



Invitation for Expression of Interest -
Information Technology Service on Design, Development and Maintenance for the
BEAM Plus Assessment Automation System

Our Ref: EOI/TSD/M/AUTO/1/2018/001

Invitation to Expression of Interest (EOI)
Agreement No. TSD 1/2018 (AAS)

Information Technology Service on
Design, Development and Maintenance for the
BEAM Plus Assessment Automation System

for
the BEAM Society Limited

ASSIGNMENT BRIEF

July 2018



Our Ref: EOI/TSD/M/AUTO/1/2018/001

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This document describes the requirements for the design, development and maintenance of BEAM Plus Assessment Automation System (the "System"). It provides the foundation on which the IT Solution Providers (the "Provider") shall base their proposals. IT Solution Providers responding to the invitation for express of interests shall read and understand this document in entirety in order to assure compliance with the requirements, functionalities and objectives of the System.

Words in singular form in this and the associated document shall be interpreted as singular or plural as suggested by the context of the statement in this document.

1. Background

- 1.1 The BEAM Society Limited (BSL), owner of the Building Environmental Assessment Method (BEAM), is a public body established in 2010. The BSL plays a key role in the development and implementation of BEAM standards for practitioners in all related disciplines, and for individual construction projects. This voluntary initiative to benchmark building sustainability is designed to benefit the entire community in Hong Kong. In recognition of the importance of this work, the BSL dedicates itself to continuously improving the overall quality of Hong Kong's built environment, both in terms of new buildings and existing buildings.
- 1.2 The BSL is committed to developing and implementing BEAM Assessment Tool – BEAM Plus (former HK-BEAM), assessing green buildings and training BEAM practitioners – BEAM Professionals (BEAM Pro) and BEAM Affiliates.
- 1.3 BEAM Plus is tailor-made for the high-rise, high density-built environment of sub-tropical climate in Hong Kong, which embraces a range of good practices in planning, design, construction, management, operation and maintenance of building, and is aligned with local regulations, standards and codes of practice.
- 1.4 Appreciated by the Hong Kong Government and developers, BEAM Plus assessment and certification provide building users with a single performance label that demonstrate the overall quality of a building. A qualified BEAM Plus green building should be aimed at sustainability, providing a safer, healthier, more comfortable, more functional and more efficient living or working environment.

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- 1.5 Due to a general acceptance and building community in a continuing effort to support an eco-efficiency and sustainable livable built environment, demand of registered assessment has been increasing over the years with the BEAM Plus scheme.
- 1.6 With the increasing demands of the BEAM Plus project, the BSL is committed to improving its process efficiency and effectiveness by implementing an information system to streamline the reviewers process and information exchange, together with a refined document handling and storing process for compliant purpose.
- 1.1 The IT Service on Design, Development and Maintenance for the BEAM Plus Assessment Automation System, (the "Assignment"), was initiated and confirmed by the BSL in May 2018 to expand its online services to include a new web-based submission portal to expedite the submission process and achieve a better consistency of standard, and an on-line interactive platform to foster dialogue and exchange of views among the BSL, Applicants, BEAM Assessors (BAS) and Project Teams.
- 1.2 With a view to addressing the above matters, the BSL would like to engage the IT Solution Provider in the provision of a turnkey system aiming to undertake this Assignment to automate the BEAM Plus assessment to address the industry's demand.
- 1.3 IT Solution Provider shall also provide a duration of 5-year maintenance service for the System.

2. Objectives of the Assignment

- 2.1 It is an intent of the Assignment to obtain professional services from the IT Solution Provider for the successful completion of the Assignment as described in the current EOI.
- 2.2 The concept rests on the idea of viewing the BSL, Applicant, BEAM Pro, BAS as members of one team that understand and support each other in pursuing the cooperative goal of improving the integrity, speed, accuracy, consistency, and completeness of the BEAM Plus assessment. The services to be provided by the IT Solution Provider for this Assignment shall meet the following objectives:

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- (i) to streamline the administration of the BEAM Plus assessment process;
- (ii) to promote proper integrity, consistency, effectiveness and efficiency of the BEAM Plus assessment process;
- (iii) to facilitate collaboration, information sharing and exchange among the BSL, Applicant, BAS and project team throughout the life-cycle of the projects;
- (iv) to enhance transparency and streamline review of the BEAM Plus assessment process; and to incorporate historical information and enable audit/tracking of project progress and relevant data; and
- (v) to avail a database/repository of project data, information, rulings and decisions on the interpretation of the BEAM Plus Manuals which can be referenced by authorized users real time.

3. Scope of the Assignment

- 3.1 The scope of the Assignment is to implement an IT-enabled System that re-engineers and automates the manual operations for the BSL aiming to streamline the retrieval of project data, the assignment of BAS for assessment, the decision-making processes amid assessment and approval by use of precedent and ruling database, the sharing of knowledge database, and the export of data for statistical and certification purposes.
- 3.2 The IT Solution Provider shall design, develop, set-up, test, host and maintain the BEAM Plus Assessment Automation System, which encompasses the following high-level purview: -
 - (i) A user-friendly System serving authorized persons to review and modify the relevant information of their projects, and to be well-informed of project progress;
 - (ii) An automated roster for assignment of BAS that enables an impartial and unbiased allocation of BAS's availability and assignment of tasks for assessment;

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- (iii) A clarification and resolution platform which enables the discussion during the course of assessment, whereby arriving assessment conclusions with all the views of and information provided by concerned parties properly routed among parties and fully documented for future reference by authorized parties;
 - (iv) A reporting System to facilitate review of assessment results by authorized parties which include, but not limited to, the Technical Review Committee and its sub-committees and Expert Panels;
 - (v) A knowledge database to accumulate and share of assessment knowledge which shall be able to grow over time based on input from different parties within the scope of work for BSL.
 - (vi) Attend all meetings with the BSL and, as instructed by the BSL, give presentation, for the purpose(s) related to the activities of the Assignment; and
 - (vii) Assist the BSL to apply funding from, including but not limited to, the Innovation and Technology Fund for Better Living.
- 3.3 The detailed scope of the Assignment is set out in the General Requirements in **Annex A1**.

