

The background of the entire page is a collage of faces created from torn, layered pieces of paper in various shades of brown, tan, and grey. The faces are abstract and layered, with some appearing more prominent than others. A vertical yellow bar is on the left side.

DECEMBER 3, 2025



DESA MARKET ACTIVATION PROGRAMME

*CATALYSING DIGITAL MARKETS AND REGIONAL TRADE CORRIDORS
THROUGH LAWFUL, FIBER-BACKED INFRASTRUCTURE*

CREATED BY

EUSL AB

Care to Change the World

Table of Contents

Chapter 1: Programme Title, Mandate, Scope, Instruments, Outcomes, and Legal Purpose	3
Chapter 2: Strategic Objectives	5
Chapter 3 — Institutional Architecture and Governance	6
Table 3-A — DMAP Programme Office: Directorates and Units	6
Table 3-B — N-DAC vs. CSC: Roles and Instruments	8
Table 3-C — DMAP Reporting Lines and Cadence	8
Chapter 4: Implementation Framework	10
Table 4-A — Three-Tier Model (Layer, Functions, Minimum Controls, Key Deliverables).....	10
Table 4-B — Sequencing Phases: Objectives, Activities, Deliverables, Exit Criteria, Verification ..	12
Chapter 5: Fiduciary Architecture and Financing Instruments	14
Table 5-A — Sources of Financing	15
Table 5-B — Instruments and Triggers	15
Table 5-C — PPP Options and Use-Cases	16
Chapter 6: Compliance and Ethics	17
Table 6-A — Compliance Domains, Core Obligations, and Verification	18
Table 6-B — Audit Regime and Public Disclosure	19
Table 6-C — Enforcement Matrix	20
Chapter 7: Regional Replication and Integration	21
Table 7-A — REC Pathways and DMAP Replication Logic (COMESA, SADC, EAC)	21
Table 7-B — Shared Standards and Accreditation (Gateway, Marketplace, Payments)	22
Table 7-C — DMAP Regional Replication Roadmap (Steps, Outputs, Verification)	23
Chapter 8: Programme Benefits and Economic Rationale.....	24
Table 8-A — Benefit Families and Indicative Outcome Targets (to be verified via MRV)	24
Table 8-B — Economic Rationale: Mechanisms and Efficiency Gains	25
Chapter 9: Measurement, Reporting, and Verification (MRV)	26
Table 9-A — KPI Families and Core Indicators (DMAP-specific)	26
Table 9-B — Reporting Cadence	27
Table 9-C — Audit Regime (DMAP)	28
Chapter 10: Stakeholder Engagement and Capacity Building	29
Table 10-A — Engagement Tiers, Obligations, and Legal Instruments.....	29
Table 10-B — DMAP Governance Curriculum (Modules and Tiers)	30
Table 10-C — Certification & Accreditation (Requirements and Evidence)	31
Chapter 11: Participation and Partnership Framework	32
Table 11-A — Partner Classes, Entry Conditions, Obligations, Verification	33



Table 11-B — Participation Workflow (Steps, Evidence, Exit Criteria)	34
Table 11-C — Instruments and Triggers	34
Table 11-D — CTAs for DFIs, Investors, and Technology Partners	35
Chapter 12: Data & Capacity Usage Architecture for Digital Markets 12.1 Purpose and Legal Alignment.....	36
Table 12-A — Indicative Monthly Capacity (per 1 million activated users and associated backend), by DMAP workload.....	37
Table 12-B — Ledger & Payments Capacity (per jurisdiction), Phase 2–3	38
Table 12-C — Backend Fiber & Compute Baselines (per national deployment).....	39
Table 12-D — Frontend Access Minimums (institutional sites, marketplaces, portals)	39
Chapter 13: Closing Statement.....	40

DESA Market Activation Programme

Chapter 1: Programme Title, Mandate, Scope, Instruments, Outcomes, and Legal Purpose

1.1 Programme Title and Acronym

The DESA Market Activation Program (DMAP) is constituted as a sovereign public-interest programme within the DESA portfolio to lawfully catalyse market formation, SME competitiveness, and cross-border trade corridor performance through digitalisation and audited interoperability of public and private systems. Its mandate and operating standards are harmonised with continental and regional strategies and codified in DESA Operating Circulars and Accreditation Orders, with security, transparency, accessibility, and data protection enforced throughout the programme lifecycle.

1.2 Mandate

DMAP's mandate is to use digitalisation to expand market formation, increase SME competitiveness, and activate regional trade corridors by institutionalising lawful data transparency, Zero Trust-secured corridor and marketplace integrations, and measured improvements in logistics and finance. This mandate advances responsive institutions and regional integration under Agenda 2063 and complements REC-level programmes, notably COMESA's Inclusive Digitalisation (IDEA), which provides harmonisation and planning for interoperable platforms and trusted transactions..

1.3 Scope

DMAP's scope comprises five interlocking domains:

- i) **Agricultural price transparency**, by operating staple price observatories and open data feeds to reduce information asymmetry;
- ii) **E-commerce enablement**, through vendor-neutral APIs and accessibility-conformant portals for inclusive retail and B2B trade;
- iii) **Digital logistics corridors**, by standardising customs/ports/transport integrations under audited gateways and telemetry;
- iv) **Inclusive credit scoring**, with lawful data sources, explainability, bias audits, and **human-in-the-loop** oversight; and
- v) **Cooperative data platforms**, where producer organisations and chambers securely share lawful data to lower transaction costs and improve bargaining power.

To operationalise these domains, DMAP formally integrates three activation instruments as regulated sub-programmes:

S'agapo Markets (ethical retail/social commerce marketplace), Growthify Market (corridor-oriented B2B/B2G marketplace), and the EUSL Coin (a regulated utility/payment rail for non-speculative micro-rewards and lawful settlement, with AML/CFT controls and fiat/e-money alternatives where crypto settlement is restricted). All three are subject to sovereign hosting and residency, lawful processing, Zero Trust enforcement, accessibility, and public disclosure obligations, and are portable under REC harmonisation protocols where admissible.

1.4 Instruments

DMAP institutionalises the following instruments:



- **Public-Private Partnerships (PPPs)** with marketplaces and transport operators, structured with tariff safeguards, vendor-neutral APIs, escrow/dispute mechanisms, and machine-readable fee schedules;
- **Staple price dashboards and open feeds**, to enhance price transparency and enable spend analytics that affect supply chains;
- **Fintech risk models** governed by documented lawful data sources, explainability reports, bias audits, and **human oversight**, ensuring inclusive SME credit access without automated adjudication;
- **Audited API gateways and schema registries** for corridor and marketplace integrations under **Zero Trust** controls; and
- **Regulated marketplace and payment instruments** (S'agapo, Growthify, EUSL Coin), integrated via Operating Circulars and Accreditation Orders, and verified through MRV telemetry and independent audits.

Where public procurement influences DMAP's market environment, publication across planning, tender, award, contract, and implementation shall follow the Open Contracting Data Standard (OCDS) to ensure machine-readable transparency and public scrutiny.

1.5 Outcomes

DMAP's expected outcomes, verified quarterly and annually via MRV, are: lower logistics losses and border dwell times through corridor digitisation; improved farm-gate prices via price transparency; increased SME loan approvals enabled by fair, human-oversighted credit scoring; and accelerated, lawful cross-border trade and settlement through harmonised corridor/marketplace integrations and regulated utility rails. These outcomes support AfDB's High 5 priorities—notably *Integrate Africa* and *Improve the Quality of Life for the People of Africa*—and the regional digital market integration objectives articulated by COMESA IDEA.

1.6 Legal Mandate and Purpose; Compulsory/Elective Status

DMAP is compulsory for jurisdictions seeking to activate trade corridors and SME finance through public digital platforms; it is elective for jurisdictions that implement DESA governance/education components while deferring market activation until sectoral preconditions (e.g., customs readiness, marketplace PPPs) are met. The programme's legal mandate is grounded in:

- i) DESA Operating Circulars and Accreditation Orders, which enforce security (NIST SP 800-207), procurement transparency (OCDS), accessibility (WCAG 2.1), and lawful processing (national data protection statutes and continental instruments);
- ii) Alignment with Agenda 2063 STYIP and AfDB's Ten-Year Strategy (2024–2033), and coordination with REC strategies such as COMESA IDEA; and
- iii) Malabo-aligned cross-border transfer controls and sovereign hosting/residency for logistics, marketplace, and payment data

DMAP explicitly affirms consistency with Agenda 2074 (Social Equity) as DESA's long-term vision, ensuring market activation delivers equitable participation and measurable public benefit.

Chapter 2: Strategic Objectives

2.1 Institutionalise Lawful Market Transparency and Corridor Governance

DMAP shall institutionalise lawful, auditable market data transparency for staple commodities and corridor operations. By operating price observatories and audited API gateways that integrate customs, ports, and transport systems, the programme reduces search and coordination costs, improves bargaining power for farmers and SMEs, and raises corridor reliability. Publication of procurement and corridor-related spend shall conform to OCDS, while Zero Trust controls safeguard gateways and telemetry. This objective advances responsive institutions and regional integration under Agenda 2063, and aligns with COMESA IDEA coordination for harmonised regional platforms

2.2 Expand Inclusive SME Finance through Human-Oversighted Credit Scoring

DMAP shall widen SME access to finance using regulated credit-scoring tools grounded in lawful data sources, explainability reports, bias audits, and human-in-the-loop oversight. Automated outputs shall not constitute final decisions; decision support must be demonstrably fair, contestable, and documented. This objective enhances SME competitiveness and market entry while maintaining privacy and consumer protection in line with national law and continental instruments, and supports the AfDB Strategy 2024–2033 call for private-sector solutions that strengthen economic governance.

2.3 Enable Vendor-Neutral Marketplaces and Cooperative Data Platforms

DMAP shall enable S’agapo Markets (retail/social commerce) and Growthify Market (corridor B2B/B2G trade) as regulated marketplace connectors, adopting vendor-neutral APIs, escrow/dispute procedures, tariff/fee transparency, and WCAG 2.1 accessibility. Cooperative data platforms will securely share lawful data to reduce transaction costs and improve discoverability for SMEs and producer organisations. These actions contribute to meaningful, inclusive market participation and are portable across REC integrations as admissible.

2.4 Provide a Regulated Utility/Payment Rail for Lawful Micro-Rewards and Settlement

DMAP shall adopt the EUSL Coin strictly as a regulated utility/payment rail, not a speculative instrument, to support non-monetary micro-rewards (e.g., verified delivery milestones, accessibility achievements) and, where national licensing and REC guidance permit, limited cross-border settlement. The rail must comply with AML/CFT, on/off-ramp controls, sovereign hosting/residency, and public fee/tariff disclosures, with fiat/e-money alternatives activated where crypto settlement is restricted. This objective reduces cost-to-serve and settlement friction while upholding consumer protection and data-protection obligations.

2.5 Embed Accessibility, Inclusion, Education, and Public Disclosure in Market Activation

DMAP shall enforce WCAG 2.1 accessibility, multilingual interfaces, digital literacy modules, and grievance redress to guarantee equitable access for citizens, SMEs, cooperatives, and vulnerable groups. Mandatory publication of accessibility conformance statements, price feeds, corridor KPIs, fee/tariff schedules, AML/CFT summaries (where applicable), and audit findings on public dashboards will institutionalise accountability and trust—advancing social equity (Agenda 2074) and people-driven development (Agenda 2063).

