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MEDIA RELEASE

AI Utility NovA! to Unlock Opportunities for Green Financing and Combat Greenwashing

Singapore, 21 June 2022...The Monetary Authority of Singapore (MAS) announced today the first use case of NovA! to help financial institutions (FIs) assess the sustainability performance of Singapore's real estate sector¹. NovA!, part of the National Artificial Intelligence (AI) Programme in Finance, is aimed at helping FIs harness AI to generate insights on financial risk. In the initial phase, the program will focus on enhancing FIs' ability to assess companies' environmental impact and identify emerging environmental risks.

2 FIs would be able to tap on NovA! for their Environmental, Social, Governance (ESG) risk assessment for originating, underwriting and servicing of sustainability linked loans².

- At **loan origination**, FIs can use NovA! to identify real estate corporate borrowers whose sustainability metrics can be improved, by comparing their historical environmental performance to that of their peers;
- During **underwriting**, NovA! will assist FIs to set appropriate sustainability performance targets (SPTs) for the borrowers, by comparing borrowers' SPTs with the SPT Industry Benchmark generated by NovA!; and
- For **servicing** of loans, NovA! will compare the actual sustainability performance indicators (through direct use of meters or sensors) against the borrower's self-declaration to detect greenwashing.

The NovA! ESG use case will also reduce the amount of time it takes for FIs to collect, process, and analyse data through the use of natural language processing (NLP) technique to automatically extract relevant information from documents. This will reduce the overall cost of operations for FIs.

3 To support FIs' sustainability journeys, NovA!'s ESG use case will be integrated with MAS' Project Greenprint³. Greenprint is a collection of digital data utilities and initiatives

¹ Real estate has been identified as one of the priority industries with a large share of economic activity in ASEAN and accounts for a significant amount of GHG emissions. Based on the 2020 Global Status Report for Buildings and Construction, building construction and operations account for the largest share of global energy consumption (35%) and energy-related CO₂ emissions (38%).

² Sustainability linked loans feature sustainability-linked goals and key performance indicators (KPIs) that are tied to the issuance of proceeds, interest rates and other key terms. This requires lenders and investors to create new capabilities to help catalyse the secular shift towards green financing and better quantification of financed emissions.

³ Project Greenprint is a programme under the MAS Green Finance Action Plan aimed at enhancing access to high quality, consistent and reliable ESG data to support sustainable finance. Please refer to media release on Project Greenprint.



aimed at harnessing technology and data to aggregate high quality, consistent and granular sustainability data, to enable a transparent, trusted and efficient ESG ecosystem. Datasets collected via Greenprint will be used to supplement NovA!’s insights-generation capabilities, which will be accessible to Greenprint partners via APIs.

4 Since the announcement of NovA! in November 2021, 16 members have joined the NovA! consortium. The full list of members can be found in the Annex. A core team within the NovA! consortium is leading the development of NovA!’s ESG use case. The core team members and their areas of responsibility are set out below.

Roles & Responsibilities	Organisation
Lead FIs <ul style="list-style-type: none"> Contribute to solution design, data provision and product validation 	<ul style="list-style-type: none"> Standard Chartered Bank (Singapore) Sumitomo Mitsui Banking Corporation
Commercial Lead <ul style="list-style-type: none"> Provide industry inputs and commercial perspectives 	<ul style="list-style-type: none"> Temasek
Product & Tech Lead <ul style="list-style-type: none"> Provide the machine learning platform for the first use case. 	<ul style="list-style-type: none"> Aicadium
AI Tech Developer <ul style="list-style-type: none"> Provide AI capabilities in areas of solution development, with a focus on Natural Language Processing 	<ul style="list-style-type: none"> Reluvate Technologies
Project Consultant <ul style="list-style-type: none"> Facilitate subject matter discussions among the consortium members 	<ul style="list-style-type: none"> PricewaterhouseCoopers Consulting (Singapore)

5 The core team will release a demo version of NovA!’s ESG use case during the Singapore FinTech Festival 2022 in November. In early 2023, a beta version will be released for testing by FIs, followed by further fine-tuning for eventual industry adoption of the solution. A white paper documenting the product design and AI features will be published in mid-2023.

6 Mr Sopendu Mohanty, Chief FinTech Officer, MAS, said, “NovA! will provide a valuable tool to help FIs generate prompt and actionable insights using structured and unstructured datasets and advanced computing. This will better enable financial institutions to direct financing towards sustainable projects and companies that meet sustainability performance targets.”

For media queries, please contact:

Hidayah Rahim
Assistant Director (Communications)
Tel: +65 64225609
Email: hidayah_rahim@mas.gov.sg

Annex

List of NovA! Consortium Members

- 1) Aicadium
- 2) Bank of China Limited
- 3) Citi Singapore
- 4) DBS Bank Ltd
- 5) Deutsche Bank Aktiengesellschaft
- 6) The Hongkong and Shanghai Banking Corporation, Singapore Branch
- 7) Jones Lang Lasalle (Singapore) Property Consultants Pte Ltd
- 8) MUFG Bank, Ltd
- 9) National University of Singapore – Asian Institute of Digital Finance
- 10) Oversea-Chinese Banking Corporation Limited
- 11) Reluvate Technologies Private Limited
- 12) Shanghai Pudong Development Bank Co., Ltd. Singapore Branch
- 13) Standard Chartered Bank (Singapore) Limited
- 14) Sumitomo Mitsui Banking Corporation
- 15) Temasek
- 16) United Overseas Bank Limited