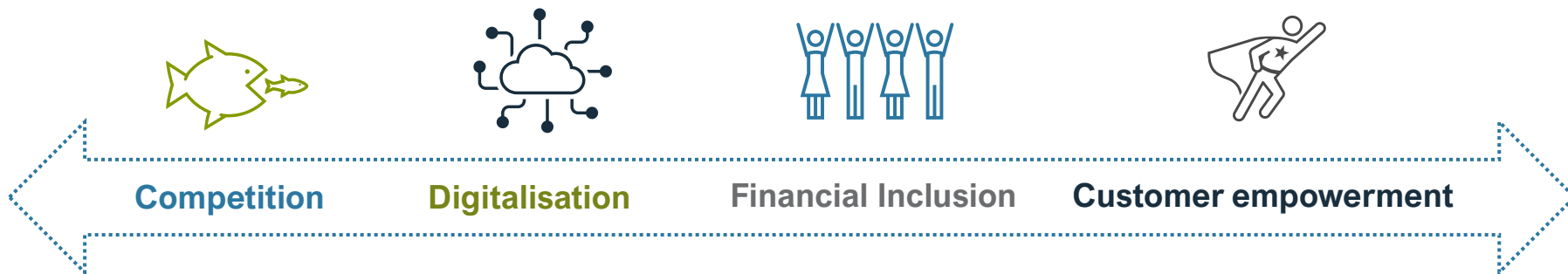
# Open Finance is proliferating globally





# Open Finance motivated by support for national objectives and emerging use cases

Expansion of national objectives for open finance:



Common top use cases for consumers and providers

Customer onboarding	Account aggregation	Payment initiation	Alternative credit	MSME credit	Insurance underwriting	Financial management
Enhanced KYC, increased speed, efficiency and security by sourcing real time data	A single interface for all customer accounts for easier financial management	Direct payments from accounts with user consent, reducing reliance on 3 <sup>rd</sup> party infrastructure	Scoring, affordability analysis and alternative products/VAS	Collecting banking and transaction data to develop novel credit products	Aggregating data sources to develop a more comprehensive customer risk profile	Tools for customers to see, record, and manage their finances seamlessly

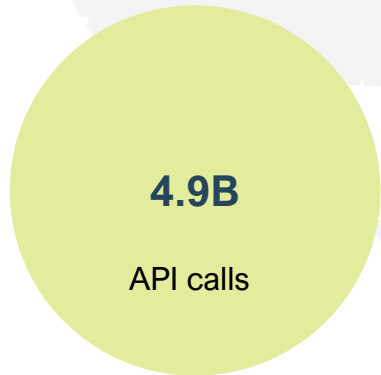
Improved efficiencies and reduction in costs for both established FSPs and fintechs, improved consumer choice and product tailoring



FSCA ([2020](#)); FSCA ([2023](#))



# The impact of Open Finance, so far...



**18.7M**  
active  
consents

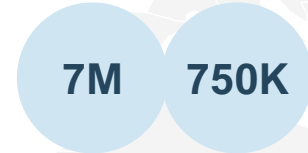
**\$1.4M**  
increase in  
cumulative credit  
limits for clients

**800+**  
FSPs participating

**Brazil**  
Since Feb 2021

## United Kingdom

Since 2018

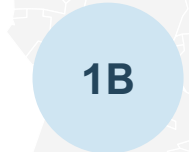


**Consumers** **MSMEs**  
using innovative financial  
products enabled by  
open banking

**70%** of MSMEs  
access finance  
using open banking

**68M**

Open banking payments, with  
reduced operational costs of  
more than **a billion GBP**



