

CAREC TECHNOLOGY FORUM — BISHKEK 2026

Orchestrating Circular Logistics

Building compliant circular trade corridors in emerging markets.

70+

CUSTOMERS

Paying SME customers

1.5M+

TRANSACTIONS

Processed to date

3,500+

NETWORK

Qualified operators

€1M+

AGGREGATED REVENUE

Platform GMV

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THE PROBLEM

Fragmented Logistics Kill Circularity

Managing reverse logistics with Excel and phone calls creates a black box that prevents industrial-scale recycling.

“We cannot recover materials because we don’t know where they are, who has them, or if they are compliant.”



Central Asia Reality: <5% of e-waste formally recycled, no cross-border recovery infrastructure, Middle Corridor underutilized for reverse logistics — massive value and strategic resource loss.



Operational Inefficiency

75% Transport Cost

Manual coordination across hundreds of collectors makes aggregation prohibitively expensive.



Value Loss

70% Material Value

High-value components lost or mishandled due to lack of standardized sorting and tracking.



Compliance Risk

10% Higher Sourcing Cost

No audit trail blocks access to formal markets and global off-takers.

THE OPPORTUNITY

The Middle Corridor

Central Asia's Trans-Caspian trade route is scaling rapidly — but reverse logistics for circular materials remain entirely absent.



K-HUB PRIORITY

Digitalization of Supply Chains

Limited smart logistics and outdated transport systems hinder regional connectivity and trade efficiency.



K-HUB PRIORITY

Waste Management & Circular Economy

Low recycling rates and poor landfill management pose environmental and health risks across Central Asia.

5x Growth

Freight Volume Surge

Trans-Caspian corridor freight volumes increased 5x in 7 years, reaching 77,000 TEU in 2025.

\$10B+

ADB Commitment

Asian Development Bank has committed over \$10 billion to CAREC transport and trade facilitation.

11 Countries

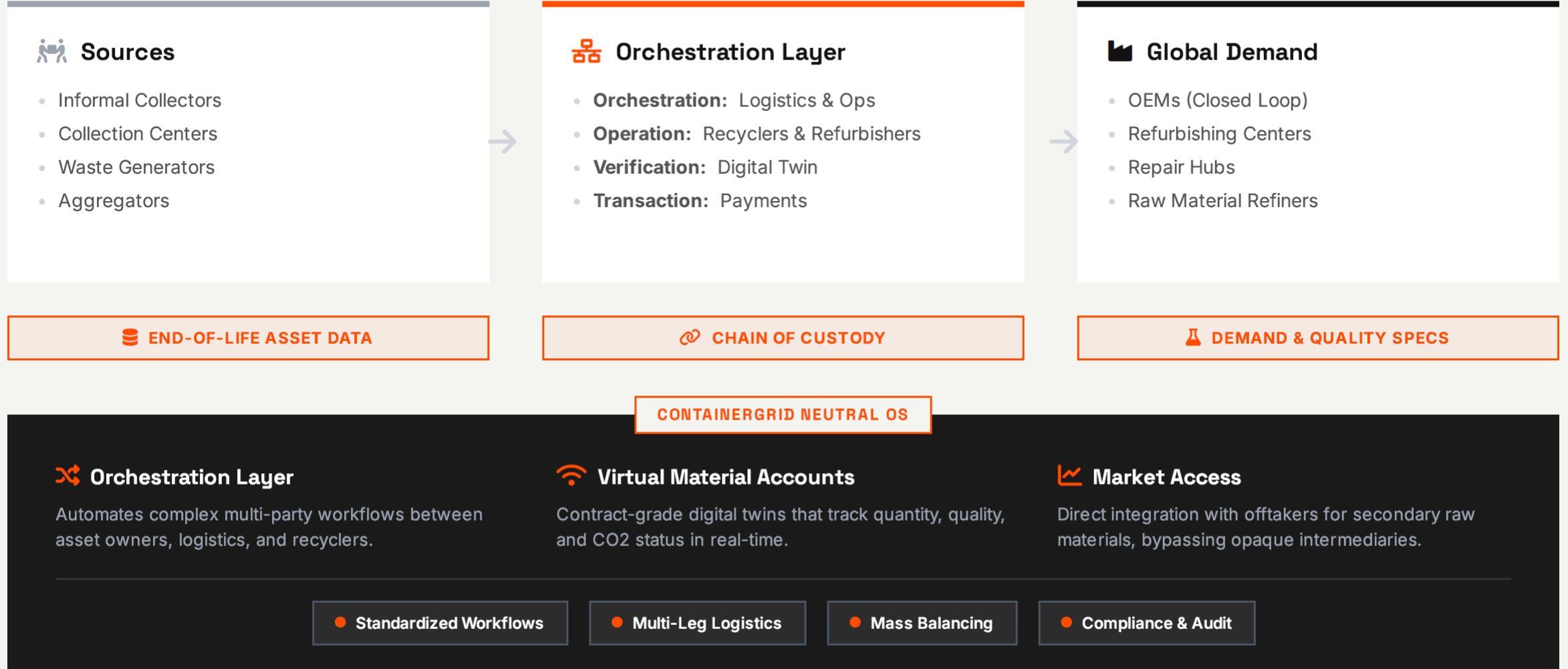
CAREC Network

Azerbaijan, China, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, Uzbekistan + Afghanistan.

