

ANNEX 1 - TECHNICAL SPECIFICATIONS

SmartGreenEcos Platform 3 — Digital Procurement Platform and Supporting Testing Services for SmartGreenEcos Platforms 1, 2 and 4.

Work Package 4 - Software Platforms Development

WP4 Responsible partner: IWDT Ltd (Jordan)

Contracting partner: RTD Talos Ltd (Cyprus)

July 2026

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1. Introduction

SmartGreenEcos ("Building Smart Green SME Ecosystem") is a transnational cooperation project funded under the Interreg NEXT MED Programme 2021–2027. The project supports the green and digital transformation of small and medium-sized enterprises (SMEs) in the Mediterranean food industry — a sector of major economic importance for the four participating countries, Cyprus, Greece, Jordan and Tunisia, where agri-food products such as olive oil and dairy rank among the leading exports. The project's ambition is twofold: to build a transnational ecosystem in which food SMEs cooperate across value chains, network with each other, and exchange data and good practices; and to provide them with practical digital services — e-business and e-commerce tools, training and capacity building, and collaborative innovation — that improve their digital and green performance. One hundred food SMEs from the four countries will receive direct support through the project, with sectoral associations and chambers of commerce helping to connect companies to these opportunities. Further information about the project is available at https://www.interregnextmed.eu/project-page/smartgreenecos/about/.

To deliver these services, the project is developing four interoperable digital platforms, each under the responsibility of one project partner: a Benchmarking Platform (URENIO Research, Greece) that measures and compares the digital, green and financial performance of SMEs; a Training Platform (IWDT, Jordan) that builds skills and capacity; a Digital Procurement Platform (RTD Talos, Cyprus); and a New Product Development Platform (UCAR, Tunisia) that supports collaborative product innovation. The four platforms share common infrastructure — identity management, data exchange and analytics services — and a back-office platform to be developed by IWTD in Jordan, so that an SME can move between them as one connected ecosystem.

The Digital Procurement Platform, the subject of this document, is the transactional heart of that ecosystem: while the other platforms help SMEs measure, learn and innovate, this is the platform where they do business. It addresses problems that Mediterranean food SMEs face every day. On the buying side, small companies purchase raw materials, packaging, equipment and services individually, with little negotiating power, informal approval practices, and slow, manual processes for requesting and comparing supplier offers. On the selling side, they struggle to reach commercial buyers abroad — importers, distributors, agents and resellers — and to handle business orders in a structured, trustworthy way. Language differences and inconsistent product terminology across the region make it even harder for buyers and sellers to find each other.

The platform tackles these problems through three connected capabilities. First, a digital procurement service that manages the full purchasing cycle — from purchase request and approval, through requesting and comparing supplier offers, to ordering and delivery — and allows several SMEs to pool their demand and buy jointly, improving prices and supplier terms while keeping each company's commercial information confidential. Second, a business-to-business marketplace where SMEs present their flagship products to verified commercial buyers across borders, receive and manage orders, and track fulfillment. Third, an embedded AI assistance layer that lets users describe what they need in plain language — in English, Greek or Arabic — and helps them find matching products, suitable substitutes and suppliers, or turn a need into a well-structured procurement request.

The expected outcomes are concrete: lower input costs and better supplier terms through joint purchasing, new cross-border sales channels for flagship Mediterranean food products, faster and more transparent procurement decisions, and at least 100 procurement agreements concluded through the ecosystem during the project. Beyond the project's lifetime, the platform is designed to continue operating and growing as a sustainable service for the Mediterranean food SME community and the MED Food Association, which will be established as part of the project's sustainability strategy.

1.1 Purpose of this document

This document defines the technical specifications for the design, development, deployment and pilot operation of the SmartGreenEcos Digital Procurement Platform (Platform 3) as well as the provision of supporting testing services towards the SmartGreenEcos Platforms 1, 2 and 4. It is intended to serve as the technical basis for the procurement procedure through which a software development contractor will be selected, and subsequently as the reference for contractor offers, contract deliverables, and acceptance of the fully designed, developed, tested, and delivered system, together with its end-user operating manual and software documentation. The same software development contractor shall provide supporting testing services towards the SmartGreenEcos other Platforms 1, 2 and 4.

1.2 Project background

SmartGreenEcos is a project funded under the Interreg NEXT MED Programme 2021-2027, supporting the green and digital transition of agri-food SMEs in the Mediterranean region. The project will directly support 100 SMEs and targets, among other results, the conclusion of at least 100 procurement agreements through the digital ecosystem.

