

# Aut mation in Retail

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As consumer preferences continue to evolve, retailers must leverage automation to stay agile and responsive to changing market dynamics.

**What are the challenges they will face and where should they focus?**

Retail has experienced significant changes in recent times, accelerated further by the challenges brought about by the COVID-19 pandemic, which forced businesses to embrace innovative solutions to meet shifting consumer demands. From streamlining operations to enhancing customer experiences, automation has become indispensable for retailers striving to remain competitive in today's dynamic market.

## EXITING THE POST-COVID ERA

Physical stores have regained momentum in generating revenue, indicating a shift in consumer behavior post-pandemic. But the experience is not the same, as expectations have changed as well. Customers have become more accustomed to digital channels, leading to a seamless transition to a phygital model.

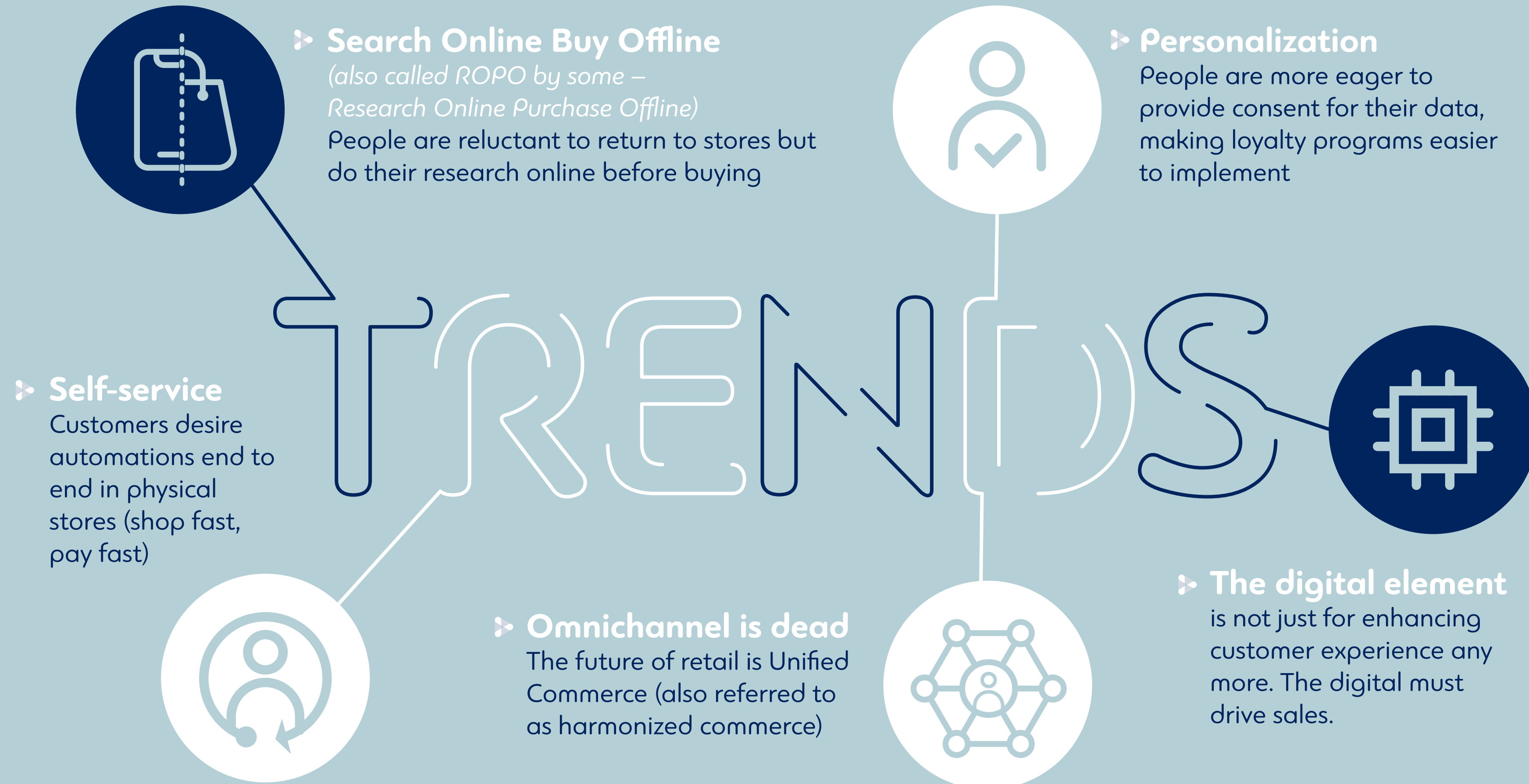


For example, technologies such as NFC/wallets have facilitated streamlined and fast payments, enhancing the in-store experience for both customers and retailers.

