

Reducing food waste

From insight to action

12th March 2026



Introductions



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PILLAR 1:

Net Zero

Ambition:
Contribute to a 50% reduction in emissions across the agrifood supply chain by 2030



PILLAR 2:

Nature Restoration

Ambition:
Build a 'Nature Positive' industry to halt and reverse nature loss by 2030



PILLAR 3:

Sustainable Commodities

Ambition:
Contribute to halting commodity-driven deforestation and conversion by 2030



PILLAR 4:

Food Waste

Ambition:
Halve per capita food waste by 2030, contributing to UN SDG 12.3 and the Courtauld 2030 commitment



PILLAR 5:

Packaging

Ambition:
Contribute to implementing a world-class packaging recycling system in the UK, reducing the environmental impact of packaging

Ambition 2030



Identify, Prioritise, Act

From insight to action

Argon & Co

Global management consultancy

Operations strategy and transformation

Technical expertise and operational experience

Personable with challenge where needed

Global footprint with local expertise

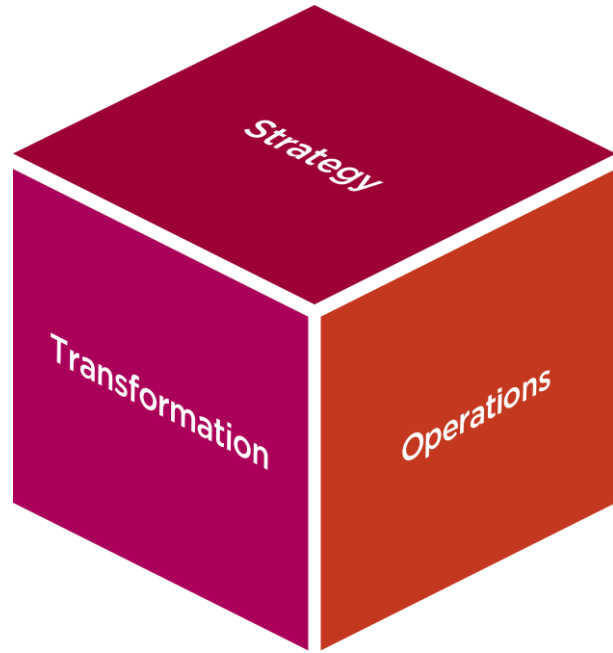


We operate globally.

We train together, use the same approaches and apply the same quality standards.