Estimated Data Traffic and Infrastructure Implications

To operationalize DMAP’s strategic objectives—ecommerce enablement, corridor telemetry, price observatories, inclusive credit scoring, and regulated settlement rails—the programme requires substantial fiber-backed capacity. For a reference population of 1 million activated users, monthly data traffic is projected at approximately 10–20 PB, distributed across workloads: ecommerce portals (8–15

GB per user), price observatories (1–3 GB per user), corridor telemetry (0.5–1 GB per user), credit scoring and payment rails (0.2–0.5 GB per user each), and MRV dashboards (0.1–0.3 GB per user). Backend systems—including API gateways, ledger nodes, and observability stacks—add **4–7 PB per month** for transactional processing and audit trails.

Annualized demand for such a deployment exceeds 120–240 PB, validating the strategic necessity of fiber infrastructure and tariff safeguards under AfDB’s Digital Transformation Action Plan. These figures underscore that connectivity is not ancillary but a structural investment for lawful, auditable, and inclusive market activation.

Chapter 3 — Institutional Architecture and Governance

3.1 Programme Office: Legal Constitution and Mandate

The DMAP Programme Office is hereby established as a sovereign unit under the DESA portfolio, with a lawful mandate to plan, implement, and supervise market-activation functions across price transparency, e-commerce enablement, digital logistics corridors, inclusive credit scoring, and cooperative data platforms. Its constitution is aligned to Agenda 2063’s Second Ten-Year Implementation Plan (2024–2033) for more responsive institutions and deeper regional integration, and is harmonised with REC coordination mechanisms (e.g., COMESA’s Inclusive Digitalisation programme – IDEA, which provides regional harmonisation and planning). Security, transparency, accessibility, and lawful data processing within DMAP are governed by NIST SP 800-207 (Zero Trust), the Open Contracting Data Standard (OCDS), WCAG 2.1, and the AU Malabo Convention.

3.2 Directorates and Units

DMAP operates through four directorates, each composed of specialised units with binding reporting and assurance duties.

Table 3-A — DMAP Programme Office: Directorates and Units

Directorate	Core Units	Primary Functions	Standards & Legal References
Markets & Transparency	Staple Price Observatory; Market Data Integration Unit; Open Procurement Liaison	Operate staple price dashboards; ingest market/auction data; liaise with procurement entities to publish OCDS datasets	Agenda 2063 STYIP; OCDS for planning– implementation disclosure; lawful data publication norms
Corridors & E-Commerce	Corridor Integration Unit; Customs/Ports API Cell; Marketplace Partnerships Cell (S’agapo, Growthify)	Standardise corridor APIs; integrate transport, ports, customs; manage PPPs with marketplaces under vendor-neutral schemas; enforce escrow/dispute resolution and tariff transparency	COMESA IDEA harmonisation; Zero Trust architecture (NIST SP 800-207); WCAG 2.1 accessibility

Directorate	Core Units	Primary Functions	Standards & Legal References
Inclusive Finance & Risk	Credit Scoring Governance Unit; Model Explainability Cell; Human-in-the-Loop Oversight Cell	Govern lawful data inputs; publish explainability/bias audits; mandate human oversight for risk decisions	National DP laws; Malabo Convention; accessibility & disclosure on portals (WCAG 2.1)
Assurance & MRV	Compliance & Audit Unit; Accessibility & Inclusion Unit; Public Dashboards Cell; Payments & Settlement Assurance Sub-Unit (EUSL Coin AML/CFT, reserves, usage notes)	Operate MRV cadence; perform fiduciary/operational/accessibility audits; publish dashboards and conformance statements; monitor AML/CFT compliance and reserve disclosures for EUSL Coin	Agenda 2063 STYIP transparency; WCAG 2.1; Zero Trust posture reporting; OCDS publication; AML/CFT frameworks

Each directorate is headed by a Director reporting to the DMAP Programme Director-General; units are led by accredited Heads responsible for implementation, audit readiness, and disclosure to the MRV dashboards.

3.3 Internal Governance: Charters and Operating Circulars

The Programme Director-General issues Operating Circulars for identity, registry, records, API governance, e-commerce interfaces, corridor integrations, credit-risk governance, accessibility, and transparency. Circulars must:

1. Codify Zero Trust enforcement, encryption, and telemetry for all gateways and portals.
2. Mandate OCDS publication across planning, tender, award, contract, and implementation for any DMAP-related public procurement influencing markets or corridors.
3. Require WCAG 2.1 conformance for user-facing assets and quarterly accessibility audits and remediation logs.
4. Incorporate Malabo-aligned lawful processing, data subject rights, and cross-border data transfer controls.
5. Align API schemas and replication protocols to COMESA IDEA regional harmonisation guidance; where applicable, mirror standards for SADC/EAC.

3.4 National Digital Architecture Council (N-DAC)

The N-DAC is the sovereign forum that standardises lawful data exchange, security posture, and transparency obligations across ministries, agencies, and market-activation instruments. N-DAC's determinations are binding on DMAP and shall:

- Approve API Governance Codes (schema registry, versioning, gateway policies) for corridor and marketplace integrations, harmonised with REC standards (e.g., COMESA IDEA).



- Certify sovereign hosting and residency for DMAP platforms and dashboards; enforce Zero Trust.
- Validate OCDS publication policies for procurement events that materially affect supply chains and price formation.
- Codify Malabo-aligned cross-border transfer rules and lawful bases for processing market and logistics data.

3.5 Country Steering Committee (CSC)

The CSC converts N-DAC determinations into programme budgets, instruments, and enforceable obligations. It appoints the DMAP Implementation Unit as the permanent arm responsible for PPP execution, corridor configuration baselines, marketplace onboarding, inclusive credit scoring governance, change-management, and MRV operations.

Table 3-B — N-DAC vs. CSC: Roles and Instruments

Organ	Role	Key Instruments	Assurance
N-DAC	Normative authority for standards and lawful data exchange	Operating Circulars; Conformance Profiles; Accreditation Orders	Sovereign hosting & Zero Trust certification; Malabo alignment; OCDS policy control
CSC	Programme conversion and budget execution	MoUs with ministries/PPPs; corridor & marketplace Operating Orders; Publication Mandates	Quarterly compliance; MRV dashboards; independent audits; REC alignment (COMESA IDEA)

3.6 Programme Compliance Mechanisms

DMAP embeds multi-layered compliance: (i) pre-deployment audits for corridor APIs, marketplace integrations, and credit models; (ii) continuous telemetry for uptime, error budgets, and anomaly detection; (iii) quarterly accessibility audits and conformance statements; and (iv) biannual ethics/bias audits for credit-risk models with documented human-in-the-loop. These mechanisms are anchored in NIST SP 800-207, OCDS, WCAG 2.1, and Malabo Convention.

3.7 Reporting Architecture

DMAP's reporting lines ensure legal certainty, auditability, and public trust:

Table 3-C — DMAP Reporting Lines and Cadence

From	To	Frequency	Content	Disclosure
Agencies & PPP operators	DMAP Implementation Unit	Monthly	Corridor uptime, API logs, procurement OCDS datasets, accessibility status, grievance KPIs	Ingested to MRV pipeline; machine-readable feeds



From	To	Frequency	Content	Disclosure
Implementation Unit	CSC	Quarterly	Consolidated compliance, spend analytics, anomaly flags, accessibility conformance, credit-model audit status	CSC report; dashboard updates; remediation plans
CSC	N-DAC	Quarterly	Architecture conformance, sovereign hosting compliance, lawful transfer register, REC harmonisation notes	N-DAC directives; public conformance statements
N-DAC	DESA Central Unit	Biannual	Strategic reviews; portfolio harmonisation; Agenda 2063 indicator cross-walk	Annual public performance report; REC dashboard consolidation

3.8 Public Dashboards and MRV

Dashboards must publish service backlogs and processing times, corridor KPIs (dwell time, spoilage proxies, on-time performance), budget execution rates, OCDS datasets, accessibility conformance statements, and Zero Trust posture summaries. All datasets shall be machine-readable and accessible per WCAG 2.1; procurement disclosure complies with OCDS; security posture reporting references NIST SP 800-207; data protection notes reference Malabo.

3.9 Grievance Redress Mechanisms

The DMAP grievance portal (WCAG-conformant) receives and triages complaints into: price data quality; corridor delays and losses; marketplace access barriers; credit-scoring fairness; procurement integrity; and accessibility failures. Unresolved cases within 30 days escalate to CSC; systemic issues escalate to N-DAC. Quarterly publication of grievance statistics, resolution timelines, and corrective actions is mandatory, in line with regional stakeholder engagement practices under COMESA IDEA.

3.10 Independent Audits and Publication Duties

DMAP mandates independent audits across four domains:

Table 3-D — Audit Regime and Publication

Audit Type	Scope	Frequency	Publication
Fiduciary	Spend analytics; PPP payments; tariff safeguards	Annual	MRV dashboard; OCDS datasets and audit summaries [eac.int]
Operational	Corridor APIs; marketplace integrations; hosting compliance	Annual	Accreditation registry entries; posture certificates [standard.o...acting.org]

Audit Type	Scope	Frequency	Publication
Ethics & Bias	Credit scoring fairness; explainability; human oversight efficacy	Biannual	Public reports; remediation actions logged
Accessibility	WCAG 2.1 conformance; assistive tech integration; multilingual coverage	Quarterly	Conformance statements; remediation logs [sadc.int]

3.11 Enforcement and Sanctions

Non-compliance triggers graduated enforcement: Corrective Action Plans (time-bound remediation); suspension of accreditation (for gateway/hosting); funding reallocation (fiduciary failures or OCDS non-publication); public censure (systemic concealment or refusal to remediate); and escalation to DESA Central Unit for portfolio-level intervention. Enforcement references and is anchored in the State's legal framework, Malabo data-protection obligations, NIST SP 800-207 posture requirements, and OCDS transparency duties.

3.12 Concluding Determination

This institutional architecture creates a lawful, auditable, and interoperable governance framework for market activation. By embedding Zero Trust security, OCDS transparency, WCAG accessibility, and Malabo-aligned data protection into directorates, national interfaces, reporting cadence, and enforcement, DMAP ensures sovereign control and public trust while harmonising with Agenda 2063 and REC digitalisation mandates such as COMESA IDEA.

Chapter 4: Implementation Framework

4.1 Implementation Principles and Normative Alignment

The DMAP Implementation Framework operationalises market activation through a layered technical-institutional design and sequenced roll-out. It is harmonised with Agenda 2063 Second Ten-Year Implementation Plan (2024–2033) for responsive institutions and regional integration, and aligns with COMESA's Inclusive Digitalisation (IDEA) platform for regional harmonisation and planning. Security posture across all tiers applies NIST SP 800-207 (Zero Trust Architecture); procurement and price transparency disclosures follow the Open Contracting Data Standard (OCDS); citizen and SME interfaces are enforced under WCAG 2.1; lawful data processing and cross-border transfers reference national law and the AU Malabo Convention.

