



Supporting Sustainable Inclusive Blue Economy Transformation in African SIDS

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Terms of Reference

Consultancy: Development of the Africa Blue Economy Dashboard for the African Blue Economy Strategy (ABES) of the African Union Commission, and the Management Information System (MIS), Knowledge Hub & Online Learning Platform for the African SIDS Project

1. Introduction

The Global Water Partnership Southern Africa (GWPSA), as the Executing Agency of the UNDP/AUC-GEF project “*Supporting Sustainable Inclusive Blue Economy Transformation in African Small Island Developing States (SIDS)*”, intends to engage a qualified service provider to develop and operationalise two digital platforms for the African Union Commission (AUC) through the Sustainable Environment and Blue Economy Directorate (SEBE)

1. The Blue Economy Dashboard to support the implementation, monitoring and reporting of the African Blue Economy Strategy (ABES)
2. The Management Information System (MIS) and Knowledge Hub, and Online Learning Platform to support monitoring, knowledge management, information sharing and learning under the African SIDS Project

The two platforms will be developed under the same project implementation but will serve different purposes and user groups. Each platform has its own scope, functional and technical requirements, deliverables, and expected outcomes, which are set out separately in the respective sections of this Terms of Reference, included as **Annex 1** for the Blue Economy Dashboard for the African Blue Economy Strategy (ABES) and **Annex 2** for the Management Information System (MIS), Knowledge Hub & Online Learning Platform for the African SIDS Project.

2. General Background

The African Union Commission (AUC), through the Sustainable Environment and Blue Economy Directorate (SEBE), is implementing the African Blue Economy Strategy (ABES) to promote sustainable and inclusive development of Africa's Blue Economy. Effective implementation of the Strategy requires strengthened systems for Blue Economy data collection, reporting, monitoring and analysis.

The UNDP/AUC-GEF project "Supporting Sustainable Inclusive Blue Economy Transformation in African Small Island Developing States (SIDS)" is being implemented in Cabo Verde, Comoros, Guinea-Bissau, Mauritius, São Tomé and Príncipe, and Seychelles. UNDP is the Implementing Agency, GWP-SA is the Executing Agency, and AUC is the Continental Custodian. The project supports Blue Economy governance and policy development, demonstration projects, and knowledge management and learning.

Within this framework, the Blue Economy Dashboard will support standardized Blue Economy reporting and monitoring across Member States, building on the AUC's existing KPI framework, scoring methodology, data collection template and prototype dashboard.

The MIS, Knowledge Hub and Online Learning Platform will support project monitoring and information management, while facilitating access to knowledge products, learning resources and trainings for the participating SIDS and other stakeholders.

3. General Scope of the Assignment

The assignment covers the design, development, deployment, and support of two separate digital platforms:

Component 1 – Blue Economy Dashboard: Development and operationalisation of the Blue Economy Dashboard to support data collection, monitoring, reporting, analysis, and visualization for the implementation of the African Blue Economy Strategy.

Component 2 – MIS and Knowledge Hub: Development and operationalisation of the MIS and Knowledge Hub for the African SIDS Project, focusing on knowledge management, information sharing, and online learning.

Each platform shall be designed and implemented according to its respective requirements and shall comply with applicable AUC ICT, security, data management, and interoperability requirements.

The service provider shall undertake the assignment in accordance with the detailed requirements, specifications, deliverables and implementation arrangements set out in **Annexes 1 and 2** of these Terms of Reference.

4. Firm & Key Experts Qualifications

4.1 Firm Qualifications

The consulting firm must demonstrate:

- Legal registration as a firm or institution eligible to operate and contract in its country of registration and internationally.
- At least five (5) years of demonstrated experience in the design, development, implementation, and deployment of enterprise information systems, digital reporting platforms, dashboards, knowledge management platforms, learning platforms, or related digital solutions.
- Proven experience in developing web-based applications incorporating data collection, reporting workflows, dashboards, analytics, content management, and secure user management.
- Demonstrated experience in implementing or configuring DHIS2-based reporting platforms, including system integration through APIs.
- Proven experience in developing business intelligence dashboards and data visualization solutions, preferably integrated with GIS capabilities.
- Demonstrated experience in developing or implementing knowledge management, content management, or online learning platforms.
- Demonstrated experience integrating enterprise applications with databases, authentication services, APIs, and third-party systems.
- Proven experience in successfully delivering at least three (3) similar assignments, supported by certificates of satisfactory completion or client references.
- Demonstrated technical, financial, and administrative capacity to undertake assignments of similar complexity.

The firm shall also demonstrate access to the technical skills required for UI/UX design, database administration, information security, quality assurance and testing, deployment, system administration, documentation, and user training.

4.2 Key Experts

The consulting firm shall provide a multidisciplinary team comprising the following key experts:

(i) Team Leader / Enterprise Systems Architect

Qualifications and experience

- Advanced university degree (Master's or higher) in Computer Science, Information Systems, Software Engineering, Information Technology, or a related field.
- Minimum of eight (8) years of progressively responsible experience in enterprise systems design, software architecture, and digital transformation.
- Demonstrated experience leading to the design and implementation of enterprise information systems, reporting platforms, knowledge platforms, or other large-scale digital solutions.
- Proven experience in solution architecture, system integration, cloud or on-premises deployment, and enterprise application security.
- Strong experience coordinating multidisciplinary technical teams and managing software development projects.
- Previous experience working with governments, regional organizations, or international development partners is an asset.