Recognised by





Strategy

Operating model
 Organisation and people
 Competitiveness

Working capital improvement
 Mergers and acquisitions
 Operations agility

Operations

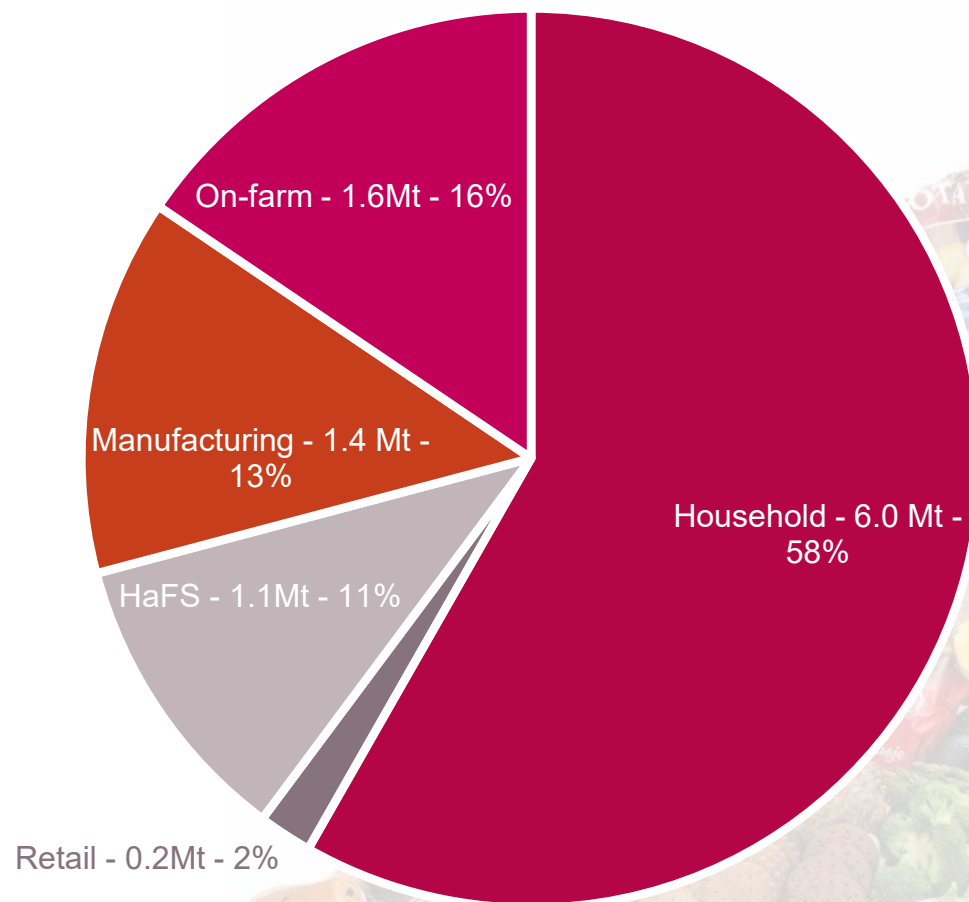
New products
 Procurement
 Supply chain planning
 Operational performance
 Manufacturing
 Logistics
 Channels to market
 Maintenance and after sales
 Digital and IT
 Finance, SG&A and HR
 Sustainability
 Data and AI

Transformation

Financials and measurement
 Organisation and infrastructure
 People and culture
 Process
 Systems
 Strategy
 Stakeholder management
 Programme management



Food waste in numbers...



10.2Mt food waste in the UK

Total edible food waste in manufacturing is estimated at 0.7Mt, valued at £0.85bn

Poll 1: What is the main thing stopping you from taking further action on food waste?



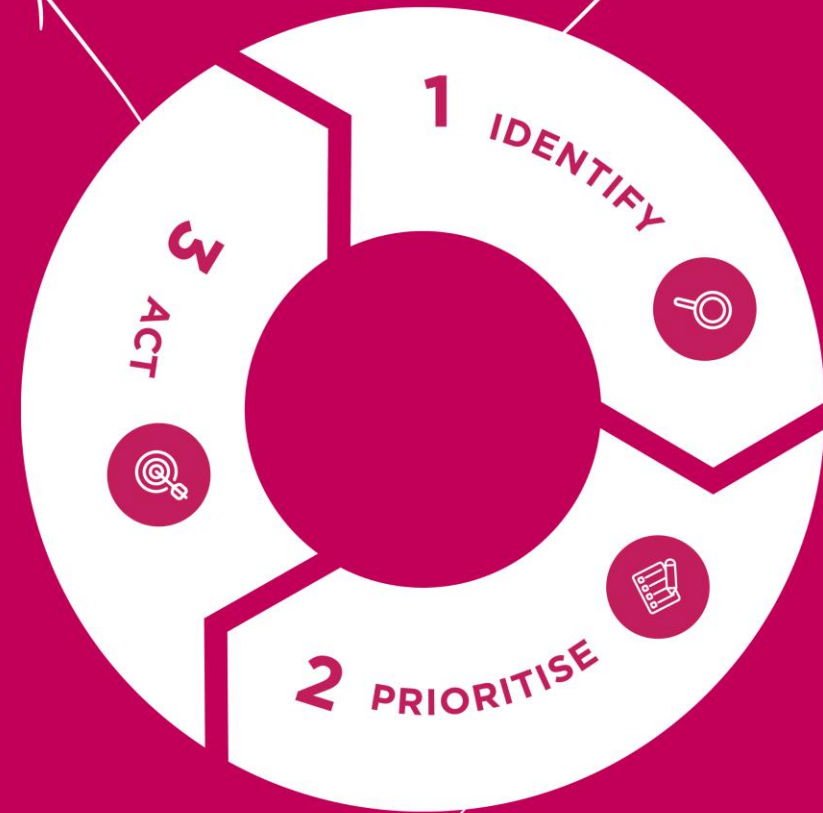
Food waste reduction framework

A pragmatic framework to share today

The reasons to act are clear, but it can be hard make sense of complexity or know where to start

