

HCM AT AHOLD DELHAIZE, AI POWERED & HUMAN CENTERED.

WHITEPAPER BY SPECTR

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SPECTR

WE GET *IT* DONE

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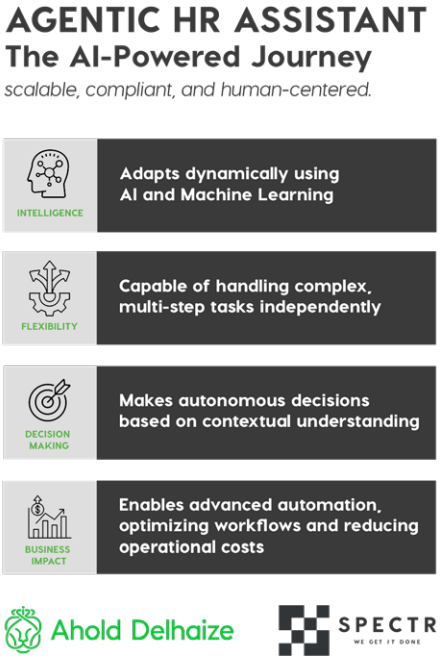
1. INTRODUCTION

Ahold Delhaize HCM : AI-Powered, Human-Centered

Human Capital Management (HCM) is at a turning point. For global organizations, the challenge is no longer whether to digitize HR and use AI, but how to do so in a way that is scalable, compliant, and human-centered.

Ahold Delhaize, one of the world's largest food retail groups, serves 72 million customers each week across 9,400 stores and employs 400,000 associates worldwide. Behind this scale lies a complex HR reality: 17 brands, each with its own collective labor agreements, tone of voice, and regional regulations.

Together with SPECTR, Ahold Delhaize has pioneered a new approach: Agentic HR, an AI-powered assistant designed to transform HR into a seamless, personalized service for every employee.



Ahold Delhaize

150+ yrs
innovation

72 M
customers each week

~9,400
local stores

400,000
associates worldwide

17
great local brands

9
countries worldwide

17 GREAT LOCAL BRANDS

Albert Heijn
albert
bol.
DELHAIZE
ENA FOOD CASH & CARRY
Etos
FOOD LION
Gall & Gall SINDS 1884
The GIANT Company
Giant
Hannaford
MAXI
MEGA IMAGE
profi
STOP&SHOP
SUPER INDO
Βασιλόπουλος ...και του πουλιού το γάλα!

2. THE ORGANIZATIONAL CONTEXT

Ahold Delhaize is a family of strong local brands, including Albert Heijn, Delhaize, Hannaford, Stop & Shop, and many more, operating across Europe and North America. Each brand reflects its local culture, but all share a commitment to innovation, sustainability, and inclusive work-places.

This diversity, while a strength, creates HR complexity. Ahold Delhaize's employees expect the same digital convenience they experience as consumers: instant answers, personalized guidance, and support available 24/7.



"Employees deserve the same seamless experience as customers." Ahold Delhaize HR Leadership

Yet HR teams are constrained by decentralized processes, varying regulations, and the sheer scale of operations.

Industry research confirms the urgency: McKinsey's Workplace 2025 report shows that 92% of companies plan to increase AI investments, but only 1% consider themselves mature in AI adoption due to fragmented systems, inconsistent data, and limited governance. HR leaders are under pressure to move beyond pilots and deliver measurable value.

