Annex 1 Terms of Reference

1   BACKGROUND

The European Stability Mechanism's Middle and Back Office Division (the **"MBO"**) is responsible for validating and recording funding, investment, and lending transactions, ensuring their correct settlement, and monitoring risk limits. MBO also maintains benchmarks and reports on investment portfolio performance.

The division is split into two teams: Back Office (the "BO") and Middle Office (the "MO"), with the latter further divided into Operational and Portfolio Performance teams. The BO team manages trade confirmations, settlements, collateral management, and oversees service providers. The MO team monitors and validates the booking of transactions in the financial database, making sure policies and guidelines are respected, maintains market and static data, manages regulatory reporting, reports on Investment portfolios' performance and trade activity, performance attribution, and monitors and implements strategic and tactical benchmarks.

For portfolio performance, MO currently uses Bloomberg PORT Enterprise for performance attribution analysis and monitors the portfolio's relative performance against benchmarks.

In this context, ESM needs to procure a performance attribution tool **("Performance Attribution Software"** or **"Software")** suitable for its operations. The ESM intends to conclude a contract (the "**Contract**") with a single provider (the "**Services Provider**") for a period of initially five (5) years, renewable at the ESM's sole discretion twice each time for periods of four (4) years, up to a total of thirteen (13) years (5+4+4).

All commercial and legal conditions will be detailed in the Contract, including the prices of the potential extensions and mechanism to extend. The Software will be a Cloud / SaaS based solution in accordance with the current state of technology and will be updated, upgraded, enhanced and supplemented as required to ensure that it always conforms to best industry practices. The ESM is looking for an off-the shelf tool that may require configuration to meet our requirements (as listed below).

The Software will be user friendly. The ergonomics, screen design and navigation of the user interface must be intuitive.

In addition, the Service Provider will provide related implementation services, training and on-going technical support and maintenance services ("**Services**").

The ESM's official working language is English. The Software, including any related documentation and training materials, must be provided in English. All administrative matters with the selected Service Provider (contract, invoicing, account management etc.) will be dealt with in English.

2 FUNCTIONAL REQUIREMENTS

2.1 Mandatory requirements

The Service Provider will provide to the ESM a Performance Attribution Software that meets the following <u>minimum functional requirements</u>:

No.	High-level requirement	Requirement
1	P&L calculation	- The Software must calculate daily absolute and relative P&L for each portfolio and benchmark. - Users must be able to extract reports containing such data for various time periods and various groupings, at least for typology/maturity bucket/instrument level. - P&L calculation must be performed in base currency EUR.
2	P&L and return calculation	- The P&L and return calculation must include the impact from intraday transactions (P&L between trade price and end of day price).
3	Time Weighted Rate of Return calculation	- The Software must calculate daily absolute and relative Time Weighted Rate of Return ("TWRR") for each portfolio and benchmark. - Users must be able to extract reports containing these data for various time periods and groupings, at least for typology/maturity bucket/instrument level. - TWRR calculation must be performed in base currency EUR.
4	Cash P&L and Return calculation	- The Software must be able to calculate cash P&L and return, based on a custom rate provided by the user, changing over time, which can either be a fixed rate of return or linked to a market index (e.g. ESTR), plus a spread. - The cash balance amount must be uploaded by the user.
5	Price Sources	- The user must be able to upload custom prices per instrument position. - The user must be able to use, per instrument, different prices depending on the portfolio.
6	Price Sources	- The user must be able to autonomously and dynamically choose the Price Source for calculating portfolio and benchmark P&L and return for different typologies.

No.	High-level requirement	Requirement
7	Fixed Income performance contribution and attribution	- The Software must be able to run on-screen and allow the extraction of performance attribution reports for various time periods and various groupings, at least at typology/maturity bucket/instrument level, including various attribution factors such as curve carry, curve change, spread carry, spread change, impact from transactions, etc. (more than one attribution factor must be reported on).
8	Fixed Income performance contribution and attribution	- The Software must provide a yield curve decomposition - duration based approach performance attribution fixed income model.
9	Portfolio analysis/reporting	- The Software must be able to run and extract reports for any required custom dates and time periods (i.e. daily, multiple days, multiple weeks, multiple years), with various groupings (at least maturity bucket/asset type/security type) and the Software must be able to create custom hierarchies of those groupings, including the following minimum standard metrics: Position amount, Market Values in local and foreign currency, Weights, Modified Duration (absolute and contribution), Yield to Maturity, ISIN , maturity date, Issuer Name, Country of Risk, Currency, Price, Price Source. - The Software must be able to exclude specific user-defined groups and recalculate accordingly the relevant quantitative metrics (duration, weights) after the exclusion.
10	Benchmark management	- The Software must be able to setup market index-based benchmarks, also including cash, earning a custom return changing over time, as defined by the user.

