

HONG KONG MONETARY AUTHORITY 香港金融管理局

Global Regtech Challenge

Summary Report

October 2021

Disclaimer: This Challenge was organised by the Hong Kong Monetary Authority (HKMA). It should be noted that the sole purpose of this Challenge was to raise the Hong Kong banking industry's awareness of the potential of Regtech adoption. The HKMA does not endorse any use cases and/or solutions mentioned in this event. If a bank intends to adopt a particular solution or implementation, it should undertake its own due diligence to ensure that the technology or approach is suitable for its circumstances.

Supported by

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Introduction to the Global Regtech Challenge

Introduction to the Global Regtech Challenge

Recognising Regtech's pivotal role in revolutionising risk management and compliance, the Hong Kong Monetary Authority (HKMA) developed a two-year roadmap in November 2020 to further promote Regtech adoption in the Hong Kong banking sector, as laid out in a White Paper entitled "<u>Transforming Risk</u> <u>Management and Compliance: Harnessing the Power of Regtech</u>". This competition, "Global Regtech Challenge", is one of the key highlights in the roadmap.

The Global Regtech Challenge was launched in March 2021 to raise the Hong Kong banking industry's awareness of the potential of Regtech adoption and to further grow the Hong Kong Regtech ecosystem. Regtech providers from around the world were invited to showcase how their solutions may be applied to the Hong Kong market to help solve common risk management and regulatory compliance pain points experienced by banks. The Global Regtech Challenge was supported by KPMG.



The Global Regtech Challenge in Numbers

Global Regtech Challenge

25 March - 30 June 2021

4



Promote Regtech adoption in the Hong Kong banking sector



Application Areas

- Governance, Risk and Compliance
- Conduct & Customer Protection
- Customer Data Privacy
- Risk Management

	Local banks supported evaluation and the 3-week Contextualisation Programme		
86 Applications	15		
15 jurisdictionsacross4 continents	Evaluation Panel members, representing the local Regtech ecosystem		
HONG KONG MONETARY AUTHORITY 香港金融管理局			



Problem Statements

As part of the research conducted during the development of the White Paper, a set of problem statements reflecting challenges faced by the industry, which had the most potential to benefit from further Regtech adoption as a whole, were identified. Specifically, they span across four Regtech application areas as defined within the White Paper, namely:



Detailed Problem Statements

Governance, Risk and Compliance (GRC) – Inventory of All Compliance Obligations



How might we use technology to optimise regulatory compliance specifically related to:

- Automating and streamlining the process of finding and assessing new regulations to be reviewed;
- Making available an up-to-date list, accessible by all, of the relevant bank-wide regulatory obligations indicating responsibility and how those responsibilities will be met; and
- Deliver assurance on and monitoring of the above-mentioned controls.

This will ensure institutions comply in full, while saving time and costs.

Conduct & Customer Protection – Product Due Diligence & Risk Rating



How might we use technology to support financial product developers as well as risk and compliance teams with their product due diligence and product risk rating assessments, specifically:

- Data collection given product data can take many forms and the process of collection is not standardised;
- Interpretation of requirements especially for complex products and from both the customer and the organisation (reputational) points of view;
- Consistent Product Risk Rating modelling, ensuring standard application of relevant requirements across different products;
- Maintenance of supporting platform and compliance process including ongoing product due diligence and risk rating assessments; and
- Making real time product info e.g. risk ratings available to Relationship Managers and other frontline staff to ensure compliant selling process.

Ultimately the solution(s) will save product, risk and compliance teams time, and ensure compliance while protecting customers from being offered unsuitable products/ not receiving the relevant full disclosures.

Detailed Problem Statements

Conduct & Customer Protection – Customer Data Privacy



With many data breaches occurring due to internal issues rather than external factors and with the significant increase in employees working remotely during the pandemic, how might we use technology-based solutions to help banks protect customer data and privacy especially in addressing increasing concerns around cyber risks and related regulatory compliance.

This problem statement is not concerned with monitoring for employee productivity purposes but rather, focused on employee security, risk and compliance aspects.

Some specific solution features could include:

- Analyse anomalies around data access and usage;
- Alert potential security breaches;
- Detect leaks and prevent data loss/ notify relevant parties where appropriate; and
- Remote data deletion/ recovery.

