



Unmasking the ‘Who’: A New Era of Risk Management for Customs

A proactive approach to securing borders
and combating illicit trade

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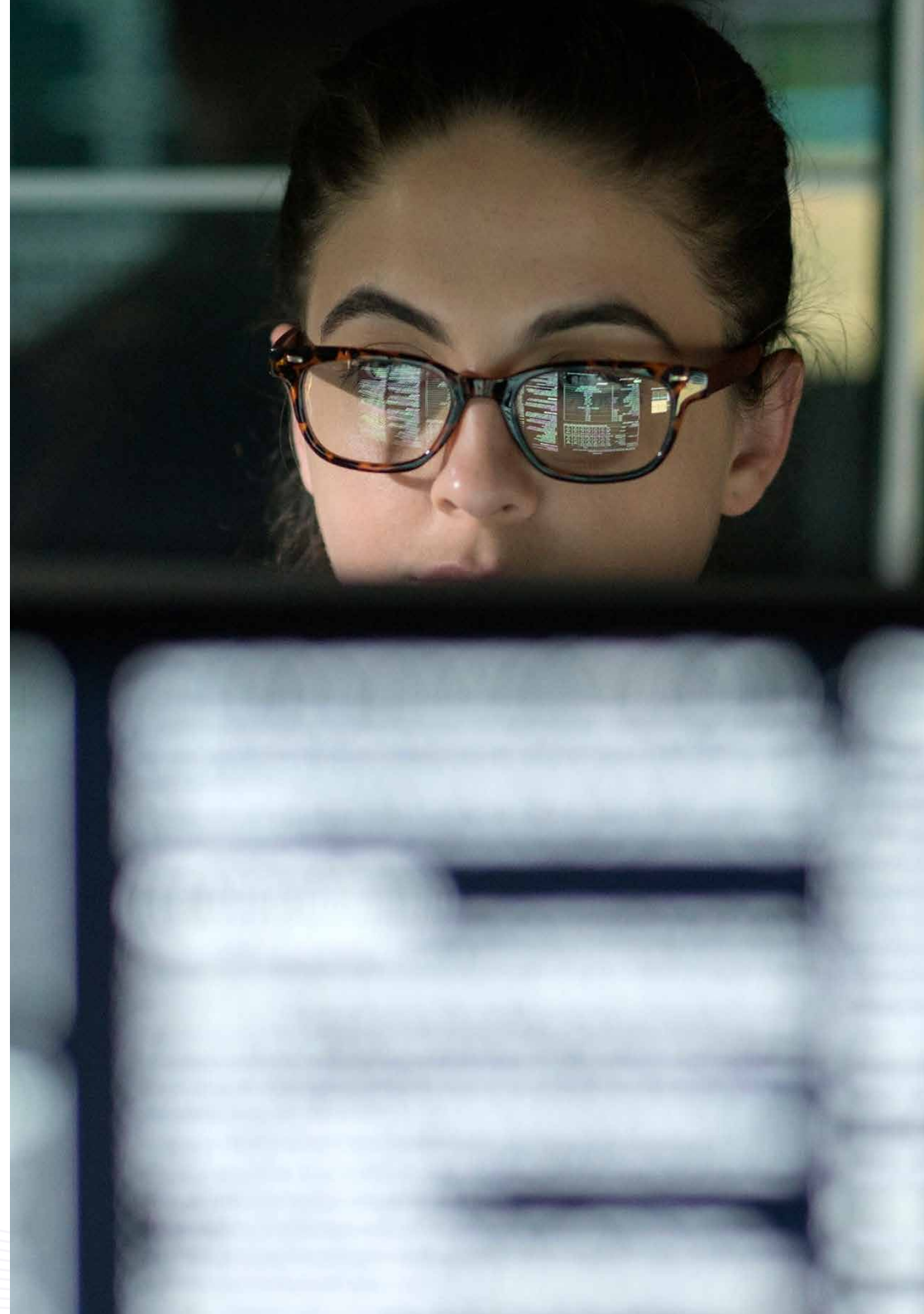
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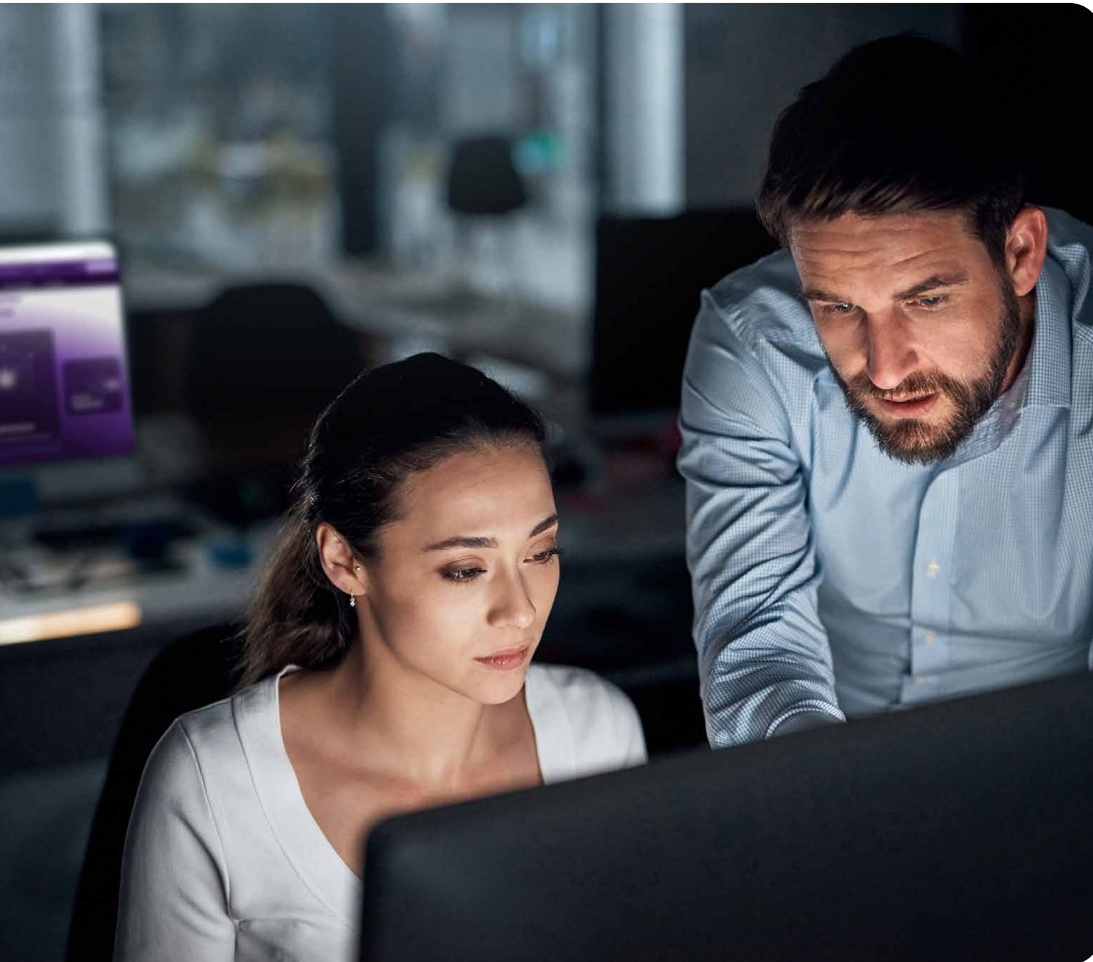