Successful  
API calls p/m

**£7.2M**

Estimated in revenue  
opportunity for FSPs  
in 2022

# Estimated benefit for UK consumers

## Individual consumers



Secure sharing of payment accounts data under explicit consent



## Business



Greater visibility and control on financial health



Improved access to financial products and advice



Better informed financial decisions



Expanded payments choice



Greater visibility and control on financial health



Improved access to financial products and advice

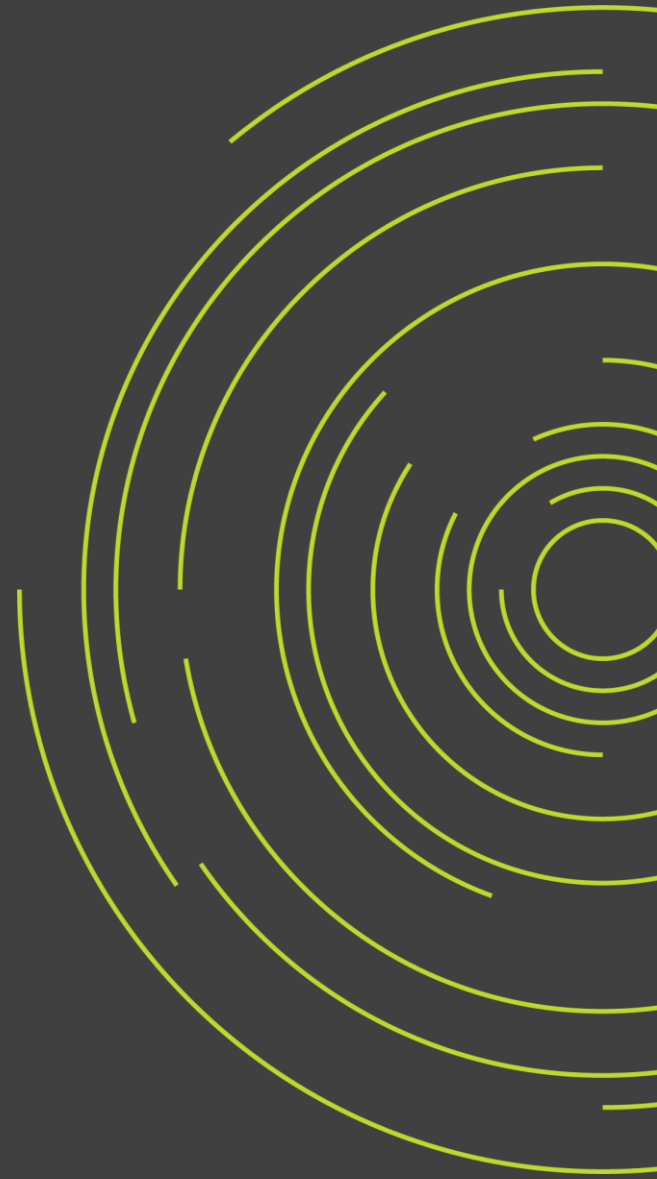


Better informed financial decisions

**£12B**  
per year

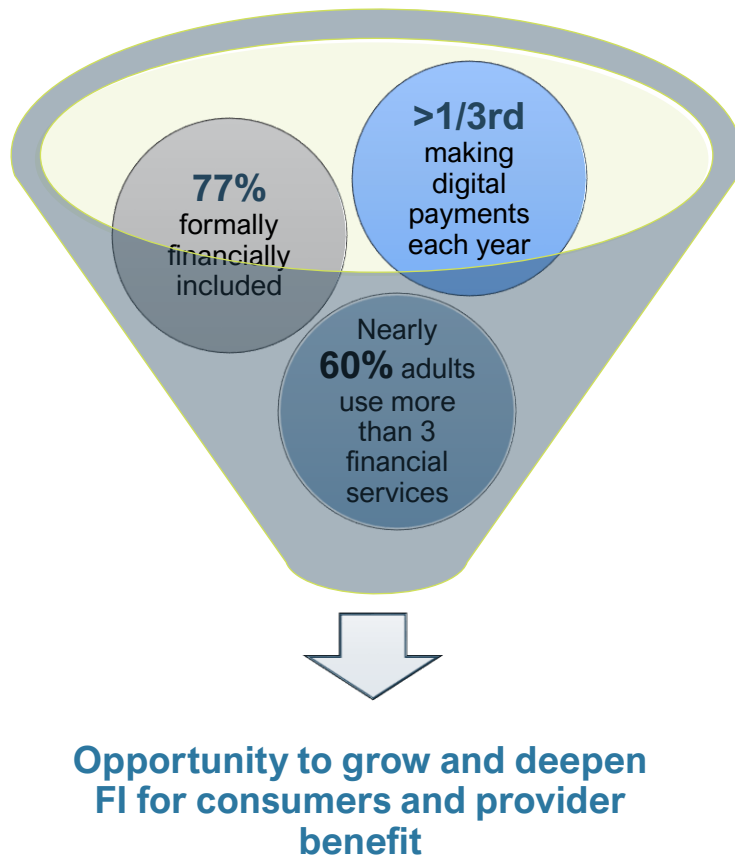
**£6B**  
per year

# Scope for Open Finance in Rwanda?



# Weighing up the opportunities against the costs

It's not a given that every country needs Open Finance, or if it's even appropriate for the local context



Despite potential, it's often not clear cut that Open Finance is appropriate for all countries, particularly in Africa, given the following contextual factors:

- **Digital divide** that risks leaving excluded and rural populations behind
- **Nascent regulatory frameworks** that fail to guide market development and manage systemic risks
- **Constrained resources** that keep innovators and other businesses small

To reap the benefits while managing risks, a deliberate assessment is required on its appropriateness & context-specific implementation.

# Approach to determine feasibility

Is the Rwandan financial sector ready and willing to adopt Open Finance ?

Alignment between Open Finance and national policy priorities

Enabling regulatory environment for Open Finance to thrive in meaningful, safe, and secure ways across finance sectors.

Opportunity and ability of market actors to extract possible benefits from Open Finance

Use cases, benefits & readiness

Data holders

Data owners  
(MSMEs and individual customers)