Risk Management – Stress Testing



Stress testing in banks is strategically important and it is a requirement from regulators to model specific scenarios and report on the outcomes. A broad variety of risks are modelled at different frequencies including for example large exposures, market, liquidity, credit, reputational and strategic risk.

How might we, through a technology solution, support the delivery of the stress testing requirements by the different risk, compliance and business unit teams and reduce the resources required by for example:

- Integrating and consolidating different requirements for coordinated stress testing result delivery;
- Standardise outputs in a consistent manner and bring efficiencies to the stress testing processes; and
- Consolidate data requirements for different stress tests and ringfence the datasets required to be managed and updated centrally for easy access when running the models.

Challenge Process

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Challenge Process

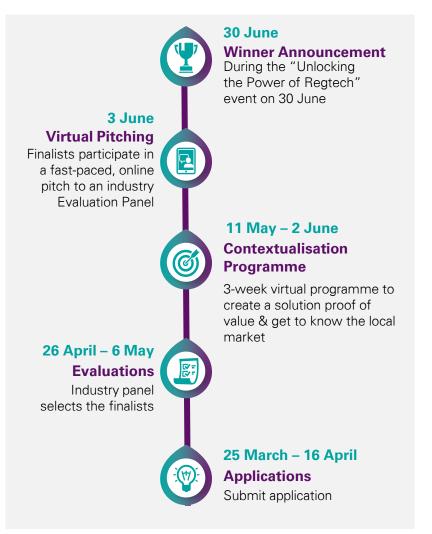
A total of 86 applications were received from 15 jurisdictions across 4 continents.

15 members from the Hong Kong Regtech ecosystem were invited to join the Evaluation Panel and they selected the finalists and winners. The Evaluation Panel had members representing banks, Bank for International Settlements, industry associations, investors, academics, incubators, and regulators.

Each of the validated applications was scored by five members of the Evaluation Panel using eight pre-set criteria. The aggregated scores were then used to compile a ranked shortlist of applications per problem statement. The two highest ranking solutions for each problem statement were selected as finalists.

The finalists were invited to join a three-week Contextualisation Programme between 11 May and 2 June. This consisted of a series of virtual activities to help the selected finalists gain further understanding of and insight into the Hong Kong market so as to ensure their solutions are relevant to the local market.

As a final stage, in the virtual pitching event on 3 June, the finalists shared the outcome of their proof of value cases, demonstrations of their solutions as well as information of their teams, traction in the market and solution scalability. The Evaluation Panel scored each of the eight finalists to determine the winner per problem statement. The Challenge winners were announced during the HKMA's flagship Regtech event "Unlocking the Power of Regtech" on 30 June.



Evaluation Panel

Distinguished Evaluation Panel - Banks

The Evaluation Panel consisted of representatives from across the regtech ecosystem in Hong Kong.



Aveline San Chief Compliance Officer, Asia Pacific, Citibank N.A



Danielle Szetho Regional Lead, Fintech Advisory Standard Chartered Hong Kong



Debra Au Chief Compliance Officer Hong Kong and Macau HSBC



Michelle Lee Deputy GM Innovation & Optimization Centre Bank of China (HK)



Ronald Fung General Manager and Chief Digital Officer Bank of East Asia



Shirley Liang Head of Innovation, Legal, Compliance & Secretariat DBS Bank (Hong Kong)



Spencer Leung Chief Risk Officer **Livi**

Distinguished Evaluation Panel - BIS, Industry Associations and Investor



Bénédicte Nolens Head of BIS Innovation Hub BIS Innovation Hub (HK)



Amy Lo Chairman Private Wealth Management Association



Brian Tang Co-chair, Regtech Committee Fintech Association of Hong Kong



Melissa Cannon Guzy Co Founder and the Managing Partner Arbor Ventures

Distinguished Evaluation Panel - Incubator, Regulator, Academics



Peter Yeung Head of Electronics & ICT Clusters, Smart City Platform Hong Kong Science and Technology Parks



Tony Chan Associate Director Insurance Authority Hong Kong



Prof. Douglas W Arner Kerry Holdings Professor in Law **University of Hong Kong**



Prof. Kai-Lung Hui Academic Director, MSc Fintech Programme Hong Kong University of Science and Technology

Contextualisation Programme

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Contextualisation Programme

The Contextualisation Programme consisted of a series of virtual activities to help finalists gain a deeper understanding of and insight into the Hong Kong market in order to ensure their solutions are relevant to the local market.