### The new customer journey

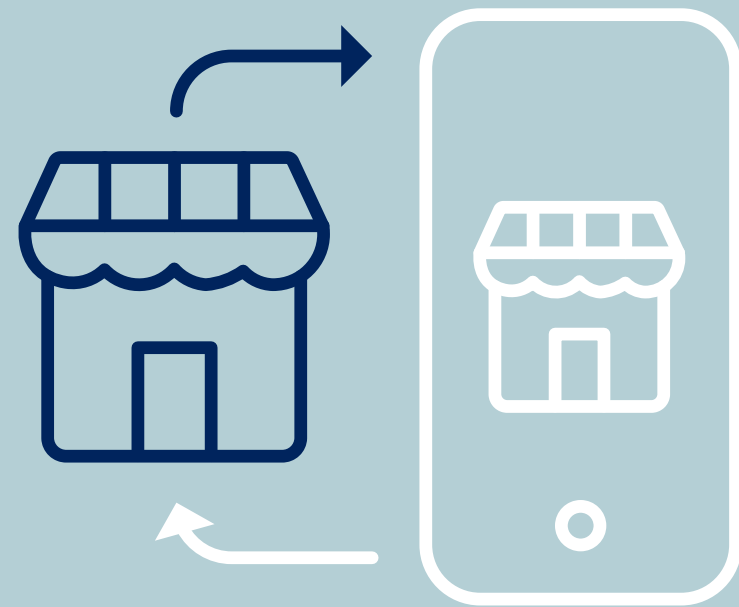


## EXITING THE POST-COVID ERA

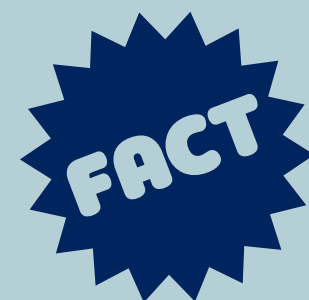


## EXITING THE POST-COVID ERA

### The Challenges:



- ▶ Despite the digital adoption, **there remains a significant segment of customers**, particularly in rural areas or older demographics, **who prefer physical interactions**, highlighting the importance of bridging the digital divide.
- ▶ As people search online, when the items they look for are out of stock, **they refrain from visiting the stores.**
- ▶ Strategies to encourage digital adoption include **implementing in-store kiosks and educating staff to serve as digital ambassadors**, catering to different generational preferences.