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Facing the unprecedented challenges in global trade



In an era of escalating global trade complexities, customs agencies stand at a critical juncture.

They face the dual mandate of facilitating the seamless, rapid movement of legitimate goods while simultaneously safeguarding national borders against a rising tide of illicit activities. Traditional risk management systems, which primarily analyze the characteristics of goods and basic trader profiles, are no longer sufficient to combat criminals who exploit the complexity of interconnected supply chains to commit fraud, evade duties, and threaten national security.

To truly transform customs operations, agencies need to move beyond analyzing the ‘what’ and ‘where’ of a shipment and begin to understand the ‘who’—the ultimate controllers behind the entities involved.




This white paper introduces a groundbreaking, synergistic approach for customs officials, combining Quantexa's leading Decision Intelligence Platform with Zeno's innovative Control Assessment Tool (Z-CAT). Together, they provide a comprehensive, multi-layered view of risk that connects shipment data, resolves corporate entities, and, for the first time, identifies the ultimate controlling owners (UCOs) of importers and exporters, i.e. those who orchestrate corporate behavior. This powerful combination enables customs agencies to make faster, more accurate decisions, shifting from a reactive posture to a proactive strategy of targeted intervention.

The Quantexa Decision Intelligence Platform: Creating context in a sea of disparate data

At its core, the challenge for any customs agency is data. Data is often siloed across disparate internal and external systems, it's fragmented, and it lacks the context needed to make effective decisions.

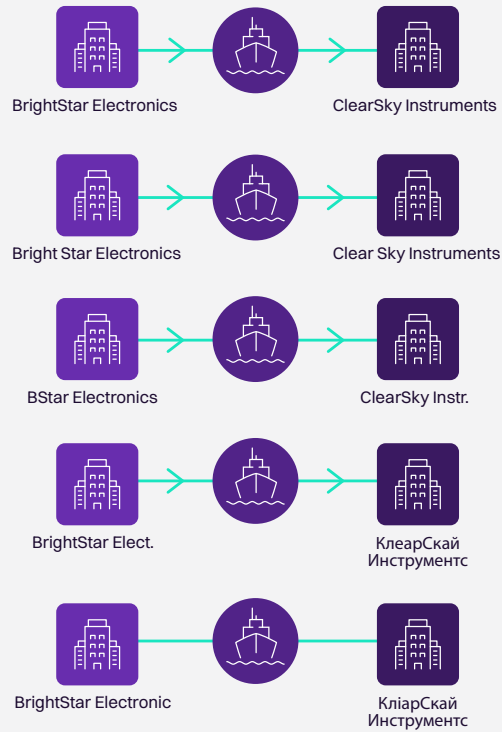
Quantexa's Decision Intelligence Platform is engineered to solve this fundamental problem. It provides an open, modular, and enterprise-grade solution that transforms data into your most valuable and trusted asset.

The platform is built on three core pillars:

Unify 	Create context 	Decide and act 
<p>Quantexa begins by ingesting data from any source—structured and unstructured—to build a trusted and comprehensive foundation. Through market-leading Entity Resolution, the platform can connect disparate and ambiguous records to create a single, holistic view of every trader, shipment, and associated party with up to 99% accuracy. This eliminates silos and provides a clean, reliable data asset.</p>	<p>Data alone is not enough. The platform uses advanced graph analytics to reveal the hidden relationships between entities, reflecting real-world connections. By layering in contextual data, composite AI, and machine learning, Quantexa enriches this view, allowing agencies to understand networks of activity, spot anomalies, and build stronger predictive models that uncover previously undetectable risks.</p>	<p>The ultimate goal is to drive better decisions. Quantexa operationalizes AI, allowing agencies to deploy models that score risk in real time. Through dynamic data exploration and explainable AI, investigators and analysts can understand the context behind every alert, reducing false positives by over 75% and shrinking investigation times from weeks to minutes.</p>

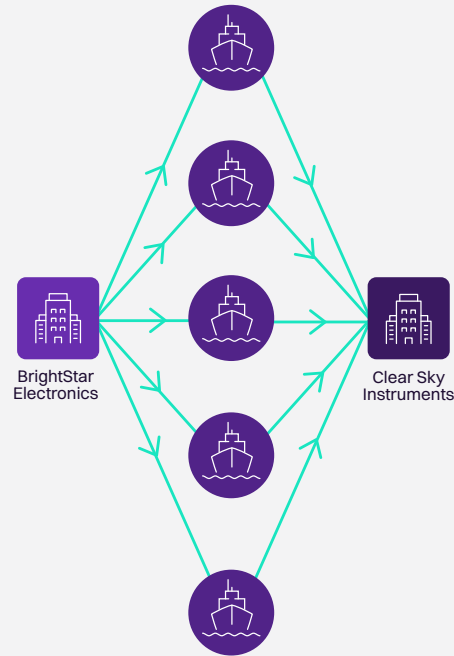
By creating a single, contextual view of traders and their activities, Quantexa empowers customs agencies to uncover threats, improve efficiencies, and facilitate the secure movement of legitimate goods.