4.2 The Three-Tier Model

DMAP's implementation is delivered through three interdependent tiers: Infrastructure, Application, and Capacity. Each tier has minimum controls, deliverables, and audit obligations.

Table 4-A — Three-Tier Model (Layer, Functions, Minimum Controls, Key Deliverables)

Layer	Functions (DMAP Systems)	Minimum Standards	Controls &	Key Deliverables
Infrastructure	Sovereign hosting and residency; corridor API gateway; schema	Zero Trust enforcement (continuous	authN/authZ,	Accredited corridor gateway; national



Layer	Functions (DMAP Systems)	Minimum Standards	Controls & Key Deliverables
	registry; encryption and key management; telemetry & SIEM; configuration baselines	least-privilege, segmentation, telemetry) (NIST SP 800-207); sovereign hosting accreditation and lawful residency; audited logs and lawful cross-border transfer registers (Malabo)	schema registry; telemetry dashboards; lawful transfer register; posture validation certificate
Application	Staple price observatory; e-commerce enablement APIs; logistics corridor integrations (customs/ports/transport); inclusive credit-scoring tools (explainability, human oversight); public portals; S'agapo/Growthify connector APIs (escrow, disputes, transparent fees); EUSL Coin utility rail (non-speculative; AML/CFT; human oversight)	OCDS publication across planning–tender–award–contract–implementation; WCAG 2.1 conformance; documented model governance (explainability, bias audits; human-in-the-loop); AML/CFT compliance for payment rails	Live staple price dashboards and open data feeds; marketplace PPP connectors; corridor KPIs; published OCDS datasets; model transparency reports; accessible multilingual portals; sandbox micro-rewards (Phase 1); settlement pilot (Phase 2)
Capacity	Programme office operations; PPP structuring; change-management; training and certification; MRV cadence; audits and grievance redress	MRV monthly/quarterly/annual reporting; independent audits (fiduciary, operational, accessibility, ethics/bias, AML/CFT); grievance portal with escalation; REC harmonisation notes	Training tracks and certification; PPP MoUs and Operating Orders; MRV reports; audit certificates; grievance statistics; REC alignment dossiers (e.g., COMESA IDEA PCU coordination)

4.3 Phased Sequencing (Initiation, Scale-Up, Consolidation)

DMAP roll-out is executed in three phases over ~36 months, preceded by a design period. Phases have binding entry/exit criteria, deliverables, and verification artefacts.



Table 4-B — Sequencing Phases: Objectives, Activities, Deliverables, Exit Criteria, Verification

Phase	Objectives	Core Activities	Deliverables	Exit Criteria	Verification & Disclosure
Phase 0 — Design & Partnering (Months 0–3)	Establish legal and operational readiness; fix scope & standards	Constitute N-DAC; issue DMAP Operating Circulars; design schema registry; sovereign hosting assessment; PPP pre-qualification; MRV blueprint	DMAP Implementation Plan; Conformance Profiles (corridor APIs, marketplace connectors, price dashboards); data protection & Zero Trust policies; OCDS publication plan	CSC resolution adopting DMAP; budget envelopes; hosting & gateway accreditation pathway; PPP MoUs executed	Instruments published; conformance statements; REC harmonisation note (COMESA IDEA) [am.afdb.org]
Phase 1 — Initiation (Months 3–9)	Deliver early operational value and assurance baselines	Pilot corridor gateway and two priority connectors (customs/ports or transport); price dashboard alpha; initial e-commerce APIs; inclusive credit-scoring sandbox with human oversight; accessibility implementation	Live national schema registry; pilot corridor KPIs; first OCDS datasets; accessibility conformance statements; quarterly MRV report	Uptime and error budgets achieved; Zero Trust posture validated; WCAG audit passed; public dashboard online	Operational audit certificates; posture validation certificate; public dashboard entries [standard.o...acting.org] , [sadc.int]
Phase 2 — Scale-Up (Months 9–18)	Expand systems and standardise interoperability	Broaden corridor integrations (multi-operator); marketplace PPP roll-out; publish OCDS across logistics procurement;	Corridor KPI suite (dwell time, spoilage proxy, on-time performance); spend analytics; transparency	Documented reductions in corridor delays/loss; OCDS coverage ≥80% of eligible	Audit certificates; OCDS machine-readable datasets; explainability/bias reports; REC interoperability pilot reports [eac.int]



Phase	Objectives	Core Activities	Deliverables	Exit Criteria	Verification & Disclosure
		credit-scoring move from sandbox to supervised production (explainability/bias audits); open data feeds for price observatory	reports for credit models; REC replication protocol	events; independent operational audit passed; ethics/bias audit findings remediated	
Phase 3 — Consolidation (Months 18–36)	Institutionalise DMAP as a standing function with regional harmonisation	Embed standards into civil-service rules; permanent N-DAC/CSC cadence; sovereign hosting certification cycle; annual MRV; continuous OCDS disclosure; knowledge platform contributions; training & certification pathways	Codified national standards; accreditation renewal schedules; annual public performance report aligned with Agenda 2063 and REC strategies	Fiduciary & operational audits confirm effectiveness; governance resolutions ensure continuity; public trust indicators stabilised or improved	Annual report cross-walked to Agenda 2063 STYIP ; REC dashboard consolidation (e.g., COMESA IDEA PCU) [naavi.org] , [am.afdb.org]

4.4 Implementation Artefacts and Operating Orders

To ensure legal sufficiency and auditability:

- **Operating Orders (OO-Corridor, OO-Marketplace, OO-Price, OO-Credit):** specify APIs, schemas, privacy and consent flows, Zero Trust controls, accessibility, and transparency requirements; cross-reference OCDS for procurement events; incorporate lawful bases and transfer conditions under Malabo.
- **Conformance Profiles (CP-Gateway, CP-Portal, CP-Model):** define versioning, backward compatibility, telemetry metrics, explainability documentation, bias audit cadence, and human oversight procedures; reference NIST SP 800-207 for segmentation and continuous authN/authZ.
- **Accreditation Orders (AO-Hosting, AO-Gateway):** certify sovereign hosting residency and posture validation; publish accreditation in the Credential & Accreditation Registry and update public dashboards; accessibility conformance statements mandated per WCAG 2.1.

4.5 Risk Management and Contingency

If milestones are missed or audits detect substantive non-compliance:

- **Corrective Action Plans (CAPs)** with time-bound remediation and re-audit within 90 days;
- **Suspension of accreditation** for hosting/gateway until posture and compliance are restored;
- **Funding reallocation** for fiduciary failures or OCDS non-publication;
- **Public censure** and escalation to DESA Central Unit for systemic issues.

These measures are adjudicated by N-DAC and validated by DEIC, ensuring due process and proportionality under national law, Malabo data-protection obligations, NIST SP 800-207 security posture, and OCDS transparency duties.

4.6 Regional Harmonisation and Shared Services

DMAP's Implementation Framework is designed for REC portability:

- **COMESA (IDEA)**: coordination via the Program Coordination Unit (PCU) for harmonised corridor APIs, marketplace PPP practices, and shared schema registries and dashboards.
- **SADC/EAC**: replication through observatories and integration projects; shared services (Interoperability Hubs; Credential/Accreditation Registries) to reduce duplication and ensure lawful cross-border exchange.
- **Disclosure**: publish regional alignment notes, pilot reports, and annual performance summaries cross-walked to Agenda 2063 STYIP indicators.

4.7 Concluding Determination

The Implementation Framework binds infrastructure, applications, and capacity into a single lawful and auditable architecture for market activation. Its phased execution guarantees early operational value, scalable corridor and marketplace integrations, inclusive finance with human oversight, and permanent institutionalisation under national law and REC strategies—consistent with Agenda 2063 STYIP, COMESA IDEA, NIST SP 800-207, OCDS, WCAG 2.1, and Malabo Convention

Chapter 5: Fiduciary Architecture and Financing Instruments

5.1 Legal Mandate and Fiduciary Principles

The fiduciary architecture of DMAP is constituted under the DESA Financial Governance Manual and DMAP Operating Circulars, and is harmonised with continental and regional strategies to ensure lawful, transparent, and auditable financing of market-activation activities. DMAP's financing policy is aligned to:

- **Agenda 2063 Second Ten-Year Implementation Plan (2024–2033)**, which prioritises responsive institutions and regional integration and calls for measurable public accountability in delivery systems; and the AfDB Ten-Year Strategy (2024–2033), which advances *inclusive green growth* and *prosperous, resilient economies*, scaling High 5 priorities through blended public–private instruments.
- **REC programmes** that provide harmonisation and coordination platforms for digital investments and market integration, notably COMESA's Inclusive Digitalisation (IDEA), which aggregates financing and technical assistance for interoperable platforms and trusted online transactions.

Mandatory fiduciary principles are: transparency (OCDS publication), value for money, lawful data processing, security by design (Zero Trust), accessibility (WCAG), and results-based disbursement tied to independently verified MRV metrics.

5.2 Sources of Financing

DMAP mobilises diversified resources to reduce concentration risk and improve resilience.

Table 5-A — Sources of Financing

Source	Instrument Type	Primary Use
DESA Development Fund	Earmarked allocations	Core programme office, schema registries, dashboards, assurance functions
DTIF — Digital Transformation Investment Facility	Concessional loans & grants	Sovereign hosting, corridor API gateways, Zero Trust posture validation
AfDB Participation	Sovereign & non-sovereign windows; guarantees; TA	Corridor infrastructure, trade facilitation PPPs, results-based operations consistent with High 5s
World Bank/IDEA & other DFIs	MPA phases; grants; policy-based lending	Regional harmonisation, capacity transfer, interoperable platforms (COMESA PCU)
Private Co-financing (PPPs)	Equity; project finance; revenue-share	Marketplace integrations, transport operator digitisation, caching/CDN for price feeds
Cost-Recovery Mechanisms	Certification fees; service-level contracts	Sustainability of shared services hubs and accreditation registries

(Sources: [AfDB Ten-Year Strategy](#); [AfDB High 5s](#); [World Bank IDEA press release](#).)

5.3 Financing Instruments and Performance-Linked Disbursement

Disbursements are contingent upon verified MRV milestones to ensure fiduciary discipline.

Table 5-B — Instruments and Triggers

Instrument	Trigger Milestone (verified)	Verification & Disclosure
Performance-based grants	Corridor gateway operational; telemetry & uptime thresholds met; staple price dashboard live	Operational audit certificate; uptime/error-budget logs; public dashboard entries
Output-based aid (inclusion)	WCAG audit pass rates for portals; grievance mechanism operating	Accessibility conformance statements; quarterly grievance statistics
Blended finance tranches	OCDS publication ≥80% of eligible logistics procurement	Machine-readable OCDS datasets; spend analytics and anomaly flags

Instrument	Trigger Milestone (verified)	Verification & Disclosure
PPP viability gap funding	Marketplace/transport PPP contracts signed; tariff safeguards embedded	PPP MoUs & Operating Orders; tariff schedules; public notices
Guarantees/credit enhancement	Inclusive credit-scoring moved from sandbox to supervised production with explainability & bias audits	Published model transparency/bias reports; human-in-the-loop attestation

(Sources: [OCDS](#); [WCAG 2.1](#); [World Bank digital overview & IDEA](#).)