11	Instruments coverage	- All ESM asset types must be supported by the Software:
		    o Cash
		    o Bonds
		    o Cross currency swaps
		    o FX swaps (Spot+Forward)
		    o Interest rate swaps
		    o Overnight index swaps
		    o Bond futures
		    o Interest rate futures
		    o Certificates of deposit
		    o Commercial papers
		    o Deposits
		    o Repurchase agreements

No.	High-level requirement	Requirement
		o Inflation linked bonds o Inflation swaps
12	Currencies coverage	- All ESM eligible currencies must be supported by the Software: AUD, CAD, CHF, DKK, EUR, GBP, JPY, NOK, SEK, USD.
13	Ad-hoc analysis capabilities	- Users must be able to create test portfolios on the fly and perform all mandatory requirements previously described on those test portfolios.
14	Tracking error Analysis	- The Software must be able to calculate portfolio ex-ante Tracking error for a given date, with pre-defined observation frequency, and based on custom categorisation of the portfolio. - The Software must be able to calculate portfolio Tracking error for a given date, with a pre-defined observation frequency with simulated position changes and based on custom categorisation of the portfolio.
15	Stress Test & Scenario Analysis	- The Software must be able to execute a stress test using custom curve/spread change and determine its impact on the different applicable Benchmarks & Portfolios, in terms of absolute and relative return.
16	Portfolio Optimisation	- The Software must be able to perform optimisation subject to user-defined objective functions and user-defined constraints.

2.2 Optional requirements

In addition, the Software may provide the following <u>optional</u> functional requirements:

No.	High-level requirement	Requirement
1	Cash P&L and Return calculation	- It should be possible to have different cash instruments, for the same currency, earning different remunerations.
2	P&L calculation	- It should be possible to enable the upload of fees' accruals (custody, etc.) that impact the Performance/P&L and to consider them in the performance calculation/attribution.
3	Price Sources	- The Software should provide index prices from external index providers or allow the user to upload index prices.
4	Price Sources	- Users should be able to define Price Source hierarchies.
5	Fixed Income performance contribution and attribution	- It should be possible to select the duration point used for the calculation of the impact from parallel and non-parallel yield curve movement.
6	Fixed Income performance contribution and attribution	- Users should be able to overwrite analytics/performance contribution/attribution calculations (e.g. if the user wants an amortised cost instrument to attribute all P&L to the carry effect).
7	Fixed Income performance contribution and attribution	- The Software should provide a yield curve decomposition - full repricing performance attribution fixed income model.
8	Portfolio analysis/reporting	- It should be possible to create and save custom report layouts and report packages, as well as extract and schedule reports.
9	Portfolio analysis/reporting	- Possibility to analyse and split performance based on ESG classification.
10	Benchmark management	- The Software should allow the creation of fixed or drifting weights blended benchmark portfolios, composed of indices provided by external index providers, with access to the indices' constituents (look through) and respective prices. - The Software should include a portion of cash earning a custom return, changing over time as defined by the user.

No.	High-level requirement	Requirement
11	Benchmark management	- Users should be able to choose whether benchmark coupons are immediately reinvested or kept as cash until the next rebalance.
12	Look-through capabilities and portfolio aggregation (to accommodate portfolio trees structures)	- The Software should be able to provide P&L and performance analysis (absolute and relative vs the benchmarks), as well as performance attribution, at global portfolio level (grouping different sub-portfolios).
13	Static data	- Exchange traded instruments' terms and conditions should be available in the Software, including cashflows (coupon payments, redemptions, etc).
14	Cashflows payment calendars	Users should be able to select different calendars (business centres) as a basis to derive cashflow value dates.
15	Instruments coverage	Users should be able to create cross-currency asset swaps whose cash-flows are directly derived from actual bonds.
16	User Interface	- Intuitive and user-friendly interface for both technical and non-technical users.
17	Tracking error Analysis	- The Software should be able to calculate portfolio ex-post Tracking error over a period, based on realised P&L between the portfolio and the benchmark. - The Software should be able to re-calculate portfolio ex-ante Tracking error for a past date, with simulated position changes.
18	Stress Test & Scenario Analysis	- The Software should be able to assess the cumulative impact of a user defined scenario on the portfolio, with a specific reinvestment strategy, over a pre-defined investment horizon.

