



GLOBAL FINTECH HACKCELERATOR

Industry Problem Statements

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Organised by



Monetary Authority
of Singapore

In partnership with



In collaboration with



Global FinTech Hackcelerator
Powered by

KPMG
Digital Village

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Problem statements

The global FinTech community and the financial industry submitted problem statements for the Global FinTech Hackcelerator.

The problem statements and suggested solutions may have been edited for consistent reading. The edits do not substantially alter the intent of the original statements submitted.

CONTENT

80 Problem statements



INSURTECH



FINANCIAL INCLUSION



REGTECH & SUPTECH



GENERAL



INSURTECH

Solutions to help the financial institutions transform and shape the future state of insurance.





01

Interactive investments ecosystem

How can we create an interactive digital ecosystem, which includes savings and investment vehicles, allowing insurers to offer advice to customers when appropriate?

02

Insurance document ledger

How might we use a shared platform for verification of documentation and transmissions in the insurance process to reduce insurers' reliance on intermediaries for third party verification?

03

Natural catastrophe prediction

How can re/insurers use real-time data to accurately predict natural catastrophes, so that loss or damage may be minimised and managed on an ex-ante basis?





04

Interoperability between insurers and third party systems

How might we create industry standards between insurers and third parties that are easily adoptable to allow interoperability and integration of different products and systems?

05

Personalised insurance

How can insurers leverage data or real-time insights from devices to create personalised premiums for general and life insurance coverage in order to reimagine the underwriting process?

06

Risk based on demand insurance

How can up-to-date insurance risk data be shared between insurers and the underlying customers on a secured and integrated basis, such that insurers can provide solutions on an on-demand basis?

This will help shift insurance from its current reactive ex-post role to a proactive ex-ante risk mitigation one.





07

Automated insurance claims

How can we automate the claims process for insurers to reduce potential human error whilst quickening pay-outs?

08

Detecting fraudulent behaviour

How can data analytics be used by insurers to identify and detect fraudulent behaviour across different product lines and/or across different insurers?

09

360-view of customer

How can customer data across multiple data sources be consolidated for insurers to have a 360-view of the entire customer journey and facilitate more meaningful engagement with their customers?





10

P2P Insurance

How could the need for short term general insurance solutions (e.g. household, personal liability) be catered for via a P2P platform?

11

Predictive claims analysis

How can insurers leverage on historical and real-time data to predict future claims more effectively?

12

Insurance for the aging

How can we assist life insurance companies to keep medical insurance affordable for the aging population and those with pre-existing medical conditions?





13

Micro-insurance for on demand economy

How can the smart use of big data be used to create new micro insurance products (e.g. pay as you live health insurance, pay as you drive motor insurance) to address new risks and insurance opportunities presented.

14

Integrated information exchange for healthcare

How can we integrate the exchange of information between healthcare providers and insurers to streamline the health insurance claims process, creating a seamless end-to-end customer journey experience?

15

Product disclosure awareness

How can we create an engaging way for customers to better understand Product Disclosure Statements ("PDS") for insurance products?





16

Drone Insurance

How can we utilize a platform to monitor parameters (such as pilot proficiency, flight environments and equipment) and develop pricing models for drone-related insurance products?

17

Personalised life insurance aggregators

How can we help customers compare more specialised life insurance products with the option to search for specific riders (e.g. single impairment insurance coverage, multi-claim critical illness insurance, etc.) according to user specified needs?

18

Improved customer engagement

How can we help agents to engage with customers based on life event triggers for meaningful discussion about their life, wealth and health insurance needs?





FINANCIAL INCLUSION

Solutions which empower consumers and businesses to gain access to financial services.



FINANCIAL INCLUSION



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In-app charitable donations

How can financial institutions enable and encourage customers to make charitable donations via non-banking platforms like messaging apps, and hence streamline the customer experience across platforms?

20

Charitable tax deductions

Charitable donations in Singapore enjoy a tax deduction for qualifying charities based on declarations made during annual electronic tax filing. How can we use this information to optimise philanthropy at various income levels as well as streamline the processing of these tax deductions?

21

Streamlined reconciliation process

How can we streamline today's reconciliation process for small businesses to drive real time and 100% accurate book keeping whilst reducing costs and human effort?



FINANCIAL INCLUSION



22

SME Coverage

How can we help SMEs to assess their coverage needs based on the risk profile of the industries they operate in, ensuring that they have adequate insurance to cover their liabilities and keep their workers insured?

23

Low cost retirement products

How do we educate the low income customer segment on the importance of retirement planning and the need to save beyond CPF, whilst using this knowledge to deliver low cost retirement products?

24

Long term investment for millennials

How can we educate millennials about personal finance and use this knowledge to create more relevant long term investment products?



FINANCIAL INCLUSION



25

Engaging investor education

How can financial institutions provide engaging and user-friendly financial product education to retail investors?

26

Migrant worker identity authentication

How can we leverage existing government authentication solutions to enable digital identity validation of migrant workers, alleviating the need for proof of residence through a phone or power bill?

27

Secure emergency aid payments

How can we facilitate partnerships between banks and mobile network operators to allow safe and secure emergency aid payments to be made and withdrawn by individuals in need?