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4. Presentations

4.1 The IT Solution Provider shall prepare necessary presentations required during the preparation, design, development, acceptance, and training of the new System as below: -

- (i) To prepare and attend all meetings with the BSL for the purpose(s) related to the activities of the Assignment;
- (ii) To conduct interviews with the BSL staff, and any relevant industry stakeholders in relation to the Assignment;
- (iii) To report the monthly progress of the Assignment to the BSL and its review committee and taskforce;
- (iv) To present the deliverables for the BSL comments and/or approval; and
- (v) To support the BSL to answer any queries from the relevant industry stakeholders and undertake improvement work in relation to the Assignment.

5. Deliverables

5.1 Based on the requirements depicted above, the IT Solution Provider shall be responsible for the analysis, design, development, testing and maintenance of the new System, and provide the following report as part of the deliverables: -

- (i) An inception report setting out the details of the Assignment, including but not limited to, the alignment of underlining Assignment's objectives, goals, with methodology/project plan to be carried out, key milestones with deliverables, resources requirement, and details on key supporting staff mandated for the Assignment;
- (ii) A System analysis report encompassing the current/future state of the BSL's business environment and processes, including:
 - An "As is" report encapsulating the assessment of the current view of the BSL's business and process, with recommendation on potential improvement opportunities of the current business; and

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- A “future blueprint” report envisioning the future schematics of the BSL's business and process, supported by potential organizational changes and training needs.
- (iii) A detailed design report of the proposed System which shall highlight on outcome based on potential improvement and address the needs for integrity, consistency, effectiveness and efficiency of the BSL's operation.
- (iv) Monthly progress reports during system development, in alignment with the proposed project milestones/deliverables in the inception report. The progress report should also highlight any potential impacts on the BSL organization, and risks thereof in association with the BSL during the course of implementation of the new System. The IT Solution Provider shall develop the project plan, specify project tasks and quality related tasks, implementation of the plan, and ensuring the overall quality of the Assignment.
- (v) The IT Solution Provider shall provide briefing sessions to the BSL based on the timing of their scheduled meetings. The sessions aim to explain the progress of the Assignment, findings, and recommendations of the individual stages of the Assignment.
- (vi) A test scheme including all test cases and scenarios, detailing its methodology, plan and process, with resources required, for acceptance of the new System adhere to the end goals specified in the inception report.
- (vii) An acceptance report detailing the test results, with issues identified, and signoff by all stakeholders. The report shall emphasis on how the user requirements, and design of the future System are being addressed.
- (viii) A final report to the BSL for the formal acceptance of the completed System. The final report shall also provide highlight on the future improvement potential and support plan addressing the BSL's ongoing operation needs.

5.2 All reports produced by the IT Solution Provider shall be subjected to the acceptance by the BSL. The BSL will endeavor to respond and comment on the reports submitted by the IT Solution Provider within reasonable time of submission as practical as possible. The IT Solution Provider shall rectify and

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supplement the submissions within 2 weeks upon receiving comments from the BSL and/or stakeholders.

- 5.3 All documents shall be submitted electronically in MS Word format, MS Excel format (for data) and in PDF file format or any other formats as applicable which are readily printable.
- 5.4 The copyright of the customized design and system, reports, documents, recommendations, data and any other information prepared or collected by the IT Solution Provider, its specialist(s) and the sub-contractor(s) and their employees and agents in the course of this Assignment shall rest with the BSL.

6. Brief Timeframe of the Assignment

- 6.1 The Assignment is planned to commence in the first quarter of 2019 and shall take 6 to 12 months to complete. The deliverables are expected to be submitted during the course of the Assignment as specified in the Deliverables section above, under the supervision of the BSL.
- 6.2 To achieve the objectives of this Assignment, the IT Solution Providers shall conduct the Assignment following the proposed methodology and plan. The proposed methodology and plan shall be accepted by the BSL during the inception stage.
- 6.3 Supplementary modification on the proposed System, and information and reports other than the deliverables stated above shall be prepared and delivered at such reasonable time upon request by the BSL.

7. Requirements of the IT Solution Provider

- 7.1 The IT Solution Provider shall be directed and supervised by the BSL.
- 7.2 The IT Solution Provider shall obtain the approval of the BSL before commencement of each stage of the Assignment.
- 7.3 The IT Solution Provider shall attend all meetings held by the BSL for this Assignment and the internal meetings of the BSL as required and necessary.

