

Climate disruption and supply continuity

What we need to protect first

**Why sourcing, contracts and supplier management
determine whether we cope**

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Today's brief : what procurement needs to work out

Where are we exposed?

Climate, geopolitical, supplier, infrastructure and logistics dependencies.

What could materially disrupt us?

Not every disruption has the same operational consequence.

What must we protect first?

Prioritise by business impact, not supplier spend.

Would our sourcing response actually work?

Test alternatives, capacity, inventory, routes and approvals.

What level of resilience are we prepared to pay for?

Make the cost, delivery and risk trade-off explicit.

Climate change is changing the conditions our supply chains operate in

The procurement challenge is not the weather event itself. It is how the event reaches our suppliers, logistics, inputs and operations.

MORE EXTREME EVENTS

Flood, cyclone, fire and extreme heat can interrupt sites, infrastructure and transport.

CHANGING OPERATING CONDITIONS

Water availability, heat, energy reliability and workforce conditions can affect supplier capacity.

MORE CONNECTED CONSEQUENCES

A disruption in one location can flow through lower-tier suppliers, production, logistics and inventory.

LESS RELIABLE ASSUMPTIONS

Historic lead times, routes, stock levels, supplier locations and recovery plans may no longer be sufficient.

For procurement, climate adaptation means understanding where the exposure sits and changing sourcing, contracts and supplier management before disruption occurs.

Three decisions determine how well we cope

These are the calls we actually get to make

01

KNOW WHAT WE ACTUALLY DEPEND ON

Know the sites, the Tier 2s, the utilities and the routes we rely on

**CRITICAL SUPPLY
MAP**

02

DECIDE WHAT EXPOSURE WE WILL ACCEPT

Source, qualify and invest based on what failure would cost us

**AGREED
COMMERCIAL
RESPONSE**

03

TEST WHETHER THE RESPONSE WILL WORK

Test the stock, the alternatives, the contract and who can make the call

**TESTED CONTINUITY
PLAN**



01

Why this keeps catching us out

How a weather event turns into a problem for the business

Climate disruption reaches us through the supply chain

The hazard changes, but it repeatedly exposes the same weaknesses

FLOOD

Supplier site closes

PORT SHUTDOWN

Inbound material stops

SUPPLIER FAILURE

Capacity disappears

INPUT SHORTAGE

Critical material unavailable

ROUTE DISRUPTION

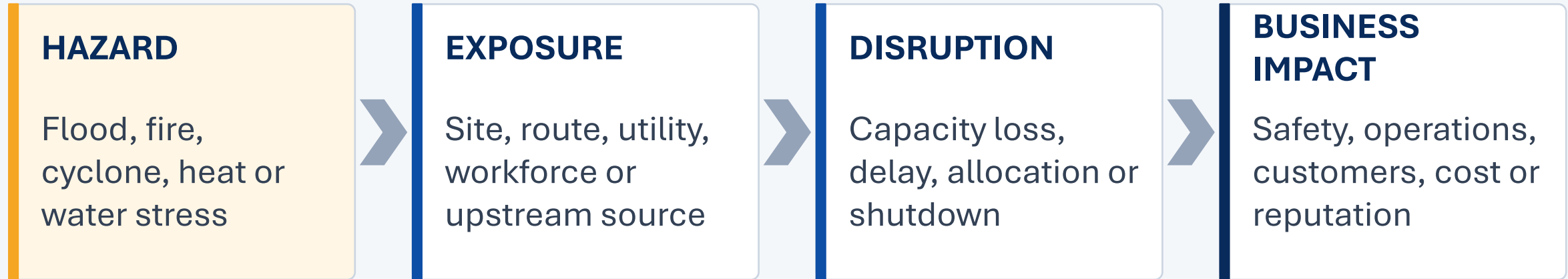
Normal logistics fail

THE EVENT IS RARELY THE REAL PROBLEM

- 01 We did not know the dependency was there
- 02 We had no alternative we could actually use
- 03 We thought we had more time
- 04 We assumed someone else owned it

How a weather event becomes a procurement problem

The event is visible. The dependency behind it is usually not.



WHAT PROCUREMENT CAN CHANGE

- 01** Map the dependency
- 02** Test and qualify alternatives
- 03** Change stock or logistics
- 04** Use the contract and SRM plan

We cut the exposure by changing the source, spec, stock, route or contract.

Where procurement actually builds resilience

It has to change what we do at every step, not just the risk register



Resilience belongs in our sourcing, contracts and supplier management, not in a separate ESG workstream.



02

Seeing what we actually depend on

The dependencies behind the contract, and what critical really means

Case study 1 | The decisions were made before the crisis

Automotive supply: critical dependencies were mapped before the shortage

SITUATION

Car makers run on semiconductors. COVID and the Southeast Asian shutdowns squeezed that supply right across the industry.

