

CAREC e-CERT Hub

Pilot Project on Electronic Exchange and
Mutual Recognition of Product Conformity
Certificates / Test Reports among CAREC Countries

Pre-Online Meeting

Apr 2026



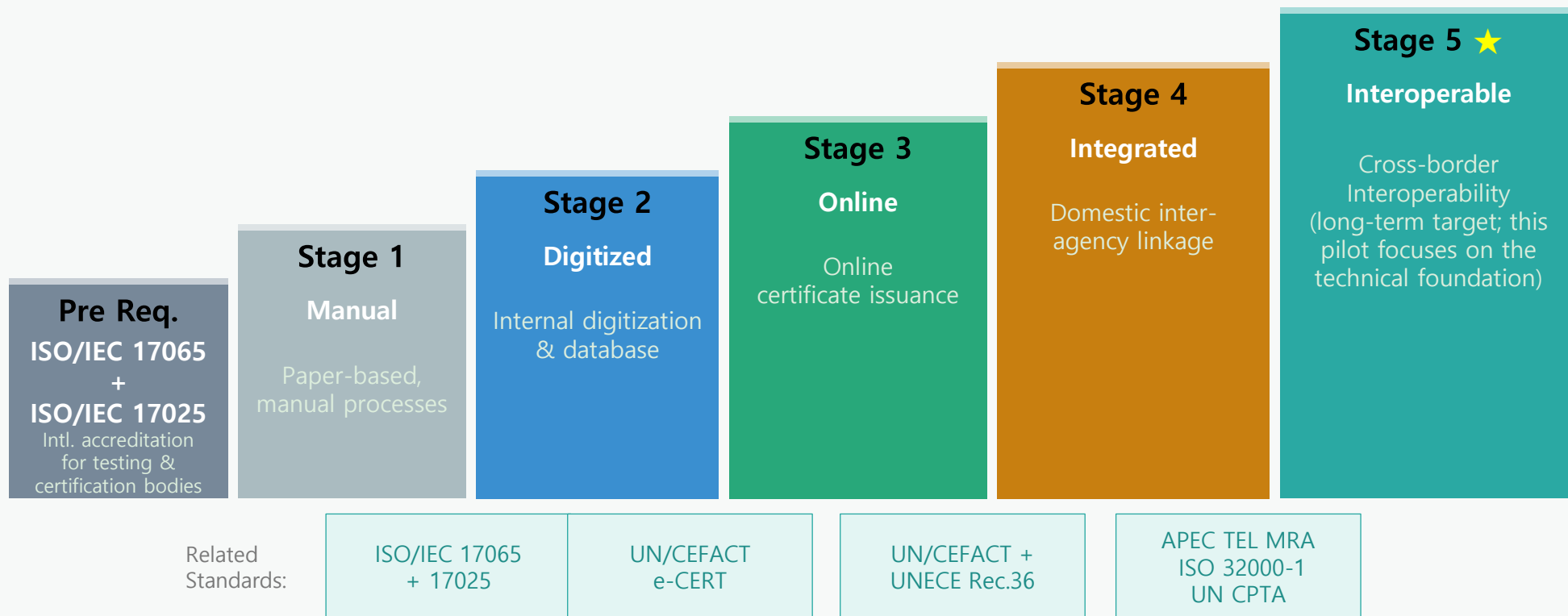
Project Overview

Project Title	Pilot Project on Electronic Exchange and Mutual Recognition of Product Conformity Certificates / Test Reports among CAREC Countries
Donor	Asian Development Bank (ADB) · CAREC Regional Cooperation Program
Implementing Agency	Korea Trade Network (KTNET)
Participating Countries	Azerbaijan, Kyrgyzstan, Pakistan, Tajikistan, Uzbekistan (5 participating standards authorities)
Project Duration	24 months from contract signing
Key Objectives	<p>(CAREC Countries) Establish a pilot model for the electronic exchange and interoperability of e-CoC and e-TR, creating a foundation for regional digital trade infrastructure cooperation</p> <p>(ADB Perspective) Support CITA 2030 digital trade goals by reducing non-tariff barriers (NTBs) and strengthening regional digital connectivity</p>

※ Reference Models: APEC TEL MRA Phase I/II · UN/CEFACT e-CERT · ISO 32000-1 (PDF digital signatures) · UNECE Rec.36

