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MEDIA RELEASE

MAS-Led Consortium Develops AI-Powered System to Support Sustainable Finance in Real Estate Sector

Singapore, 14 November 2023… The Monetary Authority of Singapore (MAS) today announced a Minimum Viable Product (MVP) that can assist banks to tap on Artificial Intelligence (AI) when issuing Sustainability-Linked Loans (SLLs) in the real estate sector. The MVP was developed by the Project NovA! consortium which has concluded the first phase of its work [1]. The NovA! consortium also published a whitepaper which documents the methodology used in the MVP system.

2   The next phase of NovA! was launched at the Singapore FinTech Festival 2023[2] today by Mr Tan Kiat How, Senior Minister of State for the Ministry of National Development and Ministry of Communication and Information, who announced the strategic collaboration between MAS and the Building and Construction Authority (BCA) to connect data and services from BCA's Super Low Energy Building (SLEB)[3] database.

3   The first phase of Project NovA! focused on addressing key challenges faced by banks in extending SLLs:
- inaccurate settings for Sustainability Performance Targets (SPTs) due to data scarcity and inconsistency;
- greenwashing concerns which affect about 50% of SLLs; and
- inefficient processes leading to manual errors in reading and interpreting disclosures from lenders.

4   Three core features in the AI-powered MVP developed in phase one of Project NovA! will help banks address the above challenges:

- **Facilitate setting performance targets for SLLs in real estate sector through peer and industry benchmarking.** By harnessing data from government sources and conducting property-specific peer and industry comparisons, AI technology can be used to help banks set Key Performance Indicators (KPIs) judiciously and establish practical SPTs, to enable a more accurate sustainability assessment.

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[1] Project NovA! was launched in 2021 as part of the National Artificial Intelligence (AI) Programme in Finance. Please refer to Annex for a list of Project NovA! consortium members.
[2] The Project NovA! launch event was held at the Capital Meets Policy Dialogue which is part of Elevandi Insights, a curtain raiser to the Singapore FinTech Festival. Elevandi Insights gathers regulators, policymakers, industry leaders and investors in a series of exclusive leadership dialogues, workshops and networking reception.
[3] SLEB Smart Hub is a national digital platform for green buildings with a wealth of green building data, offering insights and analytical tools that promote building energy efficiency and built environment decarbonisation. Details about SLEB Smart Hub can be found at this link

- **Monitor against selected KPIs/SPTs to curb greenwashing.** By using buildings' energy consumption data on a continuous basis at-source[4], NovA! enables banks to compare borrowers' current sustainability performance with the agreed SPTs on a more timely basis. Risk assessment teams from banks can swiftly identify discrepancies, ensure SLLs maintain their intended impact, and curb greenwashing.

- **Enhance processing sustainable finance transactions through Autonomous Documentation Insights Engine (ADIE).** This feature utilises Natural Language Processing to enable banks' relationship managers, KYC teams, and sustainable finance units to extract sustainability insights, such as a company's total greenhouse gas emissions, swiftly and accurately from diverse sources. This is a shift away from manual processing of disclosure documents, allowing for more informed decision-making based on comprehensive data extracted from borrower disclosures.

5   In the next phase, MAS will collaborate with BCA to tap on BCA's SLEB database, to enable NovA! to access country-wide data on green buildings. This will help banks to identify prospective green building projects, achieve real-time SPTs monitoring, and accelerate green financing within the real estate sector. NovA! will also extend its AI capabilities to support sustainable financing in other sectors such as power and manufacturing industries.

6   Mr Sopnendu Mohanty, Chief FinTech Officer, MAS, said, "The collaboration between MAS and BCA marks a transformative phase in both green finance and sustainable building, accelerating our industry towards achieving their net-zero targets. NovA! creates a transparent and effective environment that combats greenwashing and directs finances towards truly sustainable projects."

7   Mr Ang Kian Seng, Group Director of Environmental Sustainability at BCA, added, "In this collaboration, we're leveraging MAS' AI capabilities to drive a data-centric approach to sustainability, which not only helps improve building standards but also advances green financing for the Built Environment sector's decarbonisation goals. This partnership is a critical step towards meeting Singapore's net-zero and Singapore Green Building Masterplan targets."

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[4] "At-source" data refers to data that is collected firsthand or directly from the original source, without intermediaries or third-party involvement, such as the data provided by government utilities that are tracked by meters, IoT-enabled devices and sensors.

<u>Annex</u>

List of NovA! Consortium Members (Updated as per November 2023)

1. Bank of China Limited
2. Building and Construction Authority (BCA)
3. Capital Quantum
4. Citi Singapore
5. DBS Bank
6. Deutsche Bank Aktiengesellschaft
7. Greenland Financial Technology Group, Green Link Digital Bank
8. Hitachi Asia Ltd (SLEB)
9. Mitsubishi UFJ Financial Group Bank Ltd
10. National University of Singapore, Asian Institute of Digital Finance
11. OCBC Bank
12. Reluvate Technologies Private Limited
13. Savills
14. Shanghai Pudong Development Bank Co., Ltd. Singapore Branch
15. Standard Chartered Bank (Singapore) Limited
16. Sumitomo Mitsui Banking Corporation
17. Temasek
18. The Association of Banks in Singapore
19. The Hongkong and Shanghai Banking Corporation, Singapore Branch
20. Tsinghua University, Institute for Internet Industry (THUIII)
21. United Overseas Bank Limited
22. Univers
23. Verra