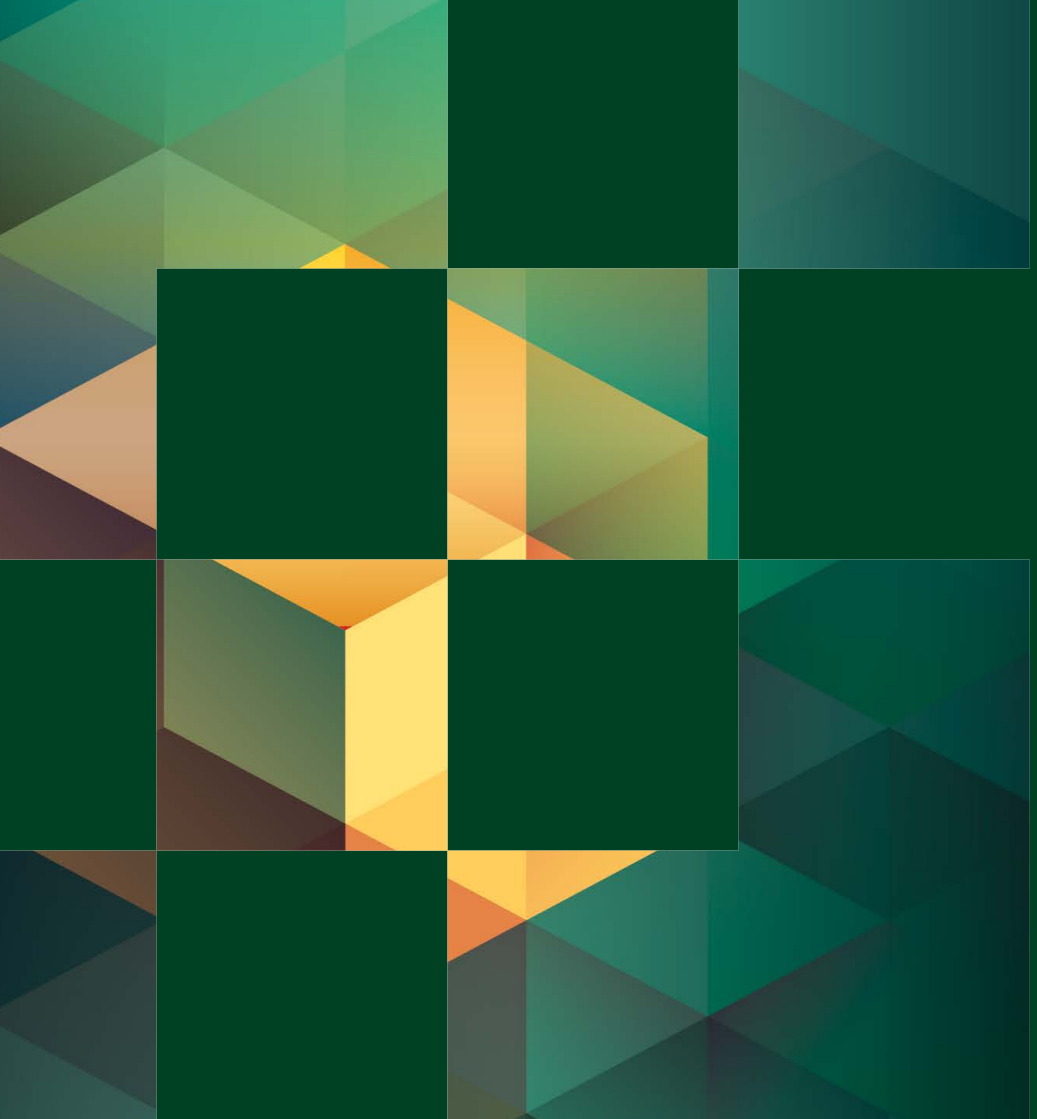
3. THE BUSINESS CHALLENGE

Before Agentic HR, Ahold Delhaize's employees relied on call centers, portals, and email to access HR information, including pay, benefits and leave policies. This led to recurring problems:

- **Long wait times**
  Employees often had to wait until HR staff were available or search through lengthy policy documents themselves.
- **Inconsistent responses**
  Answers varied between brands and even between individual HR representatives, creating confusion and increasing the risk of non-compliance.
- **High routine workload for HR teams**
  HR professionals spent significant time responding to repetitive questions and processing standard requests instead of focusing on complex cases or strategic initiatives.
- **Complex regulations**
  Employees also had to search through large sets of available regulations to find those that applied specifically to their role, position, or situation, which was both time-consuming and error-prone.

In short: lower employee satisfaction, higher compliance risks, and HR professionals spending more time on repetitive tasks than on strategic, human-focused work.

Ahold Delhaize therefore needed a solution that could deliver personalized answers instantly, scale efficiently across all brands, and reduce human error while ensuring compliance with internal and international regulations.



