



# **How to Build Winning SCRM Strategies for 2026 & Beyond**

Presented by Matthew Warren



# Today's Agenda

- Introduction
- The Evolving Risk Landscape
- Exploring the Challenges:
  - *Tariffs*
  - *Regulatory Compliance*
  - *Critical Minerals*
- Supply Chain Outlook
- Q&A



# Matthew Warren

*Procurement Advisor @ Z2Data*



- Experience in procurement and international trade, with a focus on the electronics industry.
- Formerly worked in procurement for a manufacturing company in China.
- Specializes in supply chain risk assessment and strengthening supply chain resilience.





# Overview

“Uncertainties will always exist in supply chain. Building the framework for tools to counter and anticipate those uncertainties is key.”

# The Risk Landscape

**\$350B**

## Annual Tariff Revenue

The U.S. government are set to collect \$350 billion in tariff revenue annually as of September 2025.

**16+**

## Critical Minerals

China has implemented export restrictions on 16+ critical minerals, materials, and rare earths.

**83%**

## Not Audit Ready

A survey found 83% of businesses do not feel their ESG data is audit-ready under the CSRD reporting requirements.



# Tariffs

“We need to understand the repercussions of these tariffs on our bill of materials almost in real-time.”

# Tariff Impact: October 2025



## 180+ Countries Are Affected

Trump announced tariffs on over 180 countries and territories.



## New Tariffs Every 19 Days on Average

Tariff regulations shift an average pace of once every 19 days.



## Tariff Swings of 25%+ or More

Tariff regulations are seeing big swings of 25% or more.



## Multiple Tariff Programs Enacted

Section 232, "Liberation Day" tariffs, "fentanyl" tariffs

"We've had to build internal processes just to understand how exposed we are to Section 232 metals and tariffs on imports."



# How Companies Are Reacting



“Cost vs. tariff exposure is now a strategic trade-off: some U.S. machine parts cost 2–3x more than Asian suppliers, which makes decision-making more complex.”



# Absorbing the Costs



## Build Tariff Costs into NPI Planning

Factor tariff exposure into bill-of-materials and design decisions early so you know where you can absorb cost.



## Prioritize Customer Contracts

Decide where paying the tariff now can win or retain long-term business, using cost-benefit analyses of customer lifetime value.



## Adjust Expectations for Cost Management

Where possible, choose components or configurations that achieve the same functionality at a lower cost point.

“Sometimes we just decide, no matter the tariff, we have to deliver to the customer—winning the business outweighs the cost hit.”

# Tariff Engineering



“If you can boldly say you know how to save \$20 on a BOM, you’ll have all the C-suite paying attention.”



## Identify Your COO & COD

Determine the country of origin and diffusion for each product to identify opportunities to lower tariffs.



## Build a Dynamic Database

Maintain an up-to-date, flexible database of suppliers, products, and tariffs to assess the impact of new regulations.



## Create a Tariff Calculator

Develop a tool to model different scenarios and estimate duties, enabling faster, informed decision-making.



# Supplier Diversification



## Map Your Single-Sourced Parts

Identify catalog or commodity parts coming from high-tariff or high-risk countries (like China) and flag them.



## Dual-Source Critical Items

Establish a second source for high-volume or key components in a non-restricted region, even if the cost is higher.



## Integrate Diversification Early Into Design Process

Bake country-of-origin checks into the engineering process so risky suppliers are avoided before parts are locked in.



“We’re explicitly paying tariffs to win business and deliver on time while simultaneously searching for U.S. or non-China alternates in parallel.”

# Onshore/Regional Investments



## Relocate Key Manufacturing Sites

Shift production or assembly from high-tariff regions to lower-risk regions to mitigate long-term exposure.



## Audit and Incentivize Domestic Suppliers

Partner with domestic or regional suppliers to secure critical parts, even if initial costs are higher.



## Plan Multi-Year Transitions

Treat onshoring as a strategic move rather than a reaction; plan 12–36 months ahead to avoid rushed, costly moves.



“We moved our factory out of China in six months so we wouldn’t be at the mercy of new restrictions.”



# Key Takeaways

- Plan for Constant Change
- Balance Cost and Continuity
- Integrate Tariff Risk Early

# Regulatory Compliance

“Nobody knows that these regulations exist, and...then they start to learn there is a lot beyond REACH & RoHS.”



# Regulatory Compliance Landscape



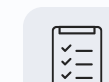
## Thousands of Companies Impacted

New regulations like CSDDD, EUDR apply to thousands of companies.