Innovators

## Methodology

Desktop research

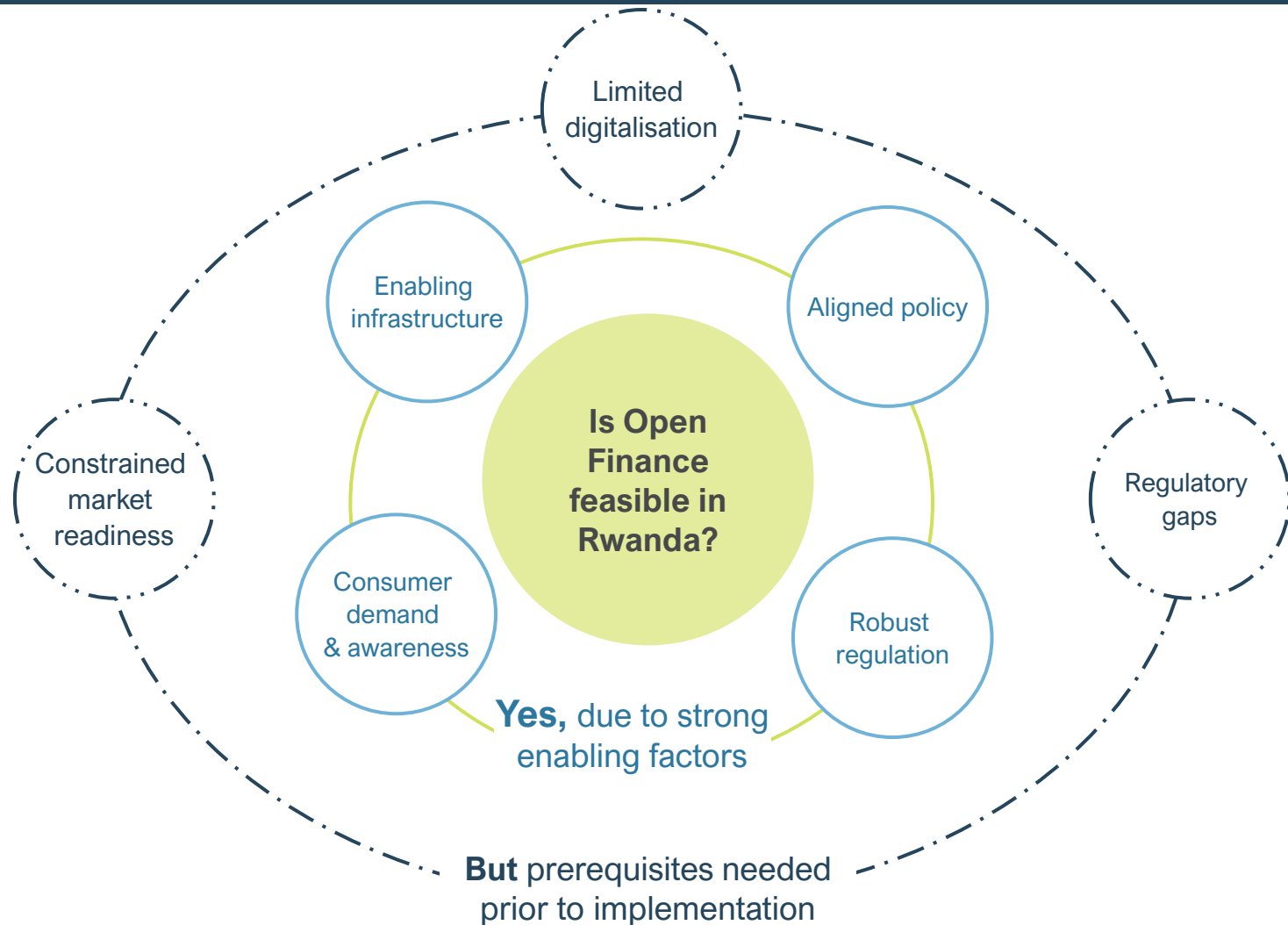
Regulatory & policy analysis

Stakeholder interviews

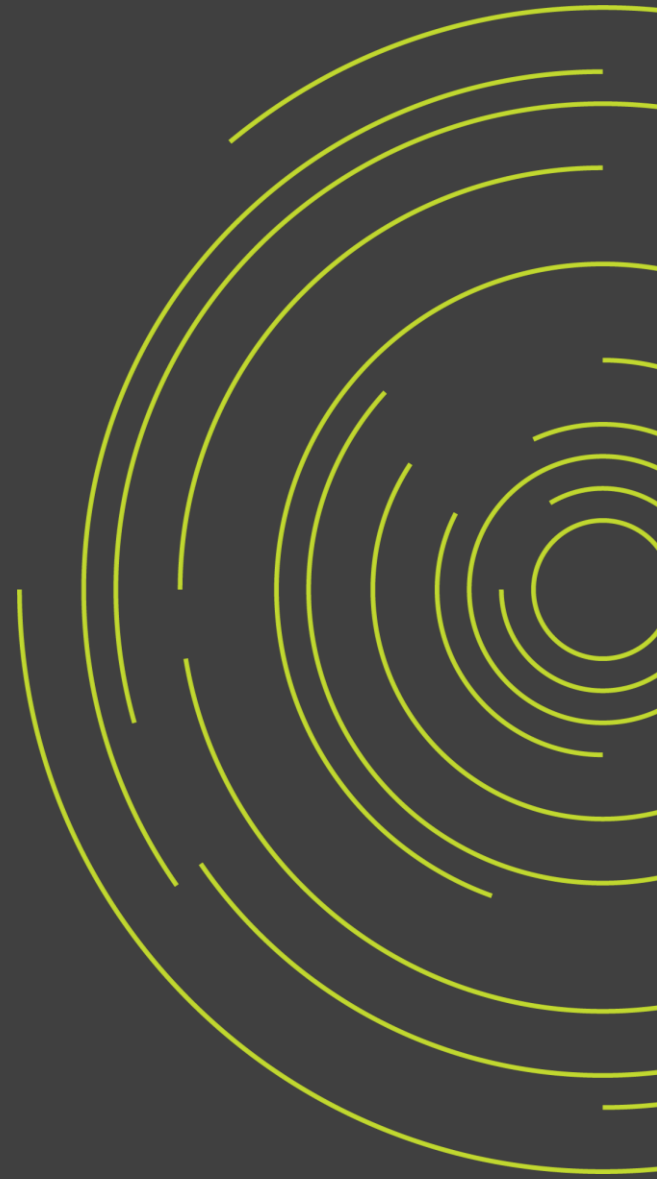
FGDs and IDIs with consumers

# What do the findings tell us so far?

Open Finance may be feasible in Rwanda but greater readiness required

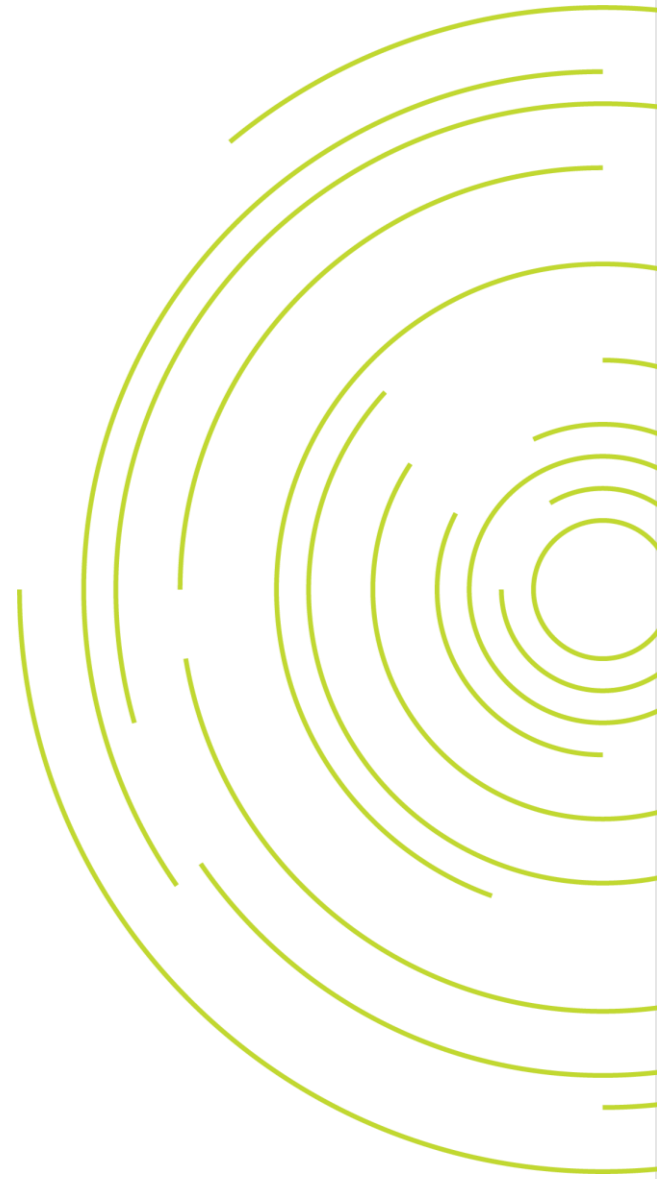


# Unpacking feasibility assessment findings





# Regulatory analysis



# Policy and regulation

Strong foundations are in place to build a robust Open Finance regime upon

## Secure & value-driven Open Finance

- Protection of personal data and privacy law 58 of 2021
- Regulation on Cyber Security in Regulated Institutions 50 of 2022
- Financial Service Consumer Protection Law 17/2021, Financial Service Consumer Protection Regulation 55/2022

### Policy objective 1: Fintech & financial sector development

- Fintech Strategy for Rwanda (2022–2027)
- Financial Sector Development Program II

### Policy objective 2: Financial inclusion

- Financial Sector Development Program II
- Vision 2050

### Policy objective 3: National data revolution

- National Data Revolution Policy
