

# Herzlich Willkommen

GS1 Excellence Days 2023

# Driving sustainability with GS1

# The Global Language of Business

5. Juni 2023



# 2D-Datenträger als Basis für kostenoptimierte POS-Prozesse

## Konsumgüter/Retail



Jonas Batt  
Head of Industry Engagement Consumer  
Goods/Retail





# GS1 Global Ambition 2027

GS1 Global hat anlässlich der Generalversammlung beschlossen, dass ab dem Jahr 2027 folgende Grundsätze gelten sollen (AMBITION FOR 2027):

Transition Period	Ambition for 2027
 9 5 0 6 0 0 0 1 3 4 3 5 2 95060013452 (01)09506000134352	 9 5 0 6 0 0 0 1 3 4 3 5 2 95060013452 (01)09506000134352
Dual-marking transition phase 1D <b>and</b> a 2D barcode	1D <b>or</b> a 2D barcode

<https://www.gs1.org/sites/default/files/2022-02/2d-barcodes-at-retail-pos-getting-started-guide-feb-22.pdf>

**Alle sind gefordert: Handel & Industrie & Solution Partner**



# Warum ist eine Umstellung von EAN-13 auf 2D Datenträger erforderlich?

- Die KonsumentInnen erwarten einen schnellen Zugang zu Produktinformationen
- Produktverpackungen enthalten zu viele Symbole
- Marken und Einzelhändler können mehr Daten nutzen, um neue geschäftliche Herausforderungen zu lösen
- EAN/UPC schränkt die Anwendungsfälle ein, da diese Datenträger keine zusätzlichen Daten aufnehmen können
- **2D-Symbole können helfen, all dies zu erreichen**



# Anwendungsmöglichkeiten für 2D

## Bestandesmanagement



- FIFO beibehalten
- Inventargenauigkeit
- Einsicht in Verfügbarkeit und Standort
- Verschwendung vermeiden, Frische gewährleisten

## Rückverfolgbarkeit



- Produkt-Authentifizierung
- Informationen zur Beschaffung von Inhaltsstoffen
- Sichtbarkeit der Lieferkette
- Vertrauen der Verbraucher

## Sicherheit



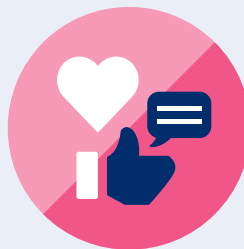
- Verhinderung des Verkaufs von abgelaufenen oder zurückgerufenen Produkten
- Bekämpfung von Fälschungen
- Markenintegrität

## Nachhaltigkeit



- Informationen zum Recycling
- Ermöglicht Kreislaufwirtschaft
- Abfallvermeidung
- Vom Erzeuger zum Verbraucher

## Konsumenteninteraktion



- Zugang zu markenautorisierten Informationen
- Werbeaktionen
- Rezepte
- Gelegenheiten zur Interaktion mit der Marke

## Verpackungsoptimierung



- Marketingziele auf der Packung
- Einhaltung gesetzlicher Vorschriften
- Verbessertes Verbrauchererlebnis

# UN Entwicklungsziel



# Connecting your products to a digital world

through a simple  
smartphone scan

Kerry Morrison  
Head of Retail  
GS1 UK





# **2D barcodes – introducing a revolution in retail**

**Kerry Morrison – Head of Retail**