Act: Your actions will depend on your priorities - but our core principles will help you do it well

Identify: Sounds simple, but the activity of identifying all your food waste can uncover surprises



Prioritise: You can't tackle everything at once, so prioritise based on impact and ease to start making progress quickly



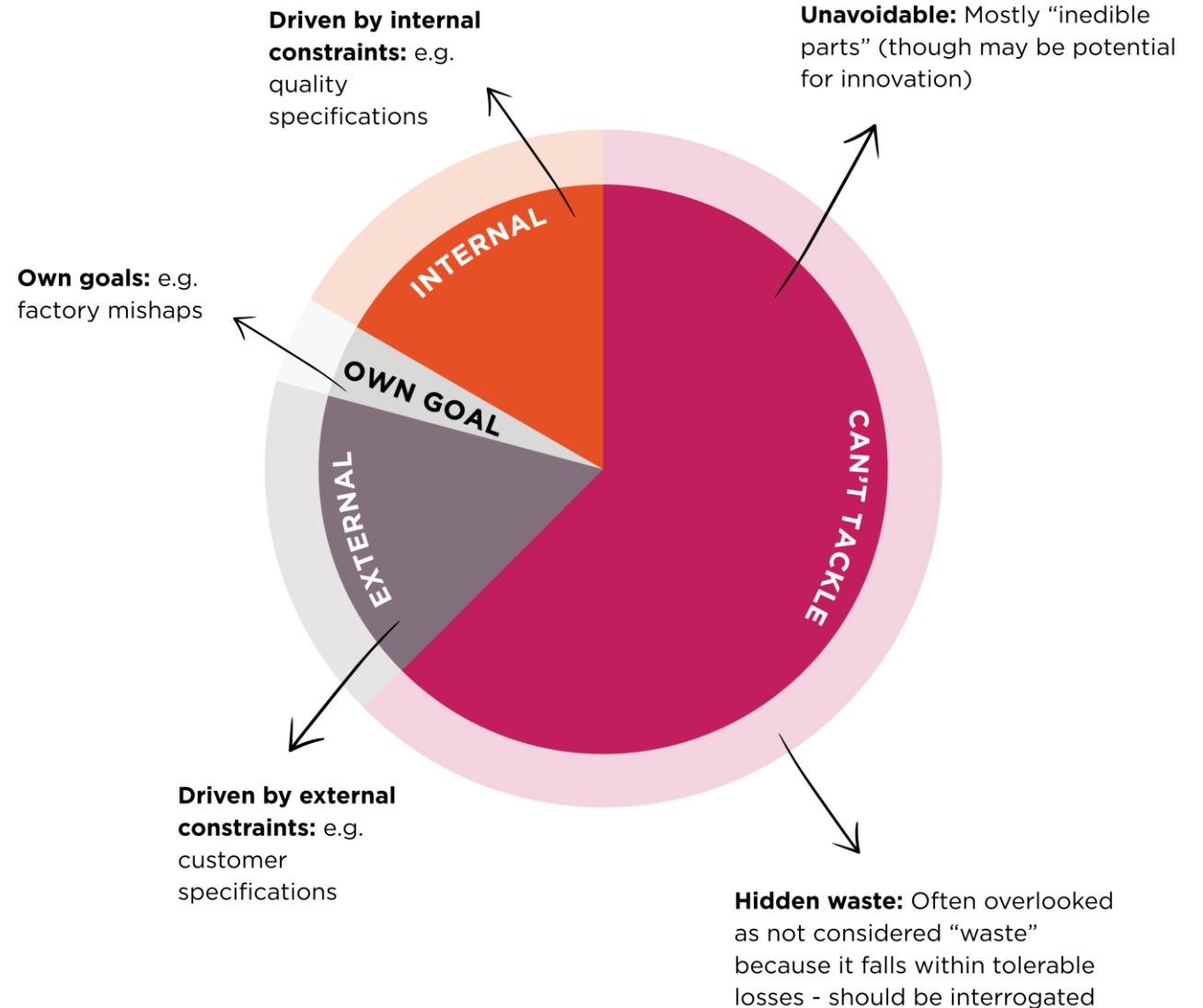
Identify

The first step to reducing food waste is truly understanding it

- ▶ Collect data on all loss / waste in the process
- ▶ Remove **all** filters
- ▶ Analyse causes
- ▶ Categorise, including your level of influence

Typical categories of food loss and waste

Chart shows the proportion of food waste that usually falls into each category.



Poll 2: Which of these categories has the biggest impact on food waste in your business?



Prioritise

Focusing your efforts will deliver benefits sooner

- ▶ Influence and control
- ▶ Size of prize
- ▶ A suite of initiatives across different categories / root causes
- ▶ Typically see progress towards those that require engagement with other stakeholders – more effort, but likely higher ROI

Increasing potential opportunity through more challenging to execute

Own goals:

- Factory-led improvements
- Back to basics - e.g. LEAN, maintenance
- Leverage AI to spot patterns

Internal constraints:

- Quality specifications - are they too stringent?
- Process design - are we creating problems through our own SOPs?

External constraints:

- Engage suppliers and customers on unintended consequences of specifications
- Opportunities include SKU rationalisation, clear specs, ingredient consistency and new product design



Act

Put plans into action, but watch out for pitfalls

- ▶ Conduct rapid pilots to scale across lines / sites
- ▶ Build KPIs & dashboards: yield %, scrap %, OEE loss tree
- ▶ Embed routines: daily management, tiered meetings
- ▶ Include capability building for operators, engineers, planners
- ▶ Embed cultural ownership from operators to SLT

Watch out for potential pitfalls

1

Align KPIs to avoid conflicting priorities

2

Don't be put off by sharing the benefit

3

Beware the status quo

4

How to leverage technology

5

An improvement cycle