WHAT CHANGED

After earlier disruptions they mapped their critical parts and their lower-tier suppliers, challenged what they had assumed, and held stock on purpose.

PROCUREMENT DECISION

Map the critical components, understand the lower-tier suppliers and hold stock against the parts that can stop production.

LESSON

Some manufacturers that had already mapped critical components and deliberately held inventory were able to continue production for longer.

Go and see how the supply chain actually works

Genchi Genbutsu: walk the flow now, so we know it before something goes wrong

THE PRACTICAL EXERCISE

We went to the supplier site and followed the flow from critical inputs through to delivery.

We were not trying to become engineers. We wanted to understand where the flow could stop, how quickly that would affect us and which alternatives were real.

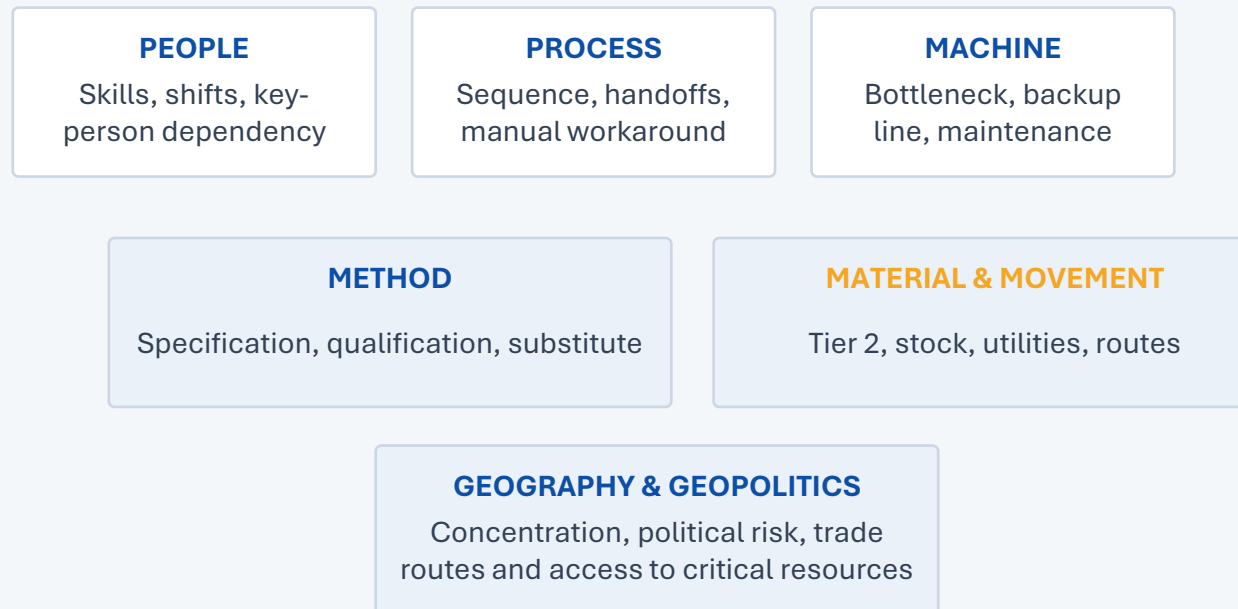
KEY LESSON

You do not need to be an engineer. Go and see, follow the flow and write down what matters.

FOLLOW THE FLOW OF GOODS OR SERVICE



WHAT TO LOOK FOR



WHAT THIS GIVES PROCUREMENT

- 01 Where failure can occur
- 02 Time to operational impact
- 03 Which alternatives will actually work
- 04 What to protect first
- 05 What to ask when disruption hits

If we understand the supply chain before disruption, we respond faster when it happens.

A site visit should test the supply chain, not tour the facility

Record what we found and how strong the evidence really was

PHYSICAL CAPACITY

Single lines, bottlenecks, maintenance, alternate site

CRITICAL INPUTS

Raw materials, utilities, Tier 2, inventory

PEOPLE & PROCESS

Key-person dependency, shifts, manual workarounds

RECOVERY REALITY

Recovery time, qualification, decision rights

EVIDENCE STATUS

DEMONSTRATED

DOCUMENTED

SUPPLIER STATED

UNKNOWN

The contract tells us who we buy from

The supply chain tells us what we actually depend on

ONE FACTORY

One place it
can all stop

ONE TECHNOLOGY

No practical
substitute

ONE MATERIAL

Any alternative
takes too long
to qualify

ONE ROUTE

No workable
alternative
route

ONE PERSON

One person
holds the
knowledge or
the authority

Whatever triggers the disruption, the operational impact usually traces back to a dependency.

Knowing our supplier and knowing our supply chain are two different things.

Case study 2 | We qualified the alternative before we needed it

The mapping exposed geographic concentration.

SITUATION

Following the supply flow showed that a critical product depended on one qualified source in Europe.