SPECTR

SPECTR DELIVERED A RELIABLE AND SCALABLE INTEGRATION FOUNDATION



Migration from On-Prem to Cloud

Seamless migrations of all integrations to Azure Cloud (AKS)



Standardized Monitoring, Alerting and ticketing

Standardized monitoring, alerting and automated incident ticketing (ServiceNow integrated)



Automated Issue Resolution with MLOps

Problems are detected and corrected using AI algorithms



Optimized Integration Interfaces

SAP Integrations fined tuned to achieve better performance and reliability



Operational Data Store (ODS)

Operational Datastore for Global SAP Integrations



Automated Schema Change-Detection

Dynamic Schema generator to evaluate changes and generate a new one



Improved Error Handling

Automatically manage authorizations, removal of payload,



Integration Architecture Standards

Integration Patterns, Integration Vision and Mission, Decision tree, Intake standards



Self Service Dashboards

Standardization in logging enabling self service dashboards for the business



GitOps Strategy

Deployments automated and standardized leveraging code promotion between environments



Reliable Messaging Platform replacement

Migrated the messaging platform to a new enterprise messaging system supporting streaming and topics



Automated Review Process

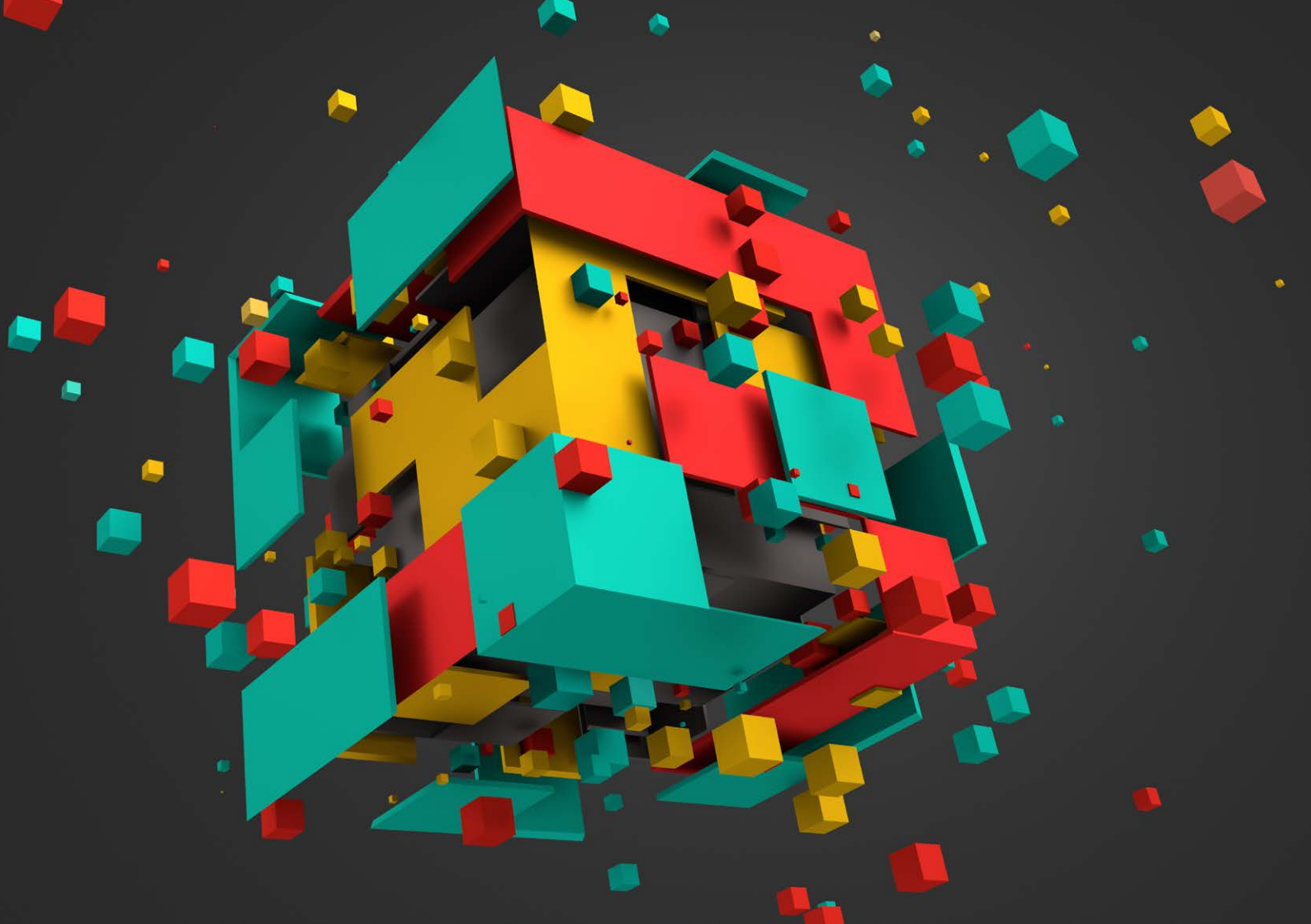
Automated process for code review, QA checks, DoD checklists and documentation standards