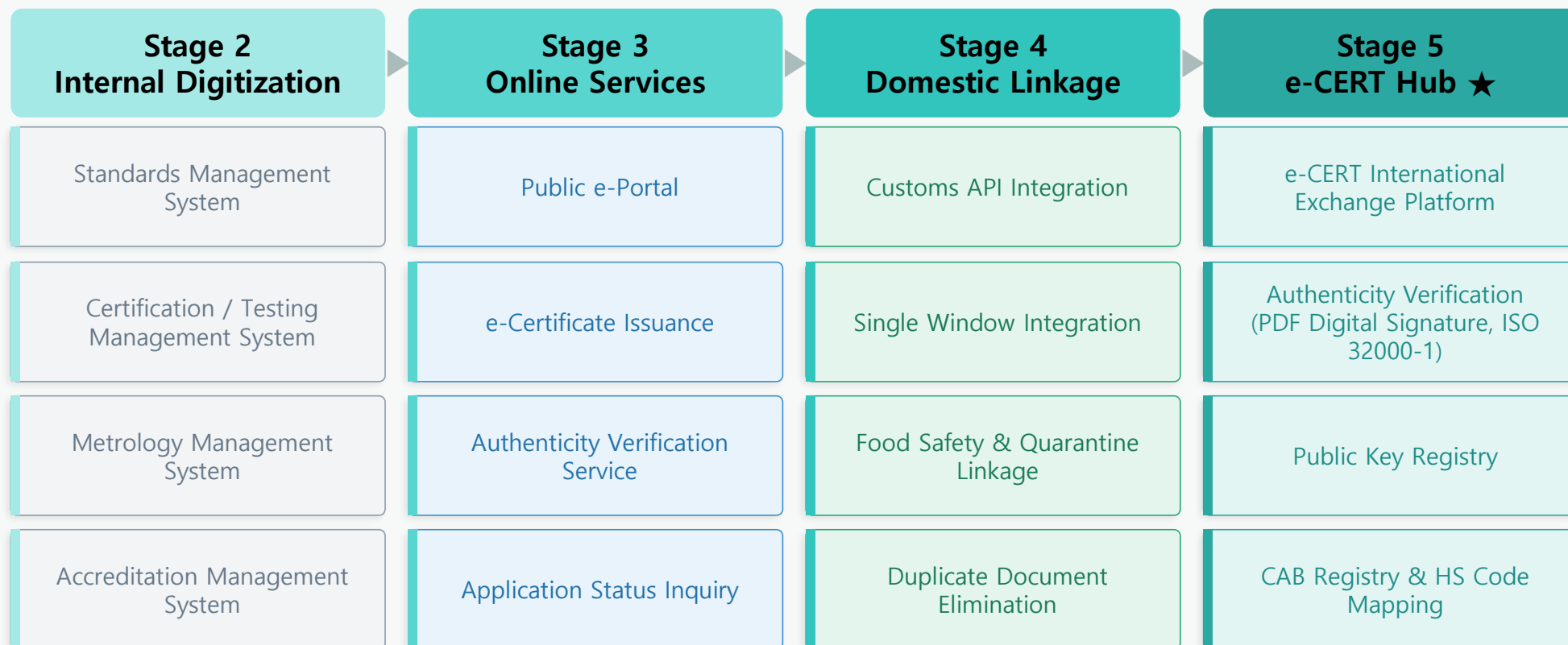
Standards Administration Digitalization — 5-Stage Model

- Combining ISO DMAS (organizational digital maturity) and CA DMM (conformity assessment process maturity)
- **Stage 5 adds cross-border interoperability**



* ISO DMAS: Developed by ISO/KATS; measures the overall digital maturity of a standards body (NSB).
 CA DMM: Measures the digitalization of conformity assessment processes (validated across 1,447 institutions in 15 countries).

System Architecture by Stage



Note: Scope of Development under This Project

- Stage 5: New development of the e-CERT international exchange platform
- Stage 4 inter-agency linkage (customs/single window) is outside the current project scope and is shown for reference only