THE SOLUTION

End-to-End Workflow Orchestration

Connecting fragmented sources to industrial demand through a unified operating system.



Governed AI Orchestration

ContainerGrid turns fragmented asset, partner, and compliance data into executable decisions across sites, subcontractors, and oftakers.

Platform AI Layer

- ✓ Stateful Multi-Party Orchestration
- ✓ Dynamic Route & Quality Matching
- ✓ Evidence at Every Handoff
- ✓ Audit-Ready Close-Out by Default

How It Works

- 1 Encode the Rules**
Define quality, routing, and compliance rules.
- 2 Activate the Recovery Event**
Register assets at source and trigger workflows.
- 3 Match the Best Qualified Route**
Find the best logistics and processing path.
- 4 Certify & Aggregate via VMA**
Bundle into contract-grade lots with full traceability.
- 5 Reconcile & Settle**
Close out with audit-ready records and settlement.

ACTIVE USE CASES

- Power Transformers
- EV Batteries
- Industrial Electronics
- Cable Systems
- HVAC
- Motors
- Rail
- Automotive

— MARKET OPPORTUNITY

Middle Corridor Reverse Logistics

Turning Central Asia's fastest-growing trade route into a circular economy backbone — moving end-of-life assets from CAREC countries to EU recyclers and refiners.



Basel Convention Compliance

Automated prior informed consent (PIC) and tracking for transboundary movement of e-waste and hazardous materials.



Hazardous Waste Tracking

End-to-end visibility for Li-Ion batteries, chemical waste, and critical raw materials across 5+ border crossings.

CAREC TRADE FACILITATION

Digitized customs, single-window systems, and harmonized transit procedures.

EU WASTE SHIPMENT REGULATION

Automated Annex VII documentation for compliant EU entry.



Value for Every Stakeholder


A unified orchestration layer aligns incentives across the Central Asia corridor, turning compliance burdens into operational advantages for all participants.



Government & Asset Owners

CAREC Countries, Utilities

- ✓ **EPR Compliance**
Automated evidence for emerging e-waste regulations and extended producer responsibility frameworks.
- ✓ **Forex Revenue**
Recovered materials exported at EU market prices generate hard currency inflows for local economies.
- ✓ **Job Creation & TVET**
Formalized dismantling and collection creates skilled employment aligned with national workforce programmes.



Local Operators & Dismantlers

Collection, Processing

- ✓ **Volume Access**
Direct access to enterprise asset streams from OEMs and utilities without sales overhead.
- ✓ **Digital Operations**
Free standardized tools for dispatch, weighing, quality grading, and documentation.
- ✓ **Faster Payment**
Automated proof-of-service triggers quicker settlement — critical for SME cash flow in emerging markets.



