

REPORT

AI in *grocery* retail



Table of contents

Future outlook	4
State of AI in grocery retail	5
State of adoption in grocery retail	6
AI use cases in grocery retail	7
Strategic questions for AI readiness	11
The landscape of AI	12
About Implement	15



AI will revolutionise how customers interact with retailers. It will be seismic. There have been waves of technology disruption historically. We are on the cusp of another one with AI. AI will impact every facet of our business.”

Ken MurphyGroup CEO, Tesco (UK)

Future outlook

Whatever the future holds, one thing is clear: **AI is no longer a question of if or when – the real question now is whether retailers have the trusted information, leadership, and workforce readiness to use it well.** AI agents have already started to mediate between shopper intent and retailer assortment, and that change is happening now.

Across grocery retail, organisations are moving in a common direction. Not because the destination is clear, but because standing still is no longer an option. The early leaders do not have perfect roadmaps, but they take AI seriously, invest early despite thin margins, and stay curious and experimental rather than waiting for a fully-sanctioned plan.

In the near term, progress starts with pragmatic use cases that double as entry points for building data foundations and governance. The harder work lies inside the organisation: reconciling fragmented owner-operator and franchise data flows, bridging in-store hardware to enterprise data, and deciding who actually owns AI before shadow AI decides it for them.

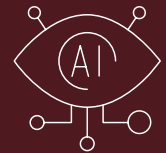
At Implement, we see early leaders investing in the technology, yes, but also in data foundations, the activation of loyalty and transaction data already being collected, validated in-store environments, and, most importantly, organisational learning. Lasting impact will depend on retailers' ability to bridge the widening gap between frontrunners and the rest, and to unlock the value sitting in their own data before AI-mediated shopping reshapes the storefront from the outside in.

State of AI

Grocery retail is a large and important segment within the broader consumer goods and services sector. The business hinges on assortment and category management, executed through sourcing branded or private label goods from suppliers, across a supply chain that spans store operations and omnichannel fulfilment, marketing and loyalty, and customer service.

Three structural features shape how AI lands across all of them. Margins are generally thin (but volumes high), so leadership demands a business case before committing resources. Operating models are split between owner-operated and franchise stores, fragmenting strategy, data flows, and tool choices. The channel remains predominantly physical, as online grocery is still relatively small in the Nordics. Within this mainly in-store model, fresh food is replenished multiple times a week, making short-cycle restocking a continuous operational rhythm rather than a periodic activity.

Against that backdrop, AI today is treated as an efficiency tool, but its larger impact will be on frontline roles, decision-making, workforce capability, and competitive advantage.



It is genuinely mature in pockets: live transport and picking optimisation, vendor-embedded forecasting from suppliers like Relex and Afresh, and dynamic pricing on electronic shelf labels, but thin across the wider store estate, where broader physical-store AI such as LIDAR shopper-flow tracking is only just being piloted. In category management, what AI can do to remove manual work and free up time for value-adding AI-augmented enhancements is still largely untapped.

Strategically, the industry leans hard towards buy and partner over build, runs predominantly centralised AI operating models with only early signs of distribution into business teams, and is divided on ambition. Large traditional retailers favour structured planning while smaller and pure-play e-commerce players experiment rapidly. The direction is roughly balanced between top-down and bottom-up, with a slight bottom-up tilt.

The near-term picture is defined by two pressures pulling in opposite directions: first, *substantial loyalty and transaction data already sitting underused inside the larger grocery chains*; and second, *overloaded central AI teams, pushing business functions into 'shadow AI' to make progress on their own*.

Grocery retail is adopting AI pragmatically, but thin margins, fragmented operations, and physical-store constraints are slowing it down

Current state of AI in the industry...

AI is already in production where the economics are clearest. Transport and picking optimisation runs live in distribution operations, vendor-embedded forecasting is delivering inside existing software suites, and dynamic shelf-edge pricing on electronic shelf labels is the most visible in-store deployment today. Because the default capability strategy is buy/partner, retailers can adopt proven modules without standing up large in-house teams, and the falling cost of AI tooling is lowering the entry barrier far enough that smaller players can experiment too.