3 TECHNICAL REQUIREMENTS

The ESM would like to buy a Software, which is an off-shelf product and requires configuration to meet ESM's needs. The ESM will do so by preparing an appropriate interface which enables a smooth connection with third party systems used within the ESM.

3.1 Mandatory requirements

The Service Provider will provide to the ESM a Performance Attribution Software that meets the following minimum technical requirements:

3.1.1 Software integration

The Software must interface with third party systems, to the extent that all files are required to be uploaded into the new system. Clear data specifications must be provided by the Service Provider, i.e. comprehensive documentation detailing at least the integration processes, supported data formats, standard protocols, as well as ongoing support for integration-related issues, including troubleshooting and updates.

Stable and Secure Interface:

- Provide a robust and reliable interface for receiving data from the ESM via Secure File Transfer Protocol (SFTP) or ReSTful API.
- The interface must support encryption protocols for both data transmission (e.g., TLS, SSH) and storage of data, ensuring data confidentiality and integrity.
- The provider must comply with industry standards such as ISO 27001 or equivalent for information security management.

Error Handling and Resending:

- Mechanisms must be in place to handle errors, including automatic retries and notifications in case of failed file transmissions.
- Provide support for resending files without manual intervention and ensure that the system can handle duplicate or missing file scenarios.

Audit Trail:

- Maintain a detailed and accessible audit trail for all file exchanges, including timestamps, file metadata, transmission status, and any associated errors or failures. The audit trail must be retained for a minimum of [*10 years*], as agreed in the Service Level Agreement (SLA).

Input File Format Support:

- Support of input files in at least one of the following formats: Plain Text (.txt), JSON (.json), CSV (.csv), XML (.xml), or Excel (.xlsx).
- Future extensibility to additional formats must be possible, and backward compatibility must be maintained.

Encryption and Data Integrity:

- Data at rest must be encrypted using AES-256 or equivalent encryption standards.

Test Environment:

- Provide a non-production test (UAT) environment with identical features to the production environment.
- Alternatively, if the provider cannot offer a stand-alone UAT environment, they must demonstrate a viable alternative that supports testing, without disrupting the production environment.

The test environment must run in parallel to the live environment for the entire duration of the contract, allowing seamless integration, user acceptance testing (UAT), and pre-production testing.

Scalability and Performance:

- Scalability (increased file sizes and frequency of transfers) should be technically possible.
- The system must handle peak loads without performance degradation or failures, processing files within defined SLAs.

Data Retention and Recovery:

- Define clear data retention policies, ensuring that received files are retained and accessible for a minimum period of *10 years*, in accordance with applicable data retention regulations.
- Provide mechanisms for disaster recovery and data restoration in case of interface failures and/or data corruption, with an RPO of up to *4 hours*.
- Upon contract expiry or termination, ensure that all data is either returned to the ESM or securely deleted, in compliance with predefined data retention policies.

Compliance:

- The provider must comply with applicable regulatory requirements such as GDPR, HIPAA, or other relevant data protection laws, ensuring all data is handled according to legal obligations.
- Comply with digital operations resilience standards, including capability, response and recovery from ICT-related incidents (e.g. DORA).
- Ensure that the Service Provider personnel only access ESM data on a need-to-know basis for service delivery. Unauthorised data exposure is strictly prohibited.

3.1.2 Data integration & handling

- Users must be able to upload historical data (holdings, transactions, prices, etc) at chosen frequencies (e.g. daily, YTD, and monthly for older periods).

- The Provider must supply templates and field guides for each file that will have to be uploaded to the system, covering holdings, transactions, prices, terms and conditions for typologies in scope, as applicable. These templates must be readily available before the start of the implementation. Templates should have a comprehensive list of fields to process ESM's data needs, however some adjustments to fully cover the implementation requirements are acceptable. Candidates will detail in their proposal which data is required for different instruments and which data is already available in the tool (e.g.: static data like coupon payments, maturities, risk data such as duration, etc). The Candidates should detail what is the process and which source is used for static data available in the tool (for exchange traded instruments).

- The Provider must allow users to define and integrate a wide range of metrics in custom data fields specific to their requirements.