4. THE SOLUTION: AGENTIC HR ASSISTANT

Agentic HR is more than a chatbot. It is a digital colleague that combines modern integration, generative AI, and workflow automation to deliver personalized, compliant, and brand-aligned support. The following architecture transforms HR from a reactive service into a proactive, human-centered experience.

- **Modern Integration Platform:** Legacy systems migrated to Azure Kubernetes Service (AKS), with MuleSoft for APIs, Kafka for event driven messaging, and Azure Data Lake for secure storage.
- **Knowledge & Context:** Internal sources like SharePoint, Confluence, ServiceNow, and SAP SuccessFactors indexed in a vector database (Weaviate) for semantic search.
- **Generative AI & Orchestration:** Large language models orchestrated via MuleSoft, enhanced with Model Context Protocol (MCP) for structured, secure context exchange and Agent-to-Agent (A2A) collaboration to automate multi-step workflows. The system adapts tone of voice per brand and ensures compliance with local laws, labour agreements, and privacy frameworks, including GDPR (Europe), CCPA/CPRA (California), and HIPAA (United States).
- **Actionable Requests:** Beyond answers, the assistant executes HR tasks – from absence and payroll updates to onboarding steps, document generation, benefits changes, and profile updates – all securely via MuleSoft APIs with full compliance and traceability.
- **Multimodal Experience:** accessible through a multi-model UI and across multiple channels – including chat, Teams, Slack, and mobile apps – ensuring seamless support for both office and frontline employees.

This architecture transforms HR from a reactive service into a proactive, human centered experience.



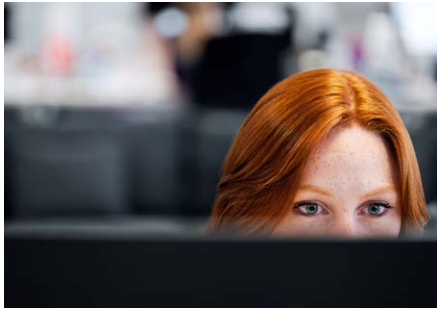
5. CORPORATE VALUE DELIVERED

Current results and modeled outcomes demonstrate the following benefits as the solution scales.

For Employees:
Instant, accurate answers; simplified access to regulations; brand-specific guidance; and actionable support through automated HR tasks (e.g., absence, payroll, benefits, and onboarding steps).

For HR Professionals:
Routine queries and HR transactions automated, reduced administrative load, consistent responses, and more time for strategic initiatives.

For the Company:
Scalability across 400,000 FTE; improved compliance and governance; cost efficiency; foundation for future AI applications in IT, customer service, and finance.











6. COMPARISON WITH INDUSTRY BENCHMARKS

AI adoption in retail HR is accelerating, but rarely integrated

- By 2025, the AI in retail market is valued at $14.49 billion, with 77% of eCommerce professionals using AI daily.
- However, most retail AI use cases focus on customer experience, inventory, and personalization – not HR.
- According to *Retail Bulletin*, HR teams in retail are only beginning to use AI for recruitment, scheduling, and basic engagement bots, often on isolated platforms.

Agentic HR breaks this mold by embedding AI into core HR workflows across 17 brands – with compliance, orchestration, and brand-specific tone built in.

Retail HR faces unique pressures

- Retail HR teams deal with high turnover, seasonal hiring, and multi-location compliance – making automation and personalization especially valuable.
- *ADP* reports that two-thirds of retail executives plan "moderate-to-major investments" in workforce readiness and retention by 2025.
- Yet most solutions remain fragmented: chatbots for FAQs, separate systems for payroll, and manual compliance checks.

Agentic HR is pioneering because it unifies these functions into a single assistant – capable of answering, acting, and adapting across geographies and brands.