The SmartGreenEcos digital ecosystem comprises four application platforms operating on common infrastructure and shared resources and services:

- Platform 1 - Benchmarking Platform (URENIO)
- Platform 2 - Training Platform (IWDT)
- Platform 3 - Digital Procurement Platform (Talos) - the subject of this specification
- Platform 4 - New Product Development Platform (UCAR)

The common infrastructure layer includes a shared database and analytics platform fed by first-level analytics (ETL, quality and validation) over environmental/green, digitization/automation, strategy, financial and SME profile raw data, together with shared services (observability, configuration, audit), an API gateway with identity and access management (IAM), and an event bus (publish/subscribe). Platform 3 must integrate with this common infrastructure and with a back-office platform developed by IWTD in Jordan.
Platform development is carried out under Work Package 4 (WP4), which ends by July 2027. The software development contract covered by this specification is expected to run from October 2026 to May 2027.

1.3 Definitions and abbreviations

Term	Meaning
P2P	Procure-to-Pay: requisition, approval, sourcing, evaluation, award, purchase order, receiving
O2C	Order-to-Cash: catalog publishing, ordering, fulfillment, issues/returns, settlement tracking
RFQ / RFP	Request for Quotation / Request for Proposal
PO	Purchase Order
MOQ	Minimum Order Quantity
MCP	Model Context Protocol - governed interface between LLM assistants and platform data/tools
LLM	Large Language Model
PSP	Payment Service Provider
RBAC	Role-Based Access Control
IAM	Identity and Access Management
ICD	Integration Control Document
SLA	Service Level Agreement
UAT	User Acceptance Testing
NFR	Non-Functional Requirement
KPI	Key Performance Indicator
RPO / RTO	Recovery Point Objective / Recovery Time Objective
MFA	Multi-Factor Authentication

WCAG	Web Content Accessibility Guidelines

2. Scope

2.1 In-Scope Functional Layers

The Digital Procurement Platform shall be delivered as a secure, cloud-hosted, multi-tenant B2B procurement and trade platform for the SmartGreenEcos Mediterranean food SME ecosystem, comprising three functional layers:

- **App 3.1 - e-Procurement / Procure-to-Pay (P2P)**: requisition, approval workflow, RFQ/RFP for individual or pooled sourcing, bid evaluation, award, PO/procurement agreement management, receiving and exception handling.
- **App 3.2 - B2B e-Commerce / Trade (O2C)**: flagship product catalogs, controlled buyer access, ordering, seller acceptance, fulfillment milestones, issue/return tickets and payment-status tracking where applicable.
- **MCP-Enabled AI Findability Layer**: a horizontal shared capability embedded in both apps, providing smart requirement capture, product/listing matching, substitute suggestions, grounded product Q&A and AI-assisted RFQ/requisition drafting.

2.2 Out of Scope and Scope Discipline

- Standalone Supplier Discovery / Qualification marketplace (former App 3.3) and standalone Buyer/Reseller Discovery and Channel Partner Management (former App 3.4) are out of scope unless explicitly reintroduced with additional budget and scope approval.
- The minimal supplier, buyer, catalog, entitlement and panel master data required by Apps 3.1 and 3.2 remain in scope, including a minimal buyer verification/entitlement workflow within App 3.2 and/or an admin shared service with policy-driven access rules.
- Direct PSP/payment execution, escrow or staged payments, automated reconciliation, refunds/credit notes and advanced fraud/credit checks are out of the MVP scope and are treated as optional Phase 2 capabilities (see Section 4.6).

2.3 Phasing

The contracted build covers the MVP scope (Apps 3.1 and 3.2 core flows, shared services, the MCP-enabled AI Findability Layer and payment-status tracking). Phase 2 capabilities shall be priced as separately quoted options but shall not be assumed in the base delivery. The MVP shall be designed so that Phase 2 modules can be enabled per tenant and per market without architectural redesign.

2.4 Supporting Testing Services towards SmartGreenEcos Platforms 1, 2 and 4

The software development contractor shall provide supporting testing services for the verification of the other three SmartGreenEcos Platforms 1, 2 and 4. Such services shall include: (i) own professional testing of the developed Platforms 1, 2 and 4 and (ii) Cypriot SMEs end-users' engagement and coordination to test the Platforms 1, 2 and 4.

3. System Overview and Architecture

3.1 Position in the SmartGreenEcos Ecosystem

Platform 3 is one of four application platforms in the SmartGreenEcos ecosystem. It shall consume and expose data and services through the common infrastructure: the API gateway and IAM for authenticated, authorized access; the event bus for asynchronous status and integration events; the shared database and analytics platform for permissioned, aggregated KPI exports; and the shared observability, configuration and audit services. Integration requirements are specified in Section 6.