(ii) Software Development and Systems Integration Specialist

Qualifications and experience

- University degree in Computer Science, Software Engineering, Information Technology, or related discipline.
- Minimum of five (5) years of professional experience in software development and enterprise application integration.
- Demonstrated experience developing web-based applications, relational databases, REST APIs, content-driven applications, and workflow-based information systems.
- Proven experience configuring or integrating DHIS2-based reporting platforms.
- Experience integrating enterprise systems with business intelligence platforms, GIS services, authentication systems, content or learning platforms, and third-party applications.

- Experience conducting system testing, deployment, and post-implementation technical support.
- Strong analytical and problem-solving skills.

(iii) Business Intelligence, GIS and Data Analytics Specialist

Qualifications and experience

- University degree in Data Science, GIS, Computer Science, Information Systems, Statistics, or related fields.
- Minimum of five (5) years of professional experience in business intelligence, data analytics, dashboard development, and GIS applications.
- Demonstrated experience designing KPI dashboards, interactive reports, benchmarking tools, and decision-support systems.
- Proven experience using Power BI or equivalent tools and integrating GIS visualization into enterprise applications.
- Experience in data modelling, analytics, visualization, user training, and preparation of technical and user documentation.

(iv) Knowledge Management and Digital Learning Specialist

Qualifications and experience

- University degree in Knowledge Management, Information Management, Information Systems, Education Technology, Instructional Design, Computer Science, or related field.
- Minimum of five (5) years of professional experience in knowledge management, digital learning, content management, or related digital platforms.
- Demonstrated experience in the design or implementation of knowledge repositories, knowledge portals, content management systems, or online learning platforms.
- Experience with learning management systems, including course management, enrolment, assessments, learner progress tracking, and certification.
- Experience in organising and managing digital knowledge resources using appropriate content structures, metadata, classification, search, and retrieval mechanisms.
- Experience supporting multilingual digital content and user-facing knowledge or learning platforms.

- Experience in user training, knowledge transfer, and preparation of user guidance and learning materials.
- Previous experience working on knowledge management or digital learning initiatives for governments, regional organizations, or international development programmes is an asset.

5. Reporting and Coordination

The consulting firm will work under the overall contractual and administrative supervision of the Global Water Partnership Southern Africa (GWPSA), the Executing Agency for the UNDP/AUC-GEF Project *Supporting Sustainable Inclusive Blue Economy Transformation in African SIDS*. GWPSA will manage the contract, coordinate the assignment, review deliverables, and facilitate their approval.

Technical supervision will be jointly provided by the African Union Commission (AUC) Management Information Systems (MIS) Team and the Blue Economy Division, in collaboration with GWP-SA. The AUC MIS Team will provide guidance on system architecture, integration, hosting, security, and compliance with AUC ICT standards, while the Blue Economy Division will provide functional oversight to ensure the solution meets the business and reporting requirements of the African Blue Economy Strategy.

All reports and deliverables shall be submitted to GWP-SA, with copies shared with the AUC for technical review. Final acceptance of deliverables will be based on technical validation by the AUC, stakeholders and formal approval by GWP-SA. Since the Blue Economy Dashboard will be hosted within the AUC ICT infrastructure, the consultant shall ensure close collaboration with the AUC MIS Team during system integration, testing, deployment, and knowledge transfer.

6. Technical Evaluation Criteria

Weight of Technical Proposal: 80%

Minimum Technical Threshold to Qualify for Financial Evaluation: 70%

Evaluation criteria	Criteria description	Max weight (%)	Points
1. Firm's Experience and capacity	• Legal registration as a firm eligible to operate and contract in its country of registration and internationally.	20	20

	• Demonstrated experience delivering multi-country digital reporting, monitoring and dashboard solutions for continental, regional or intergovernmental institutions. • At least 5 years of experience in the design, development and deployment of enterprise information systems, reporting platforms, dashboards or decision-support systems. • Demonstrated experience implementing web-based reporting systems incorporating workflows, dashboards, analytics and secure user management. • Proven experience in DHIS2 (or similar platform), API integration, business intelligence and GIS-enabled applications. • Successful completion of at least three (3) similar assignments for governments, regional organizations, UN agencies or international organizations, supported by certificates of satisfactory completion or client references. • Demonstrated technical, financial and administrative capacity to undertake assignments of similar scope.		
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Subtotal			20
2. Personnel qualification and experience			
Team Leader / Enterprise Systems Architect	- Advanced university degree (Master's or higher) in Computer Science, Information Systems, Software Engineering, Information Technology or related field. - Minimum 8 years of experience in enterprise systems architecture, software development and digital transformation. - Demonstrated experience leading the design and implementation of enterprise information systems or reporting platforms. - Proven experience in solution architecture, enterprise application integration and project management. - Previous experience with governments, regional organizations or international organizations is an asset.	20	20
Software Development and Systems Integration Specialist	- University degree in Computer Science, Software Engineering, Information Technology, or a related discipline. - Minimum of 7 years of professional experience in software development and	10	10

	enterprise application integration. • Demonstrated experience developing web-based applications, relational databases, REST APIs and workflow-driven information systems. • Proven experience configuring or integrating DHIS2-based reporting platforms. • Experience integrating enterprise systems with business intelligence platforms, GIS services, authentication systems and third-party applications. • Experience conducting system testing, deployment and post-implementation technical support. • Strong analytical and problem-solving skills.		
Business Intelligence, GIS and Data Analytics Specialist	• University degree in Data Science, GIS, Computer Science, Information Systems, Statistics or related field. • Minimum 7 years of experience in business intelligence, dashboard development and data analytics. • Demonstrated experience developing KPI dashboards, reports and visualization tools.	10	10