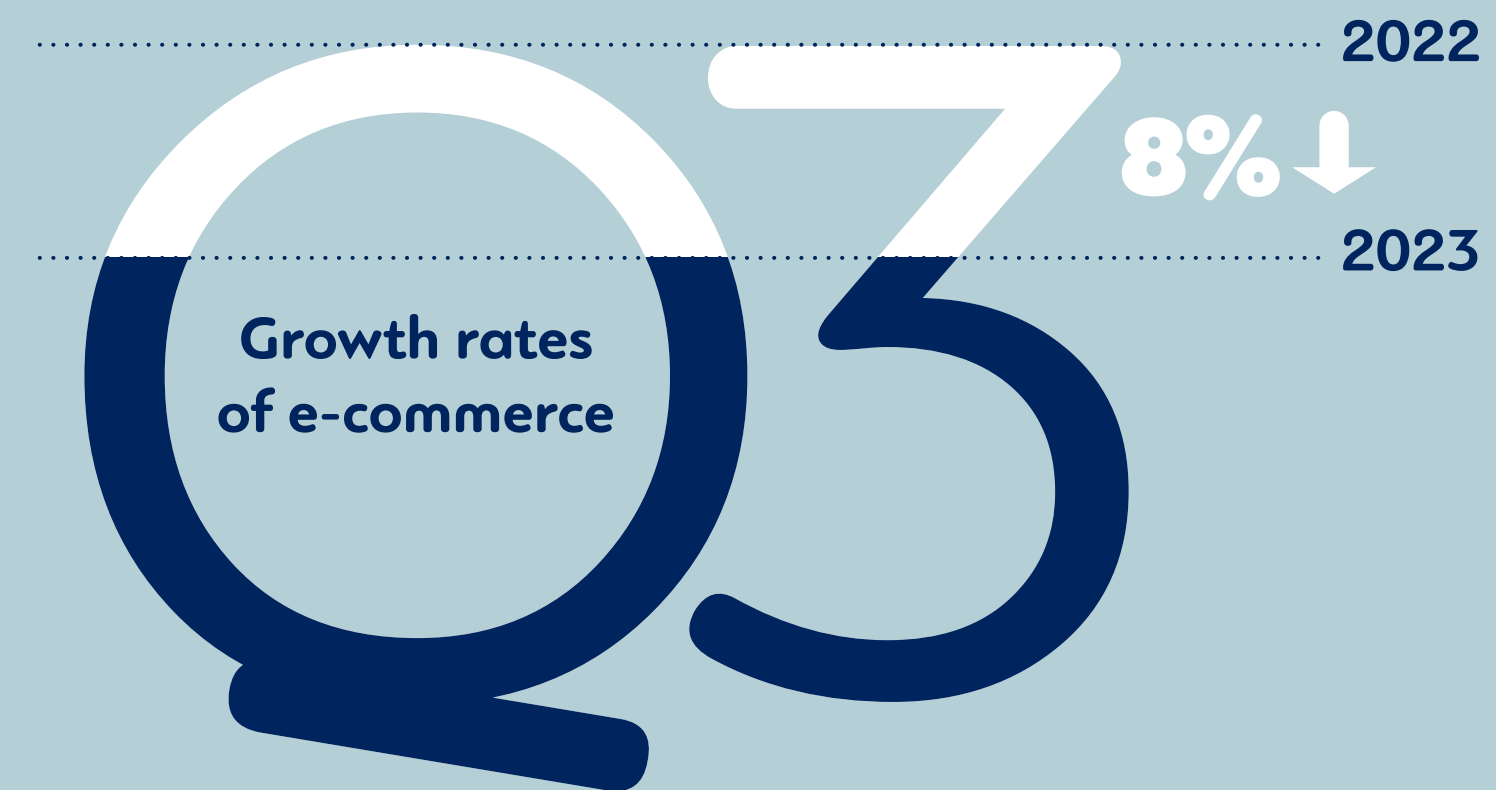


In 2023, shoppers said they made **49%** of transactions in physical stores

Source: Salesforce

### E-commerce hangover

Growth rates of e-commerce in Europe are normalizing: in Q3 2023 for the first time, there is a decrease of -8% from the previous year, since the same quarter in 2022 averaged over-the-top performance with 32% growth.



Source: Store.is

## AI'S ROLE IN CREATING VALUE

Over **60%** of retailers **plan to increase their AI infrastructure investment** in the next 18 months.

Source: NVIDIA State of AI in Retail and CPG

The Nvidia study found that AI already has been a game-changer for retailers, with 69% reporting an increase in annual revenue attributed to AI adoption and 72% of retailers that already use AI saying they experienced a decrease in operating costs.

# HOW

## can retailers utilize automations and AI?

**The role of artificial intelligence in retail extends beyond customer support to driving sales and enhancing personalized experiences.**

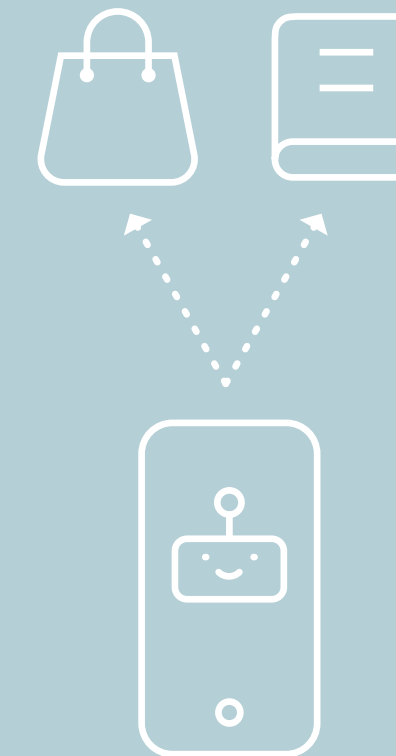
Chatbots and language models have emerged as essential tools for engaging customers and improving

operational efficiency. AI helps in building realistic conversations and coherence in customer journeys, creating more human-like interactions.

Internally, **virtual bots** aid in employee training and improve organizational processes,

emphasizing the value of AI beyond customer-facing applications.

**Data privacy and security** remain critical considerations in AI adoption, requiring organizations to prioritize training models in secure environments to avoid potential risks.