3.2 Architectural principles

- Multi-tenancy with strict tenant isolation at application, data and AI-retrieval level. No unauthorized cross-tenant data access of any kind.
- Cloud-first deployment with European Union primary hosting for production data, unless the program or RTD Talos mandates a specific provider or location.
- Containerized application services with infrastructure-as-code, portable across major cloud providers.
- Hard dependency on a single proprietary service shall be avoided unless justified and approved by RTD Talos.
- Managed database services where possible, object/document storage, search index and backup services.
- Service-oriented design: workflow/rules engine, sourcing, evaluation, PO and receiving services (App 3.1); catalog, ordering/checkout, seller console and ticketing services (App 3.2); MCP horizontal services (gateway, tool registry, context builder, retrieval/search, AI audit/telemetry); notifications; immutable audit logging; reporting/analytics store.
- Integration layer providing REST APIs and events/webhooks; optional ERP connectors for finance, receiving and invoicing exports.

3.3 Hosting, environments and operations

Area	Requirement
Hosting model	Cloud-first; EU primary hosting for production data; provider-portable through containerization and infrastructure-as-code.
Environment separation	Separate development, staging/UAT and production environments.
Deployment approach	Containerized application services; managed database where possible; object/document storage; search index; backup services.
Availability target	99.5% during pilot operation.
Disaster recovery	Daily encrypted backups; RPO of 24 hours or less; RTO of 48 hours or less for pilot operations.
Provider lock-in	No hard dependency on a single proprietary service unless justified and approved by RTD Talos.

4. Functional Requirements

This section specifies the functional requirements of the three functional layers and the cross-cutting platform modules. Requirement priorities follow the MoSCoW convention (Must / Should / Could). The consolidated Functional Requirements Specification (FRS) matrix is provided in Annex A; in case of discrepancy between this section and Annex A, this section prevails.

4.1 App 3.1 - e-Procurement (Digital B2B Procurement)

App 3.1 provides a unified Procure-to-Pay environment enabling SMEs to purchase inputs and services either individually or through pooled/common procurement, improving cost, control and transparency. It addresses fragmented purchasing, low negotiating power, inconsistent approvals, inefficient RFQ cycles and limited visibility into procurement performance.

Target users: SME buyers, SME approvers, procurement leads / category managers, suppliers (bidding and acknowledgment), consortium/platform administrators, auditors.

4.1.1 Core workflow

1. Create requisition (catalog or non-catalog) with specifications, budget tags, delivery sites and attachments.
2. Submit requisition and track approvals, including SLA monitoring and escalation where applicable.
3. Create RFQ/RFP (individual or pooled), invite suppliers, manage Q&A and addenda, and close the sourcing event with bid locking.
4. Evaluate bids using weighted criteria and record the award decision, with approvals where required.
5. Generate purchase order(s) and capture supplier acknowledgments.
6. Record receiving / service entry; manage exceptions and non-conformance.
7. Optionally capture/match invoices and export to ERP/finance systems.

The system shall enforce workflow rules (approvals, SLAs, escalations), lock bids at sourcing-event close, aggregate evaluation scores, generate an award audit snapshot, issue notifications and maintain document versioning.

4.1.2 Functional requirements - App 3.1

FR ID	Requirement	Priority
FR-31-001	Create requisitions with structured fields, attachments, category, delivery and budget tags.	Must
FR-31-002	Configurable approval workflow (rules by category, value, cost center) with SLA monitoring and escalation.	Must
FR-31-003	Create RFQ/RFP (individual or pooled), manage Q&A and addenda, lock bids at close.	Must
FR-31-004	Weighted scoring, compliance checks, comparison view and award recommendation with audit snapshot.	Must
FR-31-005	Generate PO(s), capture acknowledgments, record receiving/service entry, manage exceptions and non-conformance.	Must
FR-31-006	MCP-assisted requirement capture: convert natural language into structured requisition/RFQ attributes.	Should
FR-31-007	MCP-assisted RFQ drafting: suggest lots, specification clauses and evaluation criteria from templates and prior RFQs.	Should

4.1.3 Pooled procurement

Pooled sourcing events shall support participation of multiple SME tenants with per-SME allocations, consolidated evaluation, and confidentiality protection: aggregated demand may be visible to invited suppliers, while each SME's exact quantities, prices and allocations remain confidential from other participating SMEs.