	• Proven experience with Power BI (or similar) and GIS-enabled visualization. • Experience in technical documentation, user training and knowledge transfer.		
Knowledge Management and Digital Learning Specialist	• University degree in Knowledge Management, Information Management, Information Systems, Education Technology, Instructional Design, Computer Science, or related field. • Minimum of five (5) years of professional experience in knowledge management, digital learning, content management, or related digital platforms. • Demonstrated experience in the design or implementation of knowledge repositories, knowledge portals, content management systems, or online learning platforms. • Experience with learning management systems, including course management, enrolment, assessments, learner progress tracking, and certification. • Experience in organising and managing digital knowledge resources using appropriate content structures, metadata,	10	10

	classification, search, and retrieval mechanisms. • Experience supporting multilingual digital content and user-facing knowledge or learning platforms. • Experience in user training, knowledge transfer, and preparation of user guidance and learning materials. • Previous experience working on knowledge management or digital learning initiatives for governments, regional organizations, or international development programmes is an asset.		
Subtotal			50
Technical approach and methodology	The proposal should demonstrate: • Clear understanding of the business and technical requirements of the Blue Economy Dashboard. • A sound methodology for developing the Member State Reporting Portal, configurable reporting workflows and DHIS2-based reporting system. • An appropriate approach for developing dashboards, analytics and GIS visualization modules. • A robust methodology for system integration with Power BI,	20	20

	Enterprise Identity Provider, enterprise databases, GIS services and other AUC systems through secure APIs. • Appropriate approach for system testing, User Acceptance Testing (UAT), deployment, knowledge transfer and post-implementation support.		
Implementation Plan and feasibility	The proposal should demonstrate: • A realistic work plan with clear milestones aligned with the required deliverables. • Logical sequencing of activities from inception to production deployment. • Clear allocation of responsibilities among the proposed experts. • Appropriate quality assurance, risk management and communication mechanisms to ensure successful implementation.	10	10
Subtotal			10
TOTAL TECHNICAL SCORE		100	100

7. Conditions / Requirements

- GWPSA reserves the right to negotiate any aspect of your proposal before the conclusion of a Contract for the Assignment. GWPSA furthermore reserves the right to reject all proposals submitted without giving any reason.
- GWPSA may discontinue or suspend this procurement process without responsibility or liability to any Bidder, including (without limitation) any liability for any costs or expenditure incurred by, or inconvenience caused to, any Bidder. The proposal shall be prepared in the English language.
- The financial proposal should be expressed in US dollars, and payment for the Services will be made in the same currency.
- Taxes: If applicable, a withholding tax of 10 or 15% shall be charged to the consultant for fees only, depending on the consultant's home country, and GWPSA will avail the corresponding tax certificates.
- GWPSA will not be liable for any additional taxes due to tax Authority/ies in the country of origin of the Consultant.

8. How to apply

Interested firms meeting the requirements are invited to submit their applications by email to gwpsaprocmement@gwp.org, with a copy to Jailson.Lopes@gwpsaf.org and immaculee.uwimana@gwpsaf.org, no later than 5th November 2026. The application should include the following documents:

- Firm's registration certificate
- Technical proposal including Firm's experience in the required field, CVs of proposed team of experts and proposed methodology to undertake this assignment
- At least three **(3)** certificates of satisfactory completion of similar assignments for governments, regional organizations, UN agencies or international organizations,
- Financial proposal with a breakdown by each deliverable.

ANNEX 1



Supporting Sustainable Inclusive Blue Economy Transformation in African SIDS

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Terms of Reference (ToR) for the Development of the African Blue Economy Dashboard

1. Introduction

1.1 Background and context

The African Union Commission (AUC), through the Sustainable Environment and Blue Economy Directorate (SEBE), is implementing the African Blue Economy Strategy (ABES) to promote sustainable development, economic growth, environmental protection, and climate resilience across Africa's blue economy sectors.

To support the implementation of the strategy, the AUC intends to establish a continental Blue Economy dashboard that will strengthen data collection, reporting, monitoring, visualization, benchmarking, and evidence-based decision-making across Member States.

The platform will provide a standardized mechanism for Member States to submit Blue Economy data, support data validation and approval workflows, generate continental analytics, and provide interactive dashboards for policymakers, technical experts, development partners, and other stakeholders. The AUC has already developed the foundational assets for this platform: a Blue Economy KPI framework of 30 KPIs across six pillars with an agreed scoring methodology, an Excel-based prototype dashboard, a country data collection template, and a training manual. The consultant shall build on these existing assets rather than redesign the framework.

The proposed solution shall support monitoring across the key Blue Economy sectors including:

- Fisheries and aquatic ecosystems
- Shipping, transport, ports and safety
- Tourism, climate resilience, environment and infrastructure
- Sustainable energy and innovative industries
- Policies, institutions and governance
- Employment, jobs, poverty reduction and finance

The platform shall integrate reporting, analytics, GIS visualization, and enterprise interoperability into a single digital ecosystem. The initial development and piloting of the Blue Economy Dashboard is being commissioned and supported through the Global Environment Facility (GEF)-financed project *Supporting Sustainable Inclusive Blue Economy Transformation in African Small Island Developing States (SIDS)*. The project is implemented by the United Nations Development Programme (UNDP), in partnership with the African Union Commission (AUC), and executed by the Global Water Partnership Southern Africa (GWP-SA). The project supports six African SIDS, namely Cabo Verde, Guinea-Bissau, São Tomé and Príncipe, Comoros, Mauritius, and Seychelles, in advancing sustainable, inclusive, and climate-resilient Blue Economy development.

