

Shopping without borders

# How to drive business growth in a sustainable world



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**“Retail leaders are now in a more powerful position where they have the business visibility and operational controls to do what’s best for the customer, their people, and the planet across online, mobile, in store, warehouse, last-mile. All of these different touchpoints are opportunities for not just driving growth, but for delivering on sustainability goals too.”**

**Richard Clarke**  
*Head of Global Sales, Consumer Industries, Fujitsu*

# The sustainability factor

It goes without saying that retailers cannot exist without their customers. And, today, these customers are continually seeking ways to shop that not only meet their personal needs, but also have a positive impact on the planet. From choosing more sustainable packaging to making the switch to second-hand shopping apps, the world has seen a seismic shift in customer preferences and behaviors.

In fact, a recent report by First Insight found that customers across all generations – from Baby Boomers to Gen Z – are now willing to spend more on sustainable products.\* However, as we'll explore later, these are not the only expectations customers have of today's retailers.

To prosper in this new, sustainability-focused marketplace, therefore, transforming your approach must become a top priority.

At Fujitsu, we believe business success is founded on optimizing the customer experience. One where customer experiences are not just considered to be in store or online – but joined up, to a point where transactions and operations are brought together into one frictionless, sustainable, customer-centric journey.

This idea of 'shopping without borders' is our vision for the future of retail. And it leads into our holistic vision for sustainability: where retailers like you are able to go beyond just minimizing CO<sub>2</sub> emissions and energy usage, to considering corporate goals for performance and compliance, every step of the way. All while protecting the planet, the wellbeing of people, and the good of the community. It's about what you'll start doing, not just stop doing.

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\* [www.forbes.com/sites/gregpetro/2022/03/11/consumers-demand-sustainable-products-and-shopping-formats/?sh=4f92199d6a06](https://www.forbes.com/sites/gregpetro/2022/03/11/consumers-demand-sustainable-products-and-shopping-formats/?sh=4f92199d6a06)



# The sustainability factor

What you stop and start doing, progress relies heavily on data – capturing it, understanding it, and harnessing it intelligently to ensure the very best outcomes.

Think about the real-world customer benefits of such a sustainable, interconnected retail environment. Shopper A, for instance, might be able to check a store's stock before they travel – and only use the fuel required if the item is actually available. Or, Shopper B might purchase something on their smartphone, and then benefit from the order being ready to collect by foot.

Of course, retailers like you are not only driven by an ethical desire to transform the industry for the greener. As the worldwide 2050 net-zero transition looms, there are a number of other global frameworks driving change, such as the UN's Sustainable Development Goals (SDGs) plus Environmental, Social, and Governance (ESG) plans. And how better to start making strides on progress than by reading this guide, which dives into the important role of transparency and traceability in retail, while showing you exactly how to get started?

This is the third in our series of thought leadership guides all around customer experience. With a specific focus on evolving sustainability measures, this transformation guide will act as your guide to building greener, data-led practices into business models, while simultaneously enhancing shopper experiences. So, you can succeed in meeting individual business goals along with global objectives – all while doing good for society and the world around you.

We hope you find the following information inspiring.

[\\* www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/nef-spotlight-the-path-forward-for-retails-sustainable-future](https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/nef-spotlight-the-path-forward-for-retails-sustainable-future)



**“Customers are demanding to be part of the sustainability conversation, and they are increasingly using their wallets to make their voices heard.”**

**McKinsey**

*The path forward for retail's sustainable future\**

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## Contributors

At Fujitsu, we're always looking ahead to help retailers maximize digital opportunities and capture future growth, while minimizing environmental impact. Our belief in corporate responsibility means solving societal issues is key. And activating cross-industry collaboration is the only way to drive previously unimaginable approaches and insights.



**Richard Clarke**  
*Head of Global Sales, Consumer Industries, Fujitsu*

Richard is responsible for bringing the best of Fujitsu industry vision, consulting capabilities, solutions, and services to its customers across the world, particularly in retail. Reporting into Fujitsu's global leadership in Japan, Richard and his team develop and execute compelling and relevant strategies to expand key markets and define differentiated propositions to meet the needs of existing and new customers.

# Data and visibility: making the unseen seen

Until recently, the process of capturing customer data could only be approached in an isolated manner, either within stores or online. This meant retailers' scope for control, change, and making a positive impact was significantly limited.