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8. IT Solution Provider's Office and Staffing

- 8.1 An experienced and competent IT Solution Provider will be engaged to conduct the tasks stipulated in Clause 3 above. It is anticipated that the IT Solution Provider team shall consist of one senior executive Project Director, one Project Manager, and sufficient professional staff to complete the Assignment.
- 8.2 The IT Solution Provider shall maintain for the duration of this Assignment an office in Hong Kong under the control of a Project Director with at least 15 years of management experience in the field relevant to the subject matter of the Assignment.
- 8.3 The composition of the IT Solution team shall also include at least the following team members:
 - (a) Project Director – Minimum of 15 years of working experience in managing project teams on similar project. He/she shall be the executive sponsor for the project and to ensure that all the designated Objectives are satisfactorily completed.
 - (b) Project Manager – Minimum of 10 years of working experience in similar project.
 - (c) Professional Staff– Minimum of 5 years of working experience in similar project.
 - (d) Technical Staff– No special requirement
- 8.4 The IT Solution Provider shall provide the BSL with full details of staff to be employed on the Assignment together with their curriculum vitae and proof of qualifications for prior approval from the BSL. Separate approval from the BSL shall be obtained for any subsequent changes of staff.
- 8.5 The IT Solution team shall provide all specialist and sub-contractor services (not limited to those specified in this Assignment above) required for the satisfactory completion of the Assignment. No additional fees or expenses for the provision of such services rendered locally or overseas shall be payable by the BSL.
- 8.6 The IT Solution Provider shall provide staff and manpower input in accordance with the technical proposal made at the tender stage, and that the BSL shall have the right to call for and audit the time-log record of the IT Solution Provider's staff

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deployed for the Assignment.

- 8.7 In the event of any deviation or change of team members with respect to the submitted tender, prior approval from the BSL must be sought.
- 8.8 In the event, for reasons beyond his control, the IT Solution Provider is unlikely to provide or maintain any key staff as specified in the proposal, he shall report to the BSL as soon as practicable and propose for the BSL's approval of a substitute staff having qualification and experience comparable with the staff who is departing the IT Solution team.
- 8.9 The IT Solution Provider shall be responsible for preparing the meeting minutes and submitting them to the BSL within 2 weeks after the meeting. Meeting papers and documents shall be prepared and submitted by the IT Solution Provider within 1 week before the meeting.

9. Tentative Procurement Plan

- 9.1 It is anticipated that the procurement plan may be as follows:

Description	Time
EOI	July 2018
EOI Evaluation	August 2018
Formal Tendering	October 2018
Tender Evaluation	November 2018
Tender Award	December 2018
Commencement of Assignment	January 2019

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Annex A1

General Requirements for the BEAM Plus Assessment Automation System

1. The goal of the BEAM Plus Assessment Automation System project is to implement a new information system with functions that replicate and improve the current manual assessment and approval process at the BEAM Society Limited (BSL). On the ground that BEAM Plus assessment is a procedural-driven and time critical exercise, the System shall, therefore, track and time stamp every step.
2. The project shall be designed to take into consideration of the BSL's existing organizations, processes, and flow of information amid different sub-systems as detailed below with each performing their own unique functionality according to the BSL's current business practices.
3. Figure 1 depicts the high-level view of the process flows within the organization. There are three core subjects that need to be addressed: -
 - i. To enable Applicant to make BEAM Plus submission through electronic mean to the BSL;
 - ii. To devise and deploy an allocation, assignment and scheduling algorithm of BAS, assignment and scheduling which sit on the critical path of the assessment process; and
 - iii. To build an automatic feeding/reporting system that orients data to a knowledge base for research, analysis and other purposes.

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Application and Project Input/Control Sub-system

4. The System shall be designed based on the BSL's existing organization structure, process and control in place. A new portal platform shall be created to perform BEAM Plus project online submission for Applicant in future.
5. The system shall accept Applicant's electronic data, and upload of relevant files through the online platform.
6. Data validation shall be automated. Non-conformant data shall be flagged.
7. Review and approval of project files shall be completed online according to the processes flow defined by the BSL.
8. The following list is a high-level view of the application and input control processes: -
 - i. Applicant shall be redirected from the BSL general website when signing in the electronic submission system;
 - ii. The electronic submission system shall be an online submission portal that also allows the retrieval of project registration information from Hong Kong Green Building Council (HKGBC), and transferral of project assessment results to the HKGBC;
 - iii. The System shall allow Applicant to complete all e-form associated entities online, with related project information uploaded into project folder;
 - iv. The System shall provide functional data validation against rules set forth by the BSL;
 - v. The System shall reject submission of e-form with missing data, invalid entry, inconsistent or incomplete data by performing parametric checking on submission data;
 - vi. Consistency check shall be performed across different e-form, and completeness check shall also be included;
 - vii. The project assessment shall not be commenced until all appropriate fields are rectified by Applicant;
 - viii. An online payment shall be initiated once all application fields are vetted;
 - ix. Upon payment and completion of e-form filing, initial and preliminary credits and rating shall be made known to the Applicant;
 - x. A project schedule shall be established with expected timeline of assessment and be shared among the BSL, BAS and Applicant;
 - xi. Based on Applicant's data, the System shall prepare a signed agreement bundle for Applicant before starting any of assessment processes;



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- xii. The System shall allow the authorized users to perform review, rectification, and approval of e-form submitted;
 - xiii. Appeals shall be allowed for Applicant. Appeal filing process shall be similar to the project application process;
 - xiv. Additional evidence submitted for the appeal purpose shall be appended to the original document of filed application; and
 - xv. Audit trail for any input or revision shall be established.
9. Figure 2 depicts the processes and data involved during the project input/control.