As part of its support to the implementation of the African Blue Economy Strategy (ABES), the project seeks to strengthen enabling policies, institutions, stakeholder capacities, and Blue Economy data systems. The Dashboard will therefore serve as a flagship continental platform for data collection, reporting, monitoring, benchmarking, and decision support, while also being piloted within the participating African SIDS to validate reporting processes, strengthen national data management capacities, and generate lessons and best practices for future scaling across the continent.

2. Objective

The objective of this assignment is to design, develop, configure, integrate, test and deploy an enterprise-ready Blue Economy dashboard which will serve as a Reporting, Analytics, and Decision Support Platform that enables:

- Standardized Member State reporting.
- KPI monitoring and reporting.
- Data validation and approval workflows.
- Continental analytics and benchmarking.
- GIS-enabled visualization.
- Decision support.

- Secure information management.
- Integration with existing AUC digital infrastructure.

3. Project scope

The solution shall include the design, development, configuration, integration, testing, deployment, and post-support services of the following components.

3.1 Member State reporting platform

The platform shall provide a secure reporting environment for Member States to:

- Manage country profiles.
- Submit KPI data.
- Upload supporting evidence.
- Save draft submissions.
- Submit reports for validation.
- Respond to review comments.
- Resubmit corrected reports.
- View reporting history.
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3.2 Reporting workflow

The platform shall support a configurable end-to-end reporting workflow to ensure that all data submitted by Member States is reviewed, validated, approved, and published in a controlled and auditable manner. The workflow shall support multiple approval levels and be configurable to accommodate future changes in reporting processes.

The workflow shall include, but not be limited to, the following stages:

Draft

Member States shall be able to create and save reports in draft form before submission. Draft reports shall remain editable by authorized users until they are formally submitted. The platform shall support automatic saving of progress to prevent data loss.

Submission

Once all required information has been completed, authorized users shall submit the report for review. Upon submission, the report shall be locked from further editing unless it is returned for revision. The system shall record the submission date, time, and submitting user.

Validation

Submitted reports shall undergo predefined validation checks to ensure completeness, consistency, and compliance with reporting requirements. Validation may include mandatory field verification, data type validation, acceptable value ranges, cross-field consistency checks, and completeness assessments.

Approval

Following successful validation, designated reviewers or approving authorities shall review the submission for accuracy and completeness. The platform shall support approval at the member state level and another at the AUC level. Approvers may approve the submission or return it with comments for revision.

Rejection

Where a submission does not satisfy the required reporting standards, reviewers shall be able to reject the submission and provide comments outlining the required corrections. The system shall notify the submitting Member State and maintain a complete history of review comments.

Resubmission

Member States shall be able to revise rejected submissions based on reviewer comments and resubmit them for further review. The platform shall maintain version history of all submissions and clearly distinguish between original and revised submissions.

Final Approval

Once all review and approval stages have been successfully completed, the submission shall receive final approval. Final approved reports shall become read-only and serve as the official reporting records for the reporting period. The system shall record the final approving authority, approval date, and approval status.

Publication

Following final approval, approved data shall be published to the enterprise reporting environment. Published data shall be synchronized with the enterprise database and made available to the analytics platform, dashboards, GIS services, reports, and other authorized systems. Publication will occur through a controlled release process, depending on the reporting governance adopted by the AUC.

Workflow administration

The platform shall provide configurable workflow management capabilities, enabling system administrators to:

- Configure reporting stages and workflow sequences.
- Configure approval levels and approval hierarchies.
- Assign reviewers and approvers.
- Configure validation rules.
- Configure submission deadlines and reporting periods.
- Configure automated notifications and reminders.
- Monitor workflow progress and submission status.
- Maintain complete audit logs of all workflow activities.

The workflow shall be designed to support future changes in reporting processes without requiring significant system redevelopment.

3.3 DHIS2 like reporting and workflow system

The solution shall include the configuration and integration of a DHIS2-like reporting and workflow system.

These configurations shall be done:

- Configure KPIs
- Configure reporting datasets.
- Configure multi-lingual reporting forms (at minimum English and French, with provision for other African Union official languages).
- Configure reporting periods.
- Configure approval workflows.
- Configure user roles.

- Configure validation rules.
- Configure metadata required for reporting.
- Integrate DHIS2 with the overall Blue Economy Platform through secure APIs.

DHIS2 shall be customized or extended to support the approved reporting methodology.

3.4 Analytics and decision support

The solution shall support:

- KPI monitoring.
- Performance measurement.
- Pillar performance analysis.
- Country performance analysis.
- Continental analysis.
- Historical trend analysis.
- Benchmarking.
- Comparative reporting.
- Exportable reports.
- Decision-support dashboards.

A configurable scoring engine implementing the approved KPI methodology, including threshold-based KPI scores, aggregation to pillar and country levels, directionality and weighting rules, and management of thresholds over time.

- Support for “Not applicable” and “No data” values that are excluded from aggregation but remain visible, so that landlocked and data-constrained Member States are treated fairly and data gaps stay transparent.

3.5 Dashboard and visualization

The solution shall provide interactive dashboards supporting:

- Multi-lingual pages
- Executive dashboards.
- Continental dashboards.
- Regional dashboards.
- Country dashboards.
- KPI scorecards.
- Rankings.