4.2 App 3.2 - B2B e-Commerce / Trade (Flagship Products)

App 3.2 enables SMEs to sell flagship products cross-border to commercial buyers (agents, importers, distributors, resellers, retailers) through a controlled B2B marketplace with ordering, fulfillment milestones and, where enabled, payment-status tracking. It addresses fragmented export selling, difficulty for buyers in locating the right product variants, manual order handling, limited fulfillment visibility and high friction in issue/return resolution.

Target users: SME sellers and commercial teams, commercial buyers, platform/tenant administrators, auditors and, optionally via integration, payment service providers.

4.2.1 Core workflow

1. Seller publishes product listings with attributes, MOQ, tier pricing, lead times, market availability and documents/certifications.
2. Buyer discovers products (including via the AI Product Finder), reviews terms and places orders.
3. Seller accepts or rejects orders and confirms dates; updates fulfillment milestones and attaches shipping documents.
4. Buyer confirms receipt; raises issue/return tickets when needed; seller resolves with documented outcome.
5. Payment/settlement status is recorded manually in the MVP or via PSP integration in Phase 2.

Buyer eligibility and controlled catalog access shall be implemented as a minimal verification/entitlement workflow within App 3.2 and/or as an admin shared service with policy-driven access rules.

4.2.2 Functional requirements - App 3.2

FR ID	Requirement	Priority
FR-32-001	Seller publishes listings with MOQ, tier pricing, lead time, market availability and documents.	Must
FR-32-002	Buyer browsing and search with filters (category, attributes, MOQ, destination, lead time).	Must
FR-32-003	Cart/checkout and sales order creation; seller accept/reject and date confirmation.	Must
FR-32-004	Fulfillment milestones, shipping document upload and buyer receipt confirmation.	Must
FR-32-005	Ticketing for issues/returns with resolution outcomes and attachments.	Must
FR-32-006	Optional automated payment/settlement-status updates through PSP integration or webhooks.	Could

4.3 MCP-Enabled AI Findability Layer (horizontal capability)

The AI Findability Layer shall be implemented as shared platform services with embedded user interfaces in Apps 3.1 and 3.2, not as a separate standalone application. Its purpose is to increase the findability of products and procurement requirements by enabling LLM assistants to securely access platform data through governed MCP tools and return grounded, auditable results.

4.3.1 Core components

- **MCP Gateway and Tool Registry**: exposes strongly typed, schema-versioned tools such as search_products, retrieve_specs, find_substitutes, build_requisition_draft and build_RFQ_draft.
- **Context Builder**: constructs least-privilege context (tenant, user role, catalog entitlements, workspace scope) for every assistant interaction.
- **Hybrid Retrieval Layer**: combined keyword, faceted and semantic retrieval over products, documents, templates and transactions, with ranking and de-duplication.

- **Grounded Response Engine**: outputs derived only from retrieved records, with references, match confidence and rationale for transparency.
- **Write-back Service**: creates draft artifacts (requisitions, RFQs, orders) in platform workflows, always requiring explicit user confirmation.
- **Audit and Telemetry**: logs every tool call and retrieved dataset; measures match rate, no-match rate, clarification rate and downstream conversion/cycle-time impacts.

4.3.2 Embedded AI capabilities

- **In App 3.1**: smart requirement capture (natural language to structured requisition/RFQ attributes); catalog match and substitute recommendations grounded in product data and specification sheets; RFQ drafting assistance (lots, clauses, evaluation criteria as drafts requiring confirmation); bid evaluation assistance (deviation summaries and identification of non-comparable offers).
- **In App 3.2**: conversational product discovery with constraints (MOQ, lead time, destination, certifications); grounded product Q&A backed by listing data and attached documents; requirements-to-cart mapping (interpret buyer intent, apply filters, suggest SKUs and substitutes); seller listing quality assistance (identify missing attributes/documents and propose enrichment actions).

4.3.3 Functional requirements - MCP layer

FR ID	Requirement	Priority
FR-MCP-001	MCP gateway exposes governed tools with schema versioning and a tool usage audit.	Must
FR-MCP-002	Hybrid retrieval (keyword, faceted, semantic) over products, documents and templates, with ranking and de-duplication.	Must
FR-MCP-003	Context builder enforces tenant isolation, catalog entitlements, confidential pricing and bid secrecy; least-privilege retrieval.	Must
FR-MCP-004	Grounded responses include references to retrieved records, match confidence and rationale.	Must
FR-MCP-005	Controlled write-back of drafts into requisitions/RFQs/orders with explicit user confirmation and audit.	Must
FR-MCP-006	Interaction analytics (no-match, top queries, refinement patterns) for continuous improvement.	Should