5.4 DTIF Integration

The DTIF serves as DMAP's internal financing facility to accelerate sovereign hosting accreditation, corridor gateways, and Zero Trust posture implementation, combined with capacity-building for procurement disclosure and accessibility. DTIF disbursements follow DMAP MRV triggers and are structured to complement AfDB and World Bank envelopes, ensuring rapid early value (Phase 1) and scalable consolidation (Phase 3).

5.5 PPP Frameworks and Contracting Models

DMAP adopts PPP frameworks with tariff safeguards and transparency obligations.

Table 5-C — PPP Options and Use-Cases

PPP Model	Use-Case	Key Clauses	Assurance
Concession/Build-Operate	Digitisation of corridor operators, depots, and port interfaces	Vendor-neutral APIs; tariff caps; SLA-linked penalties; data residency	Accreditation orders; public tariff schedules; MRV KPIs
Revenue-Share/Service Contract	E-commerce marketplace connectors, escrow & settlement services	Transparent fee schedules; dispute resolution; accessibility obligations	OCDS publication for public buys; quarterly accessibility audits
Joint Venture (Public–Private)	Cooperative data platforms for producer organisations	Governance rights; privacy & consent; data monetisation rules	Lawful processing statements; human-oversight board for algorithms

These models must integrate OCDS for relevant procurement events and Zero Trust for all gateway connections.

5.6 Tariff Safeguards and Affordability Targets

Tariff safeguards ensure affordability for SMEs and citizens while maintaining PPP viability. DMAP adopts affordability targets that align with ITU and World Bank guidance, including the benchmark that the entry basket (1 GB) should cost $\leq 2\%$ of monthly GNI per capita, and commits to progressive reductions in corridor tolls and platform fees via efficiency gains.

Tariff schedules, concession caps, and fee disclosures must be published in machine-readable form on DMAP dashboards and REC portals, and reviewed annually to reflect productivity improvements and demand stimulation evidenced by MRV metrics.

5.7 Risk Mitigation and Contingency Reserves

DMAP mandates: (i) FX and commodity hedging for imported equipment; (ii) credit enhancement and partial risk guarantees for corridor PPPs; (iii) posture validation and lawful residency to mitigate cyber and legal risks; and (iv) contingency reserves within the DESA Fund for remediation of audit findings or shocks.

Transparency and auditability are enforced through OCDS datasets for procurement and quarterly publication of audit certificates on DMAP dashboards; security posture assurance follows NIST SP 800-207; lawful processing references national laws and the Malabo Convention.

5.8 Sustainability Strategy and Cost Recovery

Sustainability is secured through: (i) shared services hubs (Interoperability Hubs; Credential/Accreditation Registries) with REC cost-sharing; (ii) certification fees and service-level contracts for ongoing support; (iii) open data ecosystems to stimulate private investment and innovation; and (iv) performance-linked financing, tying future tranches to verified usage and efficiency gains.

5.9 Compliance and Transparency

DMAP's fiduciary architecture requires:

- **OCDS publication** across the full procurement lifecycle impacting logistics, marketplaces, and corridor assets;
- **Independent audits** (fiduciary and operational) with machine-readable disclosures;
- **Accessibility conformance** (WCAG 2.1) and quarterly statements; and
- **Security posture validations** (NIST SP 800-207) with accreditation registry entries.

All disclosures shall be integrated into national and REC dashboards, cross-walked to Agenda 2063 indicators and MRV cadence.

5.10 Concluding Determination

The DMAP fiduciary architecture lawfully binds financing to transparent, results-based execution. By integrating DTIF, AfDB and World Bank/IDEA envelopes, embedding PPP tariff safeguards, and conditioning disbursement on verifiable MRV milestones, DMAP secures institutional legitimacy and market confidence. Its audit and disclosure regime—grounded in OCDS, Zero Trust, WCAG, and Malabo—ensures that market activation is fiscally responsible, legally compliant, and socially inclusive, advancing national competitiveness and regional integration consistent with Agenda 2063 and REC strategies.

Chapter 6: Compliance and Ethics

6.1 Legal Bases and Scope of Compliance

The DMAP compliance and ethics regime is constituted under the DESA Institutional Governance Manual and DMAP Operating Circulars, and is explicitly harmonised with continental, regional, and

international instruments to ensure lawful processing, security by design, accessibility, and public transparency throughout all market-activation functions (price transparency, e-commerce enablement, digital logistics corridors, inclusive credit scoring, and cooperative data platforms).

The regime references and incorporates: Agenda 2063 Second Ten-Year Implementation Plan (2024–2033) for responsive institutions and deeper regional integration; COMESA’s Inclusive Digitalisation (IDEA) programme for regional harmonisation of trusted online transactions and interoperable platforms; NIST SP 800-207 (Zero Trust Architecture) for continuous authentication/authorisation, least-privilege, segmentation and telemetry; the Open Contracting Data Standard (OCDS) for machine-readable transparency across procurement lifecycles; WCAG 2.1 for accessibility; and the AU Convention on Cyber Security and Personal Data Protection (Malabo Convention) for lawful processing and cross-border transfers.

6.2 Compliance Domains and Obligations

Table 6-A — Compliance Domains, Core Obligations, and Verification

Domain	Core Obligations	Verification & Disclosure
Data Protection & Lawful Processing	Lawful bases; data subject rights; purpose limitation; retention & disposal; cross-border transfer controls; sovereign hosting residency	Malabo-aligned Operating Circulars; lawful transfer register; quarterly compliance reports and public notes
Security (Zero Trust)	Continuous authN/authZ; least-privilege; resource segmentation; encryption at rest/in transit; telemetry/SIEM; incident response	NIST SP 800-207 posture validation certificate; operational audit reports; posture summaries on public dashboards
Procurement Transparency (OCDS)	Publication across planning, tender, award, contract, implementation; spend analytics & anomaly flags; machine-readable datasets	OCDS datasets with OCID; independent fiduciary audit; dashboard feeds and public registry entries
Accessibility & Inclusion (WCAG 2.1)	Multilingual, accessible portals; assistive tech integration; quarterly audits & remediation logs; grievance support	Accessibility conformance statements; audit logs; remediation trackers published online
Algorithmic Governance (Credit Scoring)	Explainability reports; bias audits; human-in-the-loop oversight; documented data sources & consent	Biannual ethics/bias audits; published reports; corrective actions; model governance notes on dashboards

6.3 Data Protection and Lawful Transfer

DMAP codifies data protection through Malabo-aligned Operating Circulars and Accreditation Orders. All processing must rest on a lawful basis with documented purposes, retention schedules, and data subject rights (access, rectification, erasure, objection). Cross-border transfers require explicit legal

justification, documented safeguards, sovereign hosting determinations, and entries in the lawful transfer register.

6.4 Security Posture and Zero Trust Enforcement

All DMAP systems (corridor gateways, marketplace connectors, price dashboards, portals, credit-scoring tools) shall implement **Zero Trust** controls: continuous authentication and authorisation (user/device/service), least-privilege access, micro-segmentation of resources, end-to-end encryption, and telemetry with SIEM for real-time assurance. Posture validation results are published as security conformance statements on public dashboards and recorded in the Credential & Accreditation Registry.

6.5 Algorithmic Governance for Inclusive Credit Scoring

DMAP treats credit-scoring models as regulated decision-support systems. Deployment requires: (i) documented lawful data sources and consent frameworks; (ii) explainability reports and bias audits; and (iii) human-in-the-loop oversight, so automated outputs do not constitute final decisions. These safeguards are aligned with international norms for trustworthy AI and human-rights-centred governance.

6.6 Accessibility and Inclusion

DMAP mandates WCAG 2.1 conformance across all user-facing interfaces (portals, dashboards, grievance mechanisms), including screen-reader compatibility, multilingual content, alternative input methods, and assistive technologies for dyslexia/dyscalculia and mobility impairments. Quarterly accessibility audits must be published with remediation logs and conformance statements, ensuring equitable access and participatory legitimacy.

6.7 Grievance Redress

A national digital grievance mechanism (WCAG-conformant) shall be accessible through DMAP portals. Complaints are categorised and triaged within 30 calendar days; unresolved cases escalate to the Country Steering Committee (CSC); systemic issues escalate to N-DAC. Quarterly publication of grievance statistics, resolution timelines, and corrective actions is mandatory, and harmonised with regional stakeholder engagement practices under COMESA IDEA.

6.8 Independent Audits and Publication Duties

Table 6-B — Audit Regime and Public Disclosure

Audit Type	Scope	Frequency	Publication Duties
Fiduciary Audit	Spend analytics; PPP payments; tariff safeguards; procurement integrity	Annual	Machine-readable OCDS datasets; audit summaries on dashboards
Operational Audit	Corridor APIs; marketplace connectors; sovereign hosting & residency	Annual	Accreditation registry entries; posture certificates; MRV feeds
Ethics & Bias Audit	Model fairness; explainability; human oversight effectiveness	Biannual	Published reports; corrective actions and timelines on dashboards



Audit Type	Scope	Frequency	Publication Duties
Accessibility Audit	WCAG 2.1 conformance; assistive tech integration; multilingual coverage	Quarterly	Conformance statements; remediation logs (public)

6.9 Enforcement Instruments and Sanctions

DMAP applies graduated enforcement with due process and proportionality:

Table 6-C — Enforcement Matrix

Instrument	Trigger Condition	Action & Timeline	Disclosure
Corrective Action Plan (CAP)	Minor breach; missed metrics; isolated audit findings	Time-bound remediation; re-audit ≤ 90 days	CAP summary; progress logs
Suspension of Accreditation	Repeat audit failures; material security/privacy breach; persistent accessibility non-conformance	Immediate suspension; service continuity plan; re-accredit on independent verification	Accreditation status on registry & dashboards
Funding Reallocation	Fiduciary non-compliance; failure to publish OCDS datasets; unresolved procurement irregularities	Withhold/reallocate tranche; fiduciary review; decision rationale	Public financing note; OCDS publication confirmation
Formal Censure	Systemic failure; refusal to remediate; concealment of material facts	Public censure; notification to oversight bodies	Censure notice on dashboards
Escalation to DESA Central Unit	National inability to restore compliance; cross-border/systemic risk	Portfolio intervention; possible suspension of DMAP privileges	Portfolio-level disclosure; remedial governance plan

6.10 REC Harmonisation and Public Dashboards

National compliance artefacts (conformance statements, lawful transfer registers, posture certificates, OCDS datasets, accessibility logs, and ethics/bias reports) must be consolidated into REC dashboards to provide regional performance snapshots consistent with COMESA IDEA coordination. Annual public reports shall cross-walk compliance metrics to Agenda 2063 STYIP indicators on institutional responsiveness and integration.

6.11 Closing Determination

The DMAP compliance and ethics architecture is affirmed as a sovereign, lawful, and auditable framework. By binding data protection (Malabo), security (NIST SP 800-207), transparency (OCDS),

accessibility (WCAG 2.1), and algorithmic accountability (UNESCO/OECD) into programme operations and public disclosure, DMAP guarantees institutional legitimacy, market confidence, and equitable participation—fully aligned with Agenda 2063 and REC digitalisation mandates such as COMESA IDEA.