The programme consisted of three key elements:

- 1. Group activities
- 2. Individual activities
- 3. Proof of Value case development

Group and Individual Activities

The group activities comprised virtual sessions to cover specific topics and included:

Торіс	Format	Content	
Regulatory Landscape	KPMG Presentation	Presentation covering the Hong Kong regulatory landscape as well as deep diving on the regulatory requirements per problem statement.	Individual activities aimed to ensure that
The Hong Kong Regtech Ecosystem	Panel Discussion	 Panel discussing the main Regtech ecosystem players as well as the support they provide firms to enter the market. Panel members included: Paul McSheaffrey, Partner, KPMG and the conversation moderator Bernard Ng, Senior Manager, Regtech Lead, Hong Kong Science and Technology Parks Corporation Brian Tang, Co-Chair of the Regtech Committee, Fintech Association of Hong Kong Lawrence Yeung, Director and Treasurer, Regtech Association of Hong Kong Rico Tang, Senior Manager, FinTech Cluster Team Lead, Cyberport Hong Kong 	the finalists' technologies were compliant with local regulations and that they were supported in their pitch preparation. Teams were invited to make use of subject matter experts to ensure their
Investment Opportunities	InvestHK Interview	Conversation with King Leung, Head of Fintech, InvestHK around local government and private sector support for businesses at various stages.	technologies met regulatory requirements.
Doing Business In Hong Kong	Presentation	Presentation by Angela Zhang, Associate Director, KPMG, on the business culture in Hong Kong including tips on building business relations.	

Corporate Champions Actively Supported the Proof of Value Case Development

Banks were invited to support the Regtech finalists' Proof of Value case development by acting as "Corporate Champions".

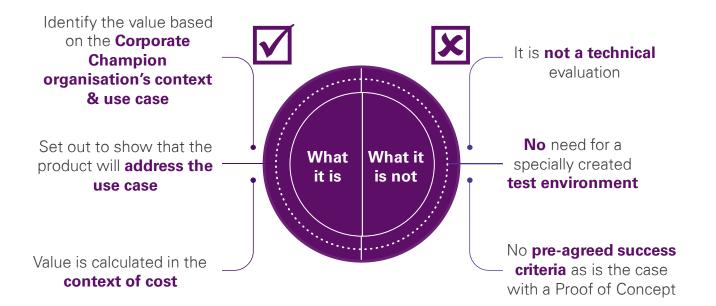
Seven banks accepted the invitation and their Corporate Champions liaised with the Regtech finalists, connecting the finalists to the appropriate resources in the banks to help in compiling their Proof of Value cases.

The Global Regtech Challenge process was enhanced through the efforts of the Corporate Champions and we sincerely thank them for their support.

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Governance, Risk	Conduct & Customer	Customer Data	Risk
and Compliance	Protection	Privacy	Management
Citibank	HSBC	Industrial and Commercial	Bank of China
(Hong Kong)	(Hong Kong)	Bank of China (Asia)	(Hong Kong)
UBS AG	Livi Bank	UBS AG	DBS Bank
(Hong Kong)		(Hong Kong)	(Hong Kong) Limited

Proof of Value Case Development

The Proof of Value case gave each team the opportunity to work with representatives from a local bank to calculate the potential value their solution offered in the local market. It also served as a key input into each team's pitch.



The Proof of Value case assumed that the technology would work. Hence, pre-agreed success criteria were not defined and a test environment was not required. The Proof of Value case development sets out to define an appropriate use case, and to calculate the net value the solution would deliver in the context of the Corporate Champion's organisation. It took into

account the size of the local market as

Within a period of three weeks, the

teams selected the use case and

calculated the relevant value.

well as local costs.



The Final Pitch Event



Integrating the insights gained from the Contextualisation Programme, the finalists prepared and presented their final pitch on 3 June in a virtual pitch session.

