

Digital Product Owner & AI Transformation Leader

Driving Enterprise-Generative AI Strategy for Global Biopharmaceuticals

Collaborative AI delivery and operational resilience professional with over a decade of experience driving digital transformation and technology strategy across global biopharmaceuticals, financial regulation, and critical infrastructure. Demonstrated ability to contribute to the end-to-end delivery of AI-powered solutions, bridging business requirements with IT, data platforms, and delivery teams to support measurable value and adoption. Experienced in supporting Generative AI strategies, including the deployment of enterprise copilots and RAG-based architectures tailored to complex, regulated healthcare environments. Skilled at navigating AI security constraints, regulatory frameworks (including the EU AI Act and GDPR), and stakeholder alignment to facilitate the integration of AI tools into daily workflows. Trusted internal consultant who provides guidance on AI capabilities, prioritizing use cases to support business impact, and collaborating with cross-functional teams in international environments. Beyond basic prompting, I rapidly prototype Copilot Studio agents and AI-based tools, working closely with engineering and data platform teams to ensure final products are implementable, robust, and compliant with internal policies and regulatory requirements. FBCI; fluent in English with intermediate French.

Core Competencies

AI Solution Design & Enterprise Deployment

Business Case Development & KPI Tracking

Multi-Agent LLM Architecture (Gemini, Mistral, Claude)

Power Platform & Power BI

Stakeholder Engagement & Governance

Vibe-Coding & AI-Assisted App Development

Generative AI Products & Copilots

Internal AI Evangelism & Peer Mentoring

Tailored AI training & Upskilling Programs

Microsoft Copilot Studio & Copilot agents

Change Management & Adoption

AI Red Team Validation & Compliance Automation

Career Experience

AstraZeneca, Oncology R&D, Gaithersburg, MD (Global Remit)
Associate Director of Business Continuity and Crisis Management

2023 – Present

Provided guidance for global modernization and digital product programs across research and clinical manufacturing spanning North America, Europe, and Asia for a 10,000+ employee organization. Contributed to the development of a multi-year AI transformation strategy, collaborating across functional areas to transition from legacy approaches to an AI-supported resilience program. Among the first staff to achieve gold and platinum-level AI certifications by leading prompting sessions and advanced AI workflow trainings.

AI Product Delivery & Generative AI Solutions:

- Conceived, developed, and piloted two AI-driven solutions—the Resilience Architect app and a global Copilot Studio crisis management agent (now deployed globally). Presented Resilience Architect to AstraZeneca IT with extensive technical documentation; the team approved development of an internal proof-of-concept, with work underway to identify secure AI APIs and schedule scrum development. Applied iterative, feedback-driven development cycles to refine functionality and navigate AI security constraints while accelerating time-to-value.
- Prototyped and refined AI solutions using vibe-coding platforms (Mistral Vibe CLI, Claude Code, Google AI Studio) to rapidly iterate working prototypes. Built Copilot Studio agents with embedded logic and dynamic workflows. Currently collaborating with IT to evaluate enterprise adoption pathways, including security review and production-grade deployment for in-house AI-powered applications.
- Executed comprehensive market research and competitive analysis of external AI tools to steer product roadmaps. Differentiated internal offerings by integrating dynamic models and pioneering a Mistral-based AI Red Team to refine outputs—a novel capability validated by a Big 4 consultancy.
- Redesigned the Resilience Architect tool to optimize AI workflows for commercial operations, field sales teams, and disaster response, aligning technical capabilities with business objectives to project thousands of hours in global operational savings—directly contributing to IT's decision to approve an internal proof-of-concept.

Continued...

- Led application design and integration for a Power Platform-based critical process selection tool, achieving 90%+ adoption across three continents through continuous UX/UI iterations and direct user feedback loops.
- Led the design and deployment of a dynamic GIS dashboard overlaying active clinical trial sites with multi-threat feeds, establishing real-time KPIs/KRIs for executive reporting on framework effectiveness and incident closure acceleration.