Without Entity Resolution



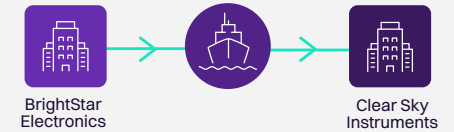
Fragmented view of shipments, trader profiles not built accurately

With Entity Resolution



Traders resolved and linked

Network Representation



Relationships show aggregated data between traders

The Zeno innovation: Identifying the ultimate controlling owner



Zeno's core innovation is an algorithm that disentangles the entire shareholding structure of any firm, no matter how complex, identifies those who control it, and measures their level of control.

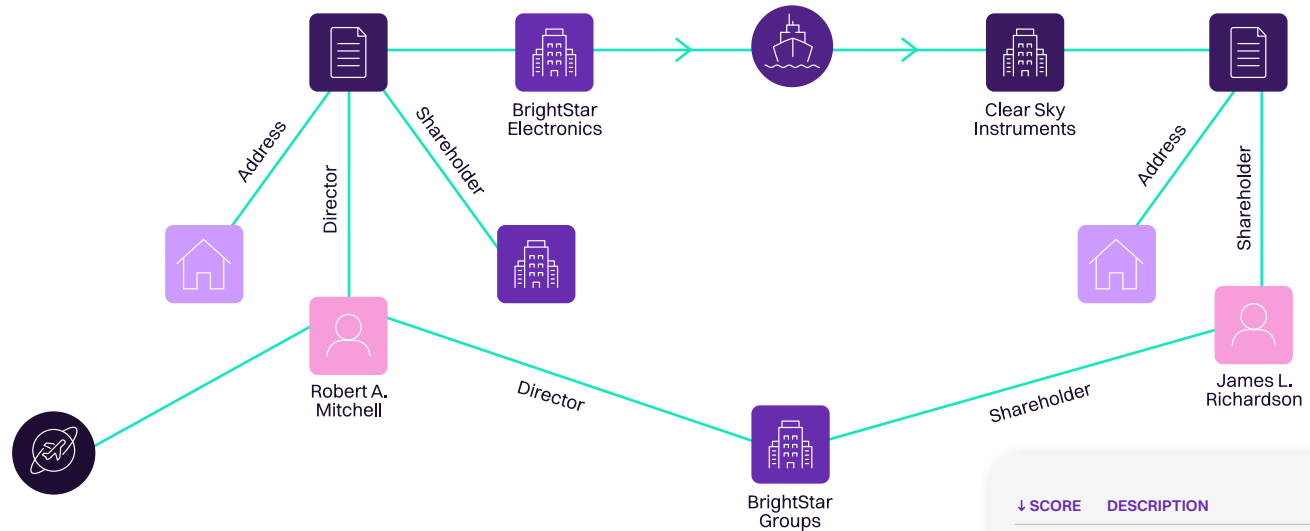
While Quantexa builds a precise view of a trading entity, a critical question remains: who truly controls that entity? Fraud is not committed by a company; it is committed by the people who control it. This is the gap that traditional risk analysis—and even many advanced AI systems—fails to bridge.

Legal declarations of Ultimate Beneficial Owners (UBOs) are often a poor proxy for real influence. UBOs can be numerous; their status may not reflect strategic control, and the true decision-makers can be hidden within complex webs of indirect shareholdings and offshore structures.

By discriminating between shareholders without influence and those few who detain control (the UCOs), Zeno's groundbreaking approach provides a fundamental contribution :

- Mapping true control: Zeno reconstructs the complete ownership graph, analyzing every direct and indirect channel of influence, including cross-holdings and circular ownership.
- Identifying the UCOs: Z-CAT computes a ZENO Index for each shareholder, a score from 0 (no control) to 1 (full control) that measures real strategic power. This allows for the identification of the Ultimate Controlling Owners (UCOs)—the handful of actors who truly drive decisions who are then ranked according to their degree of influence.
- Focusing on what matters: Focusing on UCOs allows customs authorities to narrow their focus from a wide net of passive beneficiaries to the small group of individuals whose incentives and history actually

By identifying UCOs, Zeno provides a "raison d'être" standpoint, allowing risk models and investigations to focus on the puppeteers, not just the puppets. In the graph above, for example, identifying UCO2 makes all the difference because it suggests that Company B's green signal may need to be revisited.