Chapter 7: Regional Replication and Integration

7.1 Purpose and Legal Alignment

This Chapter establishes the replication and integration pathways through which the DESA Market Activation Program (DMAP) is harmonised across the Regional Economic Communities (RECs), beginning with COMESA, and extending to SADC and EAC. The legal and strategic alignment derives from the Agenda 2063 Second Ten-Year Implementation Plan (2024–2033), which emphasises responsive institutions and regional integration, and from REC frameworks that formalise regional coordination for interoperable platforms and trusted transactions—most notably COMESA’s Inclusive Digitalisation of Eastern & Southern Africa (IDEA); SADC’s Digital Transformation Strategy and Action Plan (SADC-DTS); and EAC’s regional digital integration initiatives, including the Eastern Africa Regional Digital Integration Project (EA-RDIP) and the EAC-EU co-creation roadmap. These instruments collectively provide the normative anchor for porting DMAP’s sovereign architecture, lawful data exchange, and transparency obligations across national borders.

DMAP’s portability is subject to sovereign hosting and lawful residency, Zero Trust security posture, procurement transparency under the Open Contracting Data Standard (OCDS), accessibility under WCAG 2.1, and the AU Malabo Convention for data protection and cross-border transfers. These obligations are binding for corridor gateways, marketplace connectors (S’agapo Markets, Growthify Market), and payment rails (EUSL Coin as a regulated utility) across all participating jurisdictions

7.2 Harmonisation Framework and Principles

DMAP shall apply a three-part harmonisation framework to ensure standardisation, scalability, and lawful interoperability across COMESA, SADC, and EAC corridors. First, standards convergence aligns national API governance codes, schema registries, and Zero Trust controls to REC coordination platforms (e.g., IDEA’s harmonisation and planning component). Second, shared services—Interoperability Hubs and Credential/Accreditation Registries—provide pooled procurement, hosting accreditation, and audited cross-border API transactions under REC oversight. Third, transparency requires machine-readable procurement datasets (OCDS), corridor KPIs, marketplace fee schedules, and payment-rail AML/CFT summaries on national and REC dashboards, consistent with Agenda 2063 reporting and REC observatories.

7.3 REC Pathways and DMAP Replication Logic

Table 7-A — REC Pathways and DMAP Replication Logic (COMESA, SADC, EAC)

REC	Strategic Instrument(s)	DMAP Replication Focus	REC Interface & Mechanism
COMESA	IDEA Programme (Regional Harmonisation & Planning; Knowledge & Capacity; PCU set-up)	Converge national API governance and sovereign hosting standards; establish Interoperability Hub and Credential/Accreditation Registry; standardise OCDS publication for logistics procurement; port S’agapo/Growthify connectors and	Coordination via COMESA Program Coordination Unit (PCU); adoption of harmonised protocols; stakeholder and grievance frameworks; REC



REC	Strategic Instrument(s)	DMAP Replication Focus	REC Interface & Mechanism
		EUSL Coin utility rail with admissibility notes	dashboards consolidating MRV feeds
SADC	SADC-DTS & Action Plan (RISDP 2020–30 alignment; interventions on legal/regulatory harmonisation, e-government, digital skills, and observatory)	Align DMAP standards to DTS interventions; certify Zero Trust posture; replicate corridor KPIs and marketplace PPP practices; incorporate fee/tariff harmonisation; evaluate EUSL Coin settlement per national licensing and SADC guidance	Use SADC-DTS Observatory and regional programme recommendations to finance joint studies and pilots; embed harmonised legal/regulatory updates for full digitalisation
EAC	EA-RDIP (Series of Projects for digital integration); EAC-EU D4D cooperation and digital roadmap	Integrate DMAP corridor APIs with EAC single digital market components; adopt cross-border data governance and secure hosting benchmarks; embed marketplace connectors and payment rail only where lawful; publish REC-level KPIs	Coordination through the EAC Secretariat, leveraging EA-RDIP and D4D-supported roadmap; launch pilots for corridor marketplaces and settlement rails; dashboard consolidation

7.4 Shared Standards and Accreditation Portability

Portability is effected through Conformance Profiles and Accreditation Orders that bind national systems to REC benchmarks and enable recognition of certifications across borders.

Table 7-B — Shared Standards and Accreditation (Gateway, Marketplace, Payments)

Domain	Shared Standard / Benchmark	REC Alignment	Accreditation & Verification
Corridor APIs & Schema Registry	REC-approved API profiles; versioning; gateway policy; audited logs	COMESA IDEA harmonisation; SADC-DTS legal/regulatory pillar; EAC EA-RDIP milestones	N-DAC conformance statements; REC technical review; pilot logs; posture certificates (COMESA IDEA)
Marketplaces (S'agapo/Growthify)	Vendor-neutral connectors; escrow/disputes; fee schedule transparency; WCAG 2.1	REC marketplace practices via observatories and roadmaps	PPP MoUs; Operating Orders; published fee cap schedules; WCAG conformance statements (WCAG 2.1)



Domain	Shared Standard / Benchmark	REC Alignment	Accreditation & Verification
Payment Rail (EUSL Coin)	AML/CFT controls; on/off-ramp policies; human oversight; lawful residency	Admissibility per national licensing; REC guidance for settlement pilots	AO-Payments accreditation; quarterly AML/CFT summaries; reserve disclosures; fiat fallback where crypto settlement is restricted

7.5 Shared Infrastructure and Knowledge Platforms

DMAP mandates regional shared infrastructure aligned with REC strategies: Interoperability Hubs (secure, audited API exchange with telemetry), Credential/Accreditation Registries (portable recognition of marketplace and payment certifications), and REC knowledge platforms/observatories that consolidate MRV evidence. COMESA's IDEA provides the coordination locus and capacity transfer; SADC-DTS recommends joint studies and pilots; EAC's EA-RDIP and Team Europe cooperation offer funding windows and technical assistance for corridor digitisation and marketplace integration.

7.6 Replication Roadmap and Verification

Table 7-C — DMAP Regional Replication Roadmap (Steps, Outputs, Verification)

Step	Outputs	Verification & Disclosure
Legal & Standards Mapping	Cross-walk of national instruments to REC frameworks; admissibility notes for EUSL Coin settlement; tariff/fee harmonisation for marketplaces	REC technical note; N-DAC conformance statement; publication on REC portals; Agenda 2063 alignment note
Interoperability Pilots	Corridor API pilots; S'agapo/Growthify connector pilots with escrow/disputes; sandbox micro-rewards (coin) with fiat fallback	Pilot reports; audited API logs; WCAG conformance statements; AML/CFT sandbox summaries
Shared Services Roll-out	Interoperability Hubs and Credential/Accreditation Registries live; marketplace PPP expansion; settlement pilots only where lawful	REC resolutions; shared services SLAs; quarterly MRV publication; AML/CFT reports; fee schedule dashboards
Consolidation & Scaling	Portfolio replication across Member States; REC dashboards for corridor KPIs, marketplace metrics, payment usage notes; annual affordability/fee reviews	Annual regional performance report; Agenda 2063 indicator mapping; public disclosures; accessibility audits

7.7 Public Dashboards and MRV (Regional Level)

National MRV datasets (corridor KPIs, staple price feeds, OCDS procurement datasets, marketplace fee schedules, WCAG conformance statements, payment rail AML/CFT summaries) shall be consolidated into REC dashboards to provide regional performance snapshots and admissibility status notes. Dashboard obligations include machine-readable formats and multilingual access in line with WCAG 2.1 and REC practices. Annual public reports must cross-walk indicators to Agenda 2063 moonshots on responsive institutions and integration, as well as REC digitalisation priorities

7.8 Concluding Determination (Chapter 7)

DMAP's regional replication and integration pathways are hereby affirmed as sovereign, lawful, and auditable. By converging standards under COMESA IDEA, implementing shared services and observatories under SADC-DTS, and activating cross-border pilots under EAC EA-RDIP and EAC-EU cooperation, DMAP operationalises Agenda 2063's call for responsive institutions and integrated markets. The prescribed accreditation portability, lawful data exchange controls, and transparency instruments guarantee public trust and auditability, while the MRV cadence and REC dashboards provide measurable evidence of progress for results-linked financing and sustained regional adoption.

Chapter 8: Programme Benefits and Economic Rationale

8.1 Purpose and Framing

This Chapter articulates the structural benefits and the economic rationale of DMAP as a sovereign, lawful, and auditable market-activation programme. Benefits are derived from institutionalising price transparency, corridor digitisation, vendor-neutral marketplace integrations (S'agapo Markets and Growthify Market), inclusive credit scoring with human-in-the-loop oversight, and a regulated utility/payment rail (EUSL Coin) where legally admissible. All benefits are documented and verified through machine-readable publication and independent audits consistent with Agenda 2063's Second Ten-Year Implementation Plan (2024–2033) and REC coordination platforms, notably COMESA's Inclusive Digitalisation (IDEA); transparency, security, accessibility, and lawful processing are enforced via OCDS, NIST SP 800-207, WCAG 2.1, and the Malabo Convention.

8.2 Benefit Families and Linkages to National Competitiveness and Social Equity

DMAP's benefits are organised into four interdependent families: institutional efficiency and service quality; fiduciary integrity and value for money; market activation and SME competitiveness; and lawful settlement and inclusion. These families advance responsive institutions and regional integration under Agenda 2063, and align with AfDB priorities to Integrate Africa and Improve the Quality of Life for the People of Africa by reducing cost-to-serve, increasing productive usage of digital services, and widening equitable market participation.

Table 8-A — Benefit Families and Indicative Outcome Targets (to be verified via MRV)

Benefit Family	Mechanism	Indicative Outcome Target (24–36 months)	Verification Basis
Institutional efficiency & service quality	Corridor APIs, telemetry, and price observatories	10–30% reduction in border dwell time; 15–25% reduction in logistics losses/spoilage proxies	Operational audits; corridor KPI dashboards; REC consolidation (IDEA/DTS/EA-RDIP)



Benefit Family	Mechanism	Indicative Outcome Target (24–36 months)	Verification Basis
Fiduciary integrity & value for money	OCDS publication and spend analytics	OCDS coverage ≥80% of eligible logistics/marketplace-related procurement; documented anomaly flags resolved	Machine-readable OCDS datasets; fiduciary audits; public registry entries
Market activation & SME competitiveness	S'agapo/Growthify connectors; cooperative data; inclusive credit scoring	10–20% lift in farm-gate prices (variance narrowing); 15–30% increase in SME loan approvals (with human oversight)	Price dashboards; marketplace KPIs; explainability/bias audits; SME finance metrics
Lawful settlement & inclusion	EUSL Coin utility rail (non-speculative), with fiat fallback	10–20% reduction in average settlement cost/time for eligible transactions where lawful; quarterly AML/CFT pass rate ≥95%	AML/CFT audit summaries; reserve/usage notes; payment KPIs; consumer-protection logs

Methodological Note. Targets are indicative and jurisdiction-specific; they are set during Phase 0 and validated annually via MRV and independent audits. The link between procurement disclosure and value-for-money/competition gains is grounded in the Open Contracting canon and associated guidance for machine-readable publication and anomaly detection.