- Benchmarking.
- Trend analysis.
- Comparative analysis.
- Drill-down capabilities.
- Interactive filtering.

The solution shall support integration with the AUC's analytics platform, including Power BI where applicable.

3.6 GIS and Spatial Intelligence

The platform shall support GIS-enabled visualization including:

- Interactive continental maps.
- Country profiles.
- Geographic filtering.
- Spatial visualization of indicators.
- Display of marine and coastal datasets.
- Fisheries visualization.
- Shipping and transport visualization.
- Climate resilience layers.
- Renewable energy layers.
- Spatial analytics where applicable.

3.7 Administration

The platform shall provide administrative functionality for:

- User management.
- Role management.
- Country management.
- Reporting period management.
- KPI management.
- Notification management.
- Workflow administration.
- Audit logs.
- System configuration.

4. Business process specification

The solution shall support the following reporting process:

1. AUC opens a reporting period.
2. Member States receive notification.
3. Country Focal Point logs into the platform.
4. Country Profile is completed or updated.
5. KPI reporting forms are completed.
6. Supporting evidence is uploaded.
7. Automatic validation checks are performed.
8. Draft submission is saved.
9. Report is submitted.
10. Reports may be approved or returned for correction, this will be done at country level and AUC level.
11. Approved reports are synchronized to the analytics environment.
12. KPI scoring and benchmarking are performed.
13. Dashboards and GIS visualizations are refreshed.

5. Functional requirements

The solution shall provide the following functional capabilities.

User management

- Secure authentication.
- Role-based access control.
- Country-based permissions.
- User profile management.
- Password management.
- Audit logging.

Country profile

Support management of:

- Country information.
- Reporting institution.
- Focal point details.
- Contact information.

- Reporting year.

Reporting

Support reporting of:

- Indicator-driven data elements.
- Data source.
- Methodology notes.
- Supporting evidence.
- Comments.

Support:

- Draft saving.
- Editing.
- Submission.
- Version history.

Validation workflow

Support:

- Validation.
- Review comments.
- Approval.
- Rejection.
- Resubmission.
- Approval history.

Dashboard

Support:

- KPI visualization.
- Charts.
- Maps.
- Benchmarking.
- Rankings.

- Trend analysis.
- Drill-down.
- Filtering.

Reports

Support generation of:

- Country reports.
- Regional reports.
- Continental reports.
- Executive reports.

Support export to:

- PDF.
- Excel.
- CSV (Comma-Separated Values).

Notifications

Support notifications for:

- Reporting period opening.
- Submission reminders.
- Validation requests.
- Approval.
- Rejection.
- Resubmission.

6. Technical requirements

The proposed solution shall:

- Be web-based and responsive.
- Support secure authentication and role-based access.
- Support configurable reporting forms.
- Support configurable indicators.
- Support configurable reporting periods.

- Support configurable workflows.
- Support document management.
- Support enterprise integration through REST APIs.
- Support cloud or on-premises deployment.
- Support application scalability.
- Support application-level monitoring and logging.

The consultant shall recommend the most appropriate technology stack to meet the functional and technical requirements.

7. Integration requirements

The solution shall support integration with:

- Multiple reporting platform including DHIS2.
- Enterprise Identity Provider.
- Power BI.
- GIS services.
- Enterprise Database.
- Existing AUC Management Information Systems.
- Email and notification services.
- Future enterprise applications.

8. Security requirements

The solution shall:

- Support secure authentication.
- Implement role-based access control.
- Encrypt sensitive data in transit and at rest.
- Maintain complete audit trails.
- Implement secure API communication.
- Protect against common web application vulnerabilities.
- Comply with AUC ICT security standards and with the African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention), including protection of the personal data of focal points and platform users.
- Support regular automated backups and disaster recovery, with defined recovery time and recovery point objectives.

- Undergo security testing, including vulnerability assessment and penetration testing, prior to production go-live.

9. Non-functional requirements

The solution shall:

- Be scalable to support future reporting initiatives.
- Be highly available.
- Support concurrent users.
- Be responsive under expected workloads.
- Be maintainable and extensible.
- Be accessible through modern web browsers.
- Support mobile-responsive interfaces.
- Be modular and configurable.
- Support future expansion to additional AUC Directorates.

10. Acceptance criteria

The solution shall be considered complete when:

- Member States can successfully submit reports.
- Reporting workflows are operational.
- Validation and approval processes function as expected.
- Dashboards display approved reporting data.
- GIS visualizations function correctly.
- Reports can be generated and exported.
- Integration with enterprise systems is operational.
- User Acceptance Testing (UAT) has been successfully completed.
- Production deployment has been completed.
- Documentation and training have been delivered.

11. Assumptions

- The KPI framework, indicator definitions, reporting methodology, and scoring framework will be provided by the AUC and its appointed consultant. These are documented in the AU Blue Economy Dashboard Final Report (September 2025) including the KPI dictionary, thresholds and scoring rules, which shall constitute the baseline for configuration of the platform.

- GIS datasets required for visualization will be provided by the AUC or designated partners.
- The AUC will provide access to existing enterprise systems required for integration.
- Hosting infrastructure and enterprise identity services will be made available by the AUC.
- The solution shall be designed to accommodate future changes to indicators, reporting workflows, and additional reporting domains through configuration where feasible.
- All source code, configurations, data, documentation and other intellectual property developed under this assignment shall be the exclusive property of the African Union Commission. The consultant shall use open-source components where feasible and shall disclose any proprietary licensing requirements and their recurrent costs over the lifetime of the platform.