Poll 3: What has been the most impactful action your organisation has taken to reduce food waste?

Food for thought: the framework in action



Own goals:

“Random” waste issues

Business: Ready meal supplier

Situation: Many waste incidents in the factory considered random and therefore could not be addressed

Solution: Use of AI to analyse multiple uncertain variables, which enabled trend identification and several root cause fixes



Internal constraints:

Quality standards causing avoidable wastage

Business: Confectionery supplier

Situation: Internal standard prevented recycle of chocolate with any caramel back into chocolate line

Solution: Piloted higher caramel recycle rate and passed quality assessment without impacting product quality



External constraints:

Variation between products for the same customer

Business: Food-to-go supplier

Situation: Discovered 10+ different tomato slice thicknesses for one customer in one site

Solution: Agreed more consistent specifications with customer



“Unavoidable” waste:

Better ways of manage waste for profits & environment

Business: Preserves supplier

Situation: Wastewater from cleaning the lines between changeover was being discharged to drains

Solution: High sugar content ideal candidate for on site anaerobic digestion – renewable energy produced on site



Hidden waste:

Losses accepted within tolerance but could be improved

Business: Ready meal supplier

Situation: Chicken was being overcooked causing larger moisture losses, leading to high waste and poor product quality

Solution: Refinement of cooking time specification to reduce moisture losses (additional benefit of more tender chicken)

A practical way to tackle this waste

Identify

Sounds simple, but the activity of identifying all your food waste can uncover surprises

Prioritise

You can't tackle everything at once, so prioritise based on impact and ease to start making progress towards your goals

Act

Adopt a cycle of improvements to deliver your priorities, watching out for common pitfalls



Poll 4: If there is a specific topic that you would like to know more about, please let us know your name/contact details and we can follow up directly with you

Information will not be shared publicly

See real change.