- The National Strategy for Transformation 2017-2023
- Smart Rwanda Master Plan 2015-2020

### Regulatory prerequisites:

- Clear legal ramification from cybersecurity non-compliance; unclear FCP dispute process
- API & authentication standards
- TPP licensing

Supportive & robust  
regulatory environment

Policy  
environment

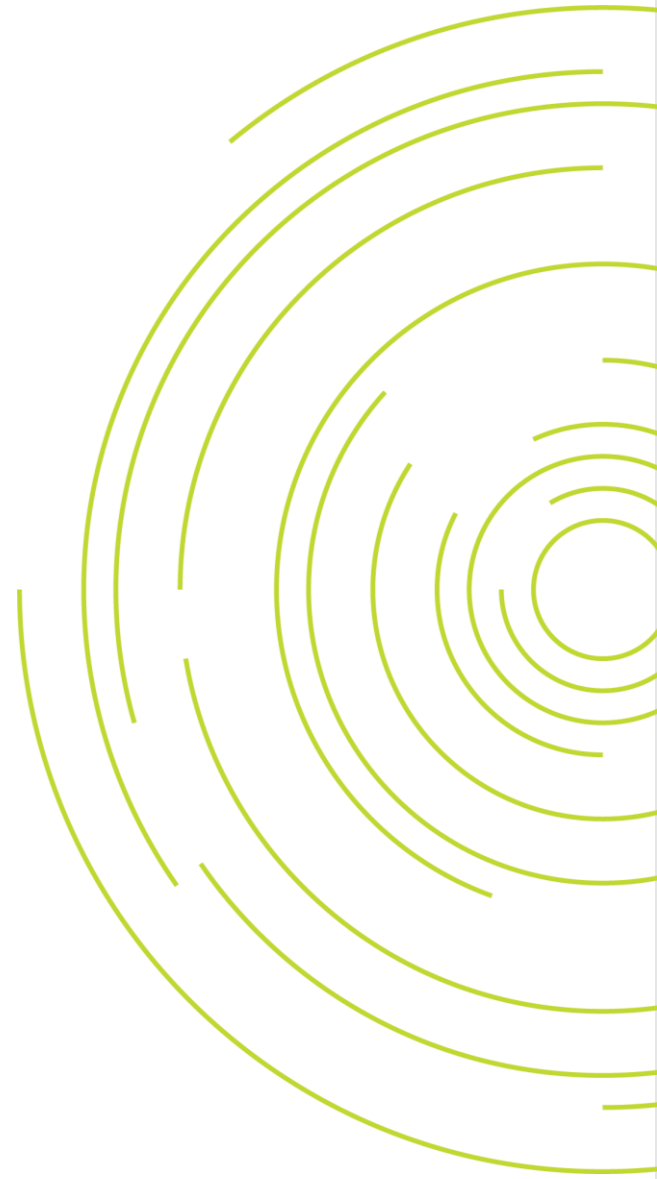
### Article 23 of the Rwanda constitution gives citizens the right to own and protect their information

"Privacy or correspondence shall **not be subjected to interference in a manner inconsistent with the law;**  
the person's honour and dignity shall be respected."

"No search or entry into a home shall be carried out without the **consent** of the owner..."

Constitutional  
endorsement

# **Consumers: Individuals and MSMEs**



# Consumer see value in data-sharing enhancing UX

Convenience and speed strong drivers

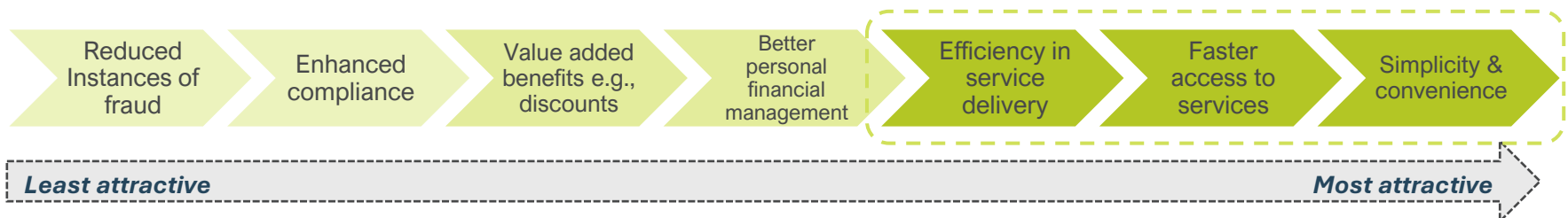


Financially included consumers\* are generally **highly positive** about the potential value of Open Finance and willing to share **personal financial information** in return for clear benefits