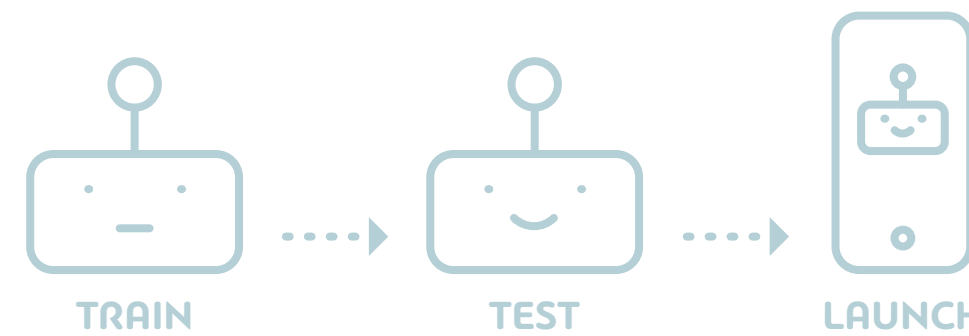




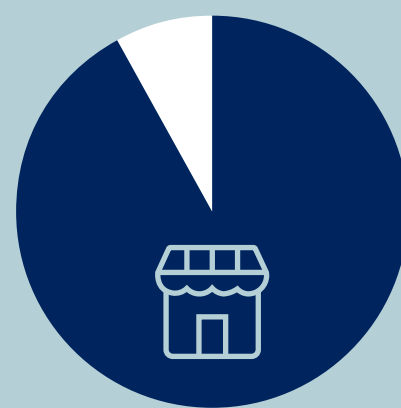
## AI'S ROLE IN CREATING VALUE

### Experts' insight: The merits and perils of AI Chatbots

Chatbots trained with machine learning and AI technologies are often the easiest way for companies to implement an AI-based project. Nevertheless, they don't come without risks and challenges. To minimize negative impact, **ensure that before releasing the service to customers, it has been thoroughly trained and tested... A semi-final product will sabotage any future success.** When first launching, allow a test period before advertising the service as innovative and effective.

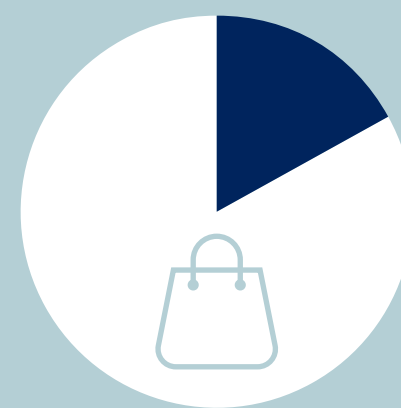


## AI is not just for the retailers!



**92% of retailers** say they are investing in AI more than ever to improve shopping experiences.

Source: Salesforce



Nevertheless, **17% of shoppers** also say they've used generative AI to get inspiration for product purchases.

### WHERE CAN AUTOMATIONS BE APPLIED?

-  Store analytics and insights
-  Adaptive pricing and marketing
-  Conversational AI
-  Stockout and inventory management
-  Autonomous checkout
-  Visual search
-  Demand forecasting and prediction
-  Product formulation, design, and development
-  Door-to-door and last-mile delivery
-  Product waste, spoilage, and food safety
-  Product quality inspection

## AI'S ROLE IN CREATING VALUE

### How the largest retailers use AI

ebay

**eBay** utilizes AI for customer advice and personalized recommendations, improved shipping and delivery times, pricing optimization, buyer-seller trust enhancement, and more.

  
**Alibaba**

**Alibaba** employs AI in diverse applications from augmented reality mirrors to facial recognition payment systems, including an AI copywriting product that generates content at a rapid pace using deep learning and natural language processing.

amazon

**Amazon's** AI technology powers voice shopping, personalized recommendations, facial recognition, home price estimation, visual search, autonomous driving, and various other innovative services.

### Implementation challenges

#### Outdated technology

Retailers struggle with outdated systems, hindering seamless AI integration and scalability.

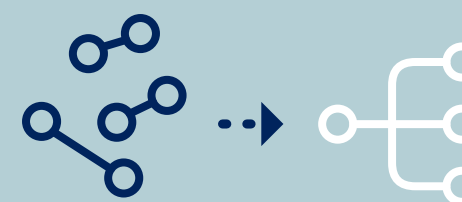
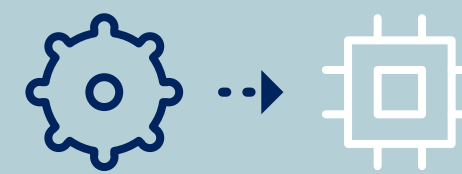
#### Talent shortage

The demand for AI experts and data scientists exceeds supply, making recruitment and retention challenging.

