Resilience AI

Building Resilience At Every Step
Resilience AI

Climate disruptions are costing global trade $81B annually

Is your manufacturing operation prepared to withstand the next climate event?

Natural disasters caused $310B in global economic losses in 2024, with $135B in insured losses, significantly impacting manufacturing sectors worldwide (Source: Swiss Re, 2024)

How much loss are factories silently absorbing?

Factories and Fabs still rely on static disaster audits, paper plan SOPs, and generic risk assessment. **The assumption?**

- Disruption is at zone level – not at roof, ageing infra, interlinked plant asset (drainage → water network)
- Risk is climatic and historical —not at geolocation, building structure, real time
- Asset resilience during disaster is a Risk and ESG issue—not a Plant Management and EHS concern
- Infra damage, Business Planning error, Trade shutdown, Loss of lives during disaster is lower than Investment in preparing factories before disaster

That's a blind spot when:

- Under disaster scenario, annual growth rates for stocks of supply-chain industries could drop from +8% to around +4%
- $122B in economic losses linked to climate-related disruptions in industry output and consumption [1]
- Record-breaking heatwaves and floods in 2024 have led to significant operational halts in manufacturing hubs [2]
- $123B in global agricultural production
- Environment audits (ESG, ESDD) miss real costs- lives, sites, financial premiums

Manufacturers know risk is rising

So, what's Missing
ESG and Asset Risk audits ≠ Disaster readiness

Factories aren't just production floors, they're distributed, interlinked, high-volume nerve centers. Modeling disaster and environment is complex and needs technology that isn't there in traditional or static models to score exposure—at high accuracy, near real-time, large scale, low cost

Where risk models fall short

- Dispatch collapse
- Sensor failures
- Rooftop fractures
- Backup short-outs
- Stock misplacement

Why It leads to half measures

- Penalty spikes
- Rework wastage
- Clean room breaches
- Protocol failures
- Buffer losses

Factories and enterprises need a system that scores, scans, flags, and reports on multiple parametric-before sanction, not after disaster

- Multi-hazard risk
- Built-environment
- Hyperlocal
- Software AI/ML
- Saves Cost
- Scalable
- Audit-proven
- Budget aligned

Legacy limitations

- Imprecise Mapping, Generic GIS & satellite overlay
- Unscalable Scoring, fail at portfolio scale
- Highly uncertain stress testing models missing parametric at built environment
- Superficial Checks. Checkbox exercises or outsourced
- No Real-time, failing at crucial disaster readiness & damage audit
- Reactive Compliance, backward-looking posture for TCFD/SENDAI compliance

1. Source: The Economist Impact, 2023 | 2. Source: UNEP FI, 2024 | 3.Source: UNEP FI, 2024 | 4. Source: Congressional Budget Office, 2024

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The Resilience360 Way
Resilience AI

How resilient is your manufacturing network to climate and operational risks?

Resilience360™ helps plant heads, risk teams, and manufacturing networks assess, plan, and act on exposure, fast. It's plug-and-play, scalable, and delivers asset-level insights to guide upgrades like equipment hardening, layout changes, critical material protection, and adaptive shift planning

Perfect For:

- **Plant Managers**: Need full facility risk visibility
- **Risk & Compliance Teams:** Need real-time exposure baseline for audits and safety
- **Operations & Maintenance Heads:** Need site-level alerts and retrofit suggestions
- **Procurement & Sourcing Teams:** Need climate-smart vendor and site selection insight
- **CFOs & Business Continuity Planners:** Need stock safety insights to cut losses and ensure continuity

WORKFLOW USE CASES

Workflow	Legacy Challenge	Resilience360™
Plant Risk Profiling	Facility risk evaluated by region, not per site or line	**ResSolv**™© : Site-specific and intra-factory climate and hazard profiling
Supplier Risk Evaluation	Supplier hubs assessed without climate-adjusted metrics	**ResSolv**™©: Hyperlocal exposure scoring of vendor locations
Production Continuity Planning	Climate impact scenarios missing in production risk models	**ResSuite**™ : Scenario modeling for operational downtime and cost of recovery
Insurance Asset Readiness	Factory resilience not scored, premiums based on generic hazard zones	**ResScore**™©: Factory resilience baselines that feed better AOP planning, disaster reserves, insurance
ESG & Compliance Reporting	Climate disclosures manually fragmented, facility compliance uneven	**ResScore**™©, **ResSuite**™ : Automated ESG reporting mapped to TCFD, CSRD, ISDR, Sendai
New Site Selection	Expansion decisions ignore future climate risk	**ResSolv**™©: Climate-aligned site vetting for manufacturing expansion
Post-Disaster Recovery	No structured post-event asset impact mapping	**ResSuite**™©: Event triage, recovery modeling, asset re-prioritization

Resilience360™	Products Description	
Resilience Hub	**ResHub**™	Interactive dashboard with asset risks exposure, past disaster events, early warnings, parametric insights
04 **SCALE** Digitized Marketplace	ClimateGuru™®	Upgrade policies (ESG, EHS, building design), design architecture and build adaptive capacity
03 **ACTION** Reduce Risk with controls and compliance	Act4Impact™®	Convert insights into metric driven action through automated adaptation activities, strategies, and risk mitigation
02 **PLAN** Diagnose and Analyse root cause of Risk	ResSuite™	Repository with environmental impact analysis, disaster insights, RCP scenarios, value at risk.
	ResAtlas™	Empowers data-driven Atlas of natural resources such as Solar, Water, Vegetation
01 **DETERMINE** Baseline Risk exposure of Buildings to Business	ResSolv™®	Creates hyperlocal risk profiles using spatial, climate, and built-environment data—scalable from one building to an entire city
	ResScore™®	Calculate organisation's resilience to assess readiness, peer benchmark and adherence to TCFD, ESG standards

Feedback loop

IMPACTFUL SOLUTIONS

Reliable AI/ML at >90% accuracy with 20+ environment and built environment parameters

Near real-time updates for 6 types of disasters *(urban flood, coastal flood, earthquake, heatwave, cyclone)* *with* 730,000+ building risk records in 50 cities

Business Resilience Playbook – Tailored business continuity plan with financial metrics (cost of action vs inaction)

Baseline asset resilience in 30minutes and business resilience in 60minutes

Easy to scale - Easy to use integrates with systems, unifies physical & transition risk

Cost efficient tiered pricing-Lite, Basic, Pro-edition for on demand preparedness

WEF's 2024 report flags manufacturing as highly exposed to climate shocks—yet resilience baselining remains rare
Let's change that—one asset, one insight at a time

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