4.4 Cross-cutting platform modules

The conservative MVP shall include the following consolidated functional modules as minimum required functionality:

Module	Minimum required function
Tenant and user management	Tenant profiles, country/currency/language settings, users, roles, permissions and opt-ins.
Policy and workflow engine	Approval thresholds, routing, SLA/escalation, minimum quote rules and versioned policy publication.
Requisition management	Structured requisitions, attachments, budget tags, delivery sites and status tracking.
RFQ/RFP sourcing	Individual and pooled RFQs, supplier invitations, Q&A, addenda and bid locking.
Evaluation workbench	Weighted scoring, compliance checks, multi-evaluator scoring, award rationale and audit snapshot.
PO / procurement agreement management	PO/agreement generation, supplier acknowledgment, changes and lifecycle tracking.
Receiving and exceptions	Receipt/service entry, partial receipt, non-conformance and closure workflow.
B2B catalog and trade listings	Product listings, attributes, MOQ, price tiers, lead times, availability and documents.
B2B order flow	Buyer access, cart/trade request, seller acceptance/rejection, milestones and issue tickets.

Payment-status tracking	Manual or integration-ready payment obligation and status records; no direct PSP execution in the MVP unless separately required.
MCP-enabled AI Findability	Smart requirement capture, catalog/listing match, substitute suggestions, grounded Q&A and draft RFQ/requisition support.
Reporting and exports	Operational, spend/savings, supplier/order performance, sales traction, audit and integration health reports.

4.5 Configurable evaluation engine

The platform shall not hard-code a single price-versus-quality evaluation formula. It shall provide a configurable evaluation engine supporting different formulas by category, procurement type and policy version. If RTD Talos or the applicable program rules require a mandatory formula, the engine shall be configured accordingly at no additional cost, provided that the requirement is communicated before the design-confirmation milestone.

- Supported evaluation models: price-only, weighted price-quality, minimum technical threshold, pass/fail compliance and multi-lot evaluation.
- Multi-evaluator scoring, conflict-of-interest declarations, score overrides with mandatory justification, and award audit snapshots.
- The formula and scoring rules in force at the time of award shall be preserved immutably for auditability.

Indicative default weighting scenarios (configurable, non-binding):

Default scenario	Suggested configurable weighting
Standard goods	70% price / 20% technical compliance / 10% delivery and service risk
Sustainability-sensitive inputs	60% price / 20% technical quality / 20% sustainability, certification and delivery risk
Services	50% price / 40% methodology and quality / 10% delivery capacity

4.6 Payments scope

Scope level	Position
MVP / Phase 1	Payment obligation records, invoice terms, deposit/partial-payment metadata, manual status updates, audit of payment-status changes and payment-status reporting.
Optional Phase 2	PSP integration, payment webhooks, automated reconciliation, refunds, credit notes, escrow or staged payments, and advanced fraud/credit checks. May be priced as options; enabled per tenant/market.
Rationale	Excluding direct payment execution from the MVP reduces technical, legal, banking, KYC/AML, cross-border settlement and support complexity during the project pilot.

Bidders shall price the Phase 2 capabilities as separately quoted options. These optional prices shall not form part of the evaluated price. Activation of any Phase 2 module is subject to written instruction by RTD Talos.

5. Non-Functional Requirements

5.1 Sizing and capacity

The solution shall be sized for the SmartGreenEcos pilot and architected for a conservative post-project scale-up, reaching full capacity within 3-5 years after project completion:

Layer	Minimum Pilot Design	Conservative Scalable Design Target
SME tenants	100	200-300
Users per SME	2-5	2-3
SME users total	200-500	400-700
Supplier / buyer organizations	75-150	350+
External supplier / buyer users	150-450	250–300
Platform / admin / support users	5-10	20+
Concurrent users	70-120	150-200

Sizing requirement (tender wording)
The solution shall support at least 100 SME tenants during the SmartGreenEcos pilot phase and shall be architected for conservative post-project scale-up to 200-300 SME tenants, approximately 1,000 total named users, and 200 concurrent users, without major redesign of the application architecture, database model, tenancy model, access-control model, or deployment approach.

5.2 Transaction volume design assumptions

The project target of 100 procurement agreements is the minimum operational anchor. The figures below are design assumptions for capacity planning, reporting and storage sizing; they will be validated during early pilot monitoring and do not constitute contractual volume guarantees.