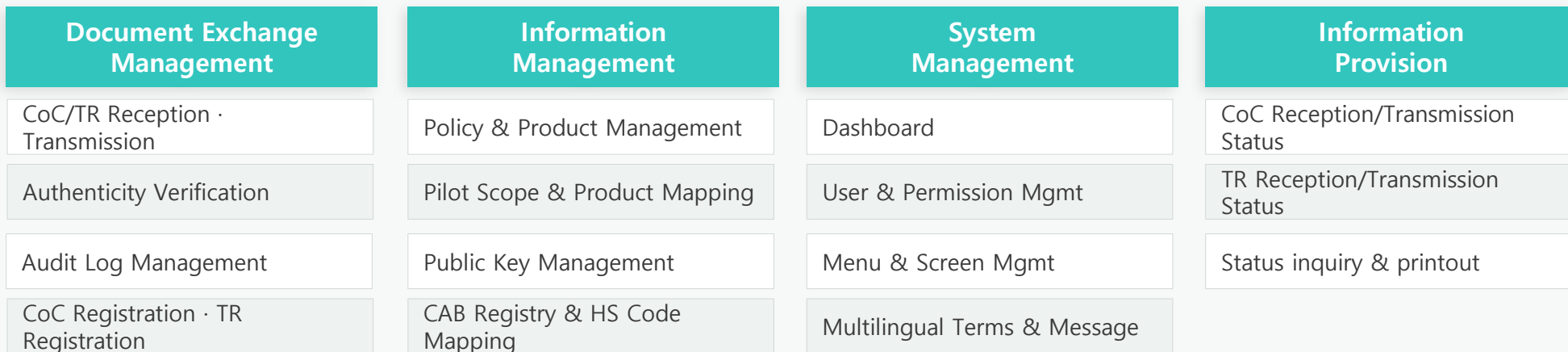
CAREC e-CERT Hub - What We Will Build

Hub = Trust Framework for the cross-border exchange of digitally signed documents and metadata

- The Hub handles the exchange, verification, and status management of digitally signed PDF documents and related metadata.