- The Software must support both automatic daily uploads of required files and ad-hoc manual uploads (e.g. for testing purposes).

3.1.3 Data extraction & reporting

- The Software must allow users to extract reports and data in formats that are compatible with Microsoft Excel, such as .csv, .xls, .xlsx, .txt.

- The Software must allow users to extract reports and data in unstructured format (either JSON or CSV).

- The Software must support the extraction of reports, as well as the underlying data used to generate those reports.

- The extraction process must maintain the integrity of the data, ensuring that the information extracted is accurate, complete, and consistent with what is stored in the provider's database and displayed on the front-end screen of the software.

- The reports and data must be a meaningful reflection of the analysis shown on the front-end screen, i.e., they must be provided in a structured and readable format to ensure an efficient usability of the extracted information.

- The data extraction process must be intuitive and user-friendly, allowing users to extract reports and data directly from within the Software.

- The extraction process must be efficient, delivering reports and data promptly.

- Comprehensive support must be offered to assist the user with any technical issues related to data extraction, including prompt resolution of problems that prevent timely extraction of reports and data, including providing detailed documentation and assistance to resolve any technical issues that may arise.

3.1.4 Data usage & rights

- The ESM must have the right to manipulate and utilise the extracted reports and data for its own purposes and business operations (including e.g. sharing the data with ESM shareholders, Board of Auditors, external consultants, use for auditing purposes) during the contract's duration.

- Upon expiry or termination of the contract, the ESM retains the right to keep and use the extracted reports and data for internal purposes.

- Users can use the unstructured data output for further customisation using Python or other programming language. The extraction process must comply with all applicable data protection and privacy regulations, ensuring that sensitive information is handled and transferred securely.

- After extraction, the Service Provider must cooperate with the ESM to validate the completeness and accuracy of the data (provide technical support).

- Users must be allowed to share the data extracted from the tool both internally (within ESM), and with external stakeholders (e.g. ESM shareholders).

3.1.5 Users & access

- At least 15 users, will be working with the tool, primarily ESM staff. However, the user base may change over time due to regular staff turnover and business needs.
- The tool will be accessible both onsite, i.e. at the ESM office, and off-site, i.e. for remote work.
- Users must be able to access the tool anytime, from anywhere and/or from multiple locations at the same time.
- The tool may be accessed directly by users, or through server processes for use in automatic models and reports.

The ESM requires different user profiles, along with corresponding access rights:

1. **Admin Users (MO&Perf, at least 3 users)**:
- Can create and manage portfolios and benchmarks.
- Can upload/edit/delete/restore data/reports either manually or via automated template upload.
- Configure the Attribution models' settings, link price sources to the portfolios and can define any other settings.

- Responsible for managing the list of read-only users.
- Can customise roles and permissions to control access to various features and data within the tool.
- Can perform analyses using existing data and models (e.g. run attributions for a specific portfolio at a given date, perform stress testing and scenario analysis).
- Can extract data and create their own reports.

2. **Standard Users (Investment, Market Risk, at least 12 users).**
- Can view the data (e.g. portfolios' constituents, prices) but cannot upload, edit, delete data or edit settings on Production portfolios.
- Cannot modify settings on Production portfolios.
- Can perform analyses using existing data and models (e.g. run attributions for a specific portfolio at a given date, perform stress testing and scenario analysis).
- Can extract data and create their own reports but cannot edit or delete reports created by others.

3.2   Optional requirements

In addition, the Software may provide the following <u>optional</u> technical requirements:

3.2.1 Software Integration

Feedback and Acknowledgement Channels:

- Support for automated notifications in case of transmission success, failure, or any integrity issues.
- Provide mechanisms for delivering feedback on the status of received files (e.g., ACK/NACK messages) through defined feedback channels.

Encryption and Data Integrity:
- Provide message-level encryption and integrity validation using industry-standard protocols such as PGP or equivalent.

3.2.2 Data integration & handling

- The users should have the ability to customise dashboards with various widgets, charts, and graphs to visualise data effectively.

- The Software should provide the option to save custom report layouts and dashboard configurations for future use.

- The Software should support automated, scheduled reporting capabilities (e.g. via API or built-in functionalities) to enable data extraction without manual intervention.

- If applicable, the Service Provider should assist in transitioning data to a new system or tool, ensuring continuity.

3.2.3 Licences

- For cost efficiency purposes, ESM would like to avoid paying licences not in use or not assigned to a user e.g. in case of staff leave, temporary absence or assignment

4 SERVICES

The Service Provider will provide to the ESM with the following Services.