12. Future extensibility

The proposed solution shall adopt a modular, scalable, and enterprise-ready architecture that supports future expansion without major reengineering.

The architecture should enable:

- Reuse of reporting and workflow capabilities.
- Configurable KPI frameworks.
- Configurable reporting forms and approval workflows.
- Shared authentication and authorization.
- Shared analytics and business intelligence services.
- Shared GIS services.
- Shared enterprise data warehouse integration.
- API-based interoperability with future systems.

The platform should be designed to minimize the creation of new data silos and establish a reusable enterprise reporting and analytics foundation for the African Union Commission.

13. Deliverables

The consultant shall deliver:

No	Deliverables	Description	Timeline	Proposed cost
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1	Inception report	• Detailed work plan and implementation methodology. • Stakeholder engagement plan. • Project schedule and milestones. • Risk management and quality assurance approach.	After 2 weeks	
2	Requirements validation report	• Validated business, functional and non-functional requirements. • Business process workflows. • Validated KPI framework and reporting requirements. • Agreed System Requirements Specification (SRS)	After 4 weeks	
3	Solution architecture and System design	• Enterprise solution architecture. • System architecture diagrams. • Application architecture defining the custom portal, DHIS2, analytics, GIS and integration layers. • Database design. • Integration architecture. • Security architecture. • Deployment architecture. • UI/UX wireframes and user interface designs for the custom reporting portal and dashboards.	After 7 weeks	

4	Custom Portal Development	Custom User-Facing Reporting Portal • Development of secure web-based Blue Economy reporting portal. • Member State user registration, authentication and profile management. • Data submission interfaces aligned with the KPI framework. • Reporting status tracking and submission monitoring. • Validation feedback and notification mechanisms. • User dashboards for country focal points. • Integration with DHIS2 reporting workflows and APIs. Portal Administration Modules • User, role and permission management. • Workflow configuration interfaces. • Reporting cycle management. • Administrative monitoring tools.	After 19 weeks	
5	DHIS2 Configuration and Reporting	Blue Economy Reporting Platform • Configured DHIS2 reporting platform. • Configurable KPIs.		

	Platform Implementation	• Configurable reporting forms and datasets. • Reporting workflows (draft, submission, validation, approval, rejection, resubmission and publication). • Data validation rules and quality checks. • User, role and workflow management configuration. Dashboard, Analytics and GIS Platform • Interactive executive, continental, regional and country dashboards. • KPI scorecards and benchmarking. • Analytics and decision-support components. • GIS visualization modules, including interactive maps, spatial analytics and Blue Economy layers. • Exportable reports and visualizations.		
6	Integration and API Services	• REST API Services • Integration between the custom portal and DHIS2. • Integration with Power BI, GIS services and the Enterprise Data Warehouse. • Integration with the Enterprise Identity	Overlaps with development)	

		Provider (Microsoft Entra ID). • Integration with existing AUC Management Information Systems. • Email and notification services.		
7	System Testing, Deployment and Commissioning	• System, integration and performance testing. • Security testing. • User Acceptance Testing (UAT) support. • Production deployment. • System configuration and commissioning. • Go-live support and production readiness verification.	After 22 weeks	
8	Documentation	• Complete application source code. • Database scripts. • Technical documentation. • API documentation. • Installation and configuration guides. • System maintenance documentation. • User Manual. • Administrator Manual. • Training manuals. • Quick reference guides and operational procedures.	(Overlaps with Testing)	
9	Training and Knowledge Transfer	• End-user training. • System administrator training.	After 25 weeks	

		• Technical training for AUC Technical Team. • Knowledge transfer sessions. • Training materials and reference resources.		
10	Post Implementation Support	• Post-implementation technical support and issue resolution. • Bug fixing and system stabilization. • Technical assistance during the warranty period is important.	3 months After Completion	

ANNEX 2



Supporting Sustainable Inclusive Blue Economy Transformation in African SIDS



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Terms of Reference (TOR) for the Development of a Management Information System, Knowledge Hub & Online Learning Platform of the African SIDS Project

1. Project overview

The UNDP-GEF project “Supporting Sustainable Inclusive Blue Economy Transformation in African Small Island Developing States (SIDS)” is being implemented in six African Small Island States, namely Cabo Verde, Comoros, Guinea-Bissau, Mauritius, São Tomé and Príncipe, and Seychelles. The project is led by the United Nations Development Programme (UNDP) as the Implementing Agency, with the Global Water Partnership Southern Africa (GWP-SA) as the Executing Agency, and the African Union Commission (AUC) as the Continental Custodian.

The project supports participating countries in strengthening Blue Economy governance and policy environments, implementing demonstration initiatives, and promoting information sharing, knowledge management and learning. It also facilitates the sharing of data, lessons and good practices among participating countries and with the wider SIDS and ocean community.

To support these activities, the project requires an integrated Management Information System (MIS), Knowledge Hub and Online Learning Platform to facilitate project information management, knowledge sharing, access to knowledge products and online learning.

The Terms of Reference set out the requirements for the design, development, deployment and operationalisation of the MIS, Knowledge Hub and Online Learning Platform. It defines the scope of services, key deliverables, technical and functional requirements, and implementation arrangements for the assignment.