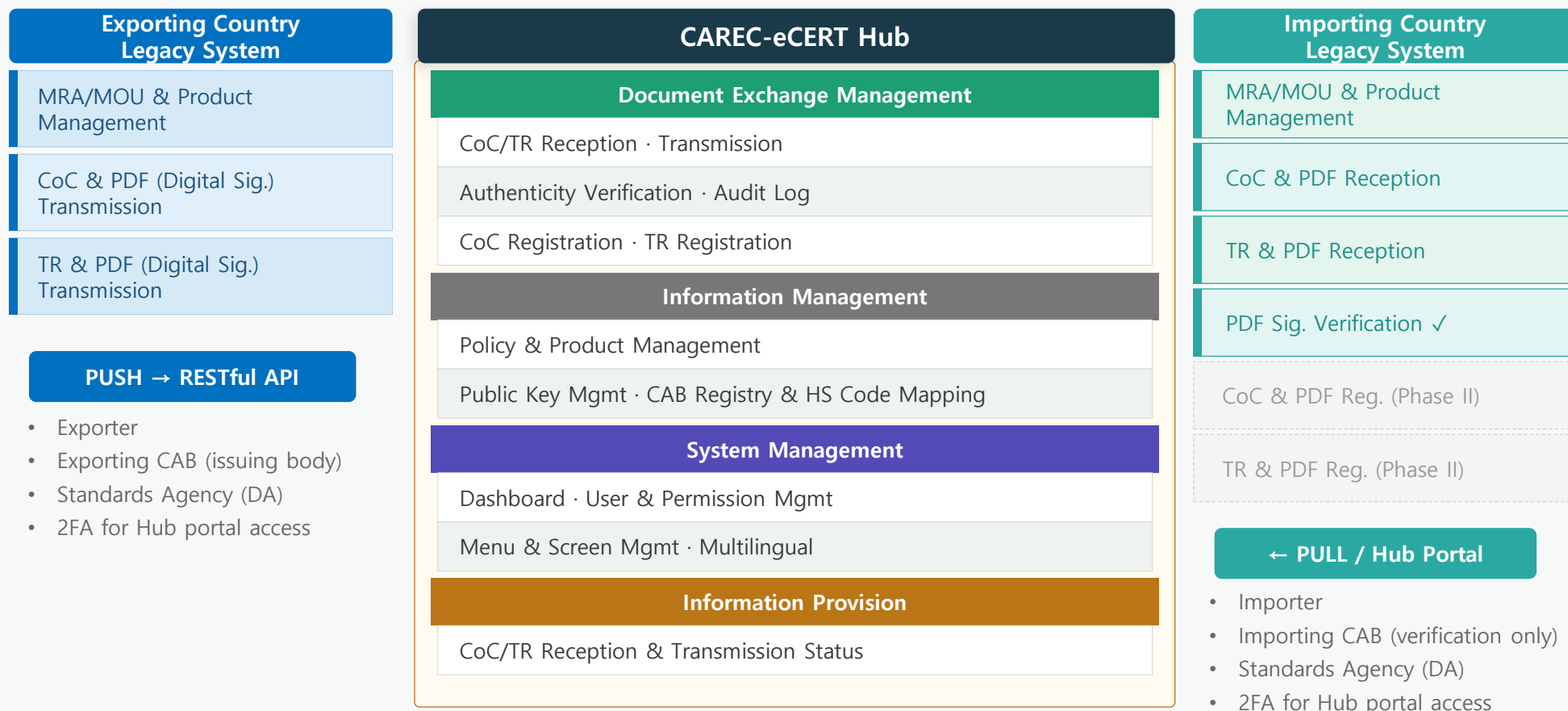


Hub — 4 Function Modules



※ Connectivity: RESTful API (for technically ready participants)
 PDF digital signature verification will follow an agreed technical profile; detailed implementation will be discussed during pilot design.

e-CERT Hub System Architecture(Draft)

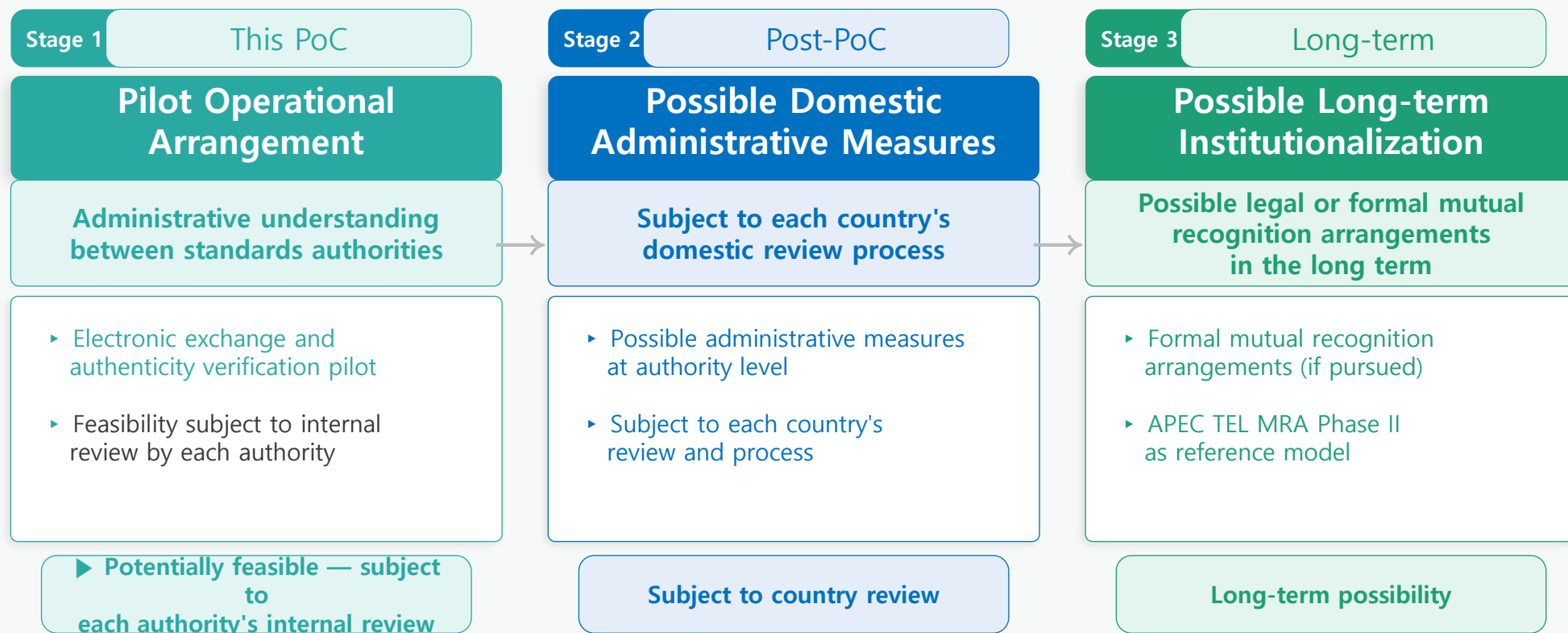


※ Phase I (PoC): Importer query → Hub authenticity check (PULL) → VALID / INVALID | Exporting CAB submits signed PDF and metadata (PUSH).