FINANCIAL INCLUSION



28

Digital fundraising management

How can we enable charities to better manage, track and govern fundraising for their digital campaigns and programmes, whilst also adhering to regulatory guidelines?

29

Creditworthiness of SME products

How can we build a risk assessment system that effectively demonstrates creditworthiness of investible products in emerging economies, such as renewable energy, to steer capital from capital markets towards small and medium sized enterprises?

30

Encouraging green investment

In developing countries, there are significant difficulties in securing finance for green infrastructure both domestically and internationally, due to political risk, under-developed local currency capital markets, weak tax bases and expensive long-term exchange hedging.

How can we develop solutions to reduce or bypass these cost-raising challenges and encourage investment in green infrastructure?



FINANCIAL INCLUSION



31

Reimagining credit underwriting and scoring

How can we improve and refine existing underwriting models and credit scoring for individuals and SMEs, leveraging non-traditional qualitative and quantitative data sources to compensate for the lack of audited financial statements?

32

Enabling insurance for the under-insured

How can insurers identify and target under-insured customers using non-traditional data sources and provide engaging, user-friendly financial product education?

33

Enabling tailored training

How can we support the upskilling of workers who may be displaced by the advent of automation?





REGTECH & SUPTECH

Solutions to ensure compliance of regulatory requirements, especially when financial institutions engage in corporate activities.



REGTECH & SUPTECH



34

International accountability of regulatory compliance

How can we develop an industry-wide platform for financial institutions to share recommendations and information on regulatory changes across different international jurisdictions, assisting in the accountability and compliance of each regulatory body's requirements more effectively?

35

Alternate identity verification

How are we able to validate and verify customer identities without additional investment in infrastructure whilst reducing reliance on physical assets?

36

Automated transaction monitoring

How can we monitor customer behaviour patterns during onboarding and servicing to gain broader transparency of a client across different financial institutions, enabling more effective transaction monitoring, KYC reviews and early fraud detection?



REGTECH & SUPTECH



37

Cybercrime detection

Given the widespread usage of masking and hacking tools, how do we detect, identify and predict financial cybercrime?

38

Common regulatory data repository

How can a common data repository be created for FIs to feed financial data to authorised parties, such as regulators, who then have access to centrally mine and create standardised regulatory reports?

39

Secured data aggregation

How do we encourage people and institutions to aggregate and exchange data from different data sources whilst ensuring data privacy concerns are met?



REGTECH & SUPTECH



40

Social media for compliance activities

How can we validate information from non-traditional sources like social media, for the purpose of compliance activities like client profiling and due diligence?

41

Regulation of digital currency

How can we regulate payment transactions outside of regulated financial channels, such as digital currency, to ensure that there is visibility to regulatory and law enforcement agencies?

42

Custody asset transfers

How can we leverage on distributed technologies to perform custody asset transfers between different banks more effectively?



REGTECH & SUPTECH



43

Simplifying trade transactions

How can banks leverage on technology to simplify the processing and resolution of trade transactions, taking into account the complexity of regulations, number of parties involved and level of detail required for each transaction?

44

Visual insights of process improvements

How can we create visual insights of potential improvements in a corporate's business processes and provide solutions that can be effectively integrated?

45

Consolidated KYC information

How can we develop a shared, secure and encrypted industry-wide platform to consolidate and validate KYC information (e.g. basic individual, corporate and public data) to reduce time and resources spent whilst improving KYC/AML related processes?



REGTECH & SUPTECH



46

Streamlined AML process and shared database

How can we develop a common international platform and shared database to help FIs identify counterparties, company structures, along with other publicly available information to streamline and facilitate the AML process across the industry?

47

Automated risk analysis

How do we develop a smart system that tracks and monitors counterparty risk and market exposure in real time, taking into account sanctions, AML and KYC data and regulatory rules, to mitigate risks and exposure?

48

Common industry APIs

How can we create a digital financial services exchange to facilitate industry standardisation and foster creation of innovative customer centric solutions to reduce time to market and investment needed by banks in creating open APIs?



REGTECH & SUPTECH



49

Blockchain-enabled regulatory reporting

How can we leverage the advances in automated trading clearance systems on blockchain to include regulatory reporting processes that are transparent, user-centric and automated?

50

Automated reporting of operational performance

How can we automate the reporting of a financial institution's operational performance while meeting the required regulatory and compliance standards?

51

Automated reporting of shares

How can we develop a flexible, easy to access solution that can automate the recording, transfer and reporting of shares throughout the shareholder on-boarding, maintenance and reporting requirement processes in the asset management lifecycle?



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52

Optimised collateral and risk management

How do we optimise collateral and risk management in order to lower the cost of compliance, improve the speed of decision making and enable capital relief through financial structures?