#### Data fragmentation

Siloed data across departments limits AI's effectiveness, leading to subpar model training and insights.

# AI



### Solutions

#### Invest in infrastructure

Prioritize updating tech infrastructure for seamless AI integration and scalability.

#### Talent development

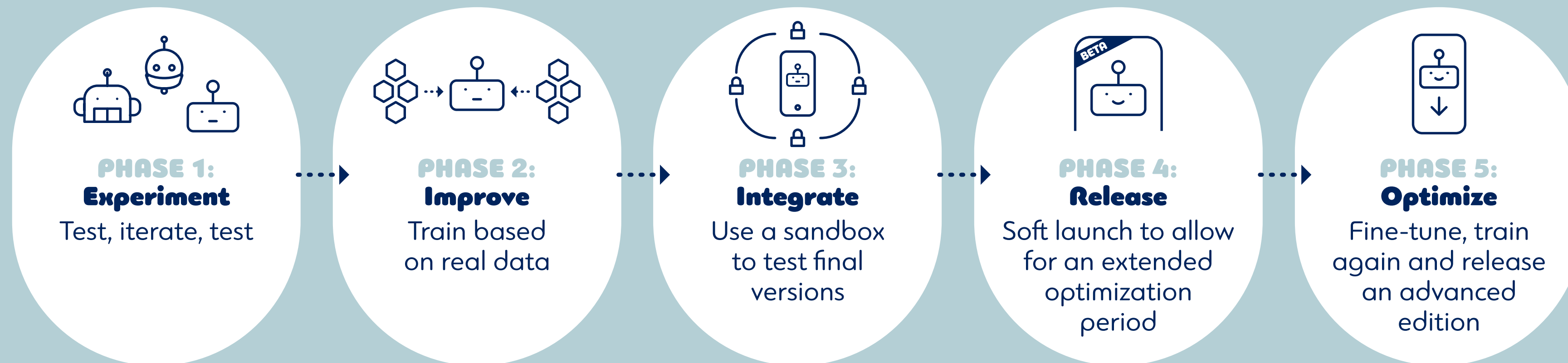
Establish programs to attract and retain AI experts, ensuring ongoing support for AI initiatives.

#### Streamline data access

Break down data silos and improve data quality for accurate AI model training and insights.

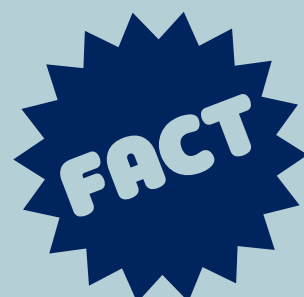
## AI'S ROLE IN CREATING VALUE

### The Generative AI Maturity Journey



**Use case:**  
**Self-checkout cashiers**

A great example of the use of automations in retail is the self-checkout systems. It has been proven that the installation of such systems may be expensive and even result in lost revenues due to malfunctions. Nevertheless, retailers see that **customers are fond of having this option alongside traditional cashier options, and is especially effective for limited number of items.**



**74%** of shoppers say it takes no more than three bad experiences to abandon a brand

Source: Salesforce



# TRANSITIONING TO THE FUTURE OF RETAIL

## Technologies and changes needed

Technology stands as the cornerstone of robust supply-chain operations within the retail sector, driving efficiency and agility in response to dynamic market demands. **The integration of automation technologies requires organizations to undergo internal transformations,** necessitating investments and collaborations with startups to effectively integrate innovative solutions. AI, machine learning, and robotics have revolutionized tasks within fulfillment centers, streamlining processes and improving overall operational efficacy to meet the escalating needs of modern consumers.

