



EthosChain: The AI Supply Chain Ethics Watchdog

Oslo GenAI Hackathon 2025

Tracks: Business Innovation | Social Impact



Slide 1: The Problem

The "Blind Spot" in Global Supply Chains

- **The Complexity Trap:** Companies manage thousands of suppliers. Manually monitoring every local news source for every factory is impossible.
- **The Invisible Risk:** Unnoticed violations (e.g., Forced Labor, Environmental Dumping) create ticking time bombs.
- **The Consequence:**
 - **Legal:** Massive fines under the EU Supply Chain Act.
 - **Reputation:** Irreversible brand damage.
- **The Gap:** Traditional tools check *financial* health but miss *ethical* risks buried in unstructured, multilingual data.



Slide 2: The Solution - EthosChain

"An AI Auditor that never sleeps."

EthosChain is an autonomous **Multi-Agent System** that revolutionizes ethical due diligence.

1. **Continuous Surveillance:** Scans global sources for supplier activities 24/7.
2. **Contextual Intelligence:** Doesn't just match keywords—it *reasons* about severity using AWS Bedrock.
3. **Policy Alignment:** Memorizes your specific "Code of Conduct" to judge violations against *your* standards.

⚙️ Slide 3: How It Works (Architecture)

Powered by AWS Bedrock Agents

-  **The Supervisor (Orchestrator):** The brain that manages the workflow and delegates tasks.
-  **The Investigator Agent:**
 - *Role:* The "Detective".
 - *Task:* Hunts for raw intelligence, scraping news and NGO reports for potential red flags.
-  **The Auditor Agent:**
 - *Role:* The "Judge".
 - *Task:* Uses RAG (Retrieval Augmented Generation) to cross-reference findings against the uploaded Corporate Policy PDF.



Slide 4: Key Features

- **🚦 Instant Risk Scoring:** Automated Red/Yellow/Green traffic light assessment.
- **🔍 Traceable Evidence:** Every flag is cited with a specific source (e.g., "Reuters, Jan 2024") for full transparency.
- **📄 Dynamic Policy Adaptation:** Fully customizable—upload a new Code of Conduct, and the AI adapts its judgment criteria instantly.



Slide 5: Impact & Business Value



Business Innovation

- **Workflow Transformation:** Automates manual compliance checks with intelligent AI agents.
- **Operational Efficiency:** Reduces audit research time from **days to seconds.**
- **Risk Mitigation:** Proactively identifies threats before they become headlines or lawsuits.
- **Cost Avoidance:** Prevents millions in fines (EU Supply Chain Act penalties start at €250K).



Social Impact

- **Human Rights Protection:** Actively fights forced labor and modern



Slide 6: Reusability & Scalability

Built for Universal Adoption

- **Industry Agnostic:** Works for any sector with supply chains (Fashion, Electronics, Food, Automotive).
- **Modular Architecture:** Plug-and-play agents can be repurposed for other compliance domains (GDPR, Financial Audits).
- **Multi-Language Support:** AWS Bedrock handles global news sources in any language.
- **Open Integration:** REST APIs allow seamless connection to existing ERP/Supply Chain Management systems.



Slide 7: Technical Innovation & Future Roadmap



What Makes This Novel?

- **Agentic AI at Scale:** True multi-agent collaboration (not just chained prompts).
- **Context-Aware Reasoning:** RAG-powered policy interpretation, not rigid rule matching.
- **Hybrid Intelligence:** Combines structured data (supplier databases) with unstructured intelligence (news, reports).



Roadmap

- **Phase 1 (Current):** MVP with Multi-Agent Orchestration & Policy RAG.
- **Phase 2:** Real-time Global Web Search integration (Serper API).
- **Phase 3:** Blockchain verification for immutable audit logs.



Slide 8: The Team

- **Atif Usman** - Product Owner
- **Naresh Gaddam Reddy** - Tech Lead
- **Shailendra Singh Chauhan** - Chief Engineer



Tech Stack

- **AWS Bedrock** - Multi-agent orchestration & LLM reasoning
- **AWS Knowledge Bases** - RAG for policy interpretation
- **Kiro** - Spec-driven development for rapid prototyping
- **Python** - Agent framework implementation

[GitHub Repo: github.com/shailwx/ethos-chain]



Why EthosChain is valuable

Criteria	Our Strength
Innovation	Novel multi-agent system pushing boundaries in Agentic AI compliance
Impact	Dual track: Business efficiency + Social good (human rights & environment)
Feasibility	Built on AWS Bedrock with working MVP, technically sound
Presentation	Clear problem → solution → demo narrative
Reusability	Industry-agnostic, modular, open integration