Thanks to the latest technology, however, retailers have the visibility and scope to do what's better for the world and what's most effective across online, mobile, in-store, in warehouses, during the last mile, and more. That's because data can now easily flow between all of these different touchpoints, allowing retailers to see what works and what doesn't – where they're using energy, where they're being objective with their people placement, and so on.

Of course, having greater visibility means having greater control over the whole end-to-end journey. Not to mention having greater ability to monitor the impact of any changes you implement, and how you're progressing against your sustainability goals.

For instance, achieving end-to-end data visibility across your supply chain can open up a whole new set of opportunities for sustainability improvements. Without it, it can be hard to place and serve product orders, or understand your inventory availability. You may have inventory lying in different locations, at different distribution centers, locked out of the supply chain. Greater visibility can put a stop to this kind of wastage. It can also help you more effectively manage your partners' services and schedules, so processes and journeys can run even smoother.

The supply chain is just one, key area of potential improvement. An important element of our 'shopping without borders' vision is how data can make the unseen seen across the full blend of mobile, in-store, and online experiences. Transforming your organization digitally, therefore, is crucial to future sustainability success within the retail industry.

# Making progress: your key challenges

Of course, it's one thing talking about this data-powered, more sustainable vision for the future of retail, and another bringing it to life. Especially when you're facing a range of crucial challenges which are stopping you from acting as fast on sustainability as you'd like. In this section, we delve into common barriers to progress, and explore the idea of co-accountability with customers.

## The cost-of-living crisis

Global economic pressure is perhaps the most pressing challenge for the retailers of today. With customers wanting access to affordable goods – but also preferring retailers who are kind to the planet – the cost-of-living crisis is widening the intention-action gap for many shoppers. This is requiring retailers to find a balance between conflicting customer and market demands. Can they continue to offer goods or services at reasonable prices, while also making progress on sustainability pledges?

## Traditional mindsets

When facing times of financial unrest, retailers may be tempted to simply cut processes or staff numbers to reduce costs. But this kind of traditional strategy risks you failing to meet both customer and employee expectations – and won't get you any closer to those all-important sustainability improvements. Retailers need to analyze data, enabled by technology, to look beyond surface level savings and improvements.

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**“The retail industry is challenged to carry on corporate social responsibility (CSR) initiatives whilst aiming at competitive prices and communicating such CSR activities to its customers and employees”**

**Wiley**

*Corporate social responsibility in the retail business: A case study\**

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\* [www.onlinelibrary.wiley.com/doi/epdf/10.1002/csr.2198](http://www.onlinelibrary.wiley.com/doi/epdf/10.1002/csr.2198)



Fujitsu can help you simplify your retail models and achieve effective digital change. More on page 13.

## Making progress: your key challenges

### Retail complexity

The sheer complexity of retail models is also proving a barrier to making significant operational changes. As mentioned previously, if your organization is largely disconnected – if your systems don't talk to each other effectively, and you don't have the visibility to make accurate predictions and informed changes – then you'll be on the back foot. By this, we mean it can be incredibly difficult to approach the scale of change required to successfully put sustainability measures in place.

Big transformations aside. In the meantime, communicating with your customer base honestly can be the best way forward. If you're prioritizing affordability and customer needs, and are unable to move as fast as you'd like on sustainability through no fault of your own, sharing details of the constraints you're facing can help keep shoppers on side. It's all about being honest about your situation – you might even encourage them to reassess their own part in the relationship.

### Shoppers must play their part too

Just like the siloed data capture of yesteryear, shoppers of the past didn't have access to the kind of information they do today, either. Now, armed with visibility into product provenance, carbon footprints, and so on, today's customers can make more informed, intentional decisions.

Moreover, retailers and shoppers can unite to ensure more sustainable practices. Everyone can be in it together – whether sourcing or manufacturing, retailing, or buying. The point is, the onus should not lie entirely on retailers' shoulders, because it's customers who lead the charge on demand. Sustainability is a goal for us all, and therefore we all have a part to play when it comes to working out how best to balance speed and convenience vs. ethical consumption.

### So, in practice, what could this co-accountability look like?

It might entail shoppers being more mindful of their 'I want it now' mindset, and opting for longer delivery times or choosing to click and collect. It might look like purchasing food with a longer shelf life to reduce waste. Shopping for clothes second-hand, in-person or online. Renting high-cost products instead of purchasing them. Or dispensing of packaging by shopping for refillable groceries and household goods.

# Enabling transparency and traceability

So if that's the part customers can play, what do they expect from retailers in turn?