Each team had 10 minutes to pitch their solution and 5 minutes to answer questions from the Evaluation Panel members.

The Evaluation Panel scored each of the pitches in real time online.

The winners per problem statement were announced during the HKMA's flagship RegTech event "Unlocking the Power of Regtech" on 30 June.

10 minutes

Pitch Content

Introduce the solution

- Demonstrate the solution
- Share the Proof of Value outcome
- Provide solution & company context
- Evaluation Panel could ask the finalists questions

Questions & Answers

5 minutes



Finalists: Winners and Runners-up

.79%

%88

The Winners and Runners-up

Below are summaries of the application information submitted by the winning and runner-up technology solution firms.

Problem statement	Winner	Page	Runner-up	Page
Problem Statement 1: Governance, Risk and Compliance	Wolters Kluwer	<u>25</u>	IBM	<u>29</u>
Problem Statement 2: Conduct & Customer Protection	Fano Labs	<u>26</u>	Apiax	<u>30</u>
Problem Statement 3: Customer Data Privacy	LeapXpert	<u>27</u>	Innoblock	<u>31</u>
Problem Statement 4: Risk Management	Wolters Kluwer	<u>28</u>	SAS	<u>32</u>

Please note that the following pages contain marketing materials provided by the Regtech finalists. The HKMA does not endorse any of the solutions mentioned.

Wolters Kluwer



Winner of Problem Statement 1: Governance, Risk and Compliance

Wolters Kluwer's OneSumX provides end-to-end Regulatory Compliance in-abox with best-in-class understanding and interpretation of global regulations and corresponding local flavours.



Subbaiyan Vaithinathan Director, Regulatory Reporting APAC



Mithy Vaishali Senior Technology Product Manager

Founded 1836

Website https://www.wolterskluwer.com

dovernance, misk and compliance	
Key Benefits	Geographies
• OneSumX helps banks bring 40% to 60% of operational efficiency in	Wolters Kluwer's OneSumX has more than 500 customers worldwide, of which more than 200 are in APAC and 40 clients in Hong Kong.
an explicit way. OneSumX ensures 100% accuracy of regulatory submissions resulting in negligible manual adjustments.	How the Solution Solves the Problem
	 In-depth understanding & interpretation of compliance regulations.
Description	Standard yet extendible data models and taxonomy.
OneSumX is a fully integrated Risk, Finance & regulatory reporting solution with the following components:	 Pre-packaged configurations to meet compliance requirements. Developing technological innovations to address the market
Central Data Layer: An enterprise-grade risk & finance data model with the reusability of data and application components as the core design principle.	needs.
Calculation engine: OneSumX calculation engine integrates finance,	Unique Value Proposition
risk and reporting calculations in a single layer with data fed from the central data layer.	• Transforming data into organization assets by helping banks take data-driven decisions .
Reporting Layer covers modules like Finance (e.g.IFRS9, multi-GAAP financial reporting etc), Risk (e.g. Capital Adequacy, Credit risk,	 Focus on Strategic Growth Initiatives by reducing resource requirements to maintain the solution.
Market Risk, Liquidity risk, etc.) Regulatory Reporting and Business Analytics to uncover deeper business insights into the data,	 Compliance at all times via the regulatory update service and helps with prudential/multi-entity consolidated reporting.
Stress testing and Reverse stress testing uses scenario-based	Fully Integrated Finance, Risk & Reporting Solution.
components cutting across baseline and stressed scenarios for different risk types	Global expertise with local presence.

Fano Labs



Winner of Problem Statement 2: Conduct & Customer Protection

Fano Labs' Callinter uses Al-powered multilingual speech technologies to supervise Banks' financial product sales processes to ensure compliance with regulatory requirements.