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E-form associated Development and Implementation Sub-system

10. The e-form shall be designed to allow Applicant to complete submission details online. There should be around 100 numbers of standardized electronic application forms available to Applicant. The number of e-form will grow and the System shall allow and facilitate subsequent revision, removal, addition, upload/ download of e-form by the authorized staff of the BSL after training by the Provider.
11. The e-form shall constitute a means for Applicant to provide project data with supporting document.
12. Applicant should be allowed to either a) download the e-form and complete them offline, or b) complete the e-form online. If Applicant selects the pathway of offline, they should be allowed to upload e-form to the electronic submission system.
13. E-form shall be created/removed/edited by authorized personnel within the BSL. Any changes of e-form shall require proper authority from the BSL management.
14. Next generation e-form system shall be taken into consideration of importing project data from Building Information Modelling (BIM) technology. Such import capability does not contribute to the scope of work within the purview of current project, but the System shall be designed and developed to ascertain such BIM associated import gateway can be opened and considered. The IT Solution Providers are required to elaborate on how such functionality could be implemented in the next phase of the project/system which is out of scope of current Assignment.
15. The following list is the high-level view of the e-form associated development and implementation processes: -
 - i. The IT Solution Provider shall develop around 100 numbers of e-form to be processed and stored online. Please also refer to the requirements stated in Clause 10 above;
 - ii. Applicant should be able to download e-form or select to input form online;
 - iii. If Applicant selects to download e-forms and complete them offline, the System shall allow them to upload e-form and data shall be incorporated into Applicants' project file;
 - iv. The System shall perform functional validation and cross reference checks;
 - v. The System shall allow Applicants to complete and store individual e-form with multiple instances;



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- vi. Audit trails shall be established for any revisions after submission;
- vii. Applicant should be allowed to download their own completed e-forms for reference;
- viii. The BSL should be able to customize e-form from time to time with version control in place; and
- ix. The System shall exhibit compatibility with BIM and incorporate features allowing extension of acceptance of BIM related information as requested by the BSL in future.

16. Figure 3 depicts the processes and data involved amid the e-form submission.

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BAS associated assignment and project scheduling Sub-system

17. The BSL requires its BAS allocation, project assignment and scheduling processes to be automated according to the set rules.
18. A computerized roster system shall be developed with capability to automatically assign BEAM Plus assessment work to BAS without prejudice whilst maintaining confidentiality and avoid actual or potential conflict of interest.
19. A self-help portal shall be created for BAS to notify the BSL of their unavailability during period specified by the BAS concerned.
20. Based on BAS's availability, the BSL shall assign assessment tasks and inform them accordingly. Within a pre-determined time, the BAS must contact the BSL to either confirm their acceptance or denial of the tasks.
21. For the avoidance of potential conflict of interests, an algorithm shall be in place within the System to cross check BAS's background against Applicant, and project details to avoid assignments that may cause potential conflicts of interests.
22. The following list is the high-level view of the BAS associated assignment and project scheduling processes: -
 - i. An algorithm shall be developed on project scheduling sub-system to cross check BAS's personal particulars against Applicant and project information;
 - ii. Potential conflict of interests shall be identified and BAS with vested interest shall be excluded from the assignment, and such exclusion must be documented;
 - iii. A new self-help function for BAS to input/update his/her personal particulars, specialities, and unavailability on specific days whereas they would be deemed available/unavailable;
 - iv. Tasks shall be assigned based on BAS's availability, his/her potential conflict of interest between the Applicant and projects, and his/her expertise;
 - v. Once assigned, BAS shall be notified by email and by text over the phone;
 - vi. BAS generally should not be allowed to withdraw the assigned task once they accept the offer, except for unforeseeable conditions that may need him/her to duly notify the BSL;
 - vii. Upon acknowledgement of assigned project, project file shall be transferred to BAS for action;
 - viii. Project activities and BAS progress status shall be monitored with timestamp.
 - ix. Project progress report shall be issued as per request by Applicant and the BSL;



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- x. BAS's activities and performance shall be monitored closely by the System on behalf of the BSL through regular reports and ad-hoc online queries;
- xi. A scoring system shall be included to highlight performance of BAS;
- xii. The System shall be able to create activity alert message and email including success, delay, warning and error to BAS;
- xiii. The System shall auto-generate and issue warning letter to BAS on behalf of the BSL as appropriate; and
- xiv. Audit trails for updates or changes for BAS associated assignment activities shall be established.

23. Figure 4 depicts the processes and data involved for BAS associated assignment and project scheduling.

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Online Communication Sub-system

24. To facilitate communication among the BSL, BAS and Applicant, an online question and answer (Q&A) function shall be created whereas backup of all Q&A shall be performed for future reference.
25. Exchange of Q&A among parties shall be monitored and controlled by the BSL authorized staff to ensure the context of the exchanges is limited to ambits of project related query only and that proper integrity of the process can be maintained.
26. The following list is the high-level view of the online communication processes: -
 - i. The online Q&A platform shall be created to assist information exchange;
 - ii. An appointment function shall be created to allow Applicant to initiate a project query request through and under the supervision of the staff of the BSL;
 - iii. The System shall respond on behalf of the BSL upon arrival of Applicant's request and set up a meeting between them at an agreed time;
 - iv. The System shall allow the BSL to perform appointment scheduling and to send notification to both Applicant and BAS;
 - v. Only the BSL authorized staff can commence the Q&A session;
 - vi. The BSL authorized staff should be able to monitor and facilitate exchange of ideas, and to ensure that Q&A is limited to professional and technical ambit without disclosing the identity of BAS which shall remain anonymous to assure integrity being properly maintained; and
 - vii. All dialogues shall be time-stamped and indexed and captured by the System for future references.
27. Figure 5 depicts the processes and data involved for online communication.