Few retail giants have reached this level

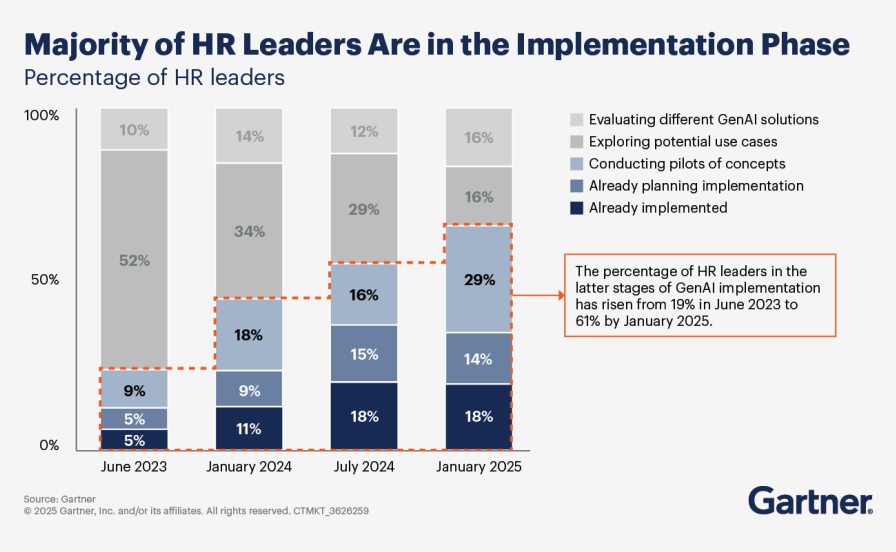
- Walmart and Target have piloted AI for recruitment and scheduling, but not full-service HR assistants.
- SAP's retail clients are experimenting with Joule, but it's still in early rollout.

- Ahold Delhaize is among the first multinational retailers to deploy a generative AI assistant with orchestration, compliance, and multimodal access.

This positions Agentic HR as a benchmark case for retail HR transformation – not just in Europe, but globally.

Compliance is a differentiator

- Retail HR spans jurisdictions with GDPR (EU), CCPA (California), HIPAA (US) – and few AI tools address this.
- Agentic HR includes built-in consent management, tone-of-voice filters, and audit logs, aligning with best practices from McKinsey and AI HR's 2025 report.



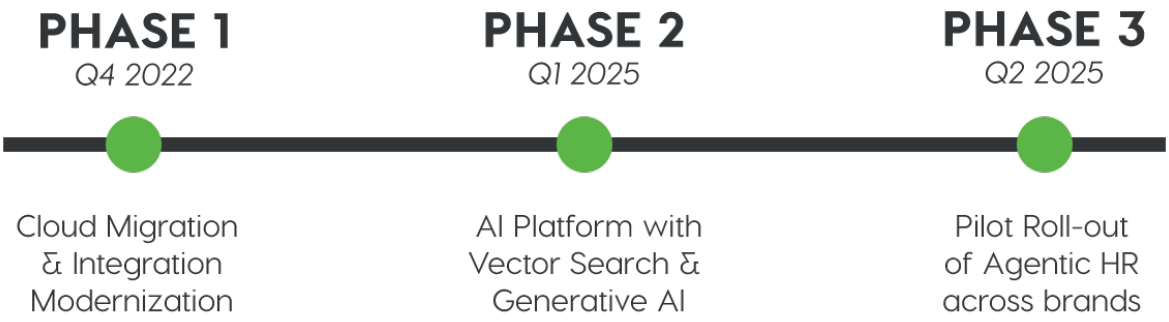
Strategic impact

- Retailers using AI in HR report 5–15% annual revenue growth and up to 30% reduction in operational costs.
- Agentic HR supports this by reducing manual workload, improving employee experience, and enabling HR to focus on strategic initiatives.

In short: Agentic HR is not just ahead of the curve – it's defining the curve for AI in retail HR.

7. THE IMPLEMENTATION JOURNEY

Transforming HR at scale requires more than deploying AI – it demands a resilient foundation, a phased strategy, and a clear vision for impact. That's why Ahold Delhaize and SPECTR approached the Agentic HR initiative not as a tool rollout, but as a full-stack transformation.