Internal Consulting, Technology Mentoring & Change Management:

- Co-led the creation of a multi-year enterprise AI resilience strategy across Marketing, Operations, Finance, and R&D, prioritizing use cases based on business value, technical feasibility, and risk.
- Spearheaded a strategic change management shift from volume-centric Business Impact Analysis (BIA) to actionable, quality-driven resilience planning. Secured executive buy-in via global workshops with senior IT, R&D, commercial, and quality stakeholders.
- Recognized as the enterprise AI leader and technology mentor across Oncology R&D. Coached peers on AI capabilities, piloted an AI crisis assistant during active-assailant executive tabledops (drastically reducing cognitive load), and co-developed secure AI applications alongside IT.
- Pioneered the innovative "Resource MTPD" concept, uncoupling recovery time targets for processes from supporting resources. Averted multi-million-dollar capital expenditures for a single-point-of-failure vivarium robot by validating and formalizing manual workarounds.
- Streamlined complex data collection workflows by developing intuitive Power Apps that automated draft generation, presented data-driven findings to process leadership, and secured executive approvals for localized strategies.

Change Management, AI Guidance & Governance:

- Designed and delivered tailored AI training sessions for non-technical operational and Safety, Health & Environment (SHE) teams, following a curriculum from prompting practice to hands-on agent building; highlighting the importance of human oversight in AI solutions to uphold regulatory compliance (e.g., EU AI Act) and mitigate risks associated with autonomous decision-making.
- Provided 1:1 guidance to a non-technical team member to independently build a globally deployed Power App for lessons learned using AI coding partners.
- Led the first enterprise-wide emerging risks scan evaluating GenAI threats and geopolitical impacts, establishing data governance protocols across the organization.
- Integrated Microsoft Copilot into BIA data-gathering interviews with process owners, using LLM transcription to capture detailed process information and auto-generate draft BIA documents—reducing manual documentation effort and accelerating the planning cycle.
- Leveraged generative AI to transcribe exercise discussions and reliably extract action items, replacing manual scribe notes and significantly enhancing after-action report accuracy and completeness.
- Hosted the BCI AI SIG Open House, walking resilience practitioners through a progressive curriculum from basic prompting to building advanced custom AI applications—directly promoting AI tool adoption beyond the enterprise.

Financial Industry Regulatory Authority (FINRA), Corporate Risk Management, Rockville, MD Business Continuity Program Manager

2022 – 2023

Recognized as a change maker in digital operational resilience, I modernized enterprise business continuity and crisis response frameworks for critical U.S. financial market operations housing data for over 100 million accounts. Guided internal consulting engagements and the deployment of digital applications to safeguard business operations and support executive decision-making, extending solutions to regulated firms beyond internal staff.

Digital Solutions Design & Application Integration:

- Collaborated with platform teams to design and deploy digital solutions, including an OSINT threat-monitoring feed and an ArcGIS safety accountability dashboard for tracking staff during active incidents, which also provided situational awareness to regulated firms.
- Implemented a two-way communication SaaS solution, managing vendor integration and validating SLAs against time-to-notify expectations, boosting staff engagement during operational disruptions.
- Worked closely with the Power Platform product manager to design intuitive UX/UI for COVID-19 testing and visitor access applications, balancing complex regulatory requirements with user simplicity, and trained non-technical teams to build custom solutions using Power Apps and Power Automate Flows.
- Utilized a BCM SaaS platform to build and maintain plans for essential operations, providing training to operation owners to enforce lifecycle updates and operational readiness.
- Completed a market scan and cost-benefit analysis for third-party risk management SaaS platforms, evaluating API integration fit and presenting technology adoption recommendations to leadership.