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Technical Review Committee (TRC) Review and Conclusion Sub-system

28. Upon completion of assessment and discussion among Applicant, the BSL and BAS, TRC will perform its review and clarification of the BAS assessment.
29. A reporting system shall create appropriate TRC reports, in specific format and with conclusion drawn from Applicant and BAS discussion.
30. Data logged in association with Applicant's project, with supporting document/evidence during the project assessment phase shall be created and appended to the TRC report.
31. TRC shall be able to retrieve reports online to discuss/comment/approve Applicant's project accordingly. Any conclusion drawn during the TRC meetings shall be logged in knowledge data dictionary system and audit system for future reference.
32. The following list is the high-level view of the TRC Review and Conclusion processes: -
 - i. Questions & Observations Generator to encapsulate all project files, BAS discussions, assessment results, together with reference information from knowledge data dictionary;
 - ii. TRC report shall be produced in specific format detailing assessment results with supporting documents;
 - iii. TRC panel to review and approve project base on TRC report;
 - iv. TRC panel shall be able to assess Applicant's project, supporting data, BAS assessments and discussions online if needed; and
 - v. Decision drawn upon TRC shall be captured for reference and audit purpose in future.
33. Figure 6 depicts the processes and data involved for TRC Review and Conclusion sub-system.

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Audit and Knowledge Data Dictionary Sub-system

34. Knowledge data dictionary with its associated and well-defined rules shall be installed within the System.
35. A carefully crafted knowledge data dictionary for specific keywords shall not only drive consistency throughout the decision process, but also help to rectify results simultaneously when there is a change of policies or trends that may influence prior cases.
36. The data dictionary shall serve as a pragmatic reference to aid in implementing project review and project assessment, and to be capable of providing intelligent and permission-based Keyword Search function, storing and retrieving detailed definitions/interpretations of wordings and phrases in the BEAM Plus manuals and precedents to uphold rulings and maintain consistency among similar projects.
37. Knowledge data dictionary shall be able to retain knowledge accumulated over the course of the BSL's conclusion. It shall facilitate BAS and committees to draw on precedent as references when making key decisions on a specific case. This shall not only accelerate BAS's decision process, but also provide consistency of conclusions drawn for similar situations.
38. The BSL and BAS should be able to initiate search action within the System to draw on precedent to support their management, judgement and assessment. Keywords shall be retained over the course of each discussion, which may include but not limited to the TRC's, BAS's conclusion, and Applicant's dispute. The permission-based Keyword Search function shall also be allowed to perform on Applicant filings, Q&A, BAS dialogues, and circulation of document within the System.
39. Auditors shall be able to draw on specific decision based on projects, keywords finding and validated results. Audit trail functions shall be included with which we can produce details of the Applicant's projects in terms of its initial submission, modification, assessment results, and final decision.
40. The following list is the high-level view of the Audit and Knowledge Data Dictionary processes: -
 - i. Permission-based Keyword Search function on data dictionary shall be installed in the new System;
 - ii. A content search function compatible with files of different formats, including but not limited to, e-forms, words, spreadsheet, PDF, CFR, email, etc.;



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- iii. An administrator function shall be installed within the BSL to grant or revoke search authority for the BSL, based on the actual business needs; and
- iv. A log shall be built to accumulate prior search results, and thus to allow a full audit trail of activities that has resulted in a conclusion drawn on specific cases.

41. Figure 7 depicts the processes and data involved in Audit and Knowledge Data Dictionary.

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Other system, storage and hardware requirement

42. The System shall be created to facilitate information exchange among the BSL, BAS, Applicant and Project Team. Users shall be allowed to access the System through different hardware platforms with ease. The System shall be installed on cloud with access right granted to users using PCs, smart devices and phones. The System shall also support main stream operation systems and web browsers.

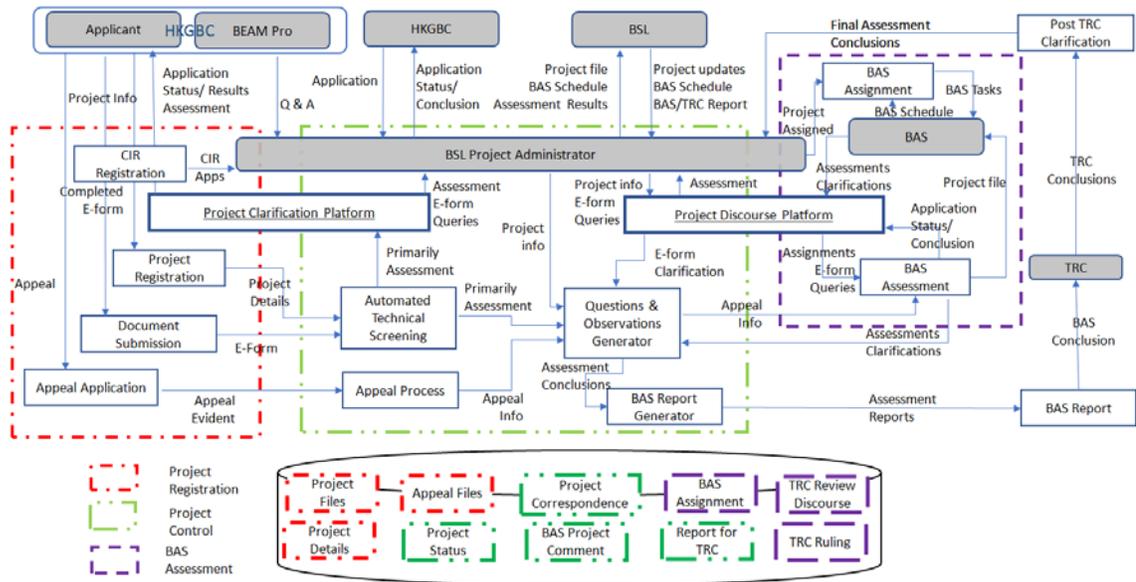
43. Other general requirements of the System are listed as below:

- i. Existing data shall be migrated into the new cloud platform;
- ii. Data conversion shall be required to restore historical information;
- iii. Past paper-form application shall be converted into electronically readable format for future reference, with permission-based Keyword Search function enabled;
- iv. Management reports shall be created within the System for:
 - Project monitoring and progress
 - Applicant's status and result
 - The BSL's and BAS's performance and activities
 - Overall project assessment performance such as completion, rejection, pending and relevant statistics
 - Ad-hoc reporting with permission-based Keyword Search function;
- v. System Administration function for retrieving data of registered users, controlling and accessing data and managing rights; and
- vi. Routine Administration function, including but not limited to, backup and support (24x7).

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Figures of Sub-system

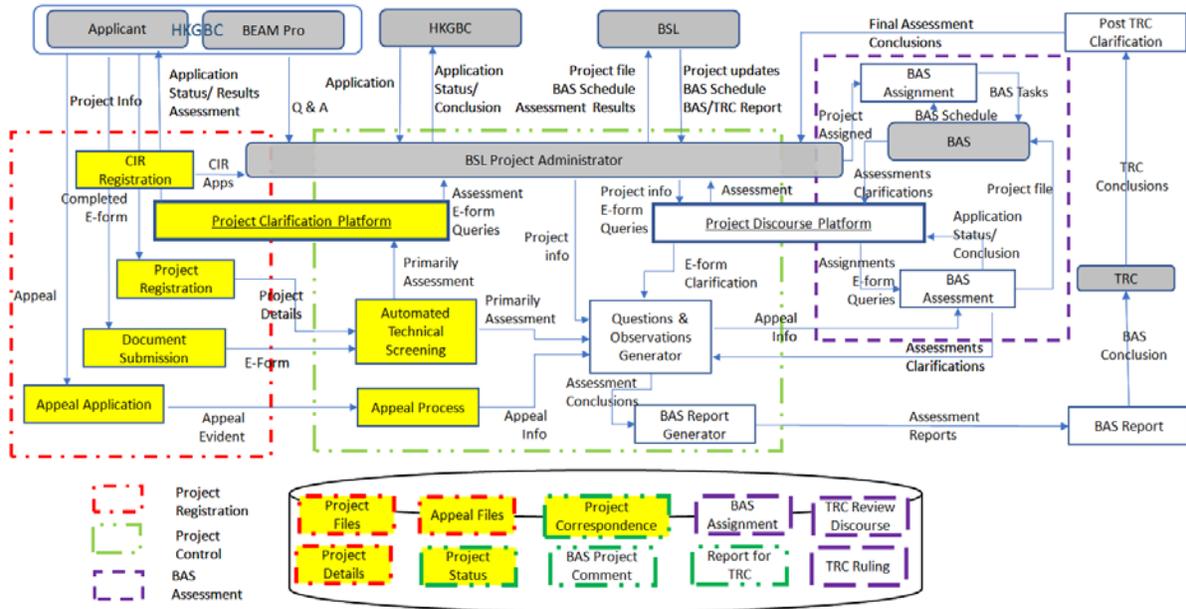
Figure 1.



Overall Project Flow (Level 1) : Electronic Submission system from Application acceptance, Project control, BAS Assessment, TRC Review

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Figure 2.