Argon&Co*



QR codes powered by GS1

FDF Food Waste Webinar

March 2026



Our purpose

As a neutral, not-for-profit membership organisation, we bring our members together to address industry problems that companies can't solve alone.

We harness the **power of standards** to transform the way people work and live.

GS1 UK



62,000 members

76% from the retail industry

10bn barcodes scanned everyday

The next generation of barcodes

1974



2026



Consumers want to know more

How do I recycle this?

Is it responsibly sourced?

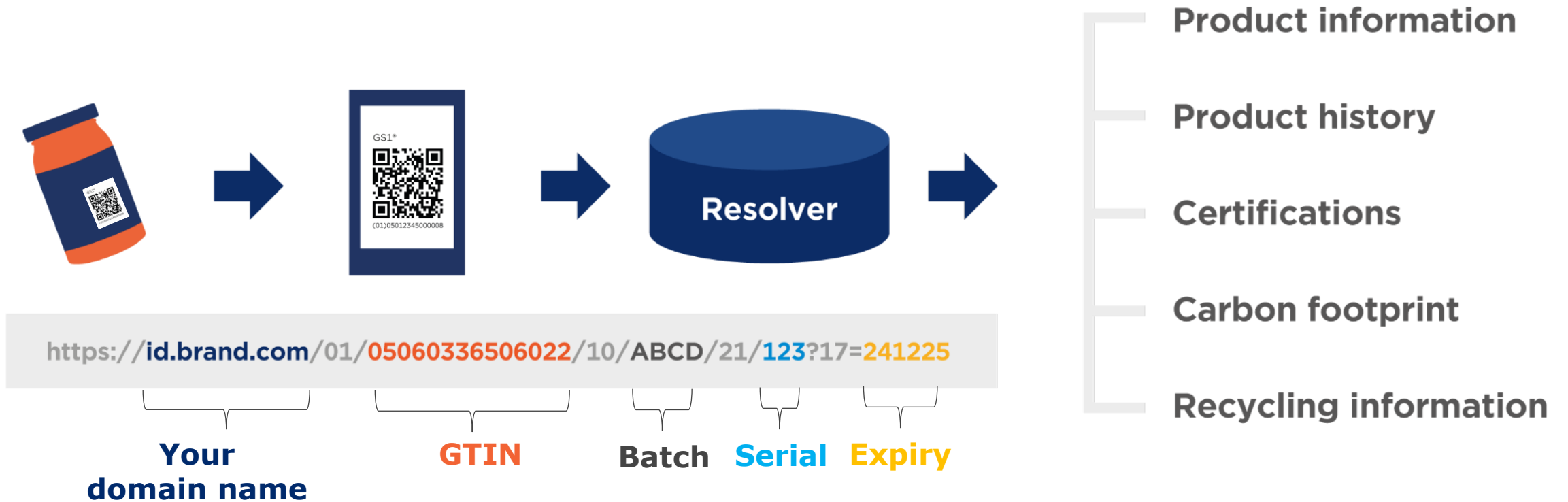
Is it safe for me to consume?

Do other people like this brand?