## New Rules Every Quarter

Regulations have major updates rolling out multiple times a year.



## Requirements Go Beyond REACH/RoHS

Companies must provide supplier traceability, lifecycle data, and more.

“PFAS comes in waves—everyone panics, then it dies down, then it comes back again.”

# 2025 Is a Major Turning Point

## CSRD

- **Aim:** Expands corporate sustainability reporting for EU companies.
- **Timeline:** Has 2025-2029 timelines
- **Penalty:** 5% annual profit for penalties

## CSDDD

- **Aim:** Mandates due diligence on human rights and environmental impacts throughout their supply chains.
- **Timeline:** 2027-2029
- **Penalty:** 5% annual profit for penalties

## EUDR

- **Aim:** To reduce global deforestation by expanding due diligence requirements.
- **Timeline:** Implemented at the end of 2024.
- **Penalty:** 4% annual profit for penalties

## DPP

- **Aim:** To improve circularity and transparency by tracking sustainability data.
- **Timeline:** Starting in 2026 with batteries, expanding to more sectors by 2030.
- **Penalty:** Sales bans and fines set by EU member states.



# How Companies Are Reacting



“We don’t have two or three compliance officers like bigger companies, so compliance work just gets bolted on.”

# Build a Compliance Program

“Previously it was easy to say, ‘oh, just email our engineer to get our REACH and RoHS.’ Now, engineers are overwhelmed and can’t keep up with requests.”



## Map Your Regulatory Scope

Identify which rules apply to your products (CSDDD, EUDR, PFAS, DPP) and create a compliance roadmap.



## Assign Ownership

Designate a dedicated compliance lead or team instead of bolting it onto engineering or procurement roles.



## Create Standard Processes

Develop repeatable workflows for supplier outreach, data verification, and reporting.

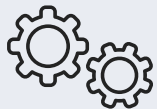


# Automate Data Collection



## Replace Spreadsheets

Move away from manual BOM checks and spreadsheet tracking to automated compliance tools.



## Use Supplier Portals or APIs

Centralize all supplier responses, certifications, and materials data into a single, integrated platform.



## Standardize Requests

Automate and streamline supplier questionnaires to improve response rates and consistency.



“It was difficult. The company had engineers going through drawings one by one before they adopted compliance software.”

# Integrate Compliance Into the Design Process

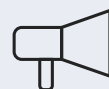


“When we create a new part, we immediately check country of origin, lifecycle, and RoHS compliance—it’s baked into the process.”



## Embed Compliance Rules in CAD/PLM

Ensure part qualification includes more than REACH and RoHS qualifications, such as PFAs, POPs, and Cal Prop 65.



## Flag Risky Parts Early

Give engineers early access to compliance data during the design process.



## Make Compliance ‘By Default’

Train engineers to treat compliance criteria as part of design specs, not an afterthought.



# Onboarding Suppliers Early



## Communicate Compliance Expectations Upfront

Provide suppliers with your regulatory requirements (CSDDD, EUDR, PFAS, etc.) at the RFQ stage.



## Pre-Qualify Suppliers

Partner with domestic or regional suppliers to secure critical parts, even if initial costs are higher.



## Offer Support & Education

Treat onshoring as a strategic move rather than a reaction; plan 12–36 months ahead to avoid rushed, costly moves.



“Suppliers quit working with us after too much pressure to meet various compliance requests.”

# Key Takeaways

- Compliance Goes Beyond Certificates
- Automate & Integrate Data Collection
- Educate Suppliers Early & Often



# Critical Minerals

“When it comes to critical minerals, your supply chain could be shut off like a light switch with no prior notice or warning.”



# The Critical Minerals Landscape



## Global Supply Chains Are at Risk

China's export controls are creating uncertainty across industries.



## Restrictions Change Rapidly

Critical mineral rules can cut off access without warning.