The answer is transparency and traceability – in other words, the proving of ethical practices in manufacturing, distribution, demand, and consumption. Because, once retail organizations like yours are able to establish this level of trust, your customers can be empowered to make informed, intelligent choices that align with their values. Remember those customer wallets identified by McKinsey on page 2.

However, it's not just customers who are calling for transparency and traceability.



With governmental and industrial sustainability targets gaining momentum...



...along with demands on retailers from cities, investors, and stakeholders...



... not to mention the incentive of industry competition...

... retailers must review the way their ecosystem of partners behaves, the materials they use, and how goods are sourced.

# Enabling transparency and traceability

## Seeing the full picture with blockchain

Retail supply chains can be incredibly complex. They can include numerous partners and suppliers, and involve various raw materials and a raft of other components.

By creating a single source of information – supported by a solution that validates the provenance and integrity of data – shoppers can trust the information they're seeing about how sustainable their products are. Retailers can also proactively mitigate environmental impact, monitor and remedy quality issues, drive productivity improvements, and create new business opportunities. By ensuring all parties have access to clear and immutable proof points, everyone can understand the journey of the products in question.

## Blockchain technology can help your organization create a single, trusted source of truth.

A blockchain is a distributed digital ledger or database that maintains a continuously growing list of records. Blockchain and distributed ledger technology (DLT) are fundamentally built on the concept of decentralization across different systems, locations, and people (nodes) in order to deliver trust, transparency, and security. As data is dynamic, smart contracts and chaincode are used to establish the rules for data formatting, who can modify the data, and under which circumstances. This inherent foundation of trust enables businesses to disrupt, reimagine, and revolutionize how they transact internally, among each other, and with their customers using data from a myriad of sources. It's trust based on visibility. And it acts like a club of people who are jointly accountable for doing the right thing.

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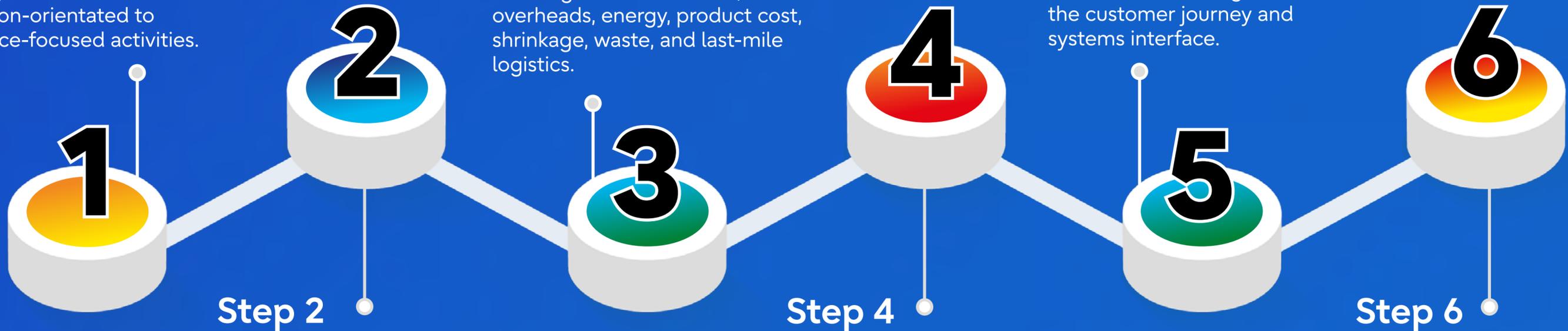
**Our digital ledger technology, Fujitsu Track & Trust, can enable your organization to bring a trusted point of validation across production, supply, distribution, and sales. It creates a seal of authenticity that's simply evidenced. And it helps you improve operating costs right from the procurement of raw materials, through to logistics and beyond – enabling a less wasteful, more efficient supply chain.**

# Where to start shopping without borders

Now you have a greater understanding of what shopping without borders could mean for you and your customers, the question is: how can you approach your own transformation?

## Step 1

The answer begins with **shifting your mindset** from transaction-orientated to experience-focused activities.



## Step 2

Then, **moving from being multi-channel to omni-channel** (e.g., from bolting ecommerce and stores together to offering one integrated journey across touchpoints), where you have a single view of the customer across channels with innovative new ways to capture spend.

## Step 3

**Optimizing costs** comes next focusing on costs of labor, overheads, energy, product cost, shrinkage, waste, and last-mile logistics.