8.3 Economic Rationale: Cost-to-Serve, Transaction Costs, and Adoption

DMAP lowers transaction costs by replacing fragmented manual coordination with audited APIs and schema registries across customs, ports, transport, and marketplaces; by publishing OCDS datasets for competitive procurement and spend analytics; and by enforcing Zero Trust and WCAG for secure, accessible participation. This rationale aligns with the World Bank's framing that affordable, reliable broadband and interoperable platforms increase productive usage and inclusion, and with ITU findings on the need for meaningful connectivity to unlock economic gains.

Table 8-B — Economic Rationale: Mechanisms and Efficiency Gains

Mechanism	Efficiency Argument	Expected Effect	Source Basis
Audited corridor APIs & telemetry	Reduces coordination delays and information asymmetry	Faster clearance, lower spoilage/loss	REC harmonisation (IDEA/DTS/EA-RDIP); Agenda 2063 integration objectives
OCDS procurement publication	Increases competition, enables anomaly detection and better pricing	Value-for-money improvements and reduced leakage	OCDS guidance and data standard benefits

Mechanism	Efficiency Argument	Expected Effect	Source Basis
Vendor-neutral marketplace connectors	Lowers search costs and improves discoverability for SMEs/coops	Higher order fulfilment and fairer pricing	REC digital market roadmaps; WCAG accessibility obligations
Regulated utility/payment rail	Reduces settlement friction where lawful; protects consumers	Lower cost-to-serve, faster settlement; AML/CFT guardrails	World Bank digital infrastructure overview; national AML/CFT frameworks

8.4 Adoption Drivers and Sustainability

Adoption is driven by (i) affordability and fee transparency for marketplace connectors and payment rails; (ii) accessible portals and grievance redress; and (iii) public dashboards publishing KPIs and audit certificates. Sustainability is secured via shared services (Interoperability Hubs; Credential/Accreditation Registries), cost-recovery through certification and service-level contracts, and results-linked disbursements under AfDB/World Bank envelopes.

8.5 Closing Determination

By codifying lawful transparency (OCDS), secure interoperability (NIST SP 800-207), accessibility (WCAG 2.1), and data protection (Malabo) into corridor, marketplace, credit, and settlement operations, DMAP delivers measurable reductions in delays and losses, fairer pricing, wider SME finance, and more efficient settlement—advancing competitiveness and social equity in line with Agenda 2063 and REC digitalisation strategies.

Chapter 9: Measurement, Reporting, and Verification (MRV)

9.1 Purpose and Normative Basis

The MRV framework for DMAP is a binding instrument ensuring transparency, accountability, and performance verification across all activation domains. It is harmonised with Agenda 2063 STYIP indicators on institutional responsiveness and integration, with REC dashboards (COMESA IDEA/SADC-DTS/EAC EA-RDIP), and with DMAP's legal standards for machine-readable disclosure (OCDS), Zero Trust security posture (NIST SP 800-207), accessibility (WCAG 2.1), and lawful processing (Malabo).

9.2 KPI Families and Core Indicators

Table 9-A — KPI Families and Core Indicators (DMAP-specific)

KPI Family	Core Indicators	Verification Instruments
Corridor performance	Border dwell time; transit time variability; on-time performance; loss/spoilage proxy	Audited API logs; operational audit certificates; REC dashboard consolidation (IDEA/DTS/EA-RDIP)
Price transparency	Price update frequency; farm-gate price dispersion (variance); coverage of staples	Price dashboards; MRV quarterly reports; public datasets



KPI Family	Core Indicators	Verification Instruments
Marketplace activation	Active vendors; order fulfilment rate; dispute resolution median time; fee schedule transparency	PPP Operating Orders; accessibility conformance statements; marketplace telemetry
Inclusive finance	SME approval rate; human-oversight ratio; explainability/bias audit pass rate; NPL proxy	Ethics/bias audit certificates; model governance notes; grievance logs
Settlement & compliance	On/off-ramp usage; average settlement time/cost; AML/CFT flags resolved; consumer-protection complaints	AML/CFT audit summaries; reserve/usage notes; public dashboards
Transparency & accessibility	OCDS coverage; anomaly flags resolved; WCAG pass rate; grievance remediation rate	Machine-readable OCDS datasets; accessibility audits; MRV cadence

9.3 Reporting Cadence and Disclosure Obligations

Table 9-B — Reporting Cadence

Report Origin	Recipient	Frequency	Content	Disclosure
Agencies & PPP operators	DMAP Implementation Unit	Monthly	Corridor telemetry; marketplace KPIs; price feeds; payment usage/AML notes; accessibility status; grievance KPIs	MRV pipeline ingestion; machine-readable feeds (OCDS/JSON/XML)
Implementation Unit	CSC	Quarterly	Consolidated compliance; spend analytics; anomaly flags; accessibility conformance; ethics/bias/AML audit status	CSC report; dashboard updates; remediation plans
CSC	N-DAC	Quarterly	Architecture conformance; sovereign hosting compliance; lawful transfer register; REC harmonisation notes	N-DAC directives; public conformance statements
N-DAC	DESA Central Unit	Biannual	Strategic review and REC portability; Agenda 2063 cross-walk	Annual public performance report; REC dashboard consolidation

9.4 Independent Audits and Publication Duties

Table 9-C — Audit Regime (DMAP)

Audit Type	Scope	Frequency	Publication Duties
Fiduciary	Spend analytics; PPP payments; tariff/fee safeguards; procurement integrity	Annual	Machine-readable OCDS datasets; audit summaries; fee schedules on dashboards [eac.int]
Operational	Corridor APIs; marketplace connectors; sovereign hosting/residency	Annual	Accreditation registry entries; posture certificates; MRV feeds [standard.o...acting.org]
Ethics & Bias	Model fairness; explainability; human-oversight effectiveness	Biannual	Published reports; corrective actions and timelines
Accessibility	WCAG 2.1 conformance; assistive tech integration; multilingual coverage	Quarterly	Conformance statements; remediation logs [sadc.int]
AML/CFT (payments)	On/off-ramp controls; flags resolved; reserve/usage notes	Quarterly	AML/CFT summaries; consumer-protection disclosures

9.5 Corrective Action and Enforcement Linkages

Non-compliance triggers Corrective Action Plans (CAPs) with time-bound remediation; persistent breaches lead to suspension of accreditation (hosting/gateway/payments), funding reallocation (for fiduciary failures or OCDS non-publication), and formal censure. Severe cases escalate to the DESA Central Unit. Enforcement is adjudicated by N-DAC and validated by DEIC, ensuring due process and proportionality under national law and DMAP's adopted standards.

9.6 Regional Dashboards and Agenda 2063 Cross-Walk

National MRV datasets (corridor KPIs, price feeds, marketplace metrics, SME finance outcomes, settlement usage notes, OCDS coverage, accessibility conformance) must be consolidated into REC dashboards (COMESA IDEA/SADC-DTS/EAC EA-RDIP) and cross-walked to Agenda 2063 indicators on responsive institutions and integration. Annual public reports shall present progress against these indicators with supporting audit evidence.

9.7 Closing Determination

The MRV framework is affirmed as a binding, evidence-driven mechanism that converts market-activation intentions into measurable, auditable results. By institutionalising KPI families, independent audits, and public dashboards, DMAP guarantees transparency and accountability across corridors, marketplaces, finance, and settlement—aligning national outcomes with Agenda 2063 and REC strategies, and enabling performance-linked financing and region-wide replication.

Chapter 10: Stakeholder Engagement and Capacity Building

10.1 Purpose, Legal Basis, and Scope

Stakeholder engagement and capacity building are constituted as binding governance functions of DMAP. Their legal basis is derived from the DESA Institutional Governance Manual and DMAP Operating Circulars, and harmonised with continental and regional instruments: Agenda 2063 Second Ten-Year Implementation Plan (2024–2033) on responsive institutions and integration; COMESA's Inclusive Digitalisation (IDEA) platform for regional harmonisation and trusted transactions; NIST SP 800-207 for Zero Trust security; OCDS for machine-readable procurement transparency; WCAG 2.1 for accessibility; and the AU Malabo Convention for lawful data protection and cross-border transfers

DMAP's engagement scope explicitly includes S'agapo Markets (retail/social commerce), Growthify Market (corridor B2B/B2G trade), and the EUSL Coin (regulated utility/payment rail), all integrated via Operating Circulars and Accreditation Orders and subject to sovereign hosting, lawful processing, accessibility, and public disclosure obligations.

10.2 Stakeholder Map and Obligations

Table 10-A — Engagement Tiers, Obligations, and Legal Instruments

Stakeholder Tier	Primary Obligations	Legal/Technical Instruments	Verification & Disclosure
Prime/Finance & Planning; Interior/Justice; ICT; sector ministries	Adopt DMAP standards for corridor APIs, marketplaces, portals, records; enforce lawful processing and Zero Trust; publish OCDS datasets	N-DAC Operating Circulars; Malabo-aligned data orders; Zero Trust policies (NIST SP 800-207); OCDS publication mandates	Quarterly compliance reports; annual operational audits; public dashboards
Regulators (data protection, procurement, customs/ports, central bank/AML)	Supervise lawful processing; certify fiduciary compliance; enforce OCDS; certify gateway/hosting; oversee AML/CFT for payment rails	Accreditation Orders (AO-Gateway, AO-Hosting, AO-Payments); Publication Mandates	Annual fiduciary/operational audits; AML/CFT summaries; accreditation registry entries
Academia (universities, public schools of administration, vocational institutes)	Deliver DMAP curriculum; host innovation/practicum labs for corridor/marketplace/payments; produce applied research	MoUs and Accreditation Agreements; curriculum charters; practicum charters	Instructor certification; lab performance reports; MRV sampling; REC knowledge platform contributions



Stakeholder Tier	Primary Obligations	Legal/Technical Instruments	Verification & Disclosure
Marketplace operators (S'agapo, Growthify)	Implement vendor-neutral APIs; escrow/dispute resolution; fee/tariff transparency; accessibility (WCAG)	OO-Marketplace; PPP MoUs; schema registry conformance	Accessibility statements; fee schedules; marketplace KPIs on dashboards
Transport/logistics & corridor operators	Integrate customs/ports/transport systems; provide telemetry; uphold SLAs; publish corridor KPIs	OO-Corridor; gateway policy; telemetry baselines	Operational audit certificates; corridor KPI dashboards; SLA performance
Licensed payment providers/fintechs (EUSL Coin on/off-ramps; fiat/e-money alternatives)	Enforce AML/CFT; human-oversighted settlement; consumer protection; fee transparency; lawful residency	OO-Payments; AO-Payments; AML/KYC/KYB policies	Quarterly AML/CFT summaries; reserve/usage notes; consumer-protection disclosures
Civil society & inclusion advocates	Participate in accessibility audits; monitor grievance redress; provide beneficiary feedback	Advisory roles; grievance protocols; audit participation	Published audit summaries; quarterly grievance statistics; remediation trackers

10.3 Capacity-Building Architecture and Curriculum

Table 10-B — DMAP Governance Curriculum (Modules and Tiers)