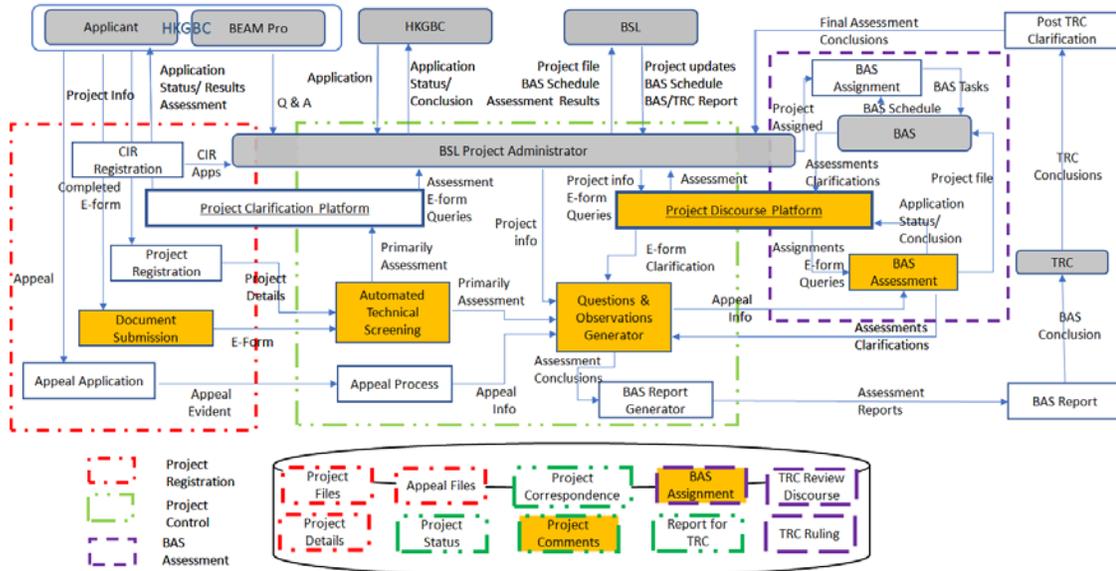


Stream: Project Application Registration

Initial online application acceptance and assessment of project, PA/Applicant/HKGBC perform query on project and status, and updates.

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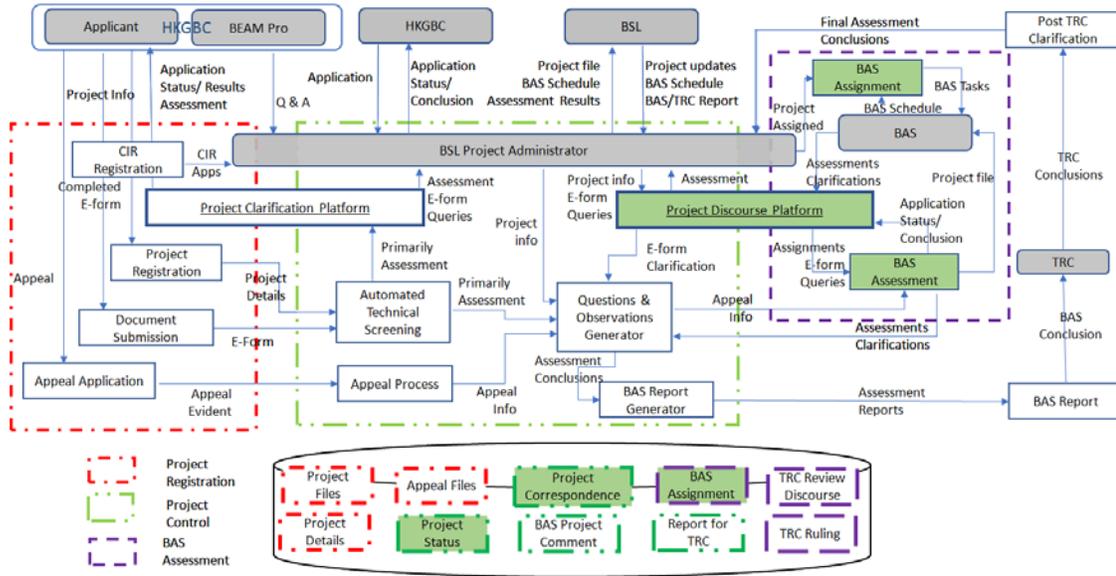
Figure 3



Stream Electronic Submission:
Around 100 e-form shall be a major source of information throughout the system for approval and assessment

Our Ref: EOI/TSD/M/AUTO/1/2018/001

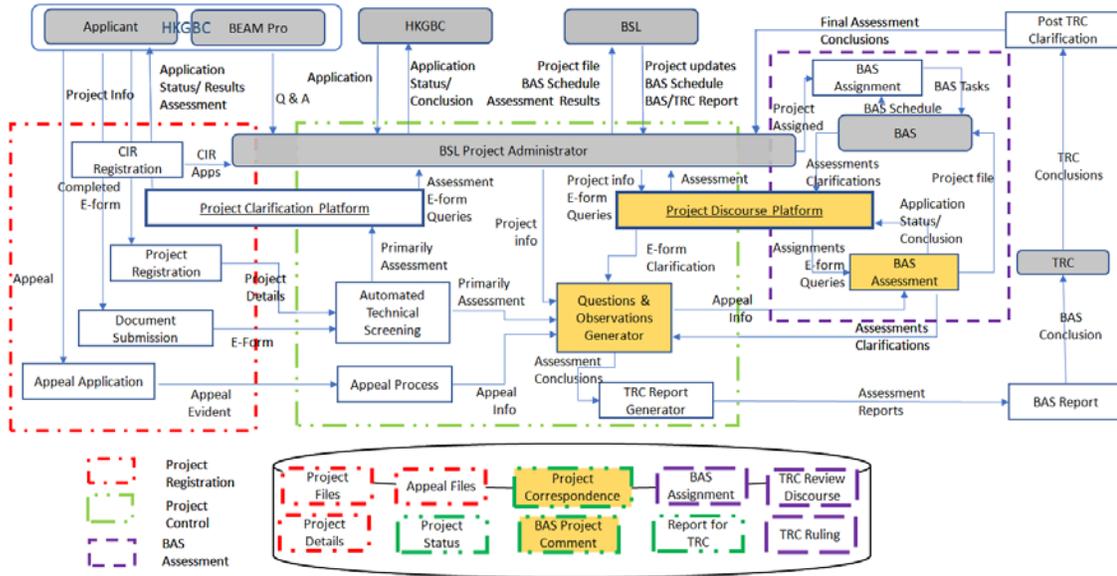
Figure 4



Stream: BSA Assignment and Project Scheduling:
BAS shall be assigned for each project base on availability and rule based to include any potential conflicts of interest.