## Step 4

Next, considering how you can **lower your environmental impact** by building in reductions across the customer journey.

## Step 5

And ensuring **data security** is embedded throughout the customer journey and systems interface.

## Step 6

Finally, harnessing technology like **Application Programming Interfaces (APIs)** and microservices will allow you to join up data and provide a more flexible front-end approach (also known as composable business).



# Where to start shopping without borders

It's also helpful to keep all the big-picture factors you'll need to get right at top of mind to succeed. These include:

- **Digitally-driven customer journeys.**
- **Hyper personalization** – achievable via consumer insights and experience data capabilities.
- A **single commerce platform** to replace 'black box', channel-specific PoS or ecommerce solution.
- Platforms capable of supporting **rapid, low-cost innovation.**
- Technologies and processes that deliver **sustainable outcomes.**
- **Cloud-based architecture** that enables omni-channel retailing.
- A **migration strategy** that doesn't require complete replacement of components.
- **Change management** to support your teams across stores and online platforms to work together as the technology becomes more integrated.

So, how can you plan for, implement, and start seeing value from all of the above?

That's where Fujitsu and GK Software come in.

# Opportunities with Fujitsu and GK Software

## A powerful partnership in sustainable retail

Establishing seamless, sustainable omni-channel retail operations is simple with Fujitsu and GK Software. Together, our innovative technologies and commerce solutions – along with our broad ecosystem of partners – provide everything you need to transform your CX and support your operations sustainably, while driving growth.

For instance, machine learning can tell you, based on information gathered from sensors, how you can optimize your retail environment in a way that contributes towards your sustainability goals. When to turn your lights on and off, how to set refrigerator temperatures, when to stop ordering certain products to avoid waste, and so on.

Then there are solutions like the Fujitsu IoT Operations Cockpit, which collects IoT data to optimize energy efficiency and improve customer experience. Our partnership with GK Software means we can help you enhance logistics planning for last-mile delivery or click 'n' collect, while minimizing stock movements. Altogether, this leads to driving down costs, driving up customer satisfaction (by virtue of shopping with an ethical retailer), and meeting sustainability goals.

# Opportunities with Fujitsu and GK Software

Delivering scalable sustainability innovation at speed and operational efficiency at the right cost, end-to-end.

While other technology companies may help you plan and integrate stores and ecommerce systems (a.k.a. the big plumbing process), it's the business transformation that really matters. And, it's transformation where Fujitsu truly excels.

Using a combination of industry know how, composable technologies, and managed services, we can help you transform your operations to ensure great retail experiences and sustainable business outcomes. Our set of modular technology solutions and managed services empower rapid innovation, ESG-led outcomes, and responsible growth. Furthermore, our seasoned industry experts are on hand to define what the future of your shopping journeys should look like, help you find the right technology solutions, and build the right migration strategy to get you there.

## GK Software solutions, delivered by Fujitsu

### Omni-Channel Services

#### Commerce Platforms

CLOUD4RETAIL Platform  
Flexible Commerce\*



#### Omnichannel Store CX

GK OmniPOS, GK OmniPOS (SCO), GK OmniScale, GK Smart Label, GK Hospitality, GK Drive



#### Digital Shopping

GK Scan & Go, GK Engage, GK GO, Cashier Free Store FC  
Scan&Pay/Online Delivery Smart Cart\*



#### eCommerce Platform

(planned)



### Personalized Marketing Service

#### Analytics

GK SPOT



#### Personalization

GK AIR Personalization  
Advanced Consumer Behavior Analytics



### Advanced Store Operation Service

#### Empowered Associates

GK Store Inventory Management



#### Automated Operations

GK AIR Dynamic Pricing, GK AIR Fraud Detection, Capture Drive Thru, Store Operation Cockpit, Managed Digital Commerce Service, Profit Prevention  
+ Vision AI Digital Age Assurance



# Opportunities with Fujitsu and GK Software

## SaaS-based intelligent commerce meets trusted services and support

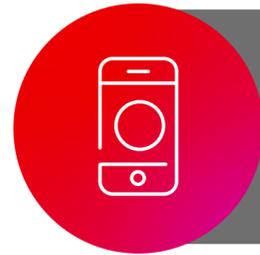
The GK Software suite of solutions is your engine room for:

- Managing the customer journey across online, mobile and in store
- Optimizing retail processes for CRM, personalization and loyalty programs
- Engaging customers
- Keeping track of and moving stock
- And more

For example, GK Software's comprehensive cloud retail platform, CLOUD4RETAIL, is the foundation stone for any unified commerce mission. It can empower your business with API-first native microservices that connect data, workflow, and logic across stores, mobile, online, and social to deliver great new use cases for your customers and your colleagues. With Fujitsu at the helm, you'll also benefit from intelligent tools that monitor, analyze, and predict performance, plus our global reach and trusted services and support.