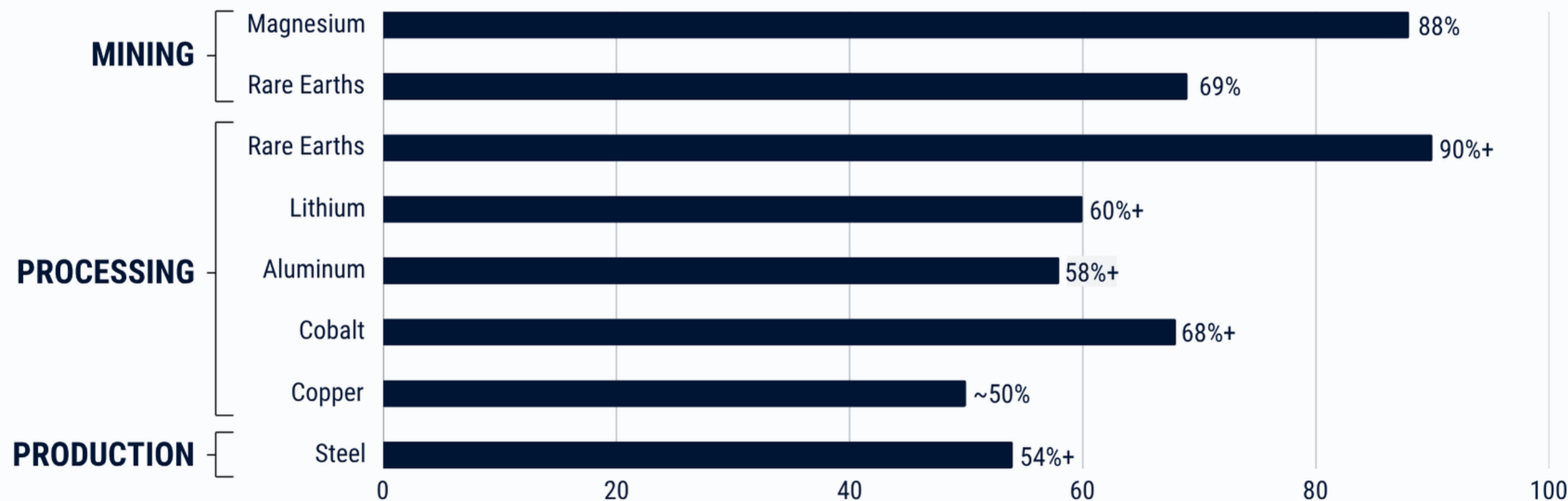


## Alternatives Often Require Redesigns

Finding substitutes for restricted materials is extremely difficult.

“The stability of your supply chain is directly dependent on the geopolitical relationship between the US and China.”

# Critical Minerals Dominated by China



# How Companies Are Reacting



“The bar is so low that simply asking, ‘What minerals are in your product?’ is something 99% of firms haven’t done.”



# FMD Collection



## Centralize Material Data

Collect full material disclosure (FMD) from all suppliers and store it in one platform for easy analysis.



## Standardize Requests

Use consistent templates and outreach methods so suppliers can quickly provide mineral and chemical data.



## Audit for Gaps

Regularly review FMD data for missing or outdated entries and follow up to ensure completeness.

“In the prior 14 years I never checked for critical minerals—this year alone I’ve done it three times.”

# Materials Analysis



## Map Restricted Materials

Identify which parts or assemblies contain gallium, germanium, rare earths, or other controlled materials.



## Assess Impact by Component

Analyze which restricted materials create the biggest risk to production or customer contracts.



## Model Regulatory Scenarios

Use your data to run “what-if” analyses on mineral restrictions to see the potential effect on your supply chain.



“Without the right tools, answering a critical minerals request would’ve taken six months. With Z2Data, we did it in four hours.”



# Find Alternatives



## Shift to Unrestricted Regions

Prioritize suppliers sourcing critical minerals from countries not under export controls.



## Source Components Without Restricted Materials

Actively identify and qualify parts that eliminate gallium, germanium, rare earths, or other restricted minerals.



## Pre-Qualify and Test Alternates

Vet, test, and certify alternative components in advance to ensure performance and compliance before disruptions hit.

“For our company, alternatives that don’t include specific critical minerals often require board redesigns.”



# Stockpiling



## Identify Critical Materials for Buffer Stock

Target materials most vulnerable to sudden restrictions or supply shocks.



## Build Strategic Inventory Policies

Create stockpiling plans based on lead time, demand forecasts, and geopolitical risk.



## Coordinate With Finance & Operations

Align stockpiling decisions with budget, storage capacity, and contract obligations.



“If you can’t design it out, you’re left with only one option: stockpiling.”

# Key Takeaways

- Know What's In Your Products
- Build Resilience with Alternatives
- Plan for Shocks





# Supply Chain Outlook

“Know your products and know your supply base...we’ve been able to respond quickly because we clearly know our data.”

– Industrial Automation Company

“It’s all about the data—moving away from static databases into dynamic ones let us anticipate the ‘gotchas’ instead of reacting to them.” – Automotive Manufacturer





# Thank You!



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