



Work Programme FY 2021/22

# Establishment

- The Innovation Hub was established by the BIS in 2019, with a mission to foster international collaboration on innovative financial technology within the central banking community.
- The Hub's mandate is threefold:
  1. Identify and develop in-depth insights into critical trends in financial technology of relevance to central banks;
  2. Explore the development of central bank public goods – typically as proofs of concept to be delivered to central banks – to enhance the functioning of the global financial system;
  3. Serve as a focal point for a network of central bank experts on innovation.
- The Hub has centres in multiple locations, catalysing collaborative efforts among central banks, and cooperation, when appropriate, with international organisations, academia, financial service providers and the broader private sector.

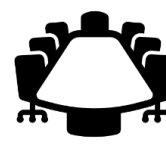
# The Hub's strategic focus themes

The Hub's project portfolio has been curated around the key themes identified as being of critical importance to the Hub and to the central banking community:



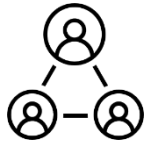
## **Suptech and regtech**

AI/ML, market monitoring, data analytics



## **Open finance**

APIs in the open banking context and related data issues

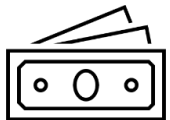


## **Next-generation financial market infrastructures**

Capital markets projects, foundational digital infrastructures, tokenisation of assets, cross border payments and payment infrastructures



## **Cyber security**



## **Central bank digital currencies**

Wholesale and general purpose CBDC, in-house DLT capacity



## **Green finance**



# Mapping of projects across existing centres and themes



## BISIH strategic focus themes

1	<b>Suptech and regtech</b>	Monitoring of fast-paced markets (Rio)	G20 TechSprint	Reg. reporting platform	
2	<b>Next-gen FMs</b>		Foundational Digital Infrastructures (FDI)		
3	<b>CBDC</b>	Central bank money on tokenised platforms (Helvetia)	Platform for settling cross-border payments using multiple w-CBDC	Multiple CBDC bridge	Retail CBDC
4	<b>Open finance</b>			Digitising Trade Finance	
5	<b>Cyber security</b>	Secure Coding Competition			
6	<b>Green finance</b>			Tokenisation of Green Bonds	

Concluded projects
 Existing projects continuing into 2021/22
 New projects in 2021/22
 Name of the projects

**Disclaimer:**

The projects, including proofs of concept and prototypes, described in the work programme are being implemented by the BISIH for the sole purpose of investigating the technological and practical feasibility of particular designs and products and should not be understood to imply or express any regulatory policy stance or endorsement by the BIS or any other party.

## 1 Suptech and regtech projects



**Rio** is a prototype of a central bank-specific, real-time capable market monitoring platform. The cloud-based stream processing platform will process real-time financial data feeds and compute relevant liquidity and market risk measures. (see slide 8).



**G20 TechSprint** was a joint initiative of the BISIH and the Saudi G20 Presidency designed to showcase the potential for new innovative technologies to resolve operational problems in the areas of regulatory compliance and supervision. Outputs: [Press release](#) | [Video](#)



**Regulatory reporting platform:** an open-source proof-of-concept and prototype that will enable real-time data analytics using artificial intelligence and machine learning tools that supervisors can deploy to use and validate for risk assessments specific to their requirements.

## 2 Next-gen FMIs projects



**Foundational digital infrastructures (FDI)** is a blueprint for a next-generation global public digital infrastructure that explores how digital identity, payments and data-sharing can be made open, interconnected and available across borders. The first application of FDI will be in the field of cross-border payments.

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### 3 CBDC projects



**Project Helvetia**, undertaken with the Swiss National Bank (SNB) and the financial infrastructure operator SIX, demonstrates the functional feasibility and legal robustness of settling tokenised assets with a wholesale CBDC (proof of concept 1) and through linking a digital ledger technology platform to existing payment systems (proof of concept 2) in a near-live setup. The experiment should not be interpreted as an indication that the SNB will issue a wholesale CBDC. Outputs: [Press release](#) | [Report](#) | Videos: [Overview](#); [Delivery versus payment with w-CBDC \(PoC1\)](#); [Delivery versus external payment \(PoC2\)](#); [Redemption of wholesale CBDC \(PoC1\)](#)



**Platform for settling cross-border payments using multiple wholesale CBDCs:** explores the creation of an international settlement platform onto which central banks would issue multiple wholesale CBDCs. Regulated banks and payment service providers would then use the platform as a common settlement infrastructure, enabling participants to purchase, exchange, transact and redeem these different CBDCs.



**Multiple CBDC bridge:** builds on the experience of Inthanon-LionRock, a project of the Hong Kong Monetary Authority and the Bank of Thailand, to study the adoption of DLT to facilitate real-time cross-border fund transfers and atomic payment versus payment for foreign exchange transactions. The project also intends to enhance a cross-border corridor network prototype to support CBDCs of other central banks.



**Retail CBDC** studies the benefits and challenges of tiered architectures for the distribution of retail CBDC through commercial banks and payment service providers. This project will investigate two architectural models: hybrid CBDC and private CBDC-backed stablecoins.

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## 4 Open finance projects



**Digitising Trade Finance** seeks to address the significant gap in global trade financing by working with the private sector towards developing prototypes / proofs of concept that facilitate connections between digital islands, trade finance inclusion for SMEs and tradetech for emerging market economies.

[TechChallenge](#) outputs: [Press release](#) | [Information Pack](#) | [Showcase](#) | [Video](#)

## 5 Cyber security projects



The **Secure Coding Competition** was hosted by the Swiss Centre and the BIS Cyber Resilience Coordination Centre in Q4 2020 as an informal and friendly coding training for central banks. It attracted around 60 developers from more than 20 central banks who competed to develop their skills across multiple programming languages.