Phase 1: Building the foundation
Q4 2022

The journey began with a bold architectural shift. Legacy integration platforms were migrated to Azure Kubernetes Service (AKS), introducing:

- *MuleSoft for API management*
- *Kafka for real-time messaging*
- *Azure Data Lake for secure, scalable data storage*

This laid the groundwork for a cloud-native, event-driven ecosystem – replacing batch-based HR processes with real-time updates across employment status, payroll, and access rights.

Phase 2: Enabling intelligence
Q1 2025

With the foundation in place, the focus shifted to intelligence. SPECTR deployed:

- *Vector search (Weaviate) to index HR knowledge across SharePoint, SAP, ServiceNow, and more*
- *Generative AI services orchestrated via MuleSoft*
- *Dynamic schema detection and automated testing pipelines*

This phase unlocked context-aware, brand-specific responses – enabling the assistant to understand not just what employees ask, but who they are, where they work, and what rules apply.

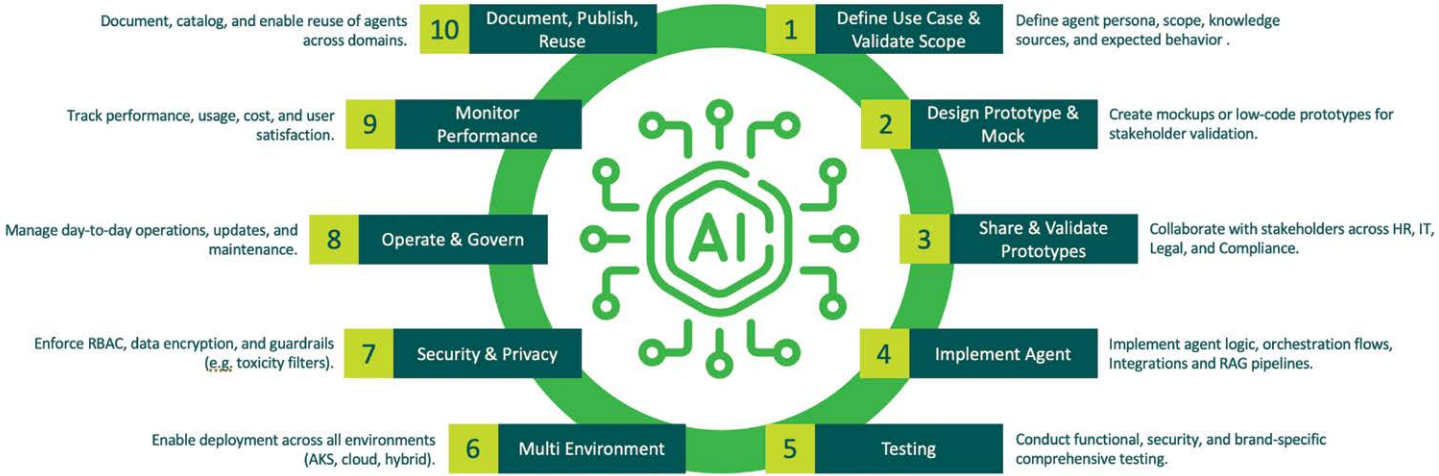
Phase 3: Human-centered activation
Q2 2025 – Present

Agentic HR entered pilot deployment across selected brands. The assistant now:

- *Delivers 24/7 personalized answers*
- *Executes HR tasks like leave requests and profile updates*
- *Adapts tone and compliance to each brand's voice and legal framework*

Feedback loops are built in, allowing continuous improvement before broader rollout. Governance layers ensure alignment with GDPR, CCPA, HIPAA, and internal policies.

GOVERNANCE LIFECYCLE



8. ETHICAL AND GOVERNANCE CONSIDERATIONS

Introducing AI into HR requires a strong governance framework to protect employee trust and organizational integrity.