↓ SCORE	DESCRIPTION
200	Drug Smuggling Network
100	There is 1 individual linked to a Complex Offshore Schema.
100	Circular ownership detected
100	Telemetry - Unexpected Event
50	First Time Notify Party
50	Corporate Structure Change
50	There are 1 individuals on a Watchlist
50	Telemetry - abnormal routing
50	Obscuring Identity

Quantexa + Zeno: A synergistic approach to risk management

The combination of Quantexa's Decision Intelligence Platform and Zeno's Z-CAT creates a solution far greater than the sum of its parts. Zeno does not replace Quantexa's risk engine—it sharpens it, providing a critical new layer of "control intelligence."

Functional architecture: Zeno as a control layer

- 1** Ingest and resolve: Quantexa ingests and resolves all relevant trader, shipment, and corporate data, creating a unified entity view.
- 2** Enrich with control intelligence: Zeno's algorithm analyzes the ownership structures of the resolved entities to build an ownership graph, compute Z-indices, and identify the UCOs.
- 3** Create a dual network: This UCO data flows back into Quantexa's graph as powerful new attributes and relationships. The result is a dual network that visualizes both operational links (shipments, payments) and control links (ownership, governance).

This synergy delivers unparalleled clarity:


Richer, more accurate graphs: Quantexa's Entity Resolution and Graph Analytics become supercharged. A link between two seemingly unrelated companies is instantly revealed if they share a common UCO.


Powerful new risk features: UCO characteristics—such as their involvement in past fraud, connections to sanctioned individuals, or control over a network of "phoenix" companies—become potent new features for Quantexa's AI and machine learning models.


More explainable alerts: Alerts are no longer just based on transactional anomalies. They can be explained with far greater precision (e.g., "Alert triggered because the importer is controlled by the same UCO as an exporter previously flagged for undervaluation").


Joint use cases in action

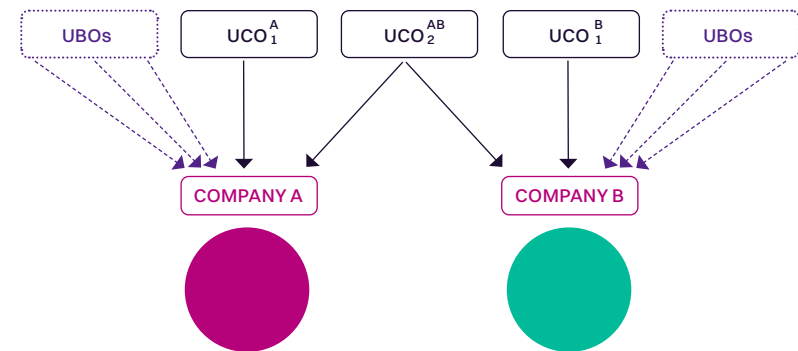
This combined approach delivers a strategic advantage across key customs use cases:

 **Undervaluation and false declaration:** The system can automatically flag transactions where the exporter and importer fall under the control of the same UCO, a classic setup for transfer mispricing and duty evasion.

 **Anti-dumping and duty evasion:** Zeno can reveal networks of seemingly unrelated "phoenix importers" that are all secretly controlled by a single producer subject to anti-dumping duties.

 **Sanctions circumvention:** The system can automatically flag transactions where the exporter and importer fall under the control of the same UCO, a classic setup for transfer mispricing and duty evasion.

 **Transnational criminal networks:** The platform maps the full global network of companies controlled by a single UCO, highlighting systemic risks, correlated behaviors, and networks that blend legal and illicit activity across jurisdictions.