Internal Consulting & Cross-Functional Alignment:

- Facilitated executive BC Roadshows to diagnose systemic gaps across functional areas, converting findings into control self-assessments and action plans tracked to completion.
- Managed the Business Continuity and Operational Resilience Steering Committee, setting cadence, agenda, and decisions to align senior leaders across technology, market operations, HR, facilities, communications, and risk departments.
- Built strategic relationships with Finance & Administration teams to integrate continuity principles into formal third-party risk management frameworks, influencing vendor conversations and continuously monitoring dependencies.
- Refined the impact-assessment method with executive buy-in to identify Important Business Services (IBS/CBS), map dependencies, and clarify recovery targets.

Risk Assessment & Crisis Management:

- Co-authored FINRA's ransomware response plan in coordination with an external service provider and provided second-line-of-defense assurance on the Consolidated Audit Trail (CAT) BCP.
- Designed and facilitated comprehensive exercise programs ranging from active-shooter scenarios to cyber-ransom workshops for the executive Crisis Management Team.
- Coordinated an integrated threat monitoring cell during sensitive regulatory actions, fusing physical security signals, internal communications, and social media intelligence.
- Monitored external threat vectors and developed risk assessment documents preceding the Russian invasion of Ukraine, advising leadership on potential mitigation actions for international partners.

U.S. DOT Pipeline Hazardous Materials Safety Administration (PHMSA) Engineering and Research Division Washington, DC Senior Resilience Engineer | General Engineer | Emergency Support Specialist 2012 – 2022

Served as a recognized change maker in digital operational resilience, leading the design of GIS dashboards used across the whole of government to monitor potential impacts to the regulated oil and natural gas community. Championed SharePoint workflows to enhance productivity before the Power Platform era and later transitioned these solutions to modern platforms. Managed ~\$1.5M in R&D and professional services contracts while championing digital operational resilience, predictive modeling, and change management initiatives.

Design of Solutions & Application Integration:

- Partnered with IT to design and optimize a three-level approval SharePoint workflow for oil spill response plan reviews, balancing operational usability with stringent record-keeping compliance; processed 99% of all national reviews for five years before transitioning to a modern platform.
- Championed the shift from reactive vulnerability assessments to predictive geospatial modeling; built the business case for advanced computing resources, fused severe weather data with infrastructure maps, and architected interactive GIS dashboards for federal decision-makers and regulated industry partners.
- Built real-time COVID-19 ArcGIS dashboards tracking regulatory partner capabilities, facilitating uninterrupted remote safety oversight of the national energy grid and critical pipeline infrastructure.
- Prepared resilience-focused control summaries for pipeline R&D projects, supporting internal program reviews and informing risk-mitigation actions.

Change Management, Policy & Internal Consulting:

- Contributed to drafting legislative provisions mirroring the EU's Digital Operational Resilience Act (DORA) framework, defining ICT risk management, incident reporting timeframes, and mandatory cyber exercises for critical operators.
- Led organizational change management to elevate emergency management functions, briefing political leadership and redefining departmental roles to secure expanded resources and operational visibility.
- Rewrote legacy crisis management policies into concise, role-based standard operating procedures aligned with ISO standards, enhancing usability for incident commanders and technical specialists.
- Managed a specialized two-person team supporting the critical redaction of information vital to public safety and national energy supply security.

Crisis Response, Cyber Security & Threat Intelligence:

- Translated technical outage data into operational impact scenarios during the 2021 Colonial Pipeline cyber breach, mapping state dependencies, framing energy allocation decisions, and coordinating the federal response cell to protect fuel supply.
- Activated the crisis cell as Incident Manager during the 2018 Merrimack Valley Gas Explosions, issuing tailored situation reports to the DOT, Congress, and White House while managing disciplined communications during concurrent hurricane responses.

- Authored SCADA vulnerability inspection rubrics as the Cyber-OT Subject Matter Expert, highlighting third-party malware risks, leading GMD/EMP threat research with the DOE, and briefing White House staff on national security risks.
- Represented PHMSA on the Energy Government Coordinating Council and championed the Public-Private Analytic Exchange Program, managing cross-functional teams analyzing global energy market threats.