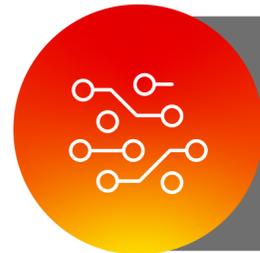
Then there's our ecosystem of innovative Fujitsu and partner solutions and services, enabling frictionless commerce, drive-thru and curbside pickup optimization, energy and waste control, and supply chain management. The fact we are vendor-agnostic means we'll always integrate in a way that suits you with right-fit solutions.

## Why buy from Fujitsu?



### Omni-channel migration and transformation

We have the knowledge and experience to help you define your vision and deliver it in affordable and achievable steps.



### Differentiated solutions and services

We have the portfolio of solutions and innovative technologies to help transform your customer experience, drive growth, and meet your sustainability goals.



### Trusted end-to-end implementation, services and support

We have a range of professional and shared managed services to de-risk implementation, run, and support.



### Global reach

We are global - offshore delivery, service desk, fiscalization - bringing cross-border knowledge and expertise to your business.





## Case study

# tex.tracer

Read our case study on sustainable business outcomes to discover what's possible with Fujitsu.

### Tracing garments through supply chains

tex.tracer, a fashion supply chain transparency platform, is the brainchild of Jolanda Kooi and Bart Westerman who gleaned extensive industry experience working in China and Hong Kong. The pair joined forces with a mutual wish to make their industry more sustainable.

### Challenge

Kooi and Westerman set up their platform so that information could be obtained from brand owners when they register a garment. The system would then automatically email companies down the supply chain, with the data being verified using mobile geolocation, time stamps and digital handshakes, certification, and automated checks. If anomalies were detected, the system would not accept the data entry. An important part was that, once verified, the data needed to be stored in a decentralized database that would ensure privacy, trustworthiness, and credibility.

## Solution

Blockchain was the answer. It provides a public electronic ledger that can be openly shared among disparate users to create an unchangeable record of transactions with each entry time-stamped and linked to the next one. Requiring expert help, tex.tracer turned to Fujitsu.