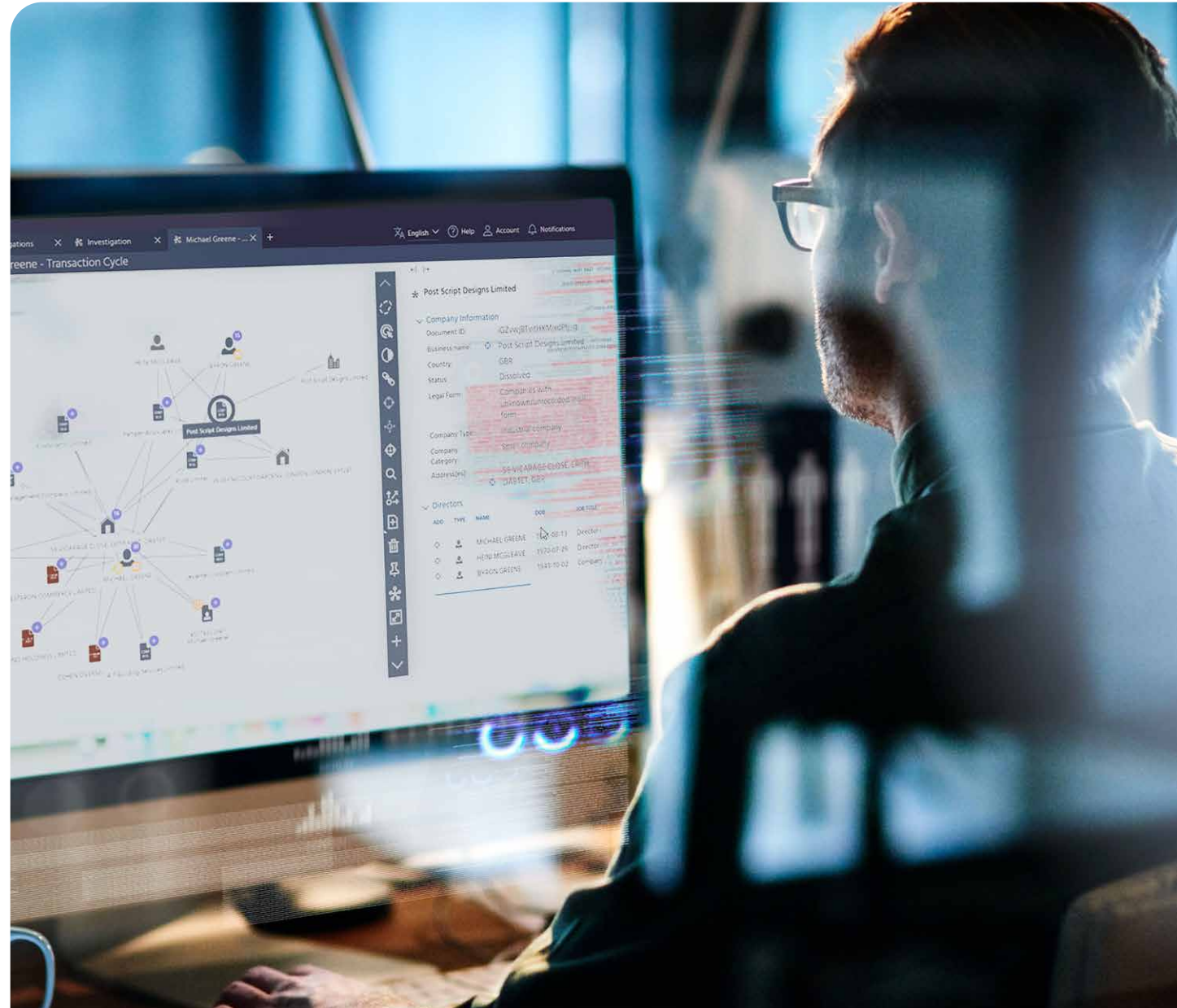
The diagram above shows that if firm A has a red signal, then by virtue of having a common UCO with firm B, the green signal of B should be changed in red.

Broader applications: A unified platform for economic crime

Economic crime is not confined to border operations—it permeates financial systems, procurement processes, and global supply chains. Criminal networks leverage shell companies, layered ownership, and cross-jurisdictional structures to evade detection. Traditional compliance tools often fail to connect these dots, leaving agencies vulnerable to fraud, money laundering, and sanctions breaches.

The combined power of Quantexa's contextual Decision Intelligence Platform with Zeno's Z-CAT extends far beyond customs.

This integrated platform provides a transformative approach to tackling a wide range of complex economic crimes where criminals exploit corporate complexity, opaque ownership structures, and fragmented data to conceal illicit activities.



Improving the transparency of International Illicit Financial Flows (IIFFs)



Global efforts to combat money laundering are often a costly and reactive chase. The Quantexa + Zeno platform offers a more surgical and proactive solution.

The process begins with Quantexa's Decision Intelligence Platform, which ingests and resolves vast, siloed datasets—from transaction records to corporate registries—to create a unified view of all entities involved in financial flows. This reveals suspicious networks of activity. However, these entities often act as fronts.

This is where Zeno provides the critical breakthrough. Its algorithms are applied to the entities and networks resolved by Quantexa, piercing through complex shareholding structures to identify the Ultimate Controlling Owners (UCOs).