### THE AUTOMATION-ENABLED, OMNICHANNEL WAREHOUSE

The challenge	How technology solves it
INEFFICIENT INVENTORY MANAGEMENT	Omnichannel warehousing allows for centralized inventory management, reducing stockouts and overstock situations
MEETING EVOLVING CUSTOMER DEMANDS	Retailers adopt automation software to fulfill orders from various channels, meeting customers' preferences for convenience and fast delivery
SEAMLESS INTEGRATION ACROSS CHANNELS	Omnichannel warehousing integrates online and offline channels, providing a seamless shopping experience for customers and improving operational efficiency for retailers

### Experts' insight: Centralization vs. Decentralization

In the world of retail, centralization can be a good thing. Costs, speed, and efficiency can be optimized when decisions are made centrally instead of locally. Retail experts say that a centralized, automated system that analyzes data from all stores of a retail chain can better predict their supply needs better than their store managers! Another trend that is becoming bigger in the retail industry is the Marketplace. Experts believe that it will be an option retailers won't be able to ignore soon.

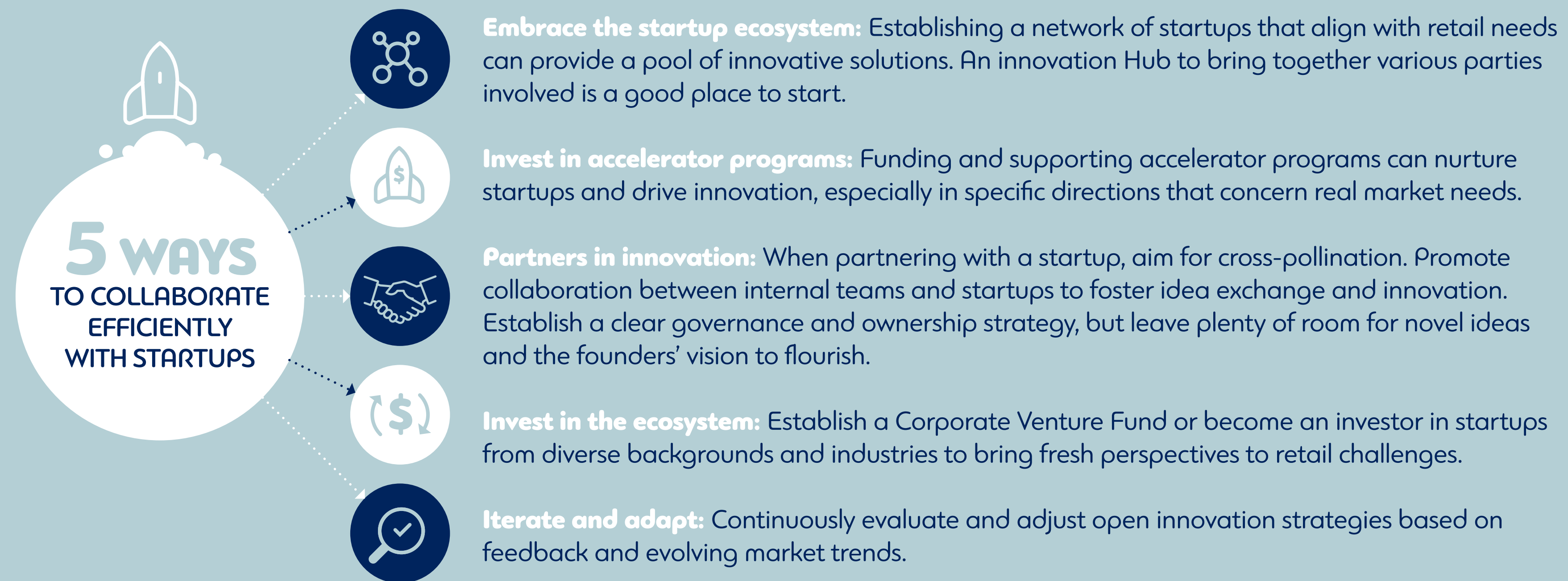
### Removing logistics bottlenecks with automation

Third-party logistics (3PL) providers are some of the first adopters of artificial intelligence technology in retail. From autonomous robots to data analytics that determine the best routes for delivery, 3PL providers may offer complete solutions to companies that are unable or unwilling to run their own order fulfillment services. As customers have embraced online shopping and next-day delivery options, an order that is not fulfilled in time or with efficiency may result in a lost customer.

# OPEN INNOVATION IN RETAIL

## Strategies for Open Collaboration with Startups

Embracing open innovation by collaborating with startups allows retailers to tap into diverse expertise and fresh ideas. This approach goes beyond traditional in-house innovation, offering access to a broader spectrum of creativity and problem-solving capabilities. By engaging with startups, retailers gain the advantage of speed and agility in implementing cutting-edge solutions.