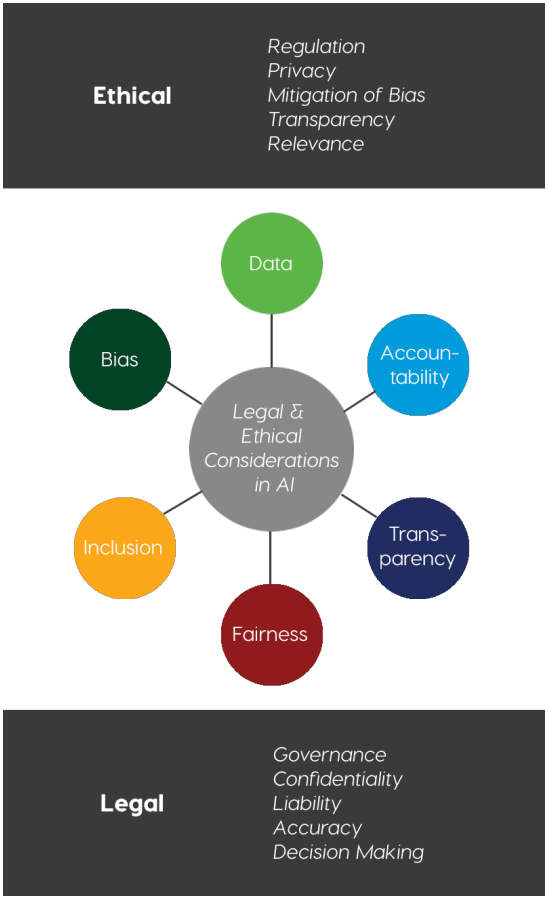
Tone-of-voice management
Ensures inclusive, brand-aligned communication.

Consent and privacy controls
Compliant with GDPR (Europe), CCPA / CPRA (California), HIPAA (U.S.), and other international laws.

Security and quality filters
Prevent biased or inaccurate responses through rigorous monitoring.

Auditability and transparency
Full interaction logs enable oversight and continuous improvement.

Together, these measures ensure that Agentic HR operates within clear ethical boundaries, delivering innovation without compromising fairness or accountability.





9. FUTURE OUTLOOK

Agentic HR is the first step toward a broader AI enabled enterprise.

Next steps include:

- **Expanding functional agents** into customer service, IT, finance, and supply chain
- **Enhancing multimodality** with voice and video interfaces
- **Unlocking new business value** through responsible data monetization, enabling insights, services, and partnerships beyond HR.

Together, Ahold Delhaize and SPECTR are shaping the future of human centered AI in the workplace.

10. CONCLUSION

The Agentic HR initiative at Ahold Delhaize is more than a technological upgrade – it's a strategic transformation. In a sector defined by scale, diversity, and constant change, this project demonstrates how AI can be deployed not just responsibly, but meaningfully.

By combining modern integration, generative AI, and governance, Ahold Delhaize has created a blueprint for what HR can become:

- A service that's always available, always relevant, and always aligned with the human experience.
- A system that adapts to brand tone, legal frameworks, and individual needs – without compromising compliance or empathy.
- A platform that frees HR professionals to focus on what matters most: people, culture, and strategy.

This is not a chatbot. It's not a pilot. It's a living example of enterprise-grade AI in action, orchestrated, ethical, and scalable.

As the retail sector races toward digital maturity, Agentic HR stands out as a pioneering case. It shows that with the right architecture, the right partners, and the right mindset, AI can elevate HR from a support function to a strategic driver of growth, trust, and resilience.

At SPECTR, we believe that intelligence without empathy is incomplete. That's why we build systems that bring it together – technology, governance, and human insight – to help organizations thrive in the age of AI.

SPECTR is a globally operating specialist in integration, cloud, data, and AI solutions. We manage both the technical and organizational transitions that drive successful digital transformation.

- Independent integration, data & AI authority - delivering vendor-agnostic solutions with confidence.
- Proven record in enterprise transformations – measurable impact at scale, across industries.
- Hands-on problem solvers – thriving on complexity, not shying away from it.
- Deep sector expertise – Retail, Logistics, Energy, HR & Finance where compliance and scale matter most.
- Seamless collaboration – partnering with IT teams and vendors to accelerate change without disruption.
- Scalable, reliable and secure by design – solutions built to adapt across diverse systems, teams, and geographies.



USA
Delaware

Europe
Almere

India
Bangalore

SPECTR
INTEGRATION

SPECTR
CLOUD

SPECTR
TECH HUB

SPECTR
AI

OUR PARTNERS:

MuleSoft

Weaviate

"YOUR DATA IS READY. IS YOUR ARCHITECTURE?"

Modern integration is the foundation for AI that truly works.

Schedule a readiness assessment to identify how real-time, event-driven data can unlock new efficiency and resilience across HR and beyond.

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