2. Objectives of the MIS & Knowledge Hub

The platform will:

- I. Collect, process, store, analyse, and display real-time project information, including monitoring indicators, demonstration project data, and knowledge products, enabling secure access by authorised users.
- II. The platform will also establish a public-facing Knowledge Hub and Online Learning Platform to support knowledge dissemination and capacity building across the six African SIDS and other AU Member States. The Knowledge Hub/MIS shall be implemented as a distinct application from the Blue Economy Dashboard, while allowing secure interoperability and exchange of approved information between future or external platforms where required.

3. Scope of Work

The service provider will design, develop, and operationalise a web-based Management Information System and a public-facing Knowledge Hub and Online Learning Platform that will include online learning and training with appropriate integration and shared enterprise services implemented where required. The MIS will be made accessible from both African SIDS project and AU websites, and through any other accessible means where required. The specific tasks will include:

I. Develop a web-based Management Information System (MIS) to support:

- Secure data storage and user-access control by country and role
- Upload and management of reports, knowledge products, geospatial data, and blue economy statistics
- Visualization of demonstration site results and Source-to-Sea/Ridge-to-Reef monitoring using charts, maps, and indicators

II. Develop a Public-Facing Knowledge Hub and Online Learning Platform

- The Knowledge Hub and Online Learning Platform shall provide a publicly accessible digital environment for knowledge dissemination and capacity building across the six African SIDS and other AU Members States. Public knowledge resources shall be accessible without authentication where appropriate, while user registration/authentication shall be provided for functionalities such as course enrolment, learning progress, assessments and certification.

- This platform will host structured e-learning modules, webinars, certification courses, and interactive training materials aligned with the project’s objectives on Source-to-Sea governance, Blue Economy policies, marine spatial planning (MSP), land degradation neutrality, and climate resilience.
- The system will allow users to access multimedia learning content, track progress, participate in assessments, and receive digital certificates upon completion
- It will also serve as a repository of training resources.
- To enhance inclusivity and knowledge dissemination, the platform will include multilingual delivery (English, French, and Portuguese) and have mobile-friendly access.

4. Management Information System Specifications

No	Functional Requirement	Details
1	Platform architecture and designs	The solution architecture shall follow modular, API-first and independently deployable architecture. The MIS and Knowledge Hub/Learning Platform shall maintain application and data boundaries appropriate to their respective security, user and operational requirements. Interoperability between platforms shall be implemented through secured and documented APIs or integration services rather than direct cross-platform database access. The architecture shall support the future onboarding of additional digital platforms without requiring major redesign of existing systems. The service provider proposes appropriate technologies based on the validated functional, security, interoperability, scalability, maintainability and sustainability requirements. 1) Users of the Knowledge Hub shall be able to access public content without registration where appropriate. Registration and authentication shall be required for personalised services such as course enrolment, progress tracking, assessments and certification.

		2) Translation functionality with the following languages should be available across the platform: English, French, and Portuguese. 3) The platform should be optimised for small devices with high-performance standards, even in connectivity-challenged environments. 4) All content should be currently displayed and fully navigable. Minimum requirements for performance are as follows: - Page load time: 3sec - Time to interactive (TTI): 5sec - First Contentful Paint: 2sec 5) Hosting and security should include a test environment and regular back-ups, patches and updates to ensure that the infrastructure is functional and secured. Bot protection measures should be implemented, and the company will closely monitor the platform's performance and recommend technical adjustments where appropriate.
2	Website and Web-based Management Information System (MIS)	1) The site should be designed based on the required content types highlighted in the scope of work. They should be user-friendly, and the site should be navigable. Each content type should be easily uploadable by admins and any required updates on landing pages and basic pages. 2) A suite of blocks should be readily available for administrators to easily create landing pages and basic pages 3) The web-based MIS should be able to present data from related sites through iframes or other types of integration.

		4) It should also allow admins to enter and update data and information for them to be visualised in dashboards and infographics.
3	Online learning system	An online Learning Management System (LMS) forming part of the public-facing Knowledge Hub, with appropriate user management, course enrolment, progress tracking, assessment, certificate generation and multimedia content capabilities. The LMS should support extensibility and interoperability with relevant learning standards and external learning services where required, avoiding unnecessary dependency on proprietary platform-specific functionality. 1) Users should have tiered levels of access/permissions for admins, country teams, course editors, and general members. 2) Upon completion, certificates should be auto-generated. The certificate mechanism and design should be customizable depending on the course and should include fields from the user profile. 3) The LMS should offer a basic content structure that allows for creating content with several modules, which can be reused or duplicated. Each course should have its own landing page with course information. Linear progress tracking of the user should be monitored by the system. 4) 5) Quiz functionality that allows embedding questions within course modules, at the end of modules, and at the end of the

		course to test users on their learning journey 6) 7) Webforms for pre-post course surveys where the data is available on the back end and easily exportable. 8) Content translation should be available in three languages: English, French, and Portuguese. 9) The course catalogue should be available, presenting all open courses. 10) The user interface for the LMS should be clear, simple, and consistent across the platform.
4	Service Level Agreement	The support period should be for one year after launch for platform security, technical support, and any required updates.
5	Single sign-on (or unified login)	The MIS and Knowledge Hub shall implement identity and access management appropriate to its respective user populations. The platform shall support controlled authentication and role-based access for authorised institutional users. The Knowledge Hub shall support public access and learner registration/authentication for personalised learning services. Standards-based identity federation (e.g., OAuth 2.0/OpenID Connect) should be implemented where common identity or SSO is required. Authentication architecture shall not require the platforms to share a user database. Microsoft Entra ID integration preferred but implementation should be dynamic to handle future identity and access management services without major redesign.