Our Ref: EOI/TSD/M/AUTO/1/2018/001

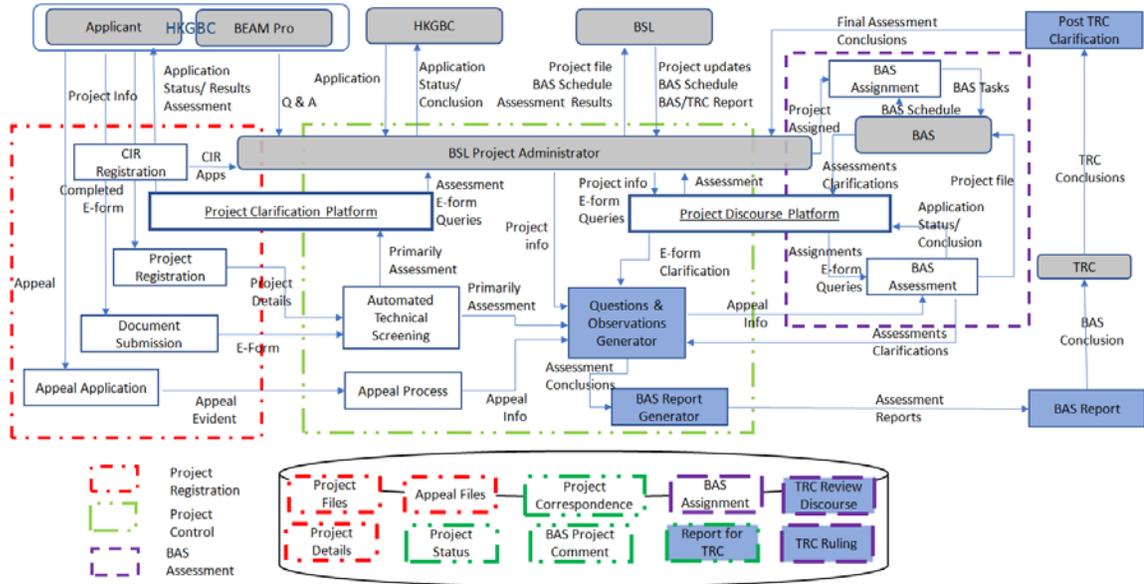
Figure 5



Stream: Project BAS Assessment Q&A
Project data discourse among BAS, the BSL, and Applicant. All Q&A/updates/conclusion is logged on discourse platform

Our Ref: EOI/TSD/M/AUTO/1/2018/001

Figure 6

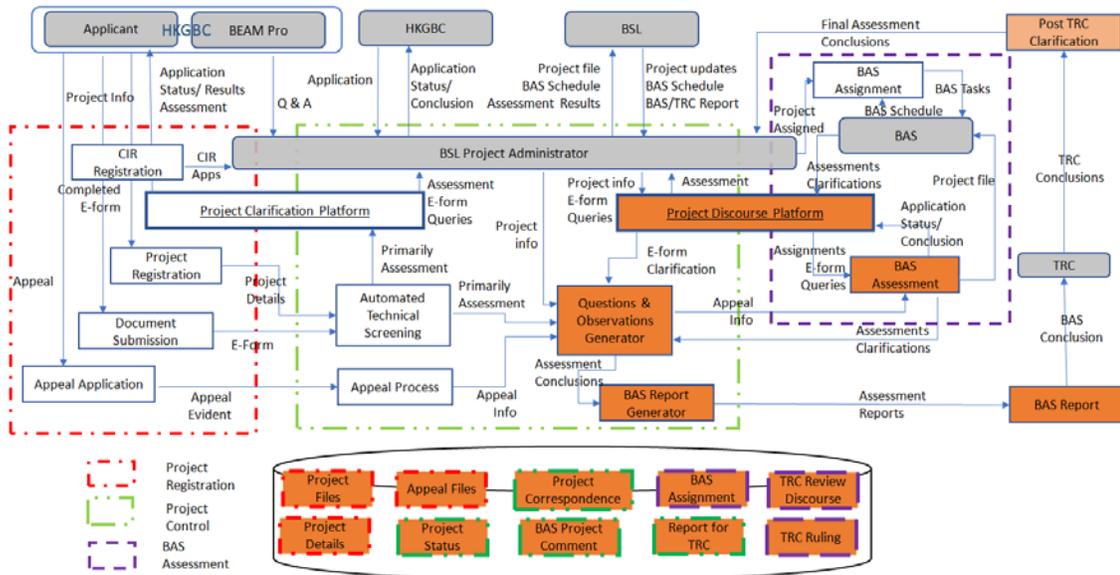


Stream: TRC reporting and review

Assessment conclusion, appeal information, will be compile as Report for ASC review, upon approval, the final conclusion will be noted.

Our Ref: EOI/TSD/M/AUTO/1/2018/001

Figure 7



Stream: Knowledge base and audit

All data shall be stored with permission-based Keyword Search functions on specific Q&A, BAS Assessment conclusion, and TRC decision.