This "control intelligence" is then fed back into Quantexa's dynamic network graph. The result is a powerful fusion: Quantexa reveals the web of illicit transactions, and Zeno identifies the single hand guiding them. This allows authorities to move from chasing individual transactions to dismantling entire criminal financial networks orchestrated by a single bad actor, directly addressing the core challenge highlighted by the Financial Action Task Force (FATF) and other bodies dealing with the combat against money laundering.

Enhancing tax and VAT enforcement

For tax departments, the Quantexa + Zeno solution offers a proactive defense against sophisticated tax fraud, such as VAT carousel schemes that rely on a constantly shifting network of shell companies



First, Quantexa's platform connects the dots between seemingly separate companies by analyzing transactional data (e.g., invoices, payments) and other identifiers. It can automatically flag networks of "missing traders" or suspicious circular payment patterns.

Then, Zeno's Z-CAT is applied to this network of suspicious traders. It systematically determines if these legally distinct companies are, in fact, all controlled by the same UCO.

This crucial insight—that a dozen "missing traders" are all puppets of one mastermind—is visualized within Quantexa's platform, enabling tax authorities to see the entire fraud scheme at a glance. Instead of investigating individual shell companies that are easily replaced, they can target the central orchestrator, preventing future schemes and recovering lost revenue far more effectively.

See the entire fraud scheme at a glance.

Turning insight into impact

The convergence of Quantexa's Decision Intelligence Platform and Zeno's Control Assessment Tool (Z-CAT) marks a pivotal shift in customs risk management. By unifying contextual data with ultimate controller insights, agencies gain a 360° view of risk—not just what goods are moving, but who is orchestrating the movement.

This integrated approach delivers tangible outcomes:

1

Accelerate legitimate trade by reducing unnecessary delays through smarter targeting.

2

Disrupt criminal networks by exposing hidden controllers behind shell companies and complex supply chains.

3

Secure national revenue and borders with defensible, intelligence-led decisions.

The path forward is clear: move from reactive checks to proactive interventions. By embracing advanced analytics and ownership transparency, customs agencies can transform risk management into a strategic advantage—protecting economies, enabling trade, and safeguarding security in an era of global complexity.

Decision Intelligence is proven to run agencies more efficiently, improve trust and foster transparency

180%

Uplift in fraud detection

\$1bn

Additional revenue per year

80%

Reduction in investigation time

94%

Reduction of traders

500m

Real time analyzing

99%

Matching accuracy

By unifying intelligence across all channels and threats, far greater context can be realized to include high quality alerts and efficient investigation cycles. Quantexa's DI Platform advances policy and decision-making, re-imagines customer service delivery, enforces compliance, and identifies previously hidden risks.

Bottom line: Quantexa's DI Platform delivers deeper insights, improves operational efficiency, and drives down costs.

About ZENO-Indices

ZENO-Indices is a data intelligence company and a spin-off from HEC Liège (ULiège), grounded in over 20 years of academic research in Corporate Finance. We transform complex and fragmented ownership data into clear, decision-ready intelligence. At the core of our offering is Z-CAT, our proprietary analytics engine that maps complex shareholding structures and quantifies control across ownership networks. Our solutions support KYC, Compliance and Risk Management, strengthen investment and asset management decisions, and deliver expert advisory services to financial institutions, regulators, and organizations facing complex ownership structures.

For more information about ZENO, visit www.zeno-indices.com or contact us at contact@zeno-indices.com



About Quantexa

Quantexa is a global data, analytics and AI software company pioneering Decision Intelligence to help organizations make confident decisions with contextual data. Using the latest advancements in AI, our Decision Intelligence Platform transforms siloed data into connected, contextual insights to empower the shift from a data-driven to a decision-centric organization. Our customers use Quantexa technology to protect, optimize, and grow by solving complex challenges across the entire organization through modern data management, customer intelligence, KYC, financial crime, risk, fraud, and security.

The Quantexa Decision Intelligence Platform enhances operational performance with over 90% more accuracy and 60 times faster analytical model resolution than traditional approaches. An independently commissioned Forrester TEI study found that customers achieved a 228% ROI over three years.

Founded in 2016, Quantexa has over 850 employees and tens of thousands of users globally, working with billions of data points across the world. For more information, visit www.quantexa.com or follow us on [LinkedIn](#).

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