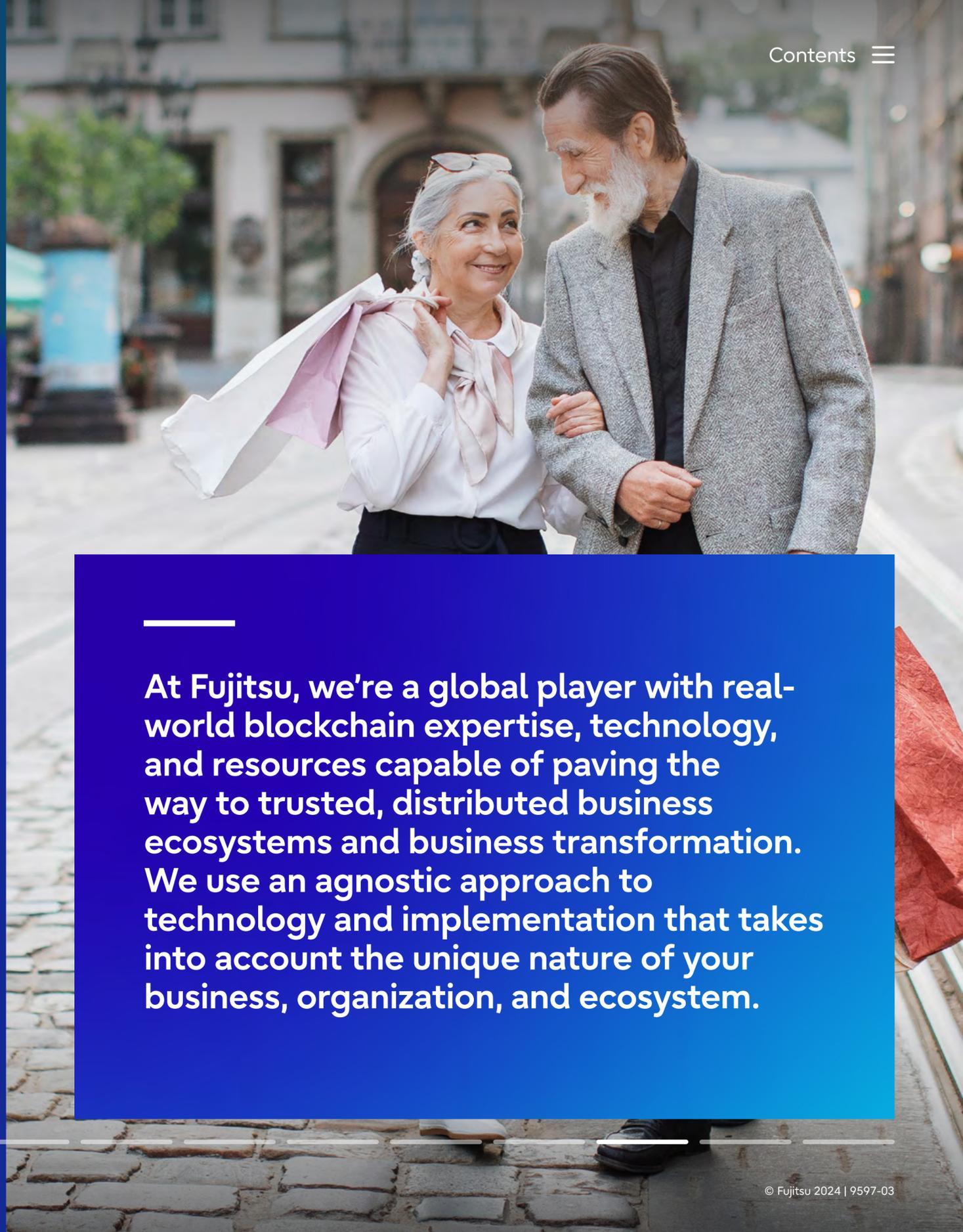
Fujitsu has been globally active in blockchain technology since 2015 when it was an early member of the Hyperledger project. This open-source community is focused on developing stable frameworks for enterprise-grade blockchain deployments.

The Fujitsu team in Brussels started with a five-day audit, then progressed to a 15-day paper-based road mapping exercise. tex.tracer was kept in daily contact as action moved to India where a development team built the core blockchain platform with all the required cloud, internet, and security interactions. Fujitsu now has an ongoing managed service agreement for the platform and will support future developments.

Now, tex.tracer gives brand owners the insights they need to report to all stakeholders with the click of a button. By scanning a QR code on a garment with their mobile, consumers can also trace garments' history.

## Outcomes

- Brand owners and retailers now have insight into their supply chains which makes them prepared for future legislation regarding compliance.
- Consumers can scan QR codes in store to check the garment's journey.
- Ethical and environmental issues can be revealed and acted upon.



**At Fujitsu, we're a global player with real-world blockchain expertise, technology, and resources capable of paving the way to trusted, distributed business ecosystems and business transformation. We use an agnostic approach to technology and implementation that takes into account the unique nature of your business, organization, and ecosystem.**



# Let's deliver the future of sustainable retail

## Using innovation to create experiences that engage customers, win loyalty, and create growth

When looking to overcome your organization's sustainability challenges, implementing the right technology is only the start. That's because technology can't intrinsically make the world a better place – it's the people behind it who make the real difference. The right people with the right mindset, powered by the right data.

With the right data, retail leaders can understand and analyze their current impact on the world, and then go on to make better decisions.

**Sustainability success will belong to the innovative retail organizations that seize the opportunities data provides.**

Opportunities to balance goals and share responsibility with customers.

To apply transparency and traceability as we all shop without borders.

To ask the right questions, like: What is the optimal model for customers and retailers to hit their sustainability goals together? What's the best way to minimize environmental loss while increasing customers' wellbeing? How can I offer a consistently excellent omni channel experience that also has a positive impact on the planet and society?

At Fujitsu, we're working towards answering big questions like these. Fujitsu Uvance is a set of solutions, services and know-how designed to help retailers grow their businesses and solve societal issues. By combining many years of experience in advanced technologies with our expertise in diverse industries, we're using data to connect disparate processes and drive previously unimaginable approaches and insights.

At Fujitsu, we're here to help you deliver a great omni-channel customer experience, with increases in sales, profit, customer loyalty, and sustainability. To discover how far we can travel together, please get in touch:

email [askfujitsu@fujitsu.com](mailto:askfujitsu@fujitsu.com)