Dr. Miles Wen Founder CEO



John Poon **VP** Business Operations



Terence Pong VP Product Marketing

Founded	2015
Website	https://www.fano.ai

Key Benefits	Geographies
100% interaction will be transcribed and analyzedIdentify interactions with potential compliance risk such as oversell	Hong Kong based and have coverage in Asia.
 Understand why customers are calling and conduct root cause analysis in order to improve products/ services 	How the Solution Solves the Problem
 Improve customer service representative performance based on their scorecard results and identify room for improvement 	 Powerful Speech Recognition which understands mixed languages and domain-specific terminologies.
Description	Automation of the compliance check process.Identify potential churn customers.
	Evaluate staff performance and training effectiveness.
Fana Laba provides a smart analach analytics avatam Callinter which	 Business insights through analysing interactions.
Fano Labs, provides a smart speech analytics system, Callinter, which can greatly enhance the management capabilities, risk management,	Data sanitization protects customer data.
and business development for FSI, such as banks, insurance companies, as well as regulatory entities.	Unique Value Proposition
Callinter is able to accurately transcribe the recordings into text for	

com Calli detailed review and analysis. First, the solution can separate different speakers in the conversations (including mono recording). Then, it will transcribe the speech into text, and finally carry out different types of analysis, e.g. compliance check, staff performance, etc.

Here is the workflow of Callinter:

Voice Recordings -> Transcribed Text -> Score Card Template -> Final Score and Report

- Can support mono recording which contains multiple speakers.
- User friendly tools for users to build their own AI bots.
- Accurate transcription that delivers significant business benefits for example: track and note regulatory compliance per call, check delivery per agent, aggregate individual's call feedback data to identify the individual agent's development areas and aggregated data on a team/ unit level for group feedback and to guide training initiatives.





Winner of Problem Statement 3: Customer Data Privacy

LeapXpert's Federated Messaging Orchestration Platform enables enterprises to embrace messaging applications and integrate them with their business-critical applications.



Dima Gutzeit CEO & Founder



Katherine Gudgin Marketing Director

Founded 2017 Website www.Leap.expert

Key Benefits	Geographies
Improves customer experience (CX) - Customer can communicate with their financial service provider via their favourite applications and channels.	Have clients in 45 countries and territories globally.
Compliant Communication - all conversations are securely captured, archived, monitored and available to stakeholders (e.g. Regulators, Legal, Audit, Compliance, etc).	How the Solution Solves the Problem
Data Privacy - Client conversation data is not stored on the employees' personal messaging application and/or personal device.	 Gives visibility to any issues or breaches or anomalies in data access and usage.
Description	 Gives warnings to employees and administrators as well as preventing potential data breaches.
LeapXpert is a single, secure and compliant enterprise platform for employees to communicate with their clients who are using their favourite consumer messaging application. We can integrate with	Ensures conversations cannot be hidden, lost or deleted.
business-critical applications, systems and processes (Monitoring & Surveillance, Security & Admission, Bank Operating Systems, CRM, etc.).	Unique Value Proposition
Customers (Bank, Financial Services, Insurance etc) can install the platform on-premise or on their preferred cloud service (Amazon AWS,	 Enables enterprises to embrace messaging applications and integrate them into their business-critical applications.
Microsoft Azure, Google Cloud Platform, Alibaba Cloud etc) based on their corporate, jurisdictional and regulatory requirements.	• Empowers companies to securely communicate from one central source to a customer on the messaging app of their choice.
Currently, LeapXpert supports WhatsApp, WeChat, LINE, Signal, Telegram, SMS and is integrated with Microsoft Teams with more	 a single, centralized, mobile-first platform that is future proofed and designed with the customer in mind.
communication channels to be released.	They have three patents.

Wolters Kluwer



Winner of Problem Statement 4: Risk Management

Wolters Kluwer's OneSumX stress testing capability with integrated data and reporting solution, seamlessly and comprehensively address the risks in banks' portfolios.



Subbaiyan Vaithinathan Director, Regulatory Reporting APAC







Mithy Vaishali Senior Technology Product Manager

Founded 1836

Website https://www.wolterskluwer.com

Key Benefits Geographies Wolters Kluwer's OneSumX has more than 500 customers worldwide, of which more than 200 are in APAC and 40 clients in • OneSumX helps banks bring 40 to 60% of operational efficiency in Hong Kong. an explicit way. How the Solution Solves the Problem OneSumX ensures 100% accuracy of regulatory submissions resulting in negligible manual adjustments. In-depth understanding & interpretation of compliance regulations. Standard yet extendible data models and taxonomy. Description • Pre-packaged configurations to meet compliance requirements. OneSumX is a fully integrated Risk, Finance & regulatory reporting · Developing technological innovations to address the market solution with the following components: needs. Central Data Laver: An enterprise-grade risk & finance data model with the reusability of data and application components as the core design principle. **Unique Value Proposition** • Calculation engine: OneSumX calculation engine integrates finance,