Local & EU Refiners

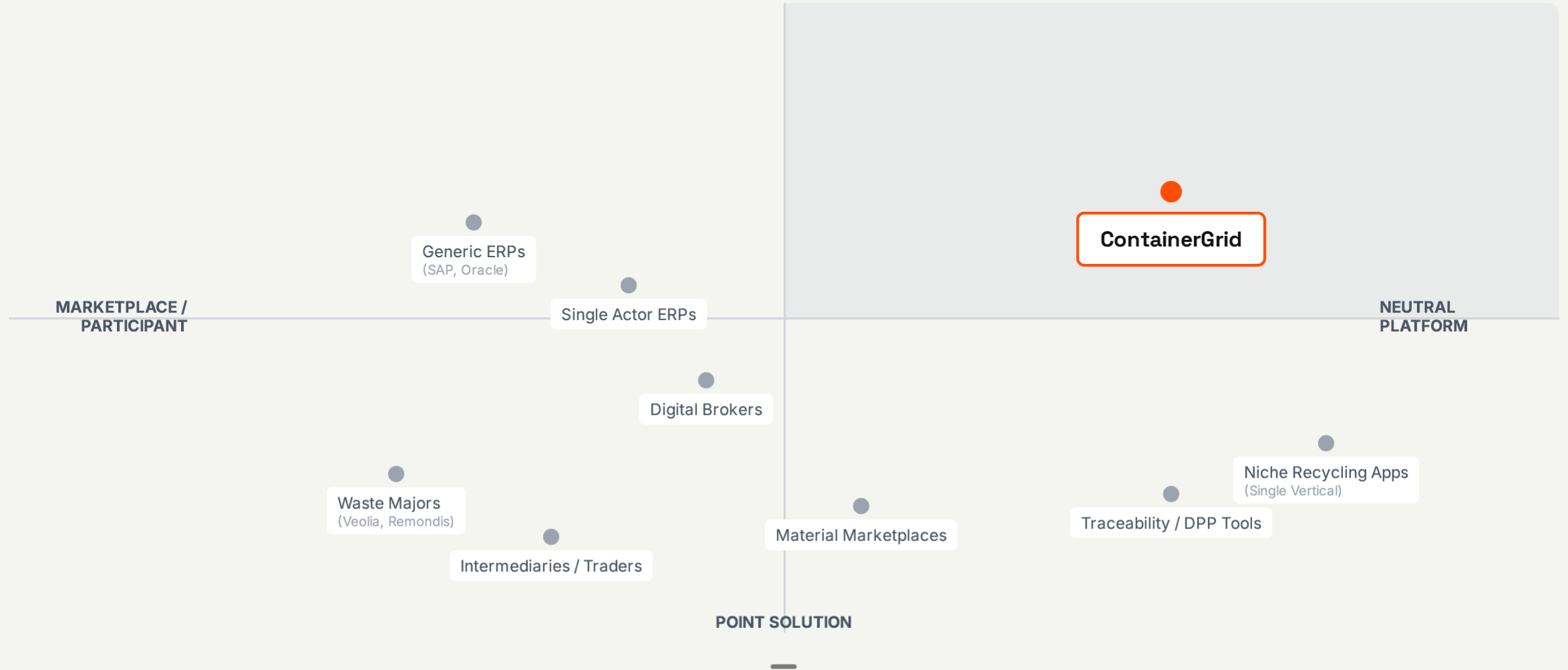
Smelters, Recyclers, Producers

- ✓ **Security of Supply**
Predictable volumes of secondary feedstock from verified local and regional sources.
- ✓ **Quality Assurance**
Digital grading and VMA-backed quality banding reduce rejection rates and spot market dependency.
- ✓ **CBAM Tariff Reduction**
Local refiners reduce CBAM exposure; EU refiners get primary carbon data for compliant imports.

COMPETITIVE LANDSCAPE

The Only Neutral Orchestrator

ECOSYSTEM ORCHESTRATION



Validated by Critical Infrastructure Leaders

1.5M+

TRANSACTIONS PROCESSED

3,500+

NETWORK FACILITIES

70+

ENTERPRISE CUSTOMERS

€1M

ACCUMULATED REVENUE

Hitachi Energy

ENERGY OEM

Take-back and recycling of high-voltage transformers across Europe. Core platform validated.

✓ Circular Supply Chain

FIRST PHASE COMPLETED

European TSOs/DSOs

GRID OPERATORS

Decommissioning workflows for national transmission grids with major infrastructure players.

✓ Critical Infrastructure

SCOPING PHASE

Automotive Tier 1s

SYSTEM SUPPLIERS

Closed-loop logistics with Tier 1 suppliers and OEMs for industrial vehicle sustainment.

✓ Industrial Logistics

SCOPING PHASE

Global Sourcing

SUB-SAHARAN AFRICA

Sourcing end-of-life electronics in complex, cross-border environments.

✓ Global Operations

ACTIVE ENGAGEMENT

Steel/Aluminium Conglomerate

METALS

Digitalizing secondary materials from automotive ELV. Closing the aluminium loop beyond production scrap to end-of-life vehicles.

✓ Automotive Circularity

CONFIRMED

Automotive Dismantling Hub

SAXONY

Neutral orchestration layer for a regional automotive circular economy ecosystem.

✓ Automotive Circularity




CONFIRMED

Phased Rollout: From Local Empowerment to Global Trade

PHASE 1: PILOT (MVP)

Local Circular Loop

Empowering local commercialization through data aggregation & workflow digitization.

-  **Collector Onboarding**
Mobile-first registration & KYC for informal collectors.
-  **Refurbishment Workflow**
Digital tracking of testing, repair, and grading processes.
-  **Compliance Aggregation**
Chain-of-custody data for local resale confidence.

KEY OUTCOME




Trusted refurbished components for local markets.



PHASE 2: SCALE-UP

Global Trade Corridor

Opening the export pipeline with integrated finance & logistics infrastructure.

-  **Financial Integration**
Digital payments via Uzum & pre-export financing tools.
-  **5PL Logistics Marketplace**
Middle Corridor rail & multimodal waste shipment logistics.
-  **Automated Compliance**
Generation of EU Import & WSR documentation.

KEY OUTCOME

High-volume export corridor to EU off-takers.

Let's Build the Future of Circular Supply Chains in Central Asia

Join us in creating compliant circular trade corridors that deliver measurable development impact.

€310k

ENTERPRISE ACV

Potential at scale

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