Tier	Module Title	Core Learning Objectives
Foundational	Legal Bases & Institutional Design	Interpret DMAP legal instruments; map national law to Malabo; understand N-DAC/CSC roles
Foundational	Zero Trust Controls & Sovereign Hosting	Apply continuous authN/authZ, least-privilege, segmentation; certify hosting posture (NIST SP 800-207)
Foundational	Records, Procurement & Transparency	Implement lawful retention/disposal; publish OCDS across lifecycle; configure public dashboards
Foundational	Accessibility by Design	Implement WCAG 2.1 A/AA criteria; integrate assistive technologies; publish conformance statements
Applied	API Governance & Interoperability	Design schemas, versioning, gateway policy; operate audited exchange; register schemas

Tier	Module Title	Core Learning Objectives
Applied	Marketplace Governance & Escrow	Deploy vendor-neutral connectors; configure escrow/dispute flows; publish fee schedules and SLAs
Applied	Payments AML/CFT & Consumer Protection	Operate on/off-ramps; enforce AML/KYC/KYB; manage reserves; apply human oversight and dispute handling
Applied	Algorithmic Governance & Inclusive Credit	Produce explainability reports; conduct bias audits; maintain human-in-the-loop; trigger corrective actions
Advanced	Cross-Border Data & REC Integration	Implement lawful egress; REC replication; shared services; produce interoperability dossiers
Advanced	MRV & Public Disclosure	Operate machine-readable dashboards; compile audit evidence; align with Agenda 2063 indicators and REC observatories

10.4 Delivery Model: Practicums, Innovation Labs, and Shared Services

DMAP mandates **Government Innovation Labs** and **Interoperability Practicums** as controlled environments for corridor APIs, marketplace connectors, payments rails, and MRV instrumentation. Regional capacity transfer leverages **COMESA IDEA** (PCU, knowledge components), **SADC-DTS** observatory and programme recommendations, and **EAC EA-RDIP/Team Europe** co-creation fora for funding and technical assistance.

10.5 Certification and Accreditation Pathways

Table 10-C — Certification & Accreditation (Requirements and Evidence)

Pathway	Requirements	Evidence & Registry
Tier-1 Foundational	Exams on legal bases, Zero Trust, records/governance, accessibility	Exam results; training logs; accessibility conformance statements recorded in Credential Registry
Tier-2 Applied	Practicum deliverables: corridor gateway; marketplace escrow; fee schedules; payments AML/CFT tests	Practicum reports; audited API transaction logs; published OCDS packages; AML/CFT summaries
Tier-3 Advanced	Cross-border integration dossier; MRV operation; ethics/bias audits	Interoperability dossier; MRV snapshots; audit certificates (operational/fiduciary/ethics/AML)
Institutional Accreditation	Hosting/gateway/payments accreditation; lawful transfer register; OCDS ≥80% coverage; WCAG quarterly audits	Accreditation orders (AO-Gateway, AO-Hosting, AO-Payments); dashboard entries; REC endorsement for shared services



10.6 Grievance Redress, Inclusion, and Public Participation

A WCAG-conformant grievance mechanism shall be accessible through DMAP portals, with categorisation covering corridor delays/losses, marketplace disputes, payment complaints (AML/consumer protection), accessibility failures, procurement integrity, and privacy violations. Unresolved issues escalate from agency level to CSC and N-DAC. Quarterly publication of grievance statistics, resolution times, and corrective actions is required, consistent with REC stakeholder frameworks.

10.7 Financing Linkages and Results-Based Capacity Transfer

Capacity building is financed via DMAP's fiduciary architecture (Chapter 5), using performance-linked disbursements tied to verified milestones (e.g., OCDS coverage, Zero Trust posture, WCAG pass rates, AML/CFT audits, MRV operation) and leveraging AfDB and World Bank/IDEA envelopes for shared services and replication.

10.8 Closing Determination

DMAP's stakeholder engagement and capacity-building framework is affirmed as a sovereign, ethical, and scalable governance function. By embedding legal mandates, technical standards, fiduciary transparency, AML/CFT controls, and accessibility safeguards into curricula, practicums, shared services, and public dashboards, DMAP converts policy intent into durable competence and verified outcomes aligned with Agenda 2063 and REC strategies.

Chapter 11: Participation and Partnership Framework

11.1 Mandate, Legal Basis, and Scope

The Participation and Partnership Framework regulates entry conditions, roles, obligations, and performance verification for all DMAP actors—public authorities, regulators, academia, marketplace operators, transport/logistics firms, licensed payment providers, DFIs, and international partners—within a lawful, secure, and transparent ecosystem. It is harmonised with **Agenda 2063 STYIP, COMESA IDEA, SADC-DTS, EAC EA-RDIP**, and DMAP standards (**NIST SP 800-207, OCDS, WCAG 2.1, Malabo Convention**).

11.2 Instruments of Participation

Participation is formalised through:

- **Memoranda of Understanding (MoUs)**: mandate, scope, performance duties.
- **Operating Circulars (OCs)**: standards and compliance obligations for corridor APIs, marketplaces, portals, payments, and policy-simulation tooling (e.g., OO-Marketplace, OO-Corridor, OO-Payments).
- **Accreditation Orders (AOs)**: certify hosting/gateway/payments (e.g., AO-Gateway, AO-Hosting, AO-Payments).
- **Publication Mandates (PMs)**: machine-readable disclosure of procurement (OCDS), audit certificates, accessibility conformance, AML/CFT summaries, fee/tariff schedules.

11.3 Partner Classes, Entry Conditions, and Obligations

Table 11-A — Partner Classes, Entry Conditions, Obligations, Verification

Partner Class	Entry Conditions	Core Obligations	Verification & Disclosure
Public Authorities (ministries/agencies)	MoU with CSC; acceptance of OCs; designate compliance officer	Implement DMAP standards (corridor/marketplace/payments); operate MRV; enforce lawful processing & Zero Trust; publish OCDS	Quarterly compliance; annual audits; public dashboards (OCDS)
Regulators (DP, procurement, customs/ports, AML/CFT)	Accreditation Orders; independence safeguards	Conduct fiduciary/operational/AML audits; supervise data rights & transfers; enforce OCDS, fee/tariff transparency	Audit certificates; datasets; lawful transfer register; AML/CFT summaries
Academia	Curriculum Charter; lab/practicum accreditation	Deliver DMAP curriculum; host practicums; produce applied research	Certification registry entries; practicum performance reports
Marketplace Operators (S'agapo, Growthify)	OO-Marketplace adoption; schema registry listing	Vendor-neutral APIs; escrow/disputes; fee schedules; WCAG compliance	Marketplace KPIs; accessibility statements; fee schedule dashboards
Transport/Logistics Firms	OO-Corridor adoption; SLA agreement	Telemetry reporting; KPI publication; reliability improvements	Operational audits; corridor dashboards
Licensed Payment Providers/Fintechs	OO-Payments adoption; AML/KYC/KYB policies; AO-Payments	AML/CFT compliance; human oversight; consumer protection; fee/tariff transparency; lawful residency	AML/CFT summaries; reserve/usage notes; consumer-protection logs
DFIs and International Partners	Financing MoU; results-linked disbursement agreement	Fund shared services; support audits & capacity transfer; REC harmonisation	Disbursement tied to milestones; public financing notes; REC observatory entries

11.4 Operating Circulars: Minimum Technical and Compliance Clauses

Every Circular shall include, at minimum: Zero Trust posture (continuous authN/authZ, least-privilege, segmentation, telemetry); Malabo-aligned lawful bases and transfer rules; national API governance (schemas, versioning, gateway policy, audited logs); OCDS publication across procurement lifecycle;

WCAG 2.1 conformance with quarterly accessibility audits; and for payments, AML/CFT obligations with human oversight.

11.5 Participation Workflow and On-Boarding

Table 11-B — Participation Workflow (Steps, Evidence, Exit Criteria)

Step	Description	Evidence Submitted	Exit Criteria
1. Application & Screening	Entity submits EoI; CSC screens mandate and capabilities	EoI dossier; compliance officer designation; preliminary risk/capability profile	CSC acceptance; MoU draft issued
2. Instrument Adoption	Execute MoU; adopt OCs; accept Conformance Profiles	Signed MoU; OO-Marketplace/OO-Corridor/OO-Payments; technical standards acceptance	Onboarding plan and compliance calendar published
3. Accreditation	Hosting/gateway/payment s accreditation; accessibility attestation; data protection compliance	AO-Gateway, AO-Hosting, AO-Payments; WCAG conformance; lawful transfer register	Accreditation granted; registry entries published
4. Pilot & Verification	Interoperability pilots; marketplace escrow/disputes; payments on/off-ramp tests	Pilot reports; audited logs; published fee schedules; AML/CFT sandbox summaries	Pilot exit report accepted; readiness resolution
5. Full Participation	Portfolio-wide operations; quarterly/annual reporting; audits	Quarterly compliance; annual audit certificates; REC observatory updates	Continuous good standing; eligibility for shared services

11.6 Performance-Linked Obligations and Disbursement

Table 11-C — Instruments and Triggers

Instrument	Trigger Milestone (verified)	Verification & Disclosure
Infrastructure tranche	Hosting/gateway accreditation; Zero Trust posture validated	Operational audit certificates; posture validation; public registry entry

Instrument	Trigger Milestone (verified)	Verification & Disclosure
Fiduciary tranche	OCDS publication ≥80% of eligible events; anomaly management evidenced	Machine-readable OCDS datasets; spend analytics; audit summaries
Inclusion tranche	WCAG 2.1 pass rates; grievance mechanism operating	Conformance statements; grievance statistics
Marketplace tranche	Vendor-neutral connectors live; fee schedule transparency; escrow/disputes operating	Marketplace KPIs; fee dashboards; PPP MoUs
Payments compliance tranche	AML/CFT audit pass; reserve disclosure; consumer-protection logs; on/off-ramp tests	AML/CFT summaries; reserve notes; public disclosures

11.7 Calls-to-Action (CTAs)

Table 11-D — CTAs for DFIs, Investors, and Technology Partners

CTA Partner Class	Opportunity	Obligations	Verification
DFIs/AfDB/World Bank	Co-finance Interoperability Hubs; Credential/Accreditation Registries; corridor digitisation; marketplace enablement	Results-linked tranches; audit financing; capacity transfer; REC alignment	Disbursement audits; REC dashboard entries; financing notes
Marketplace Operators & Transport Firms	PPP participation under vendor-neutral APIs; escrow/disputes; fee transparency	OCs adoption; SLA adherence; accessibility obligations	PPP MoUs; accessibility statements; SLA performance KPIs
Licensed Payment Providers/Fintechs	Operate compliant on/off-ramps; payments AML/CFT; fiat alternatives where crypto settlement is restricted	AML/KYC/KYB policies; consumer protection; lawful residency; human oversight	AML/CFT summaries; reserve/usage notes; consumer-protection logs
Universities/Schools of Administration	Deliver DMAP curriculum; certify marketplace/payment governance tracks	Curriculum charters; practicum operations; instructor certification	Certification registry entries; practicum performance reports

11.8 Compliance, Grievance Redress, and Sanctions

Partners are subject to DMAP's compliance obligations (Ch. 6). Non-compliance triggers Corrective Action Plans, suspension of accreditation (hosting/gateway/payments), funding reallocation (fiduciary/OCDS failures), public censure, and escalation to the DESA Central Unit for systemic risks. Publication of enforcement actions and remediation outcomes on MRV dashboards is mandatory.