- Calculation engine: OneSumX calculation engine integrates finance, risk and reporting calculations in a single layer with data fed from the central data layer.
- Reporting Layer covers modules like Finance (e.g.IFRS9, multi-GAAP financial reporting etc), Risk (e.g. Capital Adequacy, Credit risk, Market Risk, Liquidity risk, etc.) Regulatory Reporting and Business Analytics to uncover deeper business insights into the data,
- Stress testing and Reverse stress testing uses scenario-based components cutting across baseline and stressed scenarios for different risk types

- Transforming data into organization assets by helping banks take data-driven decision.
- Focus on Strategic Growth Initiatives by reducing resource requirements to maintain the solution.
- Compliance at all times via the regulatory update service and helps with prudential/multi-entity consolidated reporting.
- Fully Integrated Finance, Risk & Reporting Solution.
- Global expertise with local presence.

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Runner-up for Problem Statement 1: Governance, Risk and Compliance

Identify, classify and manage risk on IBM's OpenPages leveraging analytics, cognitive and AI for risk-aware decision making, and improved compliance across your organisation



Heather Gentile Head of Regtech Offerings



Ian Francis Principal Solution Consultant, GRC



Lindsay Wershaw Product Marketing Manager, OpenPages with Watson

Founded 1911 Website <u>http://www.ibm.com</u>

Key Benefits	Geographies
Infuses AI into GRC processes and drives adoption with zero training and a task-focused UI into all three lines of defence. It is an AI-driven governance, risk and compliance solution that helps anticipate	Americas, Europe, AMEA, APAC
egulatory change, reduce impact and likelihood of risk events and avoid penalties.	How the Solution Solves the Problem
This has shown to yield an average savings of \$5.1 M in reduced risk management effort and penalty avoidance over three years.	 Deliver just-in-time information to users, enabling them to make more risk-aware decisions
Description	 Supports agile development for rapid time-to-value using a common data model
BM OpenPages with Watson (OpenPages) is a fully integrated Governance, Risk and Compliance (GRC) solution to enable clients to dentify, classify and manage risk in their organization.	• A scalable GRC platform to drive down costs and manage risks
DpenPages, available on-cloud and on-premise, is an integrated platform and data model across all risk and compliance processes that	Unique Value Proposition
everages IBM analytics, cognitive and AI to help improve efficiency and effectiveness across the organization. This enables risk-aware decision making, ensures compliance, and improves business performance, across all lines of defence in the enterprise. OpenPages is a complete platform and suite of GRC modules to service the various aspects of risk and compliance management such as Operational Risk, IT Risk Governance, Internal Audit, Model Risk	 Helps organizations reduce regulatory burden while increasing trust, transparency and confidence in managing enterprise risk across the organization Allow institutions to evaluate their risk posture quicker, improve processes and controls, reduce the risk of losses, and protect their reputation with customers and regulators
Governance, Regulatory Compliance, Policy Management, Third-Party Risk, Data Privacy, and Business Continuity Management.	Flexible and easy to configure

APIAX



Runner-up for Problem Statement 2: Conduct & Customer Protection

Apiax simplifies complex regulatory knowledge into simple yes-or-no answers, placing a rules repository at the centre of the organisation to increase compliance.