*"The benefits would be connection, the fact that it was connected would help me to get quick services." ~Female, 35-45, SEC A*

*"It would be perfect if I could **access my data at the revenue authority, the bank, the insurance, every where I go...**my data can be accessed, even at the airport, I would have no issue with that " ~SME respondent, Self-Employed*

## Top benefits expressed by consumers)

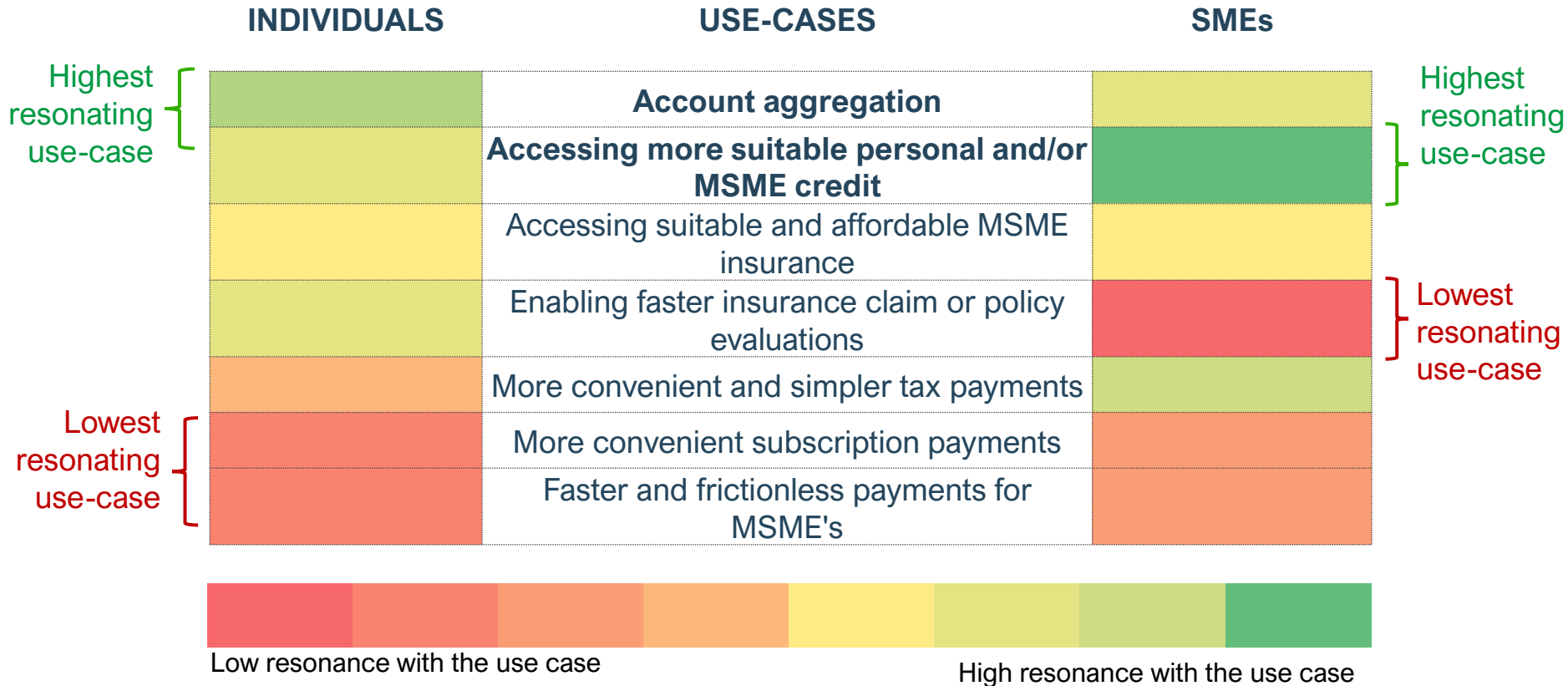


No difference in perceptions among different genders or employment types, but **less resonance among lower-income**

\*\*Urban 18-45yrs, employed, use of formal/alt FS, regular income

# Top perceived use cases and benefits

Both individuals and SMEs readily identify faster, efficient and more simplified access to services as a key benefit of Open Finance



*"I can get more **tailored financial products** as a result of being able to see my financial history"*  
 ~Female, 25-34, SEC A

*"if my insurance information is provided to a certain company then the **provision of insurance should be quick**"*  
 ~Male small business owner, 35-45

# Usage and consumer consent

Trust in the NBR may drive adoption but consent requires a balance between trust, minimal friction and necessary information

*"If all companies were to ask for my confirmations all the time, then it would be a **full-time job**"*  
~Male respondent, 25-34 years, SEC A

## Top system conditions likely to drive user adoption:

1. Public approval and regulation by the NBR
2. Simple and plain language/convenience
3. Transparent purpose
4. Observable security measures
5. Hassle-free access

*"BNR is the regulator, and I would **believe in everything that they would have authorized.**"*

~FGD respondent

Different levels of consent based on trust

## Duration of consent

### Open unbound consent

*if a trusted provider (bank, fintech MNO)*

### 6-12 months

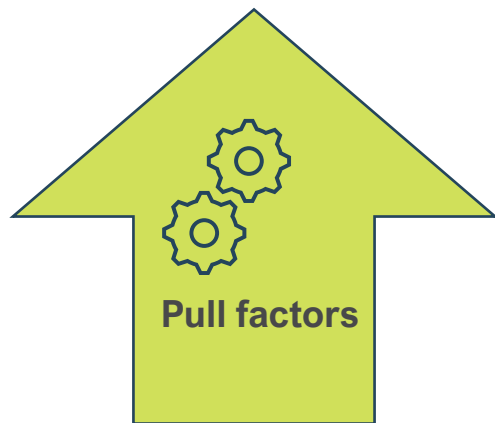
*If nascent relationship with provider*

### 0-1 month/on-demand

*If low trust with providers (insurers, SACCOs, trading companies or skeptical of benefit)*