Transaction Type	Minimum Pilot Design	Conservative Scalable Target
Demand/supply announcements	100-200 during project	400-750 per year
Requisitions / trade needs	100-250 during project	500-1,500 per year
RFQs / RFPs	40-100 during project	250-600 per year
Supplier responses / bids	120-400 during project	1,000-3,000 per year
Procurement agreements / POs	100 minimum target	500-1,200 per year
B2B product listings	100-300 active listings	1,000-3,000 active listings
B2B orders / trade requests	75-200 during project	1,000-3,000 per year
Documents / attachments	500-2,000 during project	10,000-25,000 per year

5.3 Performance, availability and scalability

Area	Requirement
Named-user capacity	At least 1,000 total named users in the conservative scale-up scenario.
Concurrent-user capacity	70-120 concurrent users at pilot; 200 concurrent users tested under representative workload for scale-up.
Standard page response	95% of standard pages under 3 seconds at pilot load.
Search response	Standard keyword/faceted search under 3 seconds for common queries.
AI/MCP-assisted response	Target under 10-15 seconds, depending on retrieval depth and LLM response time.
Availability	99.5% during pilot operation.

Load testing	Required at 120 concurrent users (pilot scenario) and 200 concurrent users (scale-up scenario).
Scalability proof	Contractor shall provide an architecture note demonstrating the scaling path to 300 SME tenants through cloud resource scaling, database/index tuning and configuration, without architectural redesign.

5.4 Security

- MFA-ready authentication and integration with the ecosystem IAM / SSO identity provider.
- Role-based access control (RBAC) and object-level access controls for private catalogs, negotiated prices and buyer entitlements.
- Strict tenant isolation at application, database and AI-retrieval level.
- TLS for data in transit and encryption at rest.
- Immutable audit logs covering approvals, awards, exports, access-rule changes, AI tool calls and write-backs.
- Least-privilege service accounts for all platform and integration services.

5.5 Languages, localization and accessibility

- The user interface, user manuals, notifications, templates, reports and the AI-assisted findability layer shall support English, Greek and Arabic.
- Arabic shall include right-to-left (RTL) layout support where applicable.
- Search shall support multilingual keyword and semantic matching, including synonyms and local terminology for agri-food inputs, packaging, logistics, certifications and product descriptions.
- Accessibility target: WCAG 2.1 AA for core screens, with multilingual usability.

6. Integration Requirements

6.1 Approach and coordination

The interface specification with the IWDT developed back-office platform and the other SmartGreenEcos platforms (Platforms 1, 2 and 4) will be finalized jointly during the design and early integration-planning phase. The contractor shall implement the Platform 3 side of all integrations on the basis of these jointly defined interfaces.

- Overall integration coordination: WP4 technical/platform lead.
- WP4 platform-development coordination: IWDT (PP3), in its role as platform-development coordination partner.
- Project-level oversight: RTD Talos.
- Each platform owner is responsible for its own interfaces; the Platform 3 contractor is responsible for implementing and testing Platform 3-side APIs, exports, imports, webhooks, logs and documentation.
- The project has established a technical committee to coordinate the integration of the four platforms, their interfaces and related APIs, as well as their integration with the back-office platform to be developed by IWDT.
- Platform 3 contractor shall provide supporting testing services for testing Platforms 1, 2 and 4 in coordination with IWDT and or other software developers / contractors.

6.2 Integration deliverables

Required Integration Deliverable	Description
Integration Control Document (ICD)	Interface inventory, data flows, ownership, frequency, environments, error handling and escalation.
OpenAPI REST specifications	Documented APIs for tenant, user, product, supplier/buyer, RFQ, order and KPI exchanges where applicable.
Data dictionary / JSON schemas	Canonical definitions for entities, identifiers, statuses, currencies, countries, categories and KPIs.
Authentication and authorization model	API client credentials, scopes, service accounts, RBAC and audit.
Events / webhooks	Status changes, exports, training triggers, NPD BOM imports and integration health events.
Mock services and test data	Sandbox integration endpoints for testing before production.
Integration test report	Evidence of successful Platform 3-side tests with Platforms 1, 2, 4 and back-office interfaces.

Optional ERP/finance export connectors (receiving, invoicing, finance data) shall be supported through the integration layer and may be activated per tenant.

Further to the above, other Platforms 1, 2 and 4 testing reports are expected. One per platform as a result of professional testing and one per platform as a result of the end-users coordinated and assisted testing.

7. Data Governance, Privacy and AI Controls

The platform shall apply a GDPR-first data governance model with EU primary data storage for production data and strict tenant isolation. Data originating from non-EU Mediterranean partners may be processed where contractually necessary, with detailed personal and commercially sensitive data controlled through consent, access rules, NDAs and data-processing agreements. Exports to other platforms shall be aggregated, anonymized or permissioned as appropriate.

