

CASE STUDY

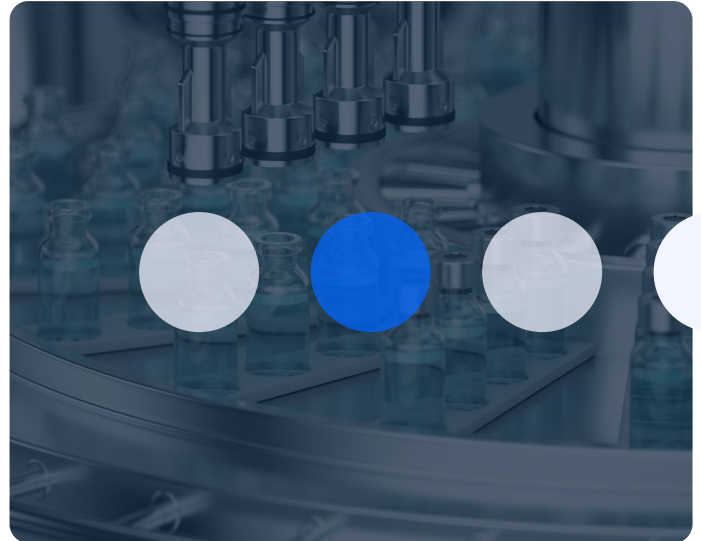
AI-Powered Compliance for Life-Saving Logistics

How a Global Life Sciences Logistics Leader
Worked with Telefónica Tech to Build a Scalable,
AI-Powered Compliance Assistant Using Microsoft
Azure and OpenAI

ABOUT THE CUSTOMER

The client is a global leader in logistics and supply chain management, serving the pharmaceutical and life sciences industries. Operating in a highly regulated environment, the organisation plays a critical role in supporting clinical trials and the international distribution of temperature-sensitive medical and biological materials.

Their services encompass the secure and timely transportation of clinical drug shipments and biological samples, ensuring they reach their destination in full compliance with global trade and health regulations. Precision, reliability, and adherence to strict compliance standards are foundational to their mission of enabling the delivery of innovative therapies to patients worldwide.



THE CHALLENGE

In their efforts to support fast, compliant, and efficient logistics, the customer encountered a series of challenges related to trade compliance documentation and internal knowledge management.

- 1 Single Point of Failure**

Trade compliance expertise was concentrated in a small number of individuals within a dedicated team. This made the organisation heavily dependent on human knowledge, often undocumented and not easily accessible to others. This bottleneck posed a serious risk to continuity, accuracy, and scalability.
- 2 Manual Processes**

Employees were reliant on manual reviews of dense, regulatory documents, often stored across disparate systems. Searching for the correct documentation, understanding specific regulatory conditions for different countries, and validating compliance requirements was time-consuming, inefficient, and prone to error.
- 3 Accuracy Under Pressure**

The stakes are high. If inaccurate information was issued, whether in documentation or internal guidance, the organisation could face serious legal and reputational consequences. Reviews triggered by regulatory authorities could lead to investigations, fines, and customer dissatisfaction.
- 4 Complex Contexts**

Each shipment had its own set of regulations to follow, which varied based on factors like the type of product, the country it was coming from, its destination, and the nature of the materials involved. The existing tools were not capable of managing such detailed and specific queries effectively.
- 5 Growing Volume & Velocity**

With a rising number of shipments and increasingly complex regulatory landscapes, the need to streamline compliance operations became urgent. The organisation needed a solution that could scale with them and reduce time-to-decision without compromising accuracy.

THE SOLUTION

To address these challenges, the customer engaged Telefónica Tech through its **OpenAI Accelerator Program** to co-develop a tailored, production-ready AI-powered compliance.

Core Solution Features:

With a rising number of shipments and increasingly complex regulatory landscapes, the need to streamline compliance operations became urgent. The organisation needed a solution that could scale with them and reduce time-to-decision without compromising accuracy.

