AUTOMATED FORM FILING WORKFLOW AND DATA MANAGEMENT FOR ASSET MANAGEMENT

CONTEXT

In accordance with The Monetary Authority of Singapore (MAS)'s requirements, fund managers have to complete a fund form via the OPERA system[1] maintained by MAS: (i) each time a new retail fund is registered for sale in Singapore; or (ii) if previously submitted fund information in the form has been revised or updated; or (iii) at least once in any given year. From registration to update, the fund managers usually have only 2-3 months of turnaround.

The form is in a HTML form in OPERA. With approximately 200 data fields, each user needs to key in data for each data field individually. Even if an update (see (ii) above) requires an update to only 1 data field, a user will usually review all other data fields to check if any other updates need to be made. The manual completion of each form requires approximately 20 mins.

Completing such a long form with so much data (pulled from a number of different data sources) presents a risk of error or missing out crucial information. It is also relevant to note that after all the data fields are populated, the OPERA system then requires a PDF version of the completed form to be signed by an officer or officers of the fund manager (i.e. 2 directors or a director and company secretary or their authorised signatories) for corporate governance purposes.

The Investment Management Association of Singapore (IMAS), as sector lead association, sees this an opportunity to leverage digital technology, and to explore options on (i) automatically extracting data from the PDF version of form into a more structured format (e.g. MS Excel), or (ii) using the extracted data, to automatically populate data fields directly onto the OPERA system in subsequent/yearly updates.

This sector-wide challenge is supported by the Investment Management Association of Singapore (IMAS). IMAS is the representative body and sector lead for the investment and fund management industry.

PROBLEM STATEMENT

How can we have automate the form-filling process for asset management firms in a more accurate and efficient manner?

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[1] https://eservices.mas.gov.sg/opera/

WHAT ARE WE LOOKING FOR?

A prototype solution that can (i) automatically extract data from the PDF form into a more structured format (e.g. MS Excel) and/or (ii) using the extracted data, to automatically populate data fields directly onto the OPERA system in subsequent/yearly updates.

The potential solution should include a **seamless, automated industry application** that can accurately extract data and populate data into the OPERA system in order to streamline the workflow for the user.

The potential solution must have secure methodology for data collection, access and transmission. It should meet the Singapore Government security standards. For this challenge, the prototype must be demonstratable with at least one IMAS partner. However, it should have the ability to be scaled to across all IMAS members and industry.

There are no restrictions on the geographical location of the problem solvers who may choose to apply to this challenge. However, problem solvers whom choose to apply for this challenge must be registered and operating in Singapore OR the POC/prototype must be demonstrated in Singapore.

POSSIBLE USE CASES

1. John is a junior product executive/legal paralegal/secretary in ABC asset management firm. As part of the launch of a new fund, he is gathering required documents and input from various teams within the firm. John must obtain data for approximately 200 data fields for the form to be completed for the new fund. With multiple communication threads and follow-ups, John has made some mistakes in the completion of the form. John wishes for a way to automate the form filling process and fill the whole form accurately at the quickest possible time.
2. Jane is a junior product executive/legal paralegal/secretary in ABC asset management firm. Her responsibility is to ensure that the forms filed with the MAS in respect of each of ABC's funds are updated at least once a year. Jane has complete 50 of these forms every year and wishes for a way to automate the completion of 50 forms so that she does not have to do it manually.

WHAT'S IN IT FOR YOU

- SGD 20,000 of prize money for each winner of this challenge (see Award Model)
- Gain access to IMDA's Technology resources and facility for prototyping
- Collaborate with IMAS (Investment Management Association of Singapore) to reach out to the greater community for exposure, refinement and deployment
- Opportunity to pitch to industry audience in IMAS Digital Events
  (For more information, visit www.imasdap.com)

EVALUATION CRITERIA

The Applicants shall be evaluated in accordance with the evaluation criteria set out below.

Solution Fit	• To what extent does the proposed solution address the problem statement effectively?