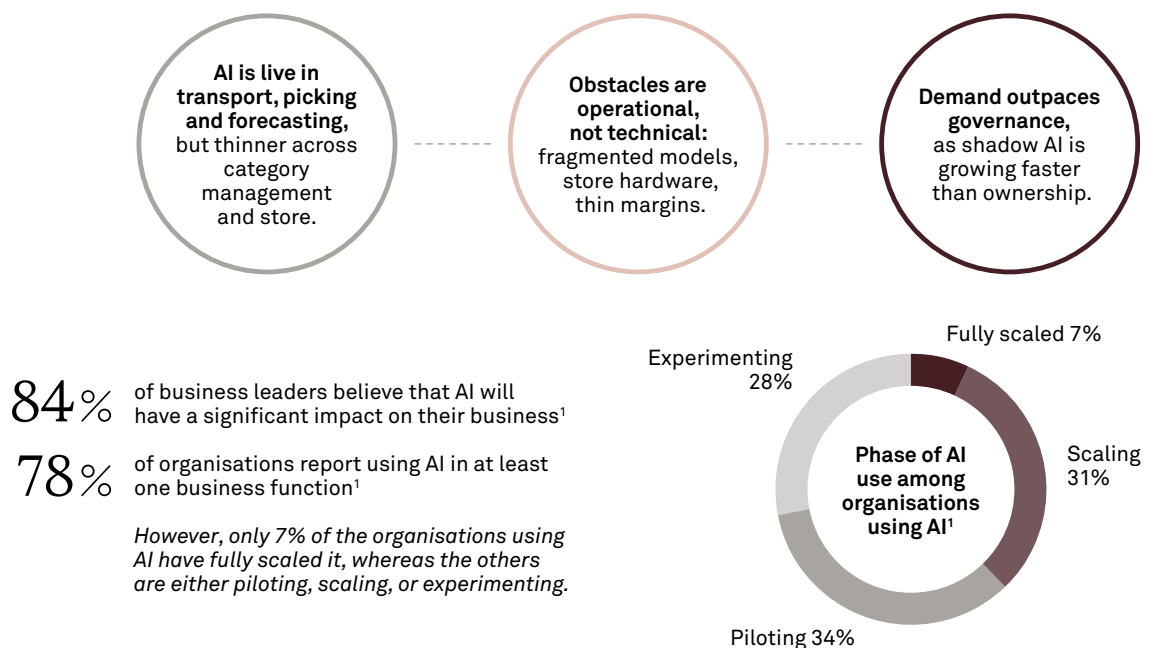
The industry is also sitting on a genuine asset. Larger grocery chains hold extensive loyalty-card and transaction data on shopping behaviour – data that remains largely underused and represents one of the clearest near-term margin levers available.

... but what is hindering adoption?

The hardest blockers are organisational, not technical: fragmented data, unclear ownership, limited governance, and insufficient workforce readiness.

Fragmented owner-operated vs. franchise operating models pull strategic focus, data flows, priorities, and tool choices apart, which makes any enterprise-wide rollout difficult. Physical-store hardware cannot be refreshed at software speed, producing a digital/physical backlog gap that throttles in-store ambition regardless of how ready the software is. And thin margins force slow, structured planning, compounded by vendor lock-in fear and a 2–4 years build-and-burn payback constraint that makes CIOs and CDOs hesitate on platform choice.

Underneath that, governance is lagging demand. Overloaded central AI teams are spawning shadow AI as colleagues act independently without oversight. Ownership of AI is unclear, with many organisations still waiting for the sanctioned AI strategy before moving, and data-quality and master-data issues remain a persistent barrier to deployment.



Sources: 1) Implement Analysis (2026), Rand (2024), Stanford HAI AI Index Report (2025), MIT CISR Enterprise AI Maturity Model (2024)

Future look of AI across grocery retail: AI, employees, and leaders working together

USE CASES

	Use case	Description	Industry adoption ¹			
			Emerging	Low	Medium	High
01. Assortment and category management	AI modules for category management	Integrated AI modules supporting category strategy, assortment, space, pricing, and promotion on one connected platform, enabling improved and connected choices.	☐	☒	☐	☐
	AI-based trend and demand sensing	Uses market signals, search trends, social media, and sales data, with autonomous agents mining discussion streams to predict emerging needs and white-space functions.	☐	☒	☐	☐
02. Sourcing and supplier management	AI-augmented supplier negotiations	AI prepares material and buyers for supplier meetings and autonomously runs negotiations with long-tail/smaller suppliers.	☐	☐	☒	☐
	Automated supplier performance management	Automates ongoing tracking of supplier performance against contractual and operational metrics.	☐	☒	☐	☐
03. Supply chain and distribution	Workforce management and allocation	AI allocates workforce in warehouses, DCs, and stores by area, capability, time-of-day, and forecasts, including coordinating restocking around customer presence.	☐	☐	☒	☐
	Transport and picking optimization	Live AI-based optimisation of transport routes and picking sequences in distribution operations.	☐	☐	☐	☒
04. Store operations and omnichannel fulfilment	AI-augmented fresh demand forecasting & waste reduction	ML forecasts for fresh replenishment factoring in promotions, weather, shelf life, and local patterns.	☐	☐	☒	☐
	Planogram / store fulfillment optimization	Optimises shelf planograms and restocking execution for compliance and efficiency.	☒	☐	☐	☐
05. Marketing, pricing, and loyalty	Real personalisation via AI in loyalty programs	Genuinely personal offers using basket, time-to-shop patterns, and (optionally) credit-card-linked purchase history.	☐	☒	☐	☐
	Generative Engine Optimization	Optimises brand and product visibility across generative AI and AI-agent search/shopping engines.	☒	☐	☐	☐
06. Customer service	AI-augmented customer service (voice + agent assist)	Voice AI answers customers while they wait; agent-assist tools support human service staff.	☐	☐	☒	☐
	Shopping AI agents handling shopping	Customer-side agents that autonomously assemble baskets across multi-day meal plans.	☒	☐	☐	☐



Highlighted future AI use cases in grocery retail

USE CASES – Deep dives

01. AI-augmented supplier negotiations	Why:	Not all suppliers are equally important, so buyers should spend their time where it matters most. Negotiations historically also took a lot of time to prepare, which is where AI can increase efficiency substantially. In addition, supplier history typically sits and leaves with the buyer.
	Examples:	A global retailer (Walmart) piloted a generative-AI negotiation tool to handle terms with long-tail suppliers, including many previously on fixed, non-negotiable terms, and to streamline negotiation cycle times. The system uses supplier history, previous negotiation outcomes, and structured deal parameters as inputs.
	Impact:	More buyer time on the suppliers that matter, and negotiation knowledge retained in the business rather than lost when people leave. In the pilot, a 64% agreement rate against a 20% target, turnaround down to 11 days, and 75% of suppliers preferring to negotiate with AI.
02. Real personalisation via AI in loyalty programmes	Why:	Today's 'personal' offers rarely feel personal, and customers can tell. The larger grocery chains already sit on rich loyalty data that mostly goes unused, which is one of the clearer near-term margin levers available.
	Examples:	Use credit card data linked to an existing loyalty programme to read purchase history and shape offers that fit the individual customer, including in categories they have not bought before. Inputs are what we already know: basket, shopping patterns, purchase history. The output is personalised offers and AI-generated marketing, sent through existing loyalty channels.
	Impact:	Higher purchase frequency and larger baskets from reaching shoppers at the right moment rather than discounting. Timed to a household's rebuy cycle, personalisation can lift the weekly basket by up to around 18% according to a study.
03. Category management AI modules	Why:	Category management choices are largely manual and based on both data and gut feeling. In addition, decisions are connected, not separate. A pricing change moves demand, demand moves replenishment, assortment shapes shelf space, and promotions shift margin. Managing each in isolation and not using AI to augment and partly automate decision-making leaves value untapped.
	Examples:	An integrated AI decision engine that holds category strategy, assortment, space, pricing, and promotions together as one model. Several leading European grocery retailers (e.g., Tesco, REWE, ICA) are already applying AI to optimise pricing, assortment, and replenishment decisions jointly, particularly in fresh categories.
	Impact:	Better category decisions made as a whole, improved margin across pricing and assortment, reduced manual admin, and assortments better tailored to local demand.
04. AI fresh demand forecasting and waste reduction	Why:	Fresh is the biggest waste culprit in a grocery store and is reordered multiple times per week, requiring short-cycle, pattern-based forecasting. Seasonal demand spikes, require combining historical sales, harvest data, and local context. Fresh is also where margin, waste, and customer perception of quality collide most visibly.
	Examples:	Vendor-supported forecasting (Afresh, Relex) combining promotions, weather, shelf life, and local demand patterns to plan fresh replenishment. Downstream, the forecast feeds workforce allocation in DCs and stores. Named reference deployments include Afresh at Albertsons.
	Impact:	Reduced fresh-food waste, fewer stock-outs, and higher fresh-category margins from short-cycle forecasting. Reductions of 10 to 50% reported in named vendor cases (Afresh / Albertsons, Relex), with supplier history, demand history, and P&L combined into a single forecasting view.

Implement reference cases

The two cases illustrate how Implement Consulting Group has embedded AI into core business processes with clients, delivering tangible results and meaningful business impact.

USE CASES – Implement Consulting Group cases

Optimising dark-store logistics for an FMCG client

A client wanted an evidence-based way to decide where to place a network of 'dark stores', local micro-warehouses enabling fast last-mile delivery to a wide base of customers. Using existing client data and modelling the Danish road network as a mathematical graph, we calculated delivery travel times from different starting points to determine optimal store placement, achievable geographic reach, and the investment required to launch.

Impact

- Simulated delivery reach and the share of existing clients served within target time windows
- Quantified how many stores and delivery staff were needed to hit coverage goals
- Delivered a feasibility assessment and a first-step roadmap to initialise the concept

Increasing visibility across AI search engines with GEO

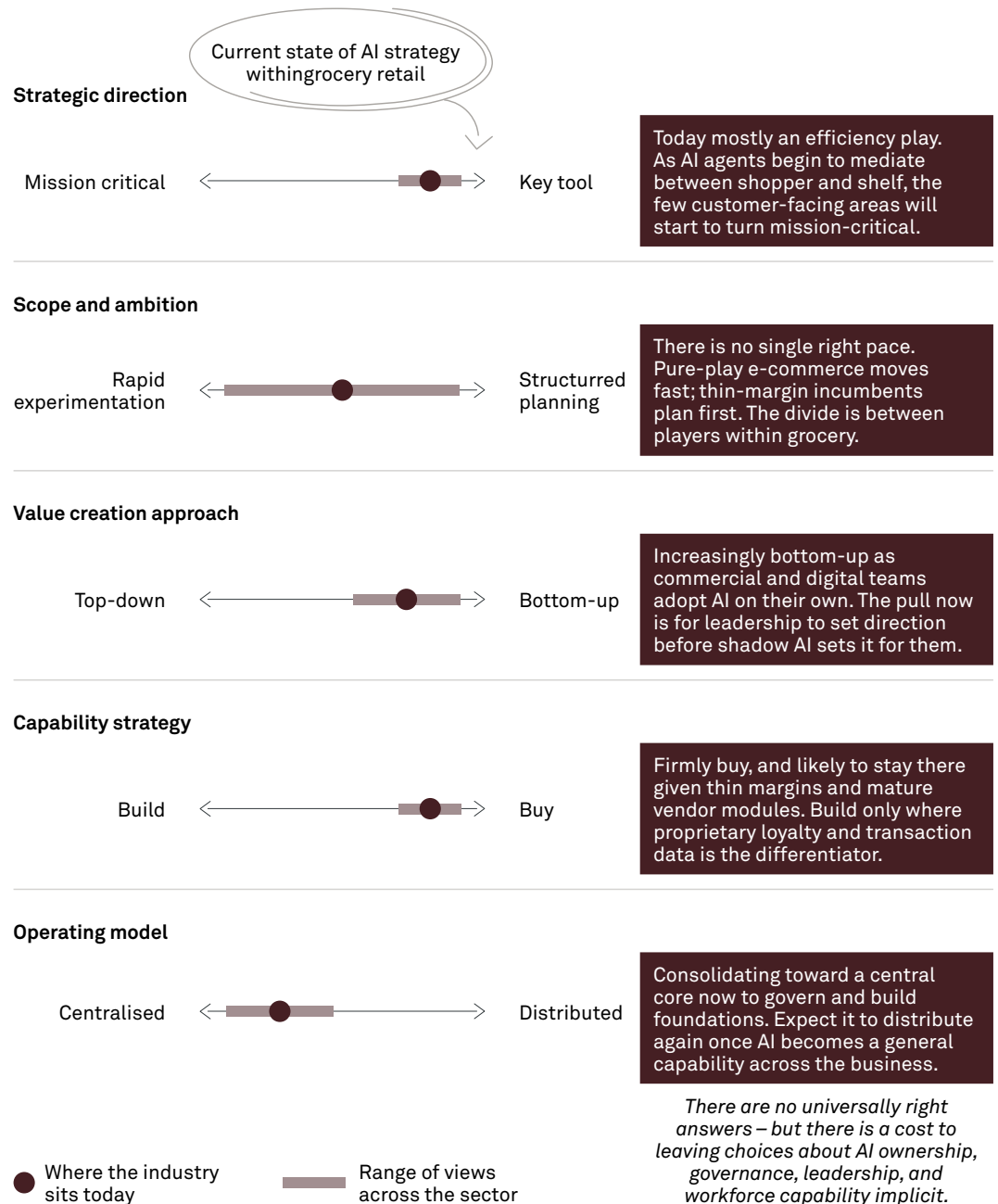
A global pharmaceutical company saw a visible gap in how its products and narrative appeared in AI-generated search responses, as the authority sources these systems draw on did not consistently reflect its messaging. With customers increasingly using AI search to research and compare options, we helped the company shape accurate, current, and strategically aligned key messages across those sources to lift its visibility and preference.

Impact

- Scaled into 11 workstreams spanning multiple functions
- Engaged selected media outlets and leading authority sources to refine and disseminate key messages
- Early tracking shows AI search responses shifting towards the company's desired narrative



In our experience, grocery retailers must make explicit strategic choices to unlock the value of AI

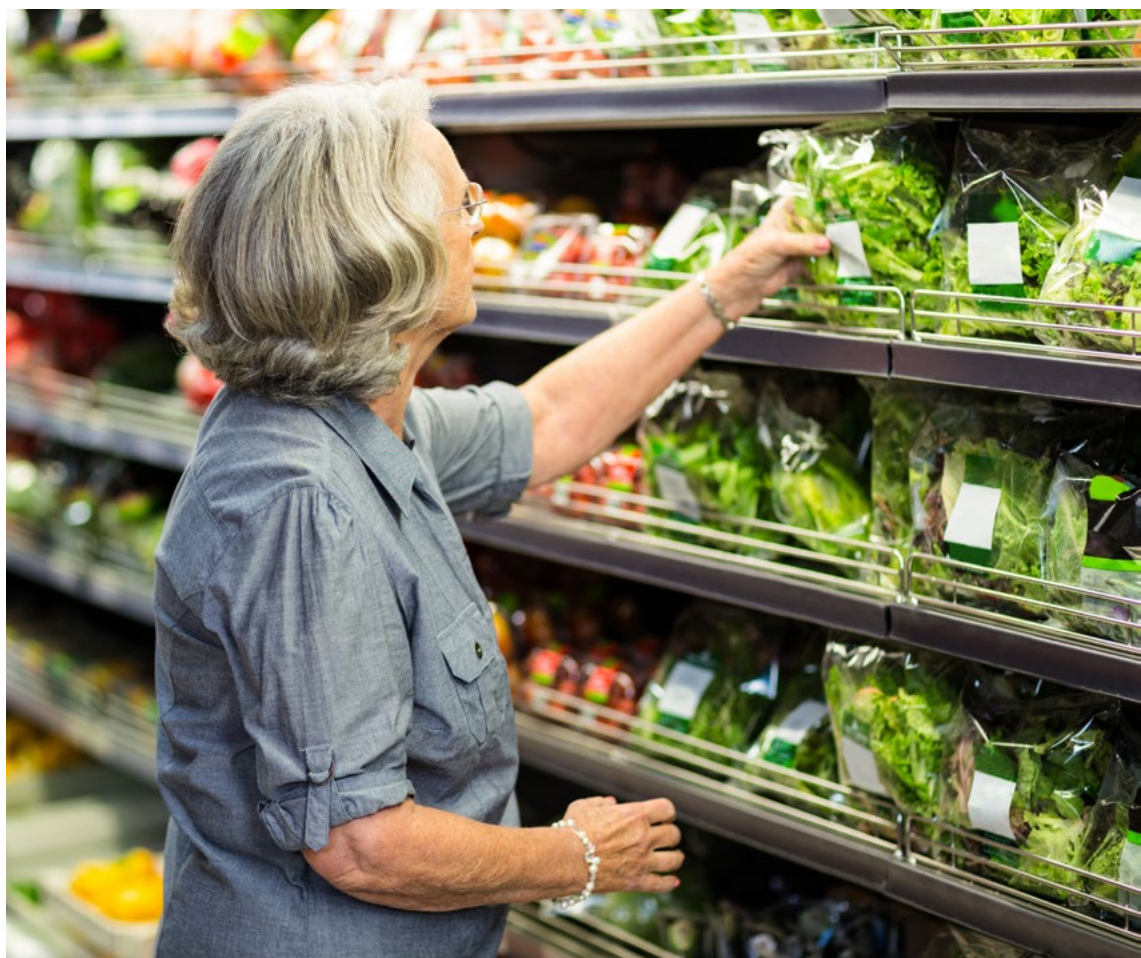


The AI landscape: traditional, generative, and agentic AI

Traditional artificial intelligence (AI) refers to machine learning and statistical models that use structured data to automate, predict, and optimise decision-making. These systems identify patterns and improve outcomes in areas such as demand forecasting, pricing, inventory management, and operational efficiency.

Generative AI (GenAI) extends these capabilities through large language models (LLMs) and generative architectures designed to handle inputs and outputs. GenAI can analyse and create content from unstructured data such as text, images, or audio, enabling interactive and context-aware retail applications. An assistant is an LLM configured through prompt engineering and access to business data to perform a specific task, such as answering customer questions or creating product descriptions.

Agentic AI systems give LLMs autonomy and access to predefined tools, allowing them to complete multi-step retail tasks such as checking stock, preparing replenishment orders, updating product information, coordinating promotions, and resolving customer-service requests.



We can support you throughout your AI journey

– from strategy and technology to governance, leadership enablement, and workforce adoption.

Our offerings:

AI strategic advisory

- AI strategy
- Identification of AI ambition
- AI roadmap development
- Organisational readiness assessment
- AI operating model

AI use case discovery and piloting

- Use case identification and prioritisation
- Feasibility assessment
- Proof of concept development
- Co-development of advanced pilot prototypes

AI sourcing advisory

- AI tech stack, platform, and system strategy
- Platform and system evaluation, selection and contracting
- Implementation partner evaluation, selection, and contracting

AI strategy execution

- Building and running AI programme, project PMO, and ARTs
- Driving PoCs, MVPs, and EG solution development
- Implementing an AI operating model
- Keeping solution providers and implementation partners on track
- Ensuring value creation and realisation

AI solution delivery

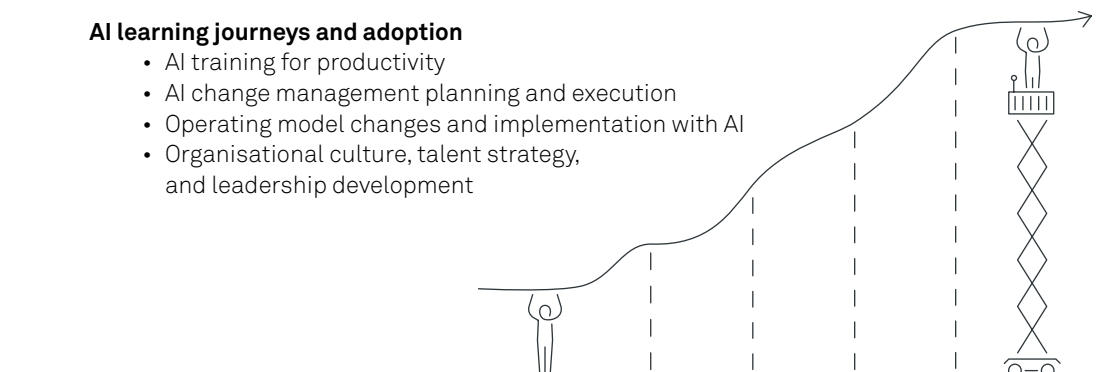
- Scaling proof-of-concepts
- Deployment of ready-to-use AI solutions
- AI delivery model management
- Integration with existing systems

AI security and compliance advisory

- Risk assessment and mitigation
- Data privacy and confidentiality
- Compliance with regulations and standards
- AI architecture

AI learning journeys and adoption

- AI training for productivity
- AI change management planning and execution
- Operating model changes and implementation with AI
- Organisational culture, talent strategy, and leadership development





About us

Local roots, global perspective.

Born in Denmark with offices in Copenhagen, Aarhus, Stockholm, Malmö, Gothenburg, Oslo, Zurich, Munich, Hamburg, Düsseldorf, and Raleigh, NC. With 1,800+ employees, multinational clients, and worldwide projects, we offer expertise with a global perspective.

We believe that great organisational impact leads to great impact for humanity. Implement was created to help turn true expertise into real change.

- Founded in 1996
- Employee-owned
- Average CAGR of 20%
- Working globally



Ready to unlock AI's potential?

Daring to dream. Ready to Implement.

AI holds immense potential, but realising it requires trusted information, capable people, and leaders who can turn insight into action.

We are at the early stage of innovation, much like when the lightbulb was first invented, with more breakthroughs yet to come. The challenge is to imagine what is possible and focus on achieving disruptive impact through concrete actions.

At Implement, we translate imagination into reality, collaborating to prototype and bring about change while addressing the natural concerns that come with new technologies. Join us in harnessing AI's transformative power to create tangible benefits.

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