4.1 Incident management, ongoing support and maintenance

- **Technical Support**: Ensure that the Service Provider provides technical support through a helpdesk reachable via phone, email, or live chat from Monday to Friday 8:00-18:00 Luxembourg time, and for critical issues 24/7/365. Loss of access to the tool, loss of data in the tool, and unavailability of some crucial functionalities, such as data upload or performance and attribution reports extraction are considered critical issues.
- **Ticketing System or an alternative solution for tracking issues:** Provide a ticketing system or an alternative solution for incident and request management, including support for priority-based escalation. Clearly define incident response times (considering at least critical and non-critical issues) and resolution SLAs.
- **Regular Updates**: The tool must receive regular updates to improve functionality, security, and performance. These updates should be communicated in advance and scheduled to minimise disruption.
- **Dedicated Account Manager**: A dedicated account manager to handle any escalations and provide personalised support.

4.2 Training

- **Initial Training Sessions**: Comprehensive initial training sessions for all users as per section 3.1.5. Provide access to a library of training materials, FAQs, white papers and step-by-step guides and optionally video tutorials. These should be available during the Implementation and Testing stages, as needed.
- **Ad-Hoc Training Programs**: On request training sessions in case of personnel changes, etc.
- **Training Materials**: Access to a library of training materials, FAQs, white papers and step-by-step guides and optionally video tutorials.
- **User Manuals**: Detailed user manuals that cover all aspects of the tool's functionality.
- **API Documentation**: Comprehensive API documentation for any integrations with other systems.

5   SERVICE LEVEL AGREEMENTS

KEY PERFORMANCE INDICATORS

- **Guarantees**:
- Software availability (at least 95% uptime) during Luxembourg working hours, excluding planned maintenance or planned unavailability notified to the ESM at least 48 hours in advance. Possible downtime of the system / software for planned maintenance or planned unavailability should be as short as possible.
- Distance between data centres: at least 100 – 200 km apart
- Data centres are ISO/IEC 270001 Certified or equivalent. Certificate available
- Automated Data Backup: at least 1 scheduled daily backup
- Automated Data Backup Replication: either real- time, or near real-time, or hourly
- Local and remote Data Backup retention: Local for 30 days. Remote for up to several years
- Recovery Time Objective (RTO): up to 5 hours
- Recovery Point Objective (RPO): up to 4 hours
- Incident management as specified in Clause 4.1 Incident management, ongoing support and maintenance.

6   IMPLEMENTATION AND PARALLEL RUN

Upon contract start, the ESM foresees an implementation phase of up to twelve (12) months and a parallel run of up to 6 months:

　　1. Implementation phase

The Implementation phase will require close collaboration between ESM and the Service Provider to set up the Tool. The ESM will need to create an interface to automatically upload input files to the Tool, and then configure the Tool with the support of the Service Provider.

In case the Mandatory requirements are not readily available in the Tool upon contract start, the Service provider must include them in the Tool, so they are fully functioning and tested during the Implementation stage.

The Implementation phase will last maximum twelve (12) months. During this stage, ESM will require two (2) Admin users and three (3) Standard users.

The Implementation phase will be paid in instalments. The last instalment needs to be for at least 40% of the total cost of the Implementation phase and will be paid upon completion and acceptance of the Implementation phase and its Deliverables. ESM will not make any upfront payment.

Candidates will prepare a project timeline including milestones, and based on this, the ESM and the preferred Candidate will agree on the instalments.

The ESM is entitled to terminate the contract if the Service Provider is not meeting one or more of the mandatory requirements listed in this Annex 1, which would seriously impact the analysis and reporting performed by the ESM. In such a case, the ESM will inform the Service Provider about such incompliance and give them reasonable time, not less than 14 days, to cure the incompliance. If the mandatory requirement is not met (incompliance is not cured) within this time, the ESM may terminate the contract immediately.

The ESM is entitled to terminate the contract immediately in case of:
   (1) delay in performance of Implementation, i.e. incompliance with the project milestones, exceeding 6 weeks (except for the last phase of Implementation where sec. 2 below should apply), because of any reasons which are under the control of the Service Provider;
   (2) delay in completion of Implementation (i.e. not meeting the final deadline set in the project timeline) because of any reasons which are under the control of the Service Provider.