AI Application Design

Proof-of-Concept Portfolio — Built with Vibe-Coding Platforms (Claude Cowork, Google AI Studio, Mistral Vibe CLI)

Conceived and built three AI-powered web applications using vibe-coding AI development platforms, translating deep domain expertise into working deployed products through AI-assisted development.

Resilience Architect: React-based web application automating crisis management tabletop exercise design and production. Multi-agent LLM pipeline: Google Gemini for document generation and slide planning, Mistral AI for adversarial red-team critique and narrative enrichment, Anthropic Claude for slide content generation—with constraint propagation ensuring consistency across all AI services. Outputs include formatted Word documents and multi-layout PowerPoint decks with newspaper, social media, and email-client slide designs, all generated from a single scenario seed. Includes a custom Mistral API agent monitoring reputable news sources to feed real-world events into scenarios. Presented to AstraZeneca IT with extensive documentation; internal proof-of-concept approved, with work underway to determine secure AI APIs and scrum development timeline.

AI ReguCheck Nexus: AI compliance management platform (React, TypeScript, Node.js) designed to navigate frameworks like the EU AI Act, DORA, and GDPR, built using vibe-coding platforms. Features a centralized AI project register with automated risk classification and a multi-agent LLM pipeline (Google Gemini, Mistral AI) that delegates specialized roles for gap identification, adversarial red-teaming, mitigation evaluation, and arbitration. Integrates an always-on Mistral-powered conversational Chief Compliance Officer and an Intelligence Hub for horizon monitoring. A persistent data layer (AWS S3) maintains compliance evaluations across sessions. Outputs include automated gap reports and boardroom-ready executive PowerPoint decks generated by Anthropic Claude.

ReguCheck: Regulatory compliance management platform tailored for French financial institutions operating under DORA, EBA, and Arrêté du 3 novembre 2014 frameworks. Features AI-powered compliance scoring (Gemini + Mistral), automated French translation, ACPR red-team auditing simulation, ICT incident response workflows aligned to regulatory reporting timelines, exercise management, and a regulation awareness engine.

Crisis Compass: AI-powered crisis management platform enabling teams to maintain plan libraries, activate live incidents, assign role-based rosters, and coordinate response in real time. Integrates Gemini AI for automatic parsing of raw plan documents into structured workflows and Mistral AI for pre-mortem and red-team critique. Features a regulatory intelligence engine mapping operating locations to jurisdiction-specific reporting obligations, horizon threat monitoring, and tabletop exercise simulation mode.

Professional Development

M.S. in Engineering Management, focus on Crisis, Emergency, and Risk Management

The George Washington University (GWU), Washington DC

B.S. Mechanical Engineering

University of Maryland (UMD), College Park, MD

Professional Associations

SIG Leader

The Business Continuity Institute's Operational Resilience Special Interest Group
August 2025 – Present

Committee Member (Leadership)

The Business Continuity Institute's Artificial Intelligence Special Interest Group
March 2025 – Present

Fellow of the Business Continuity Institute

The Business Continuity Institute (BCI)
BCI World 2024 Presenter — Operational Resilience and Cross-Sector Exercising

Languages

Dual American and French Citizen

English: Native speaker

French: Intermediate (Progressing with formal education)

Technical Proficiencies

AI & Development: Multi-agent LLM orchestration (Google Gemini, Mistral AI, Anthropic Claude), Microsoft Copilot Studio, vibe-coding platforms (Claude Cowork, Google AI Studio, Mistral Vibe CLI), prompt engineering, Power Platform (PowerApps, Power Automate, Power BI), PowerFx

Data & Visualisation: ArcGIS (geospatial dashboards, predictive models), Power BI, Excel (advanced)

Platforms & Frameworks: BCM SaaS platforms (custom query/reporting), ISO 22301/22361, NIS2, DORA, EU AI Act

Languages: English (native), French (intermediate – actively enhancing)