6	Public vs restricted areas	The Knowledge Hub/MIS shall primarily provide public access to approved knowledge products, courses, training resources, country information, stories and other published content. Authentication shall be required for functionalities such as course enrolment, learning progress tracking, assessments, certification and administrative functions. Access controls shall be configurable according to the applicable user roles and permissions.
7	Country-level dashboards	Country dashboards for each SIDS showing key indicators (to be specified later)
8	Knowledge repository	Structured library for toolkits, case studies, briefs, reports, GIS story maps, etc. Supports categories, tags, ABES pillars, country, and thematic filters. Files stored with metadata and version history. Design it to be dynamic and API driven to be able to retrieve existing data or information from other approved external systems. The Knowledge Repository shall form part of the Knowledge Hub and shall support metadata-driven content management, versioning and extensibility for future knowledge products and content types.
9	Advanced search & filters	Full-text search across titles, descriptions, and tags. Filter by country, theme, document type, year, language, and ABES pillar.
10	Automated reporting	One-click generation of standard reports (PDF/Word/Excel). Ability to select country, period, and indicator subset.
11	Map	Web map with layers for pilot sites, coastal zones, and other relevant spatial data. Supports zoom, selection, pop-ups with key attributes, and links to related knowledge products.
12	Interoperability, APIs and Ecosystem Integration	The platform shall expose secured and documented APIs and/or standard data exchange services to support interoperability between the Knowledge Hub, AUC enterprise systems and authorised external platforms.

		Integration shall follow API-first principles and support standard formats such as JSON and CSV where applicable. Direct cross-platform database access shall not be permitted. The integration architecture shall accommodate future Blue Economy digital platforms and services.
13	Analytics & usage tracking	Admins can view stats: logins by role/country, most viewed documents, downloads, dashboard views, and API usage. Data used to monitor KM uptake and report
14	Admin console	Web-based backend for managing users, roles, countries, indicators, taxonomies (tags, categories), and content (documents, pages).
15	File and data security	Security controls shall reflect the different risk profiles of the public-facing Knowledge Hub and restricted services. The platform shall maintain appropriate application, identity and data security boundaries, implement least-privilege access, encryption in transit and at rest, secure API access, audit logging, vulnerability management, backup and recovery, and separation of development, testing and production environments.
16	Extensibility and Future Platform Integration	The solution shall be designed as part of an extensible Blue Economy digital ecosystem. The architecture shall allow additional platforms, applications, data sources and digital services to be onboarded through defined APIs, identity services and shared enterprise capabilities without requiring significant redesign. The platform should remain independently deployable and capable of independent scaling, maintenance and lifecycle management.

5. Deliverables

No	Deliverable	Description	Deadline
1	Inception Report	Detailed work plan, implementation methodology, stakeholder engagement	15 days after work is commissioned

		approach, project schedule, risk and quality assurance approach.	
2	Requirements Validation Report	Validated business, functional and non-functional requirements; user roles and access requirements; knowledge and content management requirements; LMS and course requirements; multilingual requirements; user journeys and workflows; interoperability requirements; and an agreed System Requirements Specification (SRS).	30 days after work is commissioned
3	Solution Architecture and System Design	Approved solution and application architecture; database and content architecture; security and identity architecture; API and integration architecture; deployment architecture; sitemap and information architecture; UI/UX wireframes and high-fidelity interface designs; and technical provisions for integration with AUC systems and future digital platforms.	45 days after work is commissioned
4	MIS / Knowledge Hub and Online Learning Platform Development	Developed and configured web-based MIS/Knowledge Hub, including public website and content management capabilities; knowledge repository; country profiles and knowledge products; advanced search and filtering; multilingual functionality; responsive/mobile interfaces; LMS with course catalogue, enrolment, learning modules,	90 days after work is commissioned

		multimedia content, assessments, progress tracking, surveys and certificate generation; user and role management; administration console; and platform analytics.	
5	Integration and API Services	Development and configuration of secured and documented APIs and data exchange services; required integrations with relevant AUC and external systems; interoperability mechanisms for approved content and data; and technical interfaces to support future integration with other Blue Economy digital platforms or external AUC systems.	100 days after work is commissioned
6	System Testing, Deployment and Commissioning	Completion of functional, integration, security, usability, compatibility and performance testing; resolution of identified defects; User Acceptance Testing (UAT) and incorporation of agreed feedback; production environment configuration; production deployment; security and backup configuration; and final production-readiness and go-live verification.	110 days after work is commissioned
7	Documentation	Documentation Complete application source code and database scripts; solution and technical documentation; API documentation; installation, deployment and configuration guides; system administration and maintenance documentation; user and administrator manuals; training	115 days after work is commissioned

		materials; and other documentation necessary for AUC to operate, maintain and further develop the platform.	
8	Training and Knowledge Transfer	Training for relevant administrators, content managers, course managers/editors and technical personnel; system administration and operational training; technical knowledge-transfer sessions for relevant AUC ICT personnel; and formal handover of system knowledge, documentation and operational procedures.	120 days after work is commissioned
9	Maintenance & Technical Support Package	Post-implementation maintenance and technical support, including security updates and patches; backups; bug fixing and system stabilization; performance monitoring; technical issue resolution; required platform updates; and technical assistance throughout the support period.	12 months after system Goo-Live

Solution Architecture and System Design, Platform Development, Integration and API Services, System Testing, and Documentation activities may overlap where appropriate to support an iterative and efficient implementation process. The sequencing and dependencies of the deliverables shall be detailed in the approved project work plan.