WHAT WE DID

We identified and pre-qualified a second source in Asia, completing the technical approval, testing and validation before placing any reliance on it.

PROCUREMENT DECISION

We accepted the upfront cost of qualification rather than continue carrying an unmanaged single-source exposure.

LESSON

If the European source stops, we now have a qualified alternative in Asia. The approval work had to be completed before it was needed.

We qualified the alternative before we needed it.

We focus our time on the biggest suppliers

Operations is often worried about completely different suppliers

\$50m SUPPLIER

Visible
Senior attention
Commercially important

\$20k SUPPLIER

Easy to overlook
Hard to replace
Can stop the whole operation

Criticality is determined by what happens if the supplier fails, not what we spend with them.

Which suppliers could stop our operation tomorrow - and what is it worth to us to fix that?



03

The commercial decision

What resilience costs us, and what we are willing to pay to avoid the bigger bill

What are we willing to pay for continuity?

The commercial conversation we need to have with the business

ACCEPT THE RISK

Potentially the most expensive if supply stops

ADD A SECOND SOURCE

Adds ongoing cost but creates competition and a usable alternative

INVEST IN SUPPLIER CAPABILITY

Higher upfront cost that can reduce recovery time

THE PROCUREMENT DECISION

What are we willing to spend now to reduce the larger consequence later?

**Resilience is not free.
Neither is disruption.**

If a critical supplier, route or input became unavailable today

Testing shows us which controls are real and which are assumptions

01 How much stock do we actually have that we can use?

02 Is the alternative supplier already qualified?

03 Does the alternative have the capacity we need?

04 Can we physically get the product or service to where it is needed?

05 Who can approve the emergency spend or specification change?

06 Which contract terms would actually help us?

An assumption looks exactly like a control until we test it.

Make someone accountable for every material gap

Put a name and a date against every action

CATEGORY MANAGER

Owens the exposure assessment and the sourcing response

CONTRACT OWNER Manages delivery, evidence and corrective actions

CONTRACT SPONSOR

Owens the business outcome, funding and risk acceptance

RISK / CLIMATE SME

Provides the hazard insight and independent challenge

SUPPLIER

Provides evidence, alternatives and corrective action

Every material risk needs an action, owner, due date, decision authority and escalation trigger.

The trade-off procurement manages every day

Operations wants resilience. Finance wants lower cost. Procurement makes the trade-off visible.

OPERATIONS

“We need more resilience.”

FINANCE

“We need lower cost.”

PROCUREMENT FRAMES THE CHOICE

Dual source or
single source?

Local or global?

More stock or less
stock?

Invest now or accept
the risk?

**Procurement’s job is not to eliminate risk. It is to make the options,
costs and consequences visible.**



04

Contracts, proof and who owns it

Does the agreement give us usable options before operations are affected?

Which contracts actually help when supply is disrupted?

A simple test: does the agreement give us usable options before operations are affected?

A CONTRACT THAT HELPS US

- Early warning
- Information
- Options
- Flexibility
- Priority access

A CONTRACT THAT DOES NOT HELP

- Arguments over notice
- Unclear information rights
- No practical alternative
- Remedies after operations stop
- Lawyers after the disruption

The continuity clauses worth having are the ones we use before the crisis, not after it.

Case study 3 | Five kilometres away and still unreachable

Contracts and SRM: they were obliged to deliver, but there was no way to get it to us

01 SCENARIO

A critical supplier was only five kilometres away, but flooding cut the normal access route and stopped delivery.

02 FAILED ASSUMPTION

We treated proximity as resilience. Neither party had tested what would happen if the access route failed.

03 IMMEDIATE RESPONSE

A specialised vehicle reached the site through the floodwater and completed the delivery.

04 CONTROL CHANGE

We increased on-site safety stock, the supplier positioned stock at a second facility, and alternate access routes became part of the continuity review.

05 LESSON

The contract required delivery. It did not create a delivery pathway.

Three decisions that have to hold together

01

SOURCING

Decides whether we have an alternative at all.

02

CONTRACTS

Decide whether we can actually use it.

03

SUPPLIER MANAGEMENT

Decides whether it works when we need it.

Resilience is not one decision. It is three, and they all have to hold.

Sourcing creates the option.

Contracts make it usable.

Supplier management proves it works before we need it.

Three questions to take back with you

01

**DO WE KNOW WHAT WE
REALLY DEPEND ON?**

Not who we buy from.
What we depend on.

02

**DO WE KNOW WHAT WE
WOULD PROTECT
FIRST?**

Because we cannot
protect everything.

03

**HAVE WE TESTED ANY
ASSUMPTIONS?**

Because an assumption
looks exactly like a
control until it is tested.

Climate disruption does not create the risk. It exposes the risk already in the supply chain.

We cannot control the weather. We can control how exposed we are when it arrives.