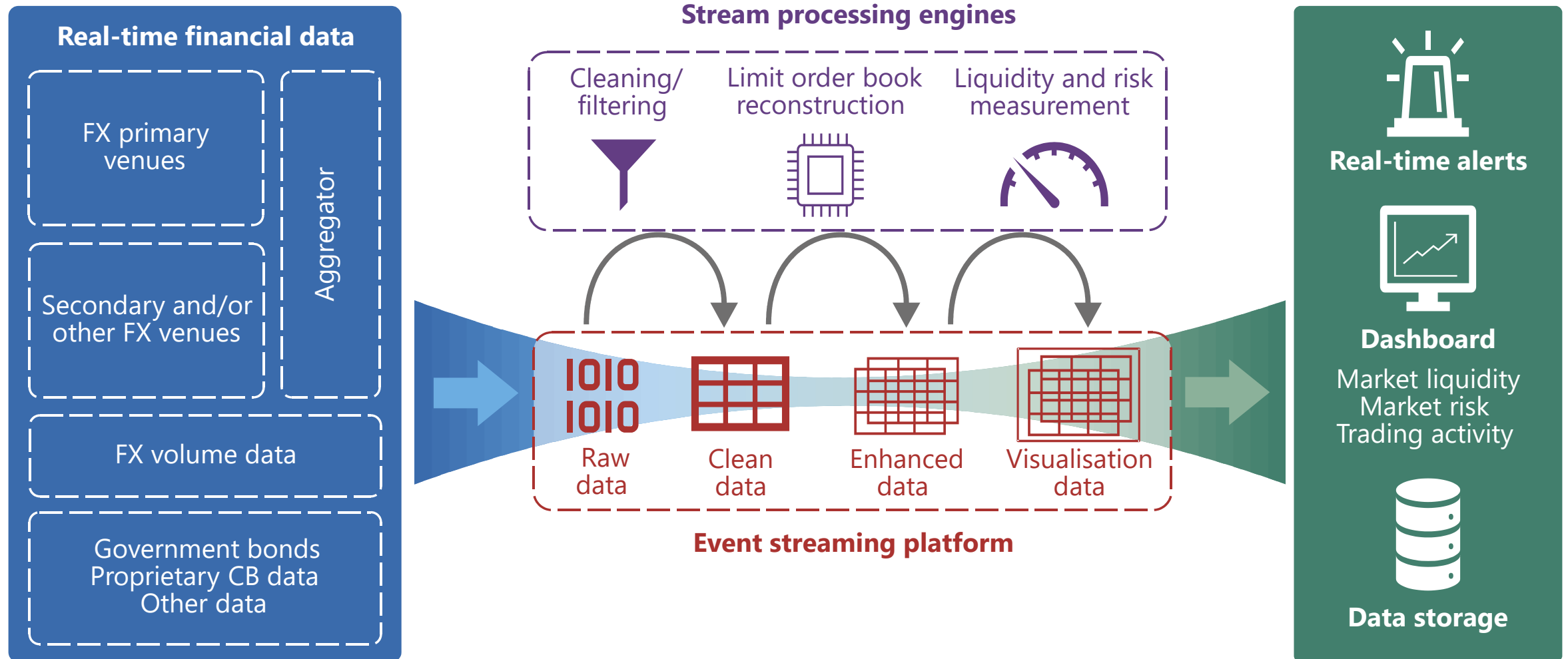
## 6 Green finance projects



**Tokenisation of Green Bonds** is a prototype for studying the applicability and scalability of tokenised retail bonds. The aim is to assess whether and how to pursue the introduction of tokenised green bonds in small denominations for retail investors.

 Concluded projects    Existing projects continuing into 2021/22    New projects in 2021/22

## Hub projects example – Rio: a cloud-based real-time market monitoring tool











## BIS Innovation Network

- The BIS Innovation Network will enable the Hub to draw on the significant pools of talent and expertise on innovation that exist throughout the BIS' membership. All 63 BIS member central banks were invited to join the Network.
- The Network will be member-driven and will strive to be agile, creative, collaborative and flexible.
- As a starting point, the Network established topical Working Groups around the six strategic themes of the Hub's project portfolio. These will initially focus on central banks' problems/prototypes in early stages of development to kick-start collaboration on practical problem statements and solutions, and exchange views on nascent technologies.
- The first meeting of the Network took place on 19 January 2021; Chairs of the Working Groups were appointed. A second meeting of the Network will take place in July 2021.

# BIS Innovation Network Working Groups Chairs

Broad and diverse representation from central banks in different regions

## BISIH strategic focus themes

1	<b>Suptech and regtech</b>	<b>Ms Susan Slocum</b> (Senior Manager, Innovation Lab Information Technology Department), Reserve Bank of Australia	
2	<b>Next-gen FMs</b>	<b>Ms Siritida P. Ayudhya</b> (Assistant Governor for Payment Systems Policy and Financial Technology), Bank of Thailand	
3	<b>CBDC</b>	<b>Mr Marius Jurgilas</b> (Member of the Board), Bank of Lithuania	
4	<b>Open finance</b>	<b>Mr Aristides Andrade Cavalcante Neto</b> (Deputy Head of Cybersecurity and Tech Innovation), Central Bank of Brazil	
5	<b>Cyber security</b>	<b>Mr Tomer Mizrahi</b> (Chief Technology Officer), Bank of Israel	
6	<b>Green finance</b>	<b>Ms Sharon Donnery</b> (Deputy Governor, Central Banking), Central Bank of Ireland	

# A global force for innovation