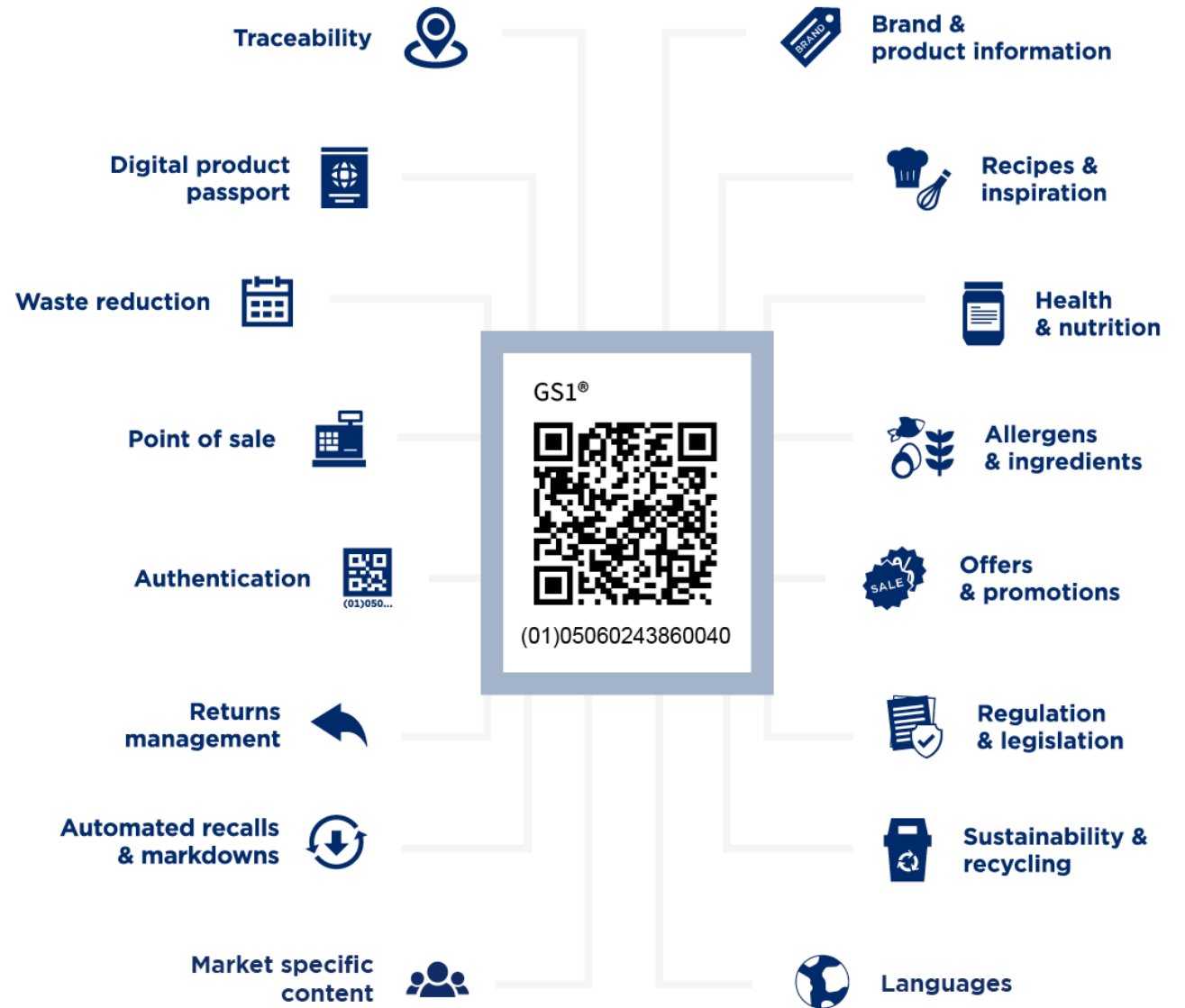
What other products are in the range?



What is a QR code powered by GS1?



One smarter scan, many possibilities

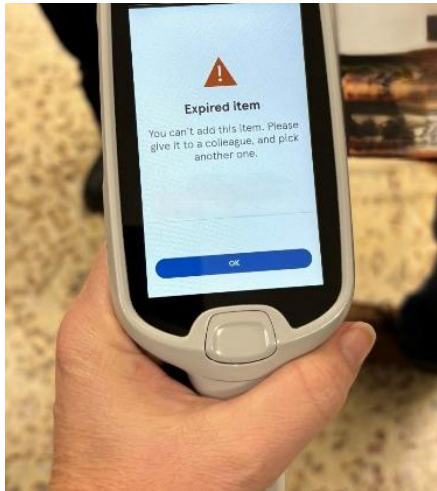


Global first movers



Food waste deep dive

QR to reduce food waste



Preventing sale of OOD products



Improved forecasting



Automated markdowns



Consumer education



Recycling information

Proven to reduce waste in the supply chain

“We can reduce food waste by up to **40%** and improve productivity by up to **21%** for articles that have fully transitioned to 2D barcodes.”