The following controls are mandatory:

- No unauthorized cross-tenant retrieval or disclosure by the AI/MCP layer under any circumstances.
- No use of SME data for external AI model training unless explicit prior authorization is given.
- Confidential bids remain inaccessible to competitors and unauthorized roles before and after RFQ close, according to policy.
- Private catalogs, negotiated prices and buyer entitlements enforced through RBAC and object-level access controls.
- Immutable audit logs covering approvals, awards, exports, access-rule changes, AI tool calls and write-backs.
- AI responses grounded in retrieved records only, with references and match confidence; AI-generated drafts written back to workflows only after explicit user confirmation.

8. Contractor Deliverables and Obligations

8.1 Software and environment deliverables

- The Contractor shall refine these functional and technical specifications into a complete detailed software design specification during the design phase, develop the software in accordance with the approved specification, and perform all required testing prior to acceptance and deployment.
- The configured, tested Digital Procurement Platform (Apps 3.1, 3.2 and the MCP-enabled AI Findability Layer) deployed across development, staging/UAT and production environments.
- Infrastructure-as-code, deployment scripts and configuration documentation enabling redeployment and provider portability.
- Architecture note demonstrating the scaling path to the conservative scale-up targets (Section 5.1).
- Testing reports for Platforms 1, 2 and 4.

8.2 Documentation

- User manuals for SME buyers/sellers, suppliers/buyers and administrators, in English, Greek and Arabic.
- Administrator and technical handover documentation, including API documentation, data dictionary and operational runbooks.
- Complete software documentation sufficient for system maintenance, further development and technical handover to another service provider.
- Sustainability notes supporting post-project operation and scale-up.

8.3 Testing obligations

- System testing, security and privacy checks, and load testing at 120 (pilot) and 200 (scale-up) concurrent users, with test evidence.
- Preparation of Platform 3 user-acceptance test scenarios; support of SME end-user testing sessions; collection of issue logs; and provision of fixes for Platform 3 defects.
- Participation in integration testing with Platforms 1, 2 and 4 and the back-office platform, with an integration test report. The contractor is not responsible for testing or correcting internal functions of the other platforms.
- Professional and end-user testing for Platforms 1, 2 and 4.

8.4 Cross-platform contribution (firm but bounded deliverable)

- Review of manuals and user guidance for Platform 3 and for cross-platform touchpoints involving Platform 3.
- Organization and support of the Platform 3 pilot SMEs, or the SME country cohort assigned by RTD Talos, to test the other platforms according to the user-acceptance test scenarios developed by the other platform contractors.
- Consolidation of these SME test results into a report delivered to the other platform teams.

8.5 Training and handover

- Training webinar for SME end users and administrators.
- Technical handover session and admin guide before contract completion.

9. Implementation Timeline and Milestones

The software development contract is expected to start in October 2026 and be completed by May 2027, providing an implementation period of approximately eight months. Development, integration, user acceptance testing, pilot operation and refinement will overlap as indicated below. Final contractual milestones, deliverable dates and remedies will be defined in the contract documents.

Phase	Indicative Timing	Purpose
Phase 1 - Inception and design confirmation	Within 20 calendar days of Commencement	Confirm the detailed design, data model, integration interfaces (ICD) and test plan with RTD Talos and the WP4 technical lead.
Phase 2 - MVP build	Months 1-3	Build Apps 3.1 and 3.2 core flows, shared services and the MCP-enabled AI Findability features, with intermediate demonstrations.
Phase 3 - Integration and UAT	Months 2-6	Integration tests with Platforms 1, 2, 4 and the back-office platform; SME end-user tests; security/privacy checks; load tests.
Phase 4 - Pilot and refinement	Months 5-7	Operate with selected SMEs, collect feedback, refine workflows and reports, resolve defects.
Phase 5 – Platforms 1, 2 and 4 supporting testing services	Month 7	Supporting testing (professional and end-users) for Platforms 1, 2 and 4.
Phase 6 - Manuals, webinar and handover	By contract completion (May 2027)	Finalize manuals, training webinar, admin guide, technical handover and sustainability notes.

Given the compressed build window, bidders shall propose in their offer a delivery plan distinguishing functionality that will be live at pilot start from functionality that will be completed during the pilot, without compromising the Must-priority requirements of Section 4.