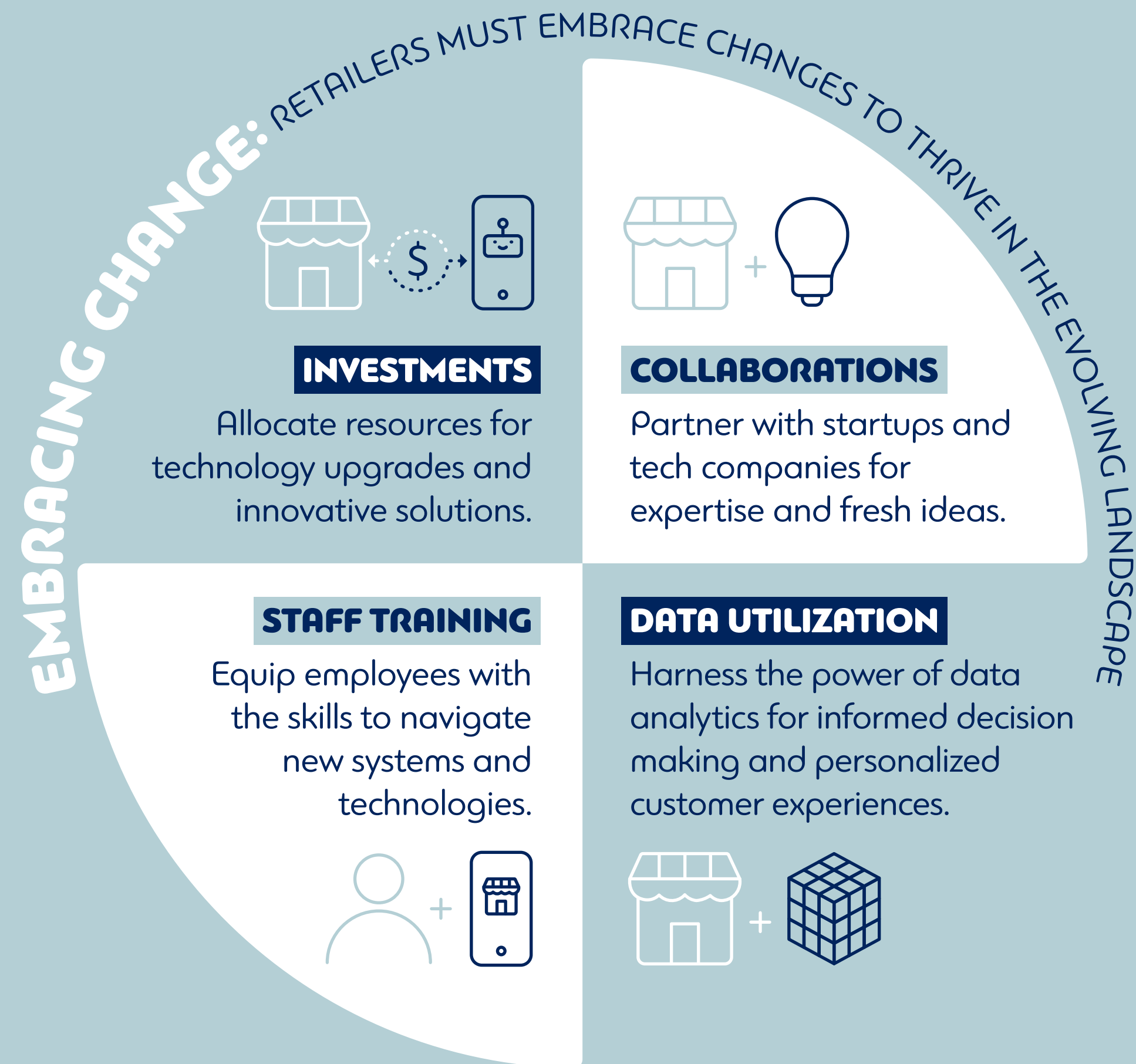


# OPEN INNOVATION IN RETAIL

## Benefits of Open Innovation

There are many benefits deriving from a successful co-existence and co-creation with startups. Here are some of the ones the experts value the most:

- **Access to specialized expertise:** Startups often specialize in specific areas, offering deep expertise in particular technologies or market segments that may be beneficial to retailers.
- **Agility and speed:** Large companies are slow to innovate, but startups are known for their agility and ability to adapt quickly. Retailers can leverage this speed to test and implement innovative solutions faster than traditional development cycles.
- **Cost efficiency:** Collaboration with startups can be cost-effective compared to in-house development of similar solutions. Startups may offer flexible pricing models or partnerships that align with the retailer's budget and goals.
- **Fresh perspectives:** Startups bring fresh perspectives and creative approaches to problem-solving. This diversity of thought can lead to breakthrough innovations that set retailers apart from competitors.