# Consumer readiness to leverage Open Finance is not clear

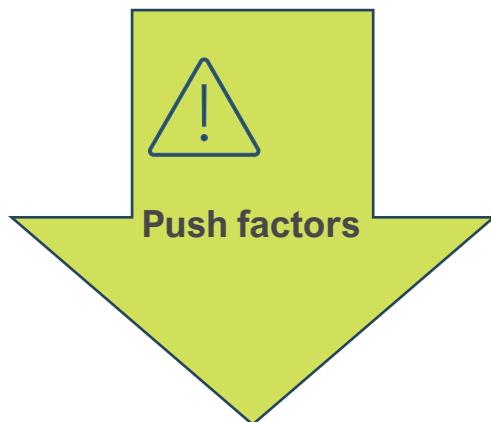
Contextual factors may undermine OF if its value proposition isn't strong enough



- **>70%** formally financially included
- **57%** own 3+ financial products/services and use them frequently
- High and growing familiarity with digital financial services
- Significant trust and faith in NBR to protect consumer data and privacy

*“BNR is the regulator, and I would believe in everything that they would have authorized.”*

*~Male MSE owner, 25-34*

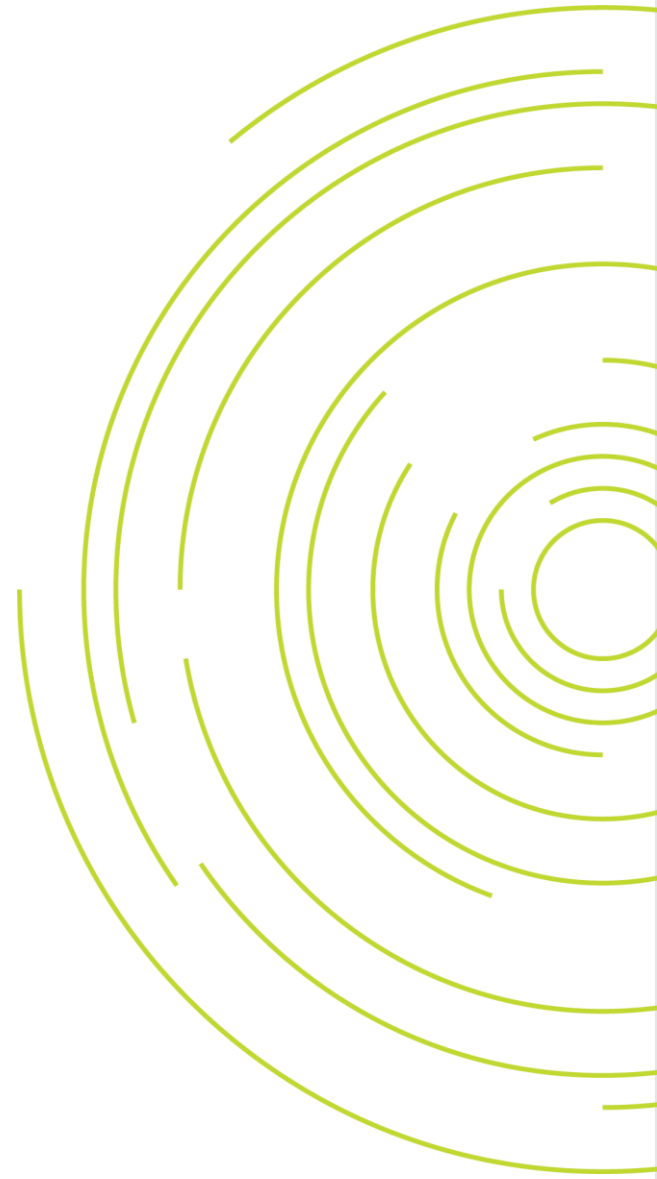


- **<20%** have smartphones
- Digital divide biased towards urban
- Weak MSME digitalization
- Privacy concerns
- Personal safety concerns & discrimination
- Data abuse for criminal activity

*“What you do, where you work, who you work with can be used to personally attack you”*