Future phase: Optional endorsement / registration by the importing CAB | 2FA is for Hub portal access only and is not part of document signature verification

Conceptual Roadmap for Pilot Exchange and Future Institutionalization

Three-stage conceptual roadmap by level of institutionalization - this PoC focuses on Stage 1 (pilot arrangement)



※ Reference: APEC TEL MRA — Korea–Canada: Phase I (1997) to Phase II entry into force (2019): 22 years.
 This PoC focuses on a pilot operational arrangement.
 Future institutionalization will be pursued by each country based on pilot results.

Product / HS Code Selection Criteria

Illustrative candidate products for discussion — Final selection will be confirmed after receiving country responses (M5)

Selection Criteria — Annex 1 Weighted Matrix (6 criteria)

30%	Ease of Mutual Recognition	Simple acceptance criteria, few exceptions, compatible with international standards
20%	Standardization Potential	Test items and methods can be harmonized under international standards
15%	Data Availability	Sample documents obtainable, required fields definable
15%	Implementation Difficulty	IT capacity of each authority, system integration complexity
15%	Pilot Demonstrability	Feasible to generate 60+ exchange cases within 24 months
5%	Risk Level	Low legal, institutional, and data access risks

Preliminary Candidate Products (Illustrative)

1st Priority: Dried Fruits

- HS Code: 0813.xx | Required document: Test Report (e-TR, ISO/IEC 17025)
- Basis: high regional trade relevance and pilot demonstrability
- PK→AZ exports approx. USD 5M concentrated in this category

★ Common priority for all 5 countries

2nd Priority: Home Appliances & Electric Heaters

- HS Code: 8516.xx | Required document: Certificate of Conformity (e-CoC, ISO/IEC 17065)
- Basis: strong trade relevance and implementation feasibility
- PK→UZ exports USD 91.47M — appliances are the main category

✘ Country-specific candidates are indicative. Final list subject to country confirmation and Annex 1 evaluation.

Annex 1. Product Selection Evaluation Matrix

All entries are illustrative. Scores and final selection will be confirmed through country consultation (M5). Arrangement type (multilateral or bilateral) is subject to discussion.

Priority	HS Code	Product	Ease of MR (30)	Standard-ization (20)	Data Avail. (15)	Impl. Diff. (15)	Pilot-ability (15)	Risk (5)	Score
1st ★ TR req.	HS 0813	Dried Fruits	High (Codex)	High (Intl. std)	High (Samples avail.)	Low (Simple)	High (60 cases)	Low	TBD
2nd ★ CoC req.	HS 8516	Home Appliances	Medium (Mand. cert.)	Medium (IEC std)	Medium (CAB limit)	Medium (API needed)	Medium (60 cases)	Medium	TBD

Arrangement Type - Subject to discussion

Type	Definition	Example Products	Pilot Suitability
Multilateral (5 countries)	All 5 countries mutually accept — based on common standards	Dried fruits (agri.)	★★★ Suitable (broad applicability)
Bilateral (country pair)	Two countries with concentrated trade — arranged first	Home appliances (PK↔UZ)	★★ Suitable (faster to arrange)

Proof of Concept (PoC) Approach

Core idea: a pilot-focused arrangement for electronic exchange and authenticity verification, to be designed within the legally feasible scope confirmed by participating authorities.

Phase 1 Hub Development (M1–M12)

- ▶ Situation diagnostics & gap analysis

- ▶ Hub development (document + metadata exchange, authenticity verification)

- ▶ Public key registry & CAB common code infrastructure

- ▶ Hub management portal (default connectivity for participants)

- ▶ SOP draft finalized and submitted to ADB

Phase 2 Pilot Operation (M13–M24)

★ **Key**

- ▶ SOP refinement & pilot arrangement discussion

- ▶ CAB registration & connectivity testing (arrangement-based)

- ▶ Pilot operation (target: 60+ exchanges)

- ▶ Performance management (KPI monitoring)

- ▶ Final pilot report submitted to ADB

※ Importer workflow (Phase I): Importer query → national service portal → Hub authenticity check (PULL) → VALID / INVALID
 Exporting CAB workflow (Phase I): Issue CoC/TR with a digital signature → submit signed PDF and metadata to the Hub (PUSH)
 → make it available for importer verification

Expected Benefits

Trade Facilitation

Reduce Clearance Cost & Time

- Paperwork simplification and digitalization
- Re-testing & re-certification waiver (future phase)
- Real-time authenticity check at customs (future phase)

Trust Building

Structured Trust Among Participating Authorities

- CAB capability verification framework
- Document integrity guaranteed by digital signature
- Dispute handling with audit log records