Solution Readiness	• How ready is the proposed solution to go to the market? • Is there any evidence to suggest capacity to scale?
Solution Advantage	• Is the solution cost effective and truly innovative? • Does it make use of new technologies in the market, and can it potentially generate new IP? • What are the top 3 key benefits will the solution bring to the Asset Management industry? Optional • To share estimated cost for pilot trial, deployment and software support.
Company Profile	• Does the product have user and revenue traction? • Do the team members possess strong scientific/technical background and when is the company founded? • Does the team have relevant clients/ use cases? • Does the team have plans to grow and propagate the solution in Singapore?

AWARD MODEL

30% of the prize money will be awarded to each selected finalist at the start of the prototype development process, with the remainder 70% to be awarded after completion of the prototype solution, based on milestones agreed between Problem Owner(s) and the solver.

Note that a finalist who is selected to undertake the prototype development process will be required to:

- Enter into an agreement with Problem Owner(s) that will include more detailed conditions pertaining to the prototype development;
- Complete an application form with IMDA that will require more financial and other related documents for the co-funding support.

Teams with public research performers are required to seek an endorsement from their respective innovation and enterprise office and submit the attached IEO form together with the proposal.

DEADLINE

All submissions must be made by **19th March 2021, 1600 hours (SGT/GMT +8)**. Problem Owner(s) and IMDA may extend the deadline of the submission at their discretion. Late submissions on the OIP, or submissions via GeBIZ, will not be considered.

FAQ

Question: What is the volume or how many PDF forms (Form 1 and Form 2) are uploaded onto OPERA and processed on a daily, monthly, annual basis? How about the updates for Form 1A and 2A, what is the volume or how many online forms are completed, downloaded for signatories then uploaded onto OPERA for processing on a daily, monthly, annual basis?

Answer: The number varies on a daily, monthly and annual basis and we are not able to provide precise statistics. However, as a guide only and excluding Form 1/Form 2 applications for real estate investment trusts, 22 Form 1 applications and 78 Form 2 applications were lodged on OPERA in 2020, but do note that the number is expected to vary from year to year.

We do not have precise statistics on this. However, as a guide only, there are currently 1390 retail funds (excluding real estate investment trusts) on MAS' list of retail funds and an updated Form 1A/2A will need to be submitted at least once a year for each retail fund. Some managers submit updates more than once a year due to frequent fund changes. As such, there will be at least 1390 Form 1As/2As that will need to be submitted this year on OPERA.

Question: Is data in PDF handwritten?

Answer: The data is typed in, not handwritten.

Question: For submissions, is there anything specific that you are looking for? i.e., cost/concept/slides/demo?

Answer: We do not want to be constrained and are open to different ideas, products and solutions that can potentially automate the form filing process accurately and efficiently. Do anything that you think is the best way to showcase your solutions – write up a document, film a video, do anything that you think is the best way to showcase what you would like to do.

Question: What are the sources of information is it only PDF? How many formats of PDFs & No. of Pages.?

Answer: The Form 1/Form 2 application is a html form that is completed then uploaded on OPERA. The final forms will also need to be signed by relevant directors and uploaded on OPERA before the submission is complete. Form 1A/2A applications are completed directly on the OPERA system, then downloaded and signed by the relevant directors. The signed forms will need to be uploaded on OPERA before the submission can be completed.

Question: Any tips on how we increase the success of getting selected? E.g., common pitfalls in previous submissions?

Answer: When submitting a proposal, do look through the evaluation criteria and "what are they looking for?" published in the challenge brief carefully.

ADDITIONAL QUESTIONS

Question: What is the payment business model for a fully developed system? Subscription licence basis?

Answer: To be discussed during the interviews with shortlisted applicants.

Question: What is the solution adoption plan for this system after POC?
     a. **Will the development cost for this system be bore 100% by IMAS?**
     b. **Or will the cost be distributed amongst the Asset Management (AM) firms across the industry, hence we need to pitch the solution one-by-one to the AM firms? If so how many AM firms will require this system?**

Answer: To be discussed during the interviews with shortlisted applicants.

Question: What is a reasonable budget range IMAS/AM firms have to develop the full-fledge solution post POC?

Answer: To be discussed during the interviews with shortlisted applicants.