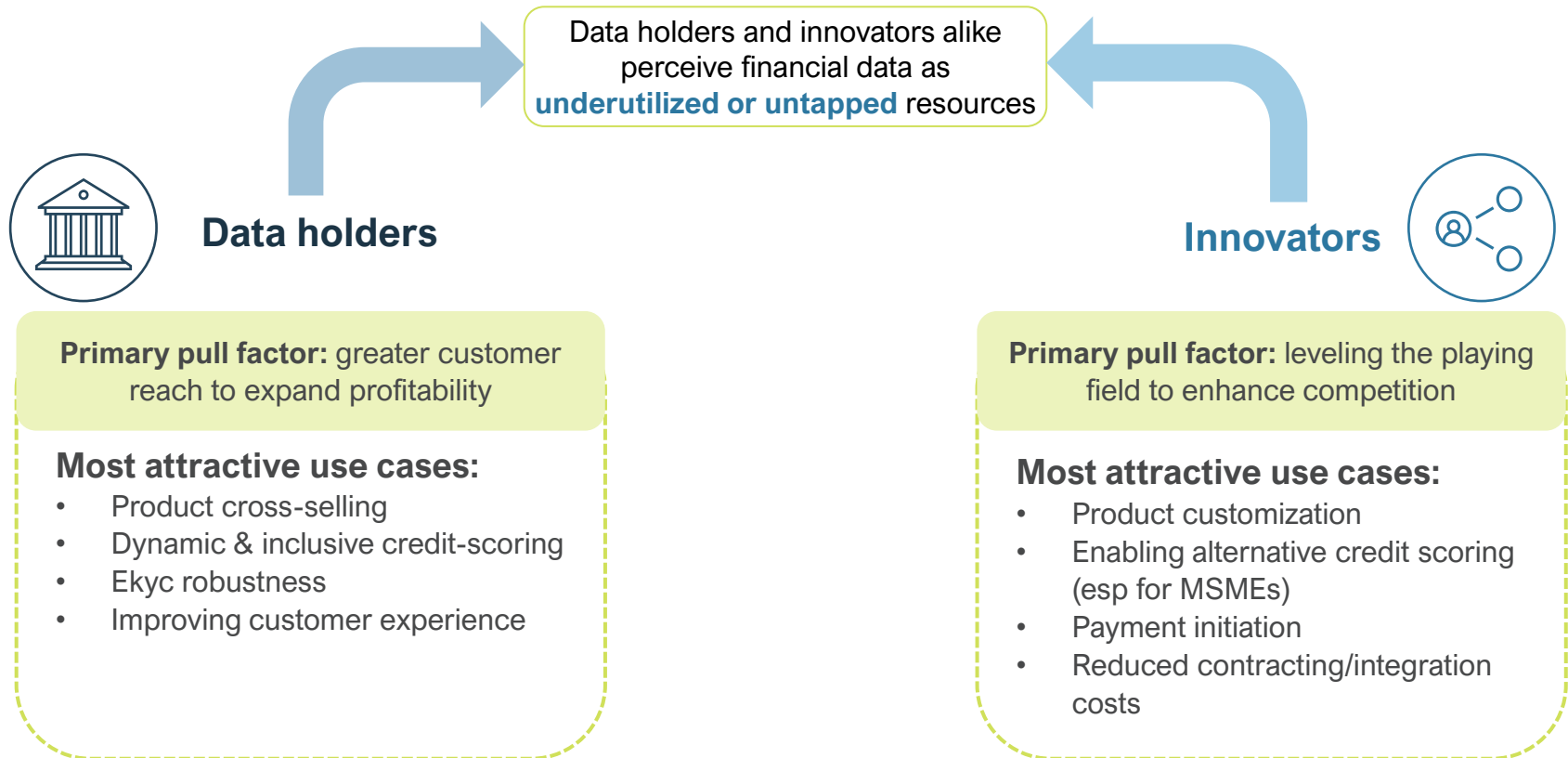
*~ Female respondent , Employed*

# **Data holders & innovators**





# Data holders & innovators see different value propositions to data sharing



# Data holders more ready to capitalize on data-exchanges

Innovators have the mindset and skills while data holders possess more resources

## Data holders



### Partnerships

FSPs can leverage existing relationships between providers



### Open API usage

MNOs and banks opening data channels



### PKI access

Access to existing resources and national databases like NIDA



### Enabling regulation

Clear rules and guidelines, such as DPP, give clear rules to data sharing/protection

## Innovators



### Innovative mindset

Response to market needs via data and agile design



### Critical skills

A globally competitive talent pool with increasing skills



### Infrastructure

Investments in local data infrastructure and emerging cloud storage and data capabilities

# Data holders more ready to capitalize on data-exchanges

An OF regime would need to acknowledge differential starting points between actors

## Data holders



### Partnerships

FSPs can leverage existing relationships between providers



### Open API usage

MNOs and banks opening data channels



### PKI access

Access to existing resources and national databases like NIDA



### Enabling regulation

Clear rules and guidelines, such as DPP, give clear rules to data sharing/ protection

### Constraints:

- Limited experience with data sharing vs data-creation
- Most bank APIs remain closed with limited use cases
- Constrained ability & willingness to invest in data integrations
- Nascent data-drive product design

## Innovators



### Innovative mindset

Response to market needs via data and agile design



### Critical skills

A globally competitive talent pool with increasing skills



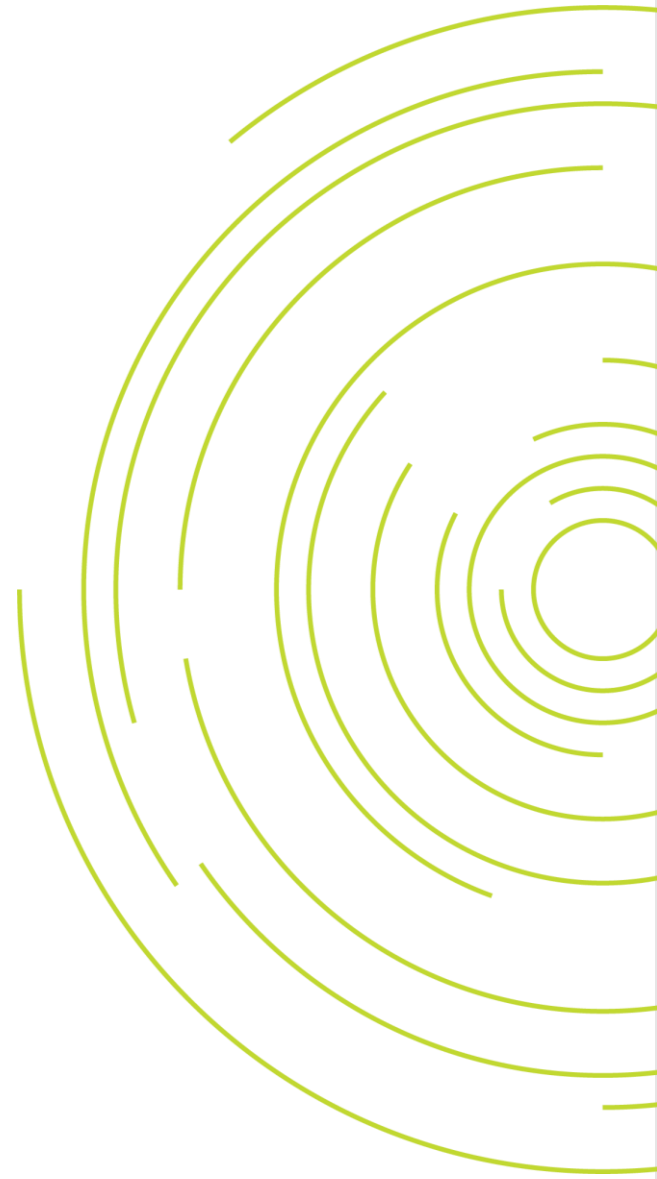
### Infrastructure

Investments in local data infrastructure and emerging cloud storage and data capabilities