10. Acceptance Criteria (High Level)

- Functional acceptance: demonstrated compliance with all Must-priority requirements of Section 4 and Annex A through UAT executed with SME users.
- Non-functional acceptance: load-test evidence at the levels of Section 5.3, availability and DR arrangements in place, and security controls of Sections 5.4 and 7 verified.
- Integration acceptance: integration test report evidencing successful Platform 3-side exchanges with Platforms 1, 2, 4 and the back-office platform.
- Documentation and training acceptance: delivery of all documentation of Section 8.2 in the required languages and completion of the training webinar and handover.

Detailed acceptance procedures, defect severity classifications and remedy periods will be defined in the contract documents.

Annex A - Functional Requirements Specification (FRS) Matrix

Consolidated FRS matrix for Apps 3.1 and 3.2 and the MCP-enabled AI Findability Layer. MVP payment-status tracking is mandatory. Direct payment execution and the advanced Phase 2 payment functions are optional. Priorities follow the MoSCoW convention.

FR ID	App / Capability	Module	Requirement Statement	Priority	Use Case(s)	Integrations
FR-31-001	App 3.1	Requisition	Create requisitions with structured fields, attachments, category, delivery and budget tags.	Must	UC3.1-01	
FR-31-002	App 3.1	Workflow	Configurable approval workflow (rules by category, value, cost center) with SLA monitoring and escalation.	Must	UC3.1-01	Platform 1/2 (KPI export)
FR-31-003	App 3.1	Sourcing (RFQ)	Create RFQ/RFP (individual or pooled), manage Q&A and addenda, lock bids at close.	Must	UC3.1-02/03	
FR-31-004	App 3.1	Evaluation	Weighted scoring, compliance checks, comparison view and award recommendation with audit snapshot.	Must	UC3.1-04	
FR-31-005	App 3.1	PO & Receiving	Generate PO(s), capture acknowledgments, record receiving/service entry, manage exceptions and non-conformance.	Must	UC3.1-05	ERP (optional export)
FR-31-006	App 3.1	MCP Assist	MCP-assisted requirement capture: convert natural language into structured requisition/RFQ attributes.	Should	UC3.1-01/02; UC-MCP-01	MCP Gateway
FR-31-007	App 3.1	MCP Assist	MCP-assisted RFQ drafting: suggest lots, specification clauses and evaluation criteria from templates and prior RFQs.	Should	UC3.1-02; UC-MCP-03	MCP Gateway
FR-32-001	App 3.2	Catalog	Seller publishes listings with MOQ, tier pricing, lead time, market availability and documents.	Must	UC3.2-02/04	
FR-32-002	App 3.2	Discovery	Buyer browsing and search with filters (category, attributes, MOQ, destination, lead time).	Must	UC3.2-01	MCP layer (optional)
FR-32-003	App 3.2	Ordering	Cart/checkout and sales order creation; seller accept/reject and date confirmation.	Must	UC3.2-02	
FR-32-004	App 3.2	Fulfillment	Fulfillment milestones, shipping document upload and buyer receipt confirmation.	Must	UC3.2-02	
FR-32-005	App 3.2	Issues/Returns	Ticketing for issues/returns with resolution outcomes and attachments.	Must	UC3.2-03	

FR-32-006	App 3.2	Payment integration — optional	Record payment/settlement status via PSP/webhooks and/or invoicing terms (optional module).	Could	UC3.2-05	PSP (optional)
FR-MCP-001	MCP Layer	Tooling	MCP gateway exposes governed tools with schema versioning and a tool usage audit.	Must	UC-MCP-01/03	
FR-MCP-002	MCP Layer	Retrieval	Hybrid retrieval (keyword, faceted and semantic) over products, documents and templates, with ranking and de-duplication.	Must	UC-MCP-01/02	
FR-MCP-003	MCP Layer	Context & RBAC	Context builder enforces tenant isolation, catalog entitlements, confidential pricing and bid secrecy; least-privilege retrieval.	Must	UC-MCP-01–05	SSO / IdP
FR-MCP-004	MCP Layer	Explainability	Grounded responses include references to retrieved records, match confidence and rationale.	Must	UC-MCP-01/02/04	
FR-MCP-005	MCP Layer	Write-back	Controlled write-back of drafts into requisitions/RFQs/orders with explicit user confirmation and audit.	Must	UC-MCP-03	
FR-MCP-006	MCP Layer	Telemetry	Interaction analytics (no-match, top queries, refinement patterns) for continuous improvement.	Should	UC-MCP-05	Platform 1 (optional export)

In addition to the above, provision of supporting testing services for Platforms 1, 2 and 4.