53

Unique transaction numbers for bookkeeping

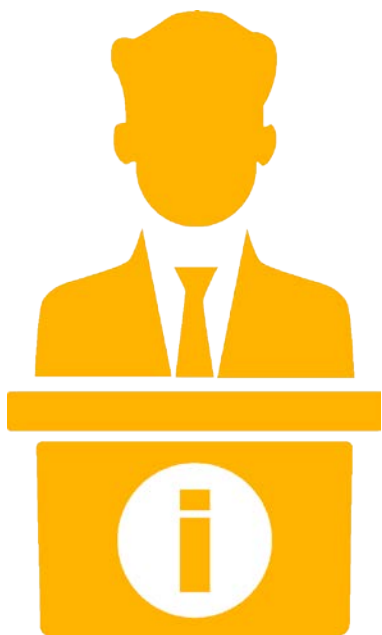
How can we efficiently and securely generate a mutually agreed unique transaction numbers for non-electronic and Over-the-Counter transactions so as to streamline bookkeeping and eliminate redundancies?

54

Layered data encryption

How can we use layered data encryption to enable selective disclosure of sensitive transaction data to identified parties in a secure manner, mitigating cybersecurity risks such as decryption by unintended parties with the right key?





GENERAL

Solutions which enable financial institutions to enhance customer experience or increase their efficiency.





55

Offset savings for charitable donations

How do we help customers track their savings through use of discount codes and offset these savings against future spending or charitable donations?

56

Digital philanthropy

How can we design a digital and engaging way for consumers to donate their spare change from everyday transactions to charity, resulting in reduced efforts deployed by charities to fundraise?

57

Robo-advisor 2.0

How can we facilitate the use of automation for financial advisors to assess customers' needs based on standardised questionnaires?





58

Improved customer onboarding

How can the online account opening process be enhanced to improve the customer's onboarding experience between different banks?

59

Centralised FI communications

How can we consolidate statements, bills, notices, and other communications between multiple FIs so that customers receive centralised information and real-time notifications?

60

Incoming portfolio assessment

How can we help FIs create a more proactive approach in assessing the quality of an incoming portfolio, enabling better selection and increased profitability?





61

Transitioning to “Smart” data

How can we develop tools to help businesses transition from the use of traditional analytics’ into “Smart” Data in order to better understand and react to customer behaviours?

62

Risk estimation and event detection

How can we utilise analytics to extract relevant insights from text documents for the purposed of risk estimation and event detection?

63

Social media enabled engagement

How can FI's use social media platforms to target and promote personalised credit cards, investment opportunities, insurance plans and other products to the consumers?





64

Virtual agent

How can we digitise the FA process such that a customer no longer needs to meet an advisor face to face?

65

IoT insights

How can we leverage insights drawn from IoT devices to develop new business models?

66

Operation efficiency

How do we leverage data to monitor and control our operational efficiency?





67

Targeted client recommendation

How do we leverage data to make better targeted recommendations to our clients during client prospecting, research, product and trade recommendation?

68

Optimised client collaboration

How do we effectively optimise client collaboration and workflow tools linked to incumbent systems to give customers control of how and when we communicate and collaborate with them?

69

Simplifying trade settlement cycle

How can we simplify the platforms and processes used by FIs to trade, clear and settle transactions to support various products and markets thus reducing operation costs, settlement risk and time taken to clear?





70

Shared digital identity verification

How can we enable banks to capture, verify and maintain digital identity attributes of a consumer to be used for Identity verification purposes in other institutions?

71

Micro payment transaction costs

How can we enable FIs to have low to zero cost transactions in order support the demands of instant and micro payment?

72

Nowcasting economic indicators

How can we leverage the abundance of information exchanged on alternate data sources for nowcasting of economic indicators?





73

Automated calls for action

How can we filter the thousands of emails received by FIs to detect which have specific calls for actions and route them to the appropriate user groups?

74

Trade finance authentication

How can we leverage data collected from IoT devices and sensors to automate the authentication of trade documents in a secure, trusted manner?

75

Abandoned sales insights

How can we help FIs to draw insights into abandoned sales journeys, thus enabling enhancement of their services for better sales attrition?





76

Trade document self-authentication

How do we develop a user-centric solution for agents and institutions to enable self-authentication of trade document fraud reduction?

77

Predictive FX models

How can regional exchanges be connected to publish indices in local Asian currencies and build vettable predictive FX models, to alleviate FX related timing issues and delays faced by asset managers in Asia?

78

Holistic financial planning

How can we help customers to have an aggregated view of their assets and liabilities across area like cash management, tax, loans, insurance, investment and retirement planning to make more informed financial planning decisions?





79

Core system augmentation

How might we find alternative, cost effective solutions for FIs to augment or replace their core systems with 3rd party solutions?

80

Digital currency cross-boarder opportunities

How can we develop business models to leverage the domestic and cross-border opportunities presented by the emergence of central bank digital currencies in order to benefit corporates and society at large?



GLOSSARY OF TERMS

AML	Anti-Money Laundering
API	Application Programming Interface
CPF	Central Provident Fund
FA	Financial Advisor
FI	Financial Institution
FX	Foreign Exchange
IoT	Internet of Things
KYC	Know Your Customer
PDS	Product Disclosure Statements
P2P	Peer to Peer
SME	Small And Medium-Sized Enterprise

SUBMISSION



Submit your entries at <http://matchi.biz/hackcelerator2018>.

Entry deadline: 15 June 2018