11.9 Regional Harmonisation of Participation

DMAP participation instruments are portable under REC protocols:

- **COMESA:** record participation in IDEA's Regional Harmonisation & Planning platform and PCU, enabling shared services eligibility and dashboard consolidation.
- **SADC:** align with SADC-DTS observatory and programme recommendations for joint studies/pilots and legal/regulatory harmonisation.
- **EAC:** integrate via EA-RDIP and the EAC-EU digital roadmap, enabling corridor marketplace pilots and payment rails where lawful.

11.10 Closing Determination

The Participation and Partnership Framework is affirmed as a sovereign, ethical, and scalable instrument that conditions privileges and financing on independently verified performance and public disclosure. By binding partners to lawful data protection (Malabo), rigorous security (NIST SP 800-207), procurement transparency (OCDS), accessibility (WCAG 2.1), and AML/CFT controls for payment rails, DMAP guarantees institutional legitimacy, market confidence, and regional interoperability consistent with Agenda 2063 and REC strategies.

Chapter 12: Data & Capacity Usage Architecture for Digital Markets

12.1 Purpose and Legal Alignment

This Chapter determines the data and capacity usage architecture required to operate DMAP's market-activation stack—blockchain settlement, EUSL Coin utility rail, transaction processing, and e-commerce telemetry—on fiber-backed infrastructure at both frontend (last-mile/user interfaces) and backend (gateways, nodes, data centers) layers. The determination is harmonised with Agenda 2063 STYIP (2024–2033) for responsive institutions and integration, REC coordination platforms (notably COMESA IDEA), and technical standards for transparency (OCDS), security (NIST SP 800-207), accessibility (WCAG 2.1), and lawful data protection and cross-border transfer (Malabo Convention). The fiber requirement reflects well-established latency/throughput economics: fiber routinely delivers low latencies (~10–30 ms to nearby endpoints) and multi-Gbps capacity, supporting high-volume API exchange, ledger consensus, video-rich e-commerce, and machine-readable public disclosures, whereas satellite—while valuable for resilience and remote sites—exhibits higher variance and shared capacity that is sub-optimal for sovereign backend settlement and high-duty transactional systems.

12.2 Architecture Principles: End-to-End Fiber Dependence

DMAP mandates fiber-anchored capacity for:

1. **Backend sovereignty:** data centers, corridor gateways, schema registries, ledger nodes, AML/CFT monitoring, and observability stacks require deterministic low-latency links and high throughput to ensure lawful, auditable settlement and MRV publication.
2. **Frontend experience:** WCAG-conformant portals, marketplaces (S'agapo, Growthify) and grievance platforms depend on multimedia, real-time APIs, and reliable upload/download



performance, practically necessitating fiber (or fiber-fed fixed/mobile) for predictable service quality.

3. **Regional replication:** shared services (Interoperability Hubs; Credential/Accreditation Registries) and REC dashboards under COMESA IDEA/SADC-DTS/EAC EA-RDIP require fiber backbones for consistent multi-jurisdictional performance and lawful cross-border data flow control.

12.3 Capacity Envelope — Data Usage & Transactional Loads

Table 12-A — Indicative Monthly Capacity (per 1 million activated users and associated backend), by DMAP workload

(values are planning ranges; jurisdiction-specific baselines set in Phase 0 and verified annually under MRV)

Workload	Frontend data (user-side)	Backend data (core)	Latency requirement	Notes / Rationale
E-commerce (S'agapo, Growthify)	8–15 GB/user/month	2–4 PB/month (content, APIs, logs)	≤30 ms to major endpoints	Video, images, cart, escrow/dispute flows; OCDS feeds influence supplier selection; fiber sustains peak hours reliably. [eac.int]
Price observatory & open feeds	1–3 GB/user/month	0.5–1 PB/month	≤20 ms for API queries	High refresh frequency; machine-readable publication; supports informed farm-gate pricing decisions.
Corridor telemetry (customs/ports/transport)	0.5–1 GB/user/month	1–2 PB/month (telemetry, KPIs)	≤20 ms for gateway	Deterministic uptime for dwell-time reduction; fiber-backed ingress/egress critical for SLA compliance. [am.afdb.org]
Credit scoring (incl. human oversight)	0.2–0.5 GB/user/month	0.2–0.5 PB/month	≤25 ms for model serving	Explainability, bias audits; human-in-the-loop verification; sensitive PII lawful handling under Malabo. [worldbank.org]



Workload	Frontend data (user-side)	Backend data (core)	Latency requirement	Notes / Rationale
Payment rail (EUSL Coin utility)	0.2–0.5 GB/user/month	0.5–1 PB/month	≤20 ms for ledger/API	AML/CFT streams, reserves, settlements; fiber reduces re-try overhead and provides stable consensus timing.
MRV & dashboards (national/REC)	0.1–0.3 GB/user/month	0.1–0.3 PB/month	≤20 ms	OCDS, WCAG, Zero Trust posture summaries; aggregation to REC observatories. [sadc.int] , [standard.o...acting.org]

Interpretation. These envelopes presume mixed fixed/mobile access but are anchored in fiber at the backend; for frontend, fiber-fed last-mile (FTTx or carrier-grade fixed wireless/5G) is recommended to meet WCAG and user-experience targets. World Bank and ITU analyses emphasise that affordable, reliable broadband enables productive digital service usage—supporting adoption trajectories toward the indicated ranges.

Summary Table

Workload	Frontend Data	Backend Data	Latency Requirement	Notes
Total (All Workloads)	10–20 PB/month (≈120–240 PB/year)	Backend included in totals	≤30 ms	Aggregate capacity for planning and financing clarity

12.4 Settlement & Ledger Capacity (Blockchain / EUSL Coin)

Table 12-B — Ledger & Payments Capacity (per jurisdiction), Phase 2–3

Component	Minimum	Recommended	Latency target	Rationale
Validator / settlement nodes	5–7 nodes	9–15 nodes (geo-redundant)	≤20 ms inter-node	Enhances consensus resilience; fiber reduces jitter and improves finality times.



Component	Minimum	Recommended	Latency target	Rationale
On/off-ramp gateways (licensed PSPs)	2–3	4–6 (incl. fiat/e-money)	≤25 ms to core	Supports AML/CFT throughput and user volume; redundancy for compliance events.
AML/CFT analytics & SIEM	4–6 cores / 64 GB RAM	8–12 cores / 128–256 GB RAM	N/A (batch + streaming)	Sustains real-time flagging; integrates with grievance/consumer protection logs.
Storage (hot/warm/cold)	250–500 TB	0.5–1.5 PB	N/A	Audit trails, explainability artefacts, transaction histories; fiber SAN/NAS preferred.

Legal posture. Nodes and gateways must operate under sovereign hosting/residency with Malabo-aligned lawful transfer controls; quarterly AML/CFT summaries and reserve/usage notes are mandatory disclosures under MRV.

12.5 Network & Compute Baselines (Backend Fiber)

Table 12-C — Backend Fiber & Compute Baselines (per national deployment)

Domain	Baseline	Audit / Assurance
Data center backbone	2×10 Gbps (minimum), scalable to 2×40–100 Gbps	Posture validation (NIST SP 800-207); sovereign accreditation
Corridor gateway uplinks	2×10 Gbps redundant	Uptime/error budget audits; REC pilot logs
Schema registry/API fabric	10–20 Gbps east-west; low-latency switching	Logged versioning; audited API transactions
Storage & backup	Fiber SAN/NAS; hot (NVMe), warm (SAS), cold (object)	Retention policy under Malabo; recovery drills
Observability stack	Clustered SIEM/APM; streaming analytics	Monthly MRV; incident response reports

12.6 Frontend Access: Minimums for WCAG & Transaction UX

Table 12-D — Frontend Access Minimums (institutional sites, marketplaces, portals)

Site Type	Access Minimum	UX & Compliance Target
Ministries / agencies	FTTx ≥100 Mbps symmetrical	WCAG A/AA pass; secure SSO; sub-second page transitions

Site Type	Access Minimum	UX & Compliance Target
Schools / labs	FTTx $\geq 50\text{--}100$ Mbps symmetrical	Video-rich LMS; grievance accessibility; low re-try rates
Marketplaces (S'agapo/Growthify)	FTTx or 5G FWA $\geq 100\text{--}200$ Mbps	Multi-stream video/images; checkout $\leq 2\text{--}3$ s
Payment kiosks / PSP points	Fiber-fed $\geq 50\text{--}100$ Mbps	KYC/KYB flow stability; reduced failed transactions

12.7 MRV Linkages for Data & Capacity Usage

DMAP requires monthly telemetry (API, ledger, corridor), quarterly compliance (WCAG, AML/CFT, lawful transfers), and annual public performance reports cross-walked to Agenda 2063 indicators and REC observatories (COMESA IDEA/SADC-DTS/EAC EA-RDIP). Capacity KPIs include: peak throughput, latency bands (p50/p99), error budgets, re-try rates, ledger finality times, and storage utilisation.

12.8 Concluding Determination

DMAP's data and capacity usage architecture is hereby affirmed as fiber-dependent at both frontend and backend layers to guarantee lawful, secure, accessible, and auditable market activation. Blockchain/EUSL Coin settlement, transactional e-commerce, corridor telemetry, price feeds, and public MRV disclosures require deterministic low latency and high throughput best delivered by fiber backbones and fiber-fed access networks, complemented by satellite or microwave only for resilience and hard-to-reach edges. This determination aligns with Agenda 2063, COMESA IDEA, and technical standards (OCDS, NIST SP 800-207, WCAG 2.1, Malabo) and is binding for national deployments and REC replication.

Chapter 13: Closing Statement

13.1 Sovereign, Ethical, and Scalable Market Activation

The DESA Market Activation Program is confirmed as a sovereign, ethical, and scalable instrument that legally binds digital markets—price transparency, corridor digitization, vendor-neutral marketplaces (S'agapo, Growthify), inclusive credit scoring, and a regulated utility/payment rail (EUSL Coin)—to security by design, lawful data protection, accessibility, and public transparency. By codifying fiber-anchored data and capacity requirements (Chapter 12), DMAP ensures that digital markets operate with deterministic performance, auditability, and regional portability across COMESA, SADC, and EAC.

13.2 Alignment and Verification

DMAP's governance and MRV architecture is aligned with Agenda 2063 STYIP moonshots on responsive institutions and integration; AfDB High 5 priorities on integration and quality of life; and REC strategies—especially COMESA IDEA—that coordinate interoperable platforms and trusted transactions. Verification relies on machine-readable publication (OCDS), Zero Trust posture validation (NIST SP 800-207), WCAG audits, Malabo-aligned lawful transfer registers, ethics/bias audits for credit scoring, and AML/CFT summaries for payments, consolidated in national and REC dashboards.



13.3 Final Determination

By adopting this document and implementing the fiber-backed data/capacity envelope, the State and its partners affirm DMAP as a cornerstone of DESA's long-term vision (Agenda 2074 consistency noted): lawful market formation, SME competitiveness, and cross-border trade efficiency realized through secure, accessible, and transparent digital infrastructure. The programme is ready for results-linked financing, REC replication, and portfolio-wide institutionalization under national law.