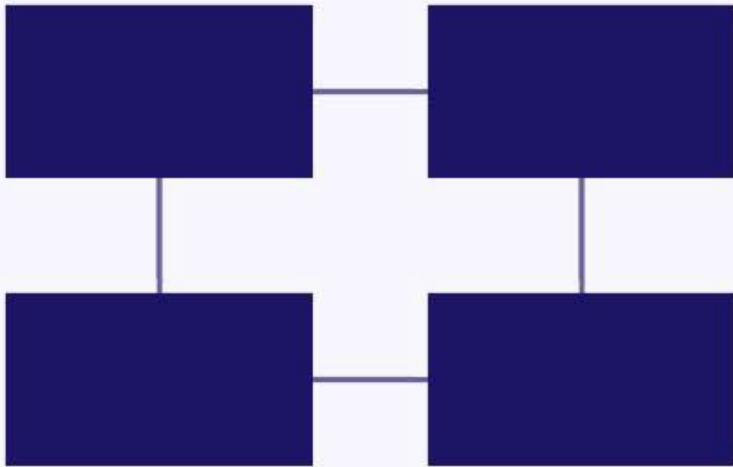


Ecosystems, not Systems.

Data, AI, and the Southern California port-linked supply chain.

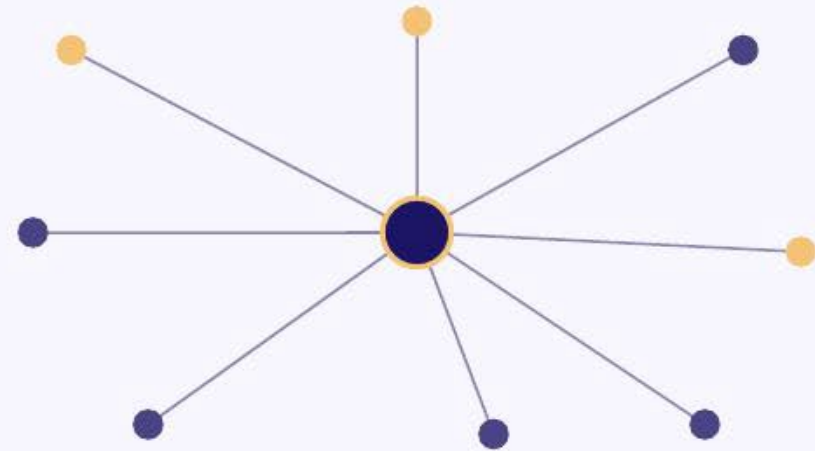
I want to talk about ecosystems, not systems.

S Y S T E M



Engineered. Closed-loop. Optimizable.

E C O S Y S T E M



Emergent. Heterogeneous. Adaptive.

The Southern California port-linked ecosystem.



Most data-rich port complex on earth. Still a federation of silos.

Twenty years of trying to solve one data-sharing problem.



"The supply chain is made up of self-interested stakeholders."

— Giuliano, Hayden, Dell'aquila & O'Brien · METRANS · 2008

Three structural barriers — not technology problems.

01

Asymmetric value capture

Whoever shares first gives away margin. Truckers got appointments — terminals got compliance.

02

Liability & antitrust ambiguity

Operational data sharing can read as collusion. Locational data can read as surveillance.

03

Absence of a neutral steward

TradeLens may have been impacted by absence of a neutral *steward*. SoCal may have an opportunity to address.

Where AI could help.

Prediction over public or aggregated data.

Forecasting on public corridors

Deep-learning traffic prediction at the I-710 / Alameda Corridor scale — Shahabi et al., METRANS PSR-18-10 (2020).

Berth & gate flow prediction

Vessel arrival, gate cycle and chassis-pool models that compress variability without exposing private operational data.

Demand sensing across BCOs

Inland-Empire warehouse availability and dwell-time signals — useful only when shared back to drayage and rail.

Where AI could get dangerous.

Pattern: AI scaling silos rather than dissolving them.



Lock-in via private training data

Models trained on one operator's private data become a moat, not shared infrastructure.



Compliance theatre

AI dashboards documenting silo behavior without changing it — the AB 2650 lesson, modernized.

AI doesn't replace cooperation.

AI changes the **cost** of cooperation.

That is the actual lever.

Four conditions for an ecosystem to share data.

01

Neutral data steward

A trust layer hosted by no single operator.

02

Pre-competitive vs. competitive layer

Share what reduces friction; protect what reveals strategy.

03

Incentive design over mandate

Carrots — preferential slots, fee waivers — over sticks.

04

Public visibility ≠ private velocity

Agencies do trend-and-dashboard. Operators move minute-by-minute. Don't conflate.

A concept worth dabbling with: a SoCal Freight Data Trust.



Limited scope for Agile / iterative approach: One carrier · one commodity code · systems integrated end-to-end to show the combined perspective.

The question isn't whether AI joined the ecosystem.

It joined two years ago.

**The question is whether the ecosystem becomes one —
or whether AI just makes our silos faster.**

Thank you.