In case of early termination, the ESM will pay only for the works performed by the Service Provider until the termination. If any specific phase of the Implementation is not completed, ESM will not be obliged to pay for the works and deliverables created during this phase.

In addition, in case the Implementation continues after 12 months, the Service Provider should offer a discount of 50% on the license fees until the completion of the Implementation.

By the end of the Implementation phase, all Mandatory requirements must be functioning in the Tool. Testing will be performed based on ESM scenarios, and day-to-day tasks will be tested and functioning. The upload of historical positions will be completed.

To ensure the successful deployment of the Software and a smooth transition, the Service Provider will:

- Follow the agreed project timeline covering all necessary activities for the successful implementation, including a data migration plan, project milestones and deadlines for each phase of the implementation. Candidates are required to submit a project timeline and milestones as part of their proposal. During negotiations, the project timeline may be adjusted upon agreement. Implementation will commence only upon mutual agreement of the timeline. The project timeline must factor all points listed below.

  Allocate the required resources to support the Implementation and parallel run, ensuring the project team has expertise in critical functionalities. The required resources are:

  - 1 expert/consultant in performance attribution, including Fixed Income, as well as cross currency and interest rate OTC derivatives with at least 3 years of relevant experience;
  - 1 expert/consultant in the tool implementation with at least 2 years of relevant experience;
  - 1 project manager with background in financial market tools with at least 3 years of experience.

- Provide all hardware and software prerequisites to support optimal performance, including requirements for servers, databases, and network infrastructure, including any hardware, if applicable.
- Configure the system according to the specifications, including setting up user roles, permissions, and access controls.
- Provide all templates for all files that will need to be created and uploaded to the tool to use it, in line with the ESM's requirements described in these Terms of Reference.
- Map data to the new system, if applicable.
- Conduct testing to verify system functionality based on ESM testing scenarios.
- Engage end-users in UAT to validate that the system meets the requirements.
- Create a comprehensive training schedule for all users, including hands-on sessions and training materials focused on mandatory functionalities.
- Prepare a detailed go-live checklist to ensure all requirements and system's configurations are completed before the system goes live, i.e. at the end of the Implementation stage.
- Conduct a dry run to simulate the go-live process, identify any potential issues, and adjust as necessary to avoid disruptions.
- Establish a dedicated support team to assist users during the initial phase after go-live.

- Continuously monitor system performance and user feedback, making necessary adjustments and improvements, if needed.
- Provide clear and concise documentation describing the different capabilities of the tool, user manuals and guides to help users navigate the new Software.
- Provide clear and concise documentation describing the different performance attribution models available, including but not limited to Fixed Income Portfolios.
- Provide clear and concise instructions on how to setup automatic daily uploads of the required files/data and their automated mapping (e.g. SFTP batches).
- Provide clear and concise instructions on how to schedule automated reports, if available.
- Provide support in the creation of all the required portfolios/portfolio trees.
- Provide support in understanding the tool and how to interpret the different analyses available.
- Collaborate closely with the ESM Project Manager and all relevant internal/external parties, to address any emerging challenges and ensure a smooth implementation process.

2. The Parallel Run

Once the Tool is setup and all deliverables have been accepted by ESM, ESM will start using the Tool in parallel of the existing Tool, to compare results and do any required adjustments.
The parallel run will last maximum six (6) months.
During this stage, ESM will require two (2) Admin users and eleven (11) Standard users.

By the end the parallel run, the ESM is entitled to terminate the contract immediately in case:
(1) Any of the mandatory requirements is not met which could not be identified during the Implementation,
(2) some functionality of the Tool is not consistently delivering reliable results when applied to different time periods and compared with the tools already used despite previous attempts to adjust the Tool.

Acceptance
Acceptance procedure/criteria for the acceptance of completion of each of the phases (Implementation and parallel run):
• The deliverables of these phases will be accepted by the ESM (the "Acceptance") if:
(a) the Service Provider has successfully completed the tasks assigned to the relevant phase in the project (including the delivery of the deliverables specified in the project plan) to the full satisfaction of the ESM acting reasonably; Note: Any re-work requested by the ESM based on errors, omissions or comprehensiveness will be provided at no additional cost or expense to the ESM; and
• the ESM has provided to the Service Provider with an acceptance certificate via e-mail, which shall not be unreasonably withheld. To be effective against the ESM, the acceptance certificate must be signed or sent by the Head of Middle and Back Office and Portfolio Performance or an authorised member of ESM staff notified to the Service Provider in advance in writing via email.