### Constraints:

- Dependency on regulated entities to compete
- Limited opportunity to build data-driven business models
- High price sensitivity
- Limited human resources beyond technical skills
- Scepticism towards incumbent participation

**What is the main  
take-away?**



# Is Rwanda ready for Open Finance?

Open Finance could feasibly be rolled out in Rwanda given current national priorities and market demand



National policy objective for **inclusive digital transformation**



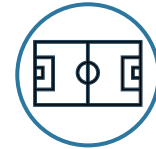
Robust FS regulation covering **cybersecurity, data & FCP**



**Deep digital financial lives** of banked users and desire for more FS value by MSMEs



FSPs want to **attract more customers & get more from partners**



Fintechs want to **level the playing field & optimize tech capabilities**

But implementation will take time with some key preconditions to be met

Closing relevant **regulatory gaps** on APIs & TPPs among others

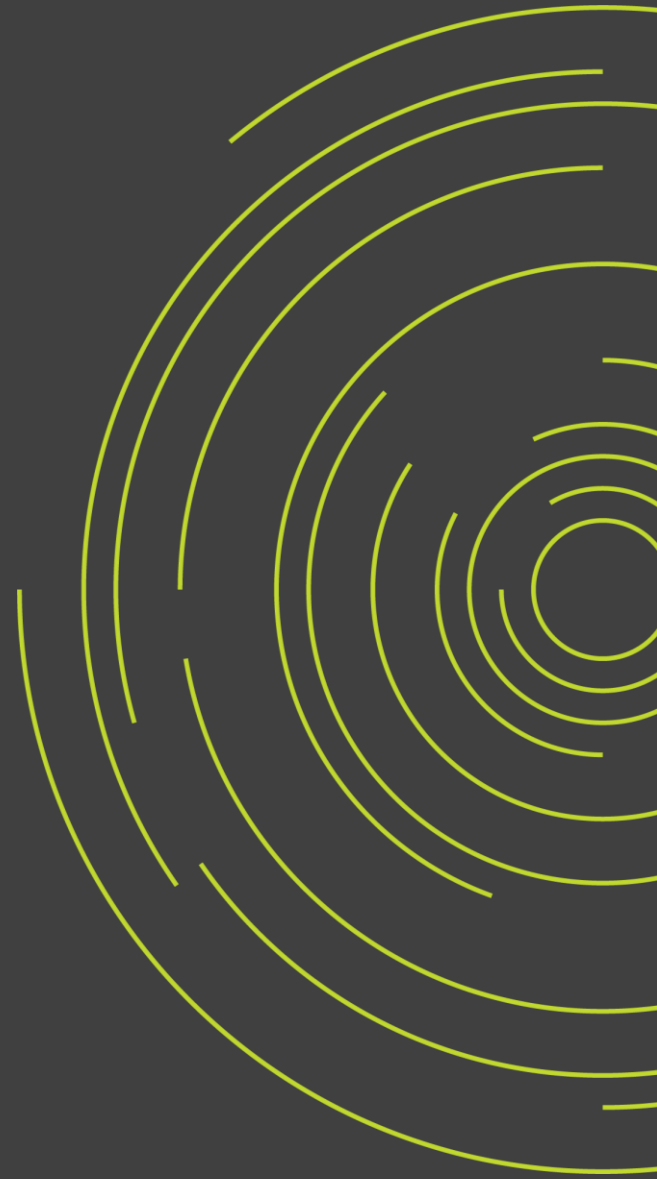
Giving the **regime a home** w.r.t supervision & consent authentication

Growing **FI and smartphone penetration, awareness, and trust**

Accelerating the **digitalization of FSPs**

Building **incentives & reciprocity** to exchange data

# Implementation approach



# Building a tailored context-specific regime

## 6 Guiding principles



**Regime type and roll-out:** consider the type of regime that fits the local context and is able to accommodate additional use cases without requiring changes to the core structure of the regime, as well as a transition process that will result in minimal market friction



**Regulation and Governance:** Define clear roles and responsibilities among sponsor and implementing actors, and amend or develop regulation necessary to clarify market participation rules



**Trust frameworks:** Determine approaches to standardize data-sharing through appropriate system architecture, and for which specific actors at different stages of the regime



**Consumer experience:** Consider the necessary guidelines to ensure users are sufficiently empowered to engage with, and benefit from, data-exchanges via their informed consent or permissions



**Liability and recourse frameworks:** Clarify who bears risks and their resolution for users



**Regime costs and incentives:** Determine fair cost structures that incentivize the sustainability of the regime and meaningful participation by actors, while limiting curtailing the ability of specific actors to frustrate the goals of OF

# Rwanda implementation guidance

## Preliminary insights



### Regime type and roll-out

- Mandatory but highly consultative
- Modular phasing-in over multiple years, beginning with largest banks and PSPs and “generic data”
- Top initial use cases: account aggregation, eKYC & MSME financial services



### Regulation & Governance

- Clarifying interpretation of data protection regulations and clearer cybersecurity regulations re. recourse & non-compliance
- Creation of a dedicated TPP license
- Rwanda IOFWG to design initial phases
- BNR to provide regulatory oversight initially



### Trust frameworks

- Distinguish between security and functional API standards.
- FAPI as starting point with OIDC & OAuth2.0 for security standards
- Industry developed (led by MNO and Banks) functional API data standards subject to regulator approval.



### Consumer experience

- BNR led in close consultation with consumer groups and industry
- Uniform UX for transparent, simple, secure and fast approval through a centralized consent architecture
- Informed consent vs fair data use standards



### Liability & recourse framework

- Liability and consumer recourse need to be decoupled. Consumers must be able to easily seek and receive recourse immediately, whilst liability audits may take longer.
- Liability and recourse approaches developed by industry and subject to BNR approval



### Regime costs & incentives

- Long term- reciprocity of data sharing
- Fintech and MNO participation and Gov-held data sets a key incentive
- Short term – fee and pricing models
- Industry consultation



# Breakout discussion



How well do the feasibility findings resonate with you and have we missed anything?



What will be the key success factors that will lead to a smooth transition to open finance in Rwanda?

# Thank you

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