Ralph Huber Co-Founder



Yvonne Ngai APAC Business Lead

Founded	2017
Website	www.apiax.com

It 2: Conduct & Customer Protection	
Key Benefits	Geographies
Gives everyone in the organization easy access to compliance knowledge, and allows quick and precise answers that are needed to	Singapore, Hong Kong, Switzerland, Germany, UK, US.
regulatory questions in daily interactions.	How the Solution Solves the Problem
Transform regulatory knowledge into binary yes-or-no answers and place a rules repository at the centre of the organisation.	 Easy to understand and single answers to complex regulatory question.
Description	 Phasing out having legal content in text based format and providing a friendly platform which allows legal and compliance teams to easily access, customize and manage all the rules in action.
	 Make sure the front-end employees have up-to-date and binary information when serving clients.
Besides the technology to build digital rules on the Apiax platform, the solution provider offers ready-to-use digital compliance rules for different regulatory topics (cross-border compliance, tax impact, data protection and many more) which can be accessed in various forms.	Unique Value Proposition
These rules can be used for various use cases such as conducting suitability checks on a client portfolio or planning client meetings and marketing activities. They can be accessed through a stand-alone app where specific scenarios can be checked or directly integrated into existing systems and processes via API access to the digital rules	 Gives financial institutions easy access and control over digital compliance rules.
	• Clients' regulatory experts can adapt their digital compliance rules to their risk appetite and in-house preferences.
	• Enables organizations to compete in more markets, with lower compliance costs.

InnoBlock



Runner-up for Problem Statement 3: Customer Data Privacy

InnoBlock's SafeGuard Series – All-in-One solution to detect and prevent improper use and leaking of sensitive data by computer visions.



Kevin Ng CEO Rowena Wong Head of Sales & Marketing

Founded 2019

Website <u>http://www.innoblocktech.com</u>

Key Benefits	Geographies
 SafeGuard Series fulfil the industry gap, detect leaks and prevent data loss. 	Hong Kong, China, Malaysia, and Cambodia
It is very difficult for companies to protect their data outside the office, especially for those people who work from public spaces/ home.	How the Solution Solves the Problem
 Notify relevant parties where appropriate. 	
Description	Offers a solution for an enterprise customer to prevent and detected data leakage via external threats like: Loss or theft of laptops or mobile devices.
SafeGuard Series is a cybersecurity solution to maintain the integrity of data by adopting blockchain, facial recognition, and object detection technologies. Currently, there are three versions on PCs and mobile devices SafeGuardChain, SafeGuard Lite PC, and SafeGuard Lite Mobile.	Data theft by employees or external parties. Unique Value Proposition
SafeGuardChain solutions:	
 Integrates the traditional Data Leakage Prevention (DLP) techniques with AI and Blockchain. 	• Patent application in progress.
 Identifies and addresses this pain point of confidential data leakage through external threats. 	
• The system will automatically log out when unauthorized users and target objects such as cameras are detected.	
• This is done to maintain the integrity of the data and all records will be kept on the blockchain which is immutable.	



Runner-up for Problem Statement 4: Risk Management

Comply with regulatory requirements and identify business opportunities and risks using scenario-based analysis.



Dennis Leung Head of Pre-Sales Nicholas Lee Solutions Architect

Founded 1976

Website <u>https://www.sas.com</u>

Key Benefits	Geographies	
 Improve process efficiency. An open and extendible solution. Align stress tests with internal capital planning. 	Global – US, Canada and EMEA, Asia Pacific - Singapore and Japan	
Transparency and auditability.	How the Solution Solves the Problem	
Agile support for multiple jurisdictions and configurations.		
• Extendable use case for stress testing.	 Timely delivery of stress testing results (hours). 	
Description	 Flexibility and transparency for application of testing to disparate systems. 	
	 Offers consistency of governance and controls across data and models. 	
Stress testing ("ST") is the preferred supervisory tool as a self- assessment of potential vulnerability to adverse events, but Financial Institutions ("FIs") are expected to integrate their ST results into their	Centralized solution.	
capital adequacy assessment process ("CAAP"), risk appetite and strategy.	Unique Value Proposition	
Enterprise stress testing has become the de facto tool for managing		

Enterprise stress testing has become the de facto tool for managing systemic risk within the financial services industry. Today, not only is it the preferred supervisory tool across the globe, but institutions are increasingly adopting stress-testing tools and techniques to better inform their business decisions.

The SAS® enterprise stress-testing solution combines a flexible analytics platform with best-in-class, feature-rich content to help FIs manage the entire ST process.

- Supports end-to-end process to measure and manage climate risk.
- Open, white box solution.
- In-memory grid computing produces results in hours.
- Single platform for multiple use cases.
- Dynamic balance sheet management.