- › **AI-Powered Chatbot Interface:** At the heart of the solution was a conversational AI chatbot capable of understanding natural language queries related to international trade compliance. Employees could ask questions in plain English, without needing to know the exact document title or phrasing and receive fast, contextual, and accurate answers
- › **Advanced Contextual Understanding:** Unlike basic keyword search tools, the chatbot was programmed to interpret the intent and context behind each query. It was capable of refining user prompts through intelligent follow-up questions to gather all relevant details, such as:
 - › Product classification
 - › Export country and destination
 - › Special handling or temperature conditions
 - › Regulatory jurisdictions
 - › Documentation required per shipment type



- › **Mandatory Query Completion Logic:** To safeguard against incomplete or inaccurate answers, the chatbot was designed to only respond when all required inputs were provided. If users omitted critical information, the bot would prompt them until all contextual data had been collected.
- › **Interactive Q&A for Process Support:** In addition to direct answers, the bot facilitated step-by-step guidance through complex trade processes, helping employees determine what forms to submit, when, and under what conditions. This improved onboarding, reduced training time, and empowered more staff to contribute to compliance workflows.
- › **Content Refinement Capabilities:** Beyond Q&A, the AI also supported long-form content improvement—for example, reviewing and suggesting refinements for bid responses, export control statements, or shipment documentation. This reduced rework and ensured language and structure met regulatory expectations.
- › **Secure Authentication:** Access to the chatbot was controlled using Microsoft Entra authentication (formerly Azure AD), ensuring that only authorised personnel could access the assistant and its underlying documentation.
- › **Seamless Integration with SharePoint:** The AI assistant was integrated with the client’s SharePoint environment, providing real-time access to compliance policies, country-specific documentation, and the latest procedural updates. This ensured accuracy and relevancy in every interaction.
- › **Scoring & Ranking System:** Responses were prioritised using a scoring algorithm that ranked sources based on document reliability, regulatory importance, and contextual match, giving employees transparency around why each answer was recommended.

Deployment Approach

The solution was delivered in phases:

1 Proof of Concept (PoC)

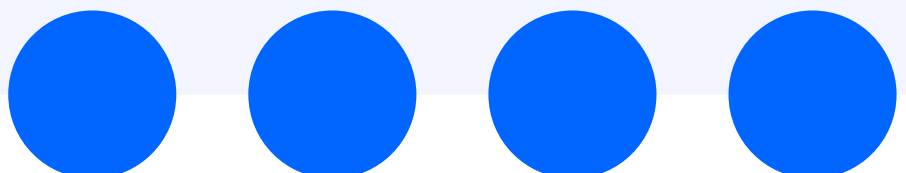
Validated the feasibility of AI-driven compliance support and demonstrated measurable business value.

2 Pilot Rollout

Introduced the chatbot to a controlled group of users, collected feedback, and refined the model.

3 Full Production Deployment







Rolled out across the organisation, with training and support materials provided to ensure high adoption.



THE RESULTS

The implementation of the AI-powered trade compliance assistant delivered substantial and lasting value:

Short Terms Benefits:

-  **Faster Decision-Making:** Employees now receive precise, contextual answers in seconds instead of hours, accelerating regulatory reviews and shipment approvals.
-  **Improved Compliance Accuracy:** By standardising access to the latest verified documents and ensuring full context in every interaction, the risk of non-compliance has significantly decreased.
-  **De-risking Key Personnel Dependencies:** By embedding expert knowledge into the chatbot, the organisation reduced its reliance on a small team of specialists and democratised access to critical knowledge.
-  **Increased Operational Agility:** Staff across functions—from logistics coordinators to compliance officers can now act on regulatory information with confidence, speed, and consistency.
-  **Secure & Scalable Platform:** The chatbot's modular design and enterprise-grade security architecture position it as a long-term asset, ready for expansion into other regulatory domains (e.g., import/export controls, customs documentation, controlled substance management).
-  **Foundation for Customer-Facing Expansion:** The chatbot is now being actively used in trade compliance operations, with strategic discussions underway to **extend its capabilities to customers**, enabling them to self-serve on specific compliance inquiries.

The next step will be to discuss how this can be made available to shared customers to support them with more specific compliance requests.

Leading the Way in
Digital Transformation
for our Customers

Telefónica Tech unlocks the power of integrated technology, bringing together a unique combination of the best people, with the best tech and the best platforms, supported by a dynamic partner ecosystem to make a real difference to every business, every day.