Digital Transform

Accelerate Digitalization

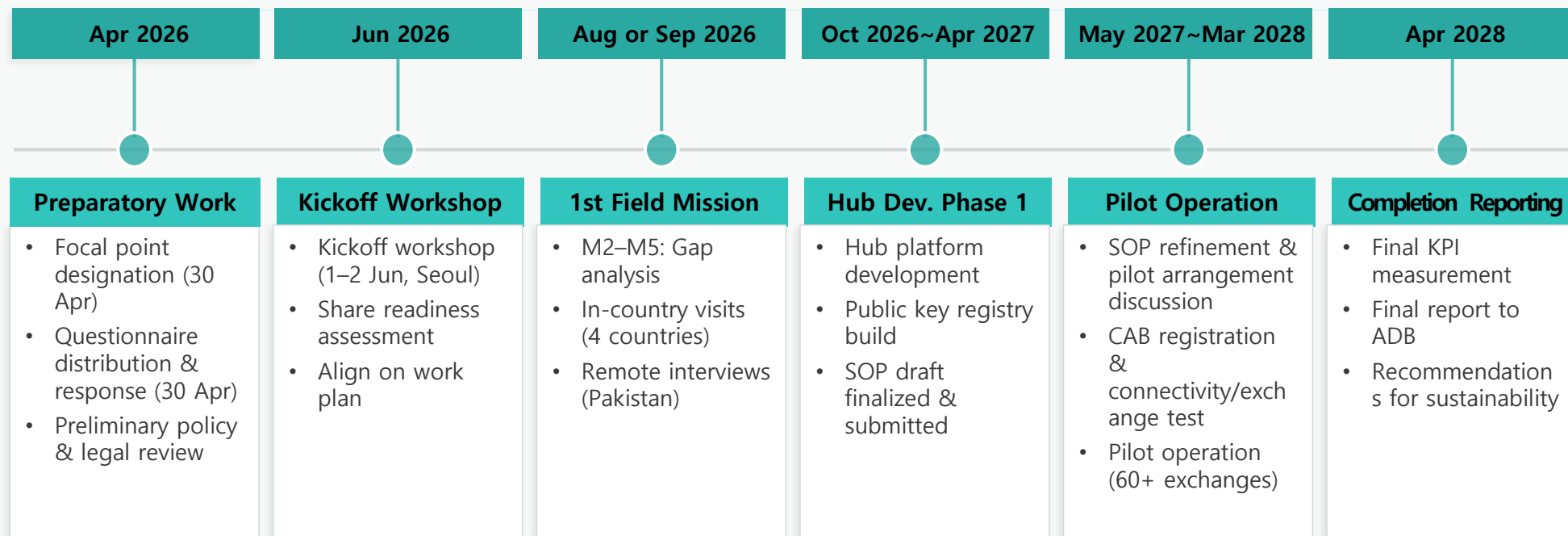
- Gap analysis → roadmap development support
- API specs + technical support
- Technical foundation for reaching Stage 5

Scalability

Foundation for CAREC Expansion

- Standards-based replicable reference package
- Expandable structure for more countries/products
- Contribution to ADB CITA 2030 implementation

Project Schedule(Draft)



※ Invitational Training (H2 2027): Practitioners from participating countries visit Korea - benchmarking Korea's digitalization best practices and Hub hands-on training
 2nd Field Mission (M15–M18): Interoperability testing and user training

Next Steps

1

~ 30 Apr 2026

Complete & Submit Pre-Kickoff Questionnaire

Please complete the distributed questionnaire and submit it to KTNET by email. Your responses will be used for the gap analysis and kickoff meeting agenda.

2

~ 30 Apr 2026

Nominate Focal Point(s) and Submit

Please nominate your primary contact (administrative) and technical contact using the provided designation form. This nomination will be used for follow-up communication and pilot coordination.

Nominate Focal Point(s) and Submit

3

By 31 May
2026

Share Initial Legal / Technical Information (if available)

Share initial legal/technical information if available — relevant legislation, system readiness, or any anticipated constraints. This will be used to prepare for the kickoff discussion.

4

1-2 June 2026

Kick-Off (in Seoul, Korea)

Kickoff workshop (1-2 Jun, Seoul):

- Review 5-stage model & country readiness
- discuss pilot product criteria
- address key technical/legal issues
- align on next-stage action plan

For inquiries: KTNET ADB CAREC Pilot Team | paperse@ktnet.co.kr

Thank you for your kind attention.

Q&A

For inquiries or follow-up:

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Korea Trade Network (KTNET)