Roberto Olivares
Senior project manager



Tesco leading in UK

“As well as improving the customer experience and unlocking **new supply chain value**, we are testing how QR codes can help Tesco with issues including **traceability, compliance, sustainability** and **shelf-edge communication**.”

Isabela De Pedro
Supply chain development



Different use cases = different print requirements



<https://dl.ulcp.io/01/05000184161028>



<https://www.tesco.com/01/0000010043240/10/182193?15=250406&90=DPT3>



Thank you

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INTRODUCTION TO CRANSWICK 2026



Opportunities to Reduce Food Loss and Unsold Food

Whilst there isn't a singular silver bullet, there are numerous opportunities to reduce food loss and unsold food in the supply chain.

Opportunities

Ingredients



In-Pack Atmosphere



Packaging



Supply Chain



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To transition from linear to dynamic QR codes printed on-pack unlocking data transparency between manufacturer & retailer to reduce food loss and un-sold food

Gap Analysis



- Gap analysis across all Tesco supply sites to assess QR printing feasibility in late 2024
- Understanding hardware capabilities and potential costs
- Established main hardware points of contact
- Front of Pack Printing Only

Proof of Concept



- Cranswick Convenience Foods- Milton Keynes selected for small-scale POC
- Already had most hardware in place networking of coders, autotest system
- Test in a high-speed line, multiple coders

System Implementation



- 2-week trial on Tesco Garlic & Herb Ham into 2 depots (March 2025)
- New artwork created with separate QR Code box
- Dual coding: Dynamic QR + 1D barcode for retail continuity.

Key Challenges & Fixes



- Print quality issues (smudging, clarity).
- Artwork redesign for QR placement next to Use By date.

What have we learned from the proof-of-concept trial?

Verification



- Manual checks every 15 mins using Scandit app (not robust enough)
- Quality inspection with Axicon
- End-of-line automation required, briefed existing supplier with specification and other sites systems

Print Orientation / Printer Settings



- Different print files needed
- Pre- vs post-sealing head can lead to print smudging
- Robust database connection with continual live update

Artwork & Print Quality



- Matte ink/varnish and opaque white background improved readability

Scan Speed Challenges



- QR slower than linear barcode
- Reduce embedded characters (shorter batch codes, URL stem).
- Increase X-dimension size and lower error correction for clarity

From POC to Full Launch – November 2025

Tesco Feedback



- POC deemed successful
- Roll out on next big artwork change was sausages

Upskilling Sister Site



- Shared latest print file and Tesco guidelines.
- Connected sister site IT with Clearmark for Clarinet system and bespoke database.
- Dimaco engaged for label verification (no Sparc ATLAS at Watton)

Infrastructure



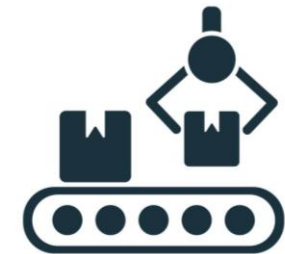
- Networking of coders
- Bespoke Clarinet system integrated with ICE Hawk printers
- Bespoke Database to hold dynamic information
- Purchase and use of Axicon 15200 Barcode Verifier

Outcome



- Dynamic QR codes launched successfully in November 2025.
 - Tesco happy with scan quality and compliance.
 - Scan speed increased since URL shortened.
- Look to launch on other product categories in 2026

Further considerations / Next Steps



- Speed of production line
- Thermal ribbon usage rates
- Manual scanning of QRs at a frequency using Axicon (QR Compliant, SOP Written), Modulation and Symbol contrast Key to Tesco, A or B scan)
- Are changeover speeds affected

Thank you



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