## KEY TAKEAWAYS

	THE TRENDS	THE CHALLENGES	THE SOLUTIONS
<p>➤ The shift towards phygital models in retail, where physical and digital experiences converge, reflects an evolving consumer landscape post-pandemic.</p>	<p><b>Search Online, Buy Offline</b></p>	<p>When items are out of stock online, people don't visit the physical stores</p>	<p>Omnichannel warehouses</p>
	<p><b>Digital Privacy</b></p>	<p>Data collected in stores are anonymous in their majority</p>	<p>Use IoT solutions like beacons to collect useful data</p>
<p>➤ Artificial Intelligence is not only enhancing customer interactions but also optimizing internal operations, demonstrating its multifaceted value in retail.</p>	<p><b>People return to stores</b></p>	<p>In-store transactions are often anonymous and not contributing to data analysis processes</p>	<p>The customer journey must include a digital interaction at some point.</p>
	<p><b>The digital divide</b></p>	<p>A large percentage prefer the physical interactions, especially in rural areas</p>	<p>Info kiosks inside stores are resource-heavy for retailers but customers need to be trained. The staff take on the role of educators.</p>
<p>➤ Retailers' investments in digital solutions, such as omnichannel strategies and advanced technology integration, position them to meet evolving customer needs with agility.</p>	<p><b>Self-service model</b></p>	<p>People demand fast and streamlined experiences in store (shop fast, pay fast). Customers react to complexity.</p>	<p>Automations like self-checkout cashiers may still be expensive for retailers but customers like the convenience. Android POS terminals offer fast payments from anywhere in the store.</p>
	<p><b>Flexible pick-up</b></p>	<p>People expect to receive their items in the most convenient way for them, not caring whether their order will travel a long distance or not</p>	<p>Omnichannel warehouse automations increase availability of products regardless of the distance. Box lockers gain great momentum among consumers.</p>
<p>➤ Collaborating with startups and fostering open innovation creates a culture of creativity and flexibility, enabling retailers to stay competitive in a rapidly changing market.</p>	<p><b>Omnichannel is dead. What comes next?</b></p>	<p>To offer a convenient, intuitive, cohesive and personalized shopping environment for customers</p>	<p>Commerce becomes channel-agnostic. The data is key: effective collection, management and real-time analysis can help even in the case of black swan events like the pandemic.</p>



## About



Cardlink, a Worldline company, is active in the field of electronic payments and especially in the acceptance and management of card transactions, both in physical and e-commerce. The company operates the largest network of POS terminals in Greece, serving with safety and speed businesses and consumers in carrying out their daily transactions.



The Retail Innovation Hub by Cardlink is a regional platform with the ambition to facilitate the evolution of retail in the digital era. It is created by Cardlink, the biggest provider of electronic payments solutions in Greece, and the innovation experts of Found.ation. It is a place where retail experts and technology leaders shape the future of the industry, exchange knowledge and insights, learn how to adjust to the digital transformation landscape and keep up with the latest developments.

## Leaders Think Tank Vol.3

Automation has been transforming the business landscape across all sectors, including retail. This event aimed to bring together a select group of executive members from the Greek corporate ecosystem for a comprehensive exploration of the intersection between cutting-edge technologies and the retail industry. It was an engaging discussion where leaders from the retail industry came together to offer their perspectives and expertise on Automation in Retail. The goal was to encourage active participation from everyone in the discussion and to collectively explore the realms of machine learning, computer vision, robotics, and payments/logistics, shedding light on the transformative potential of automation within the retail sector.

### Co-Hosts

**Antigonos Papadopoulos**

Chief Executive Officer, Cardlink

**Nikos Varvadoukas,**

Vice President Brand, Customer & Omnichannel, Public Group

### Moderator

**Filippos Zakopoulos**

Managing Partner, Found.ation

### Participants

**Vaggelis Atherinos**, Chief Growth Officer, Avis Greece

**George Avgoustidis**, Co-founder, Skroutz

**Dimitris Destes**, Mobility BU Director, Info Quest Technologies

**Stelios Mantas**, Partner, Deloitte

**Panos Miliias**, Digital Acceleration Manager, Nestle Greece

**Costis Paikos**, Director of Digital, OPAP

**Katia Stathaki**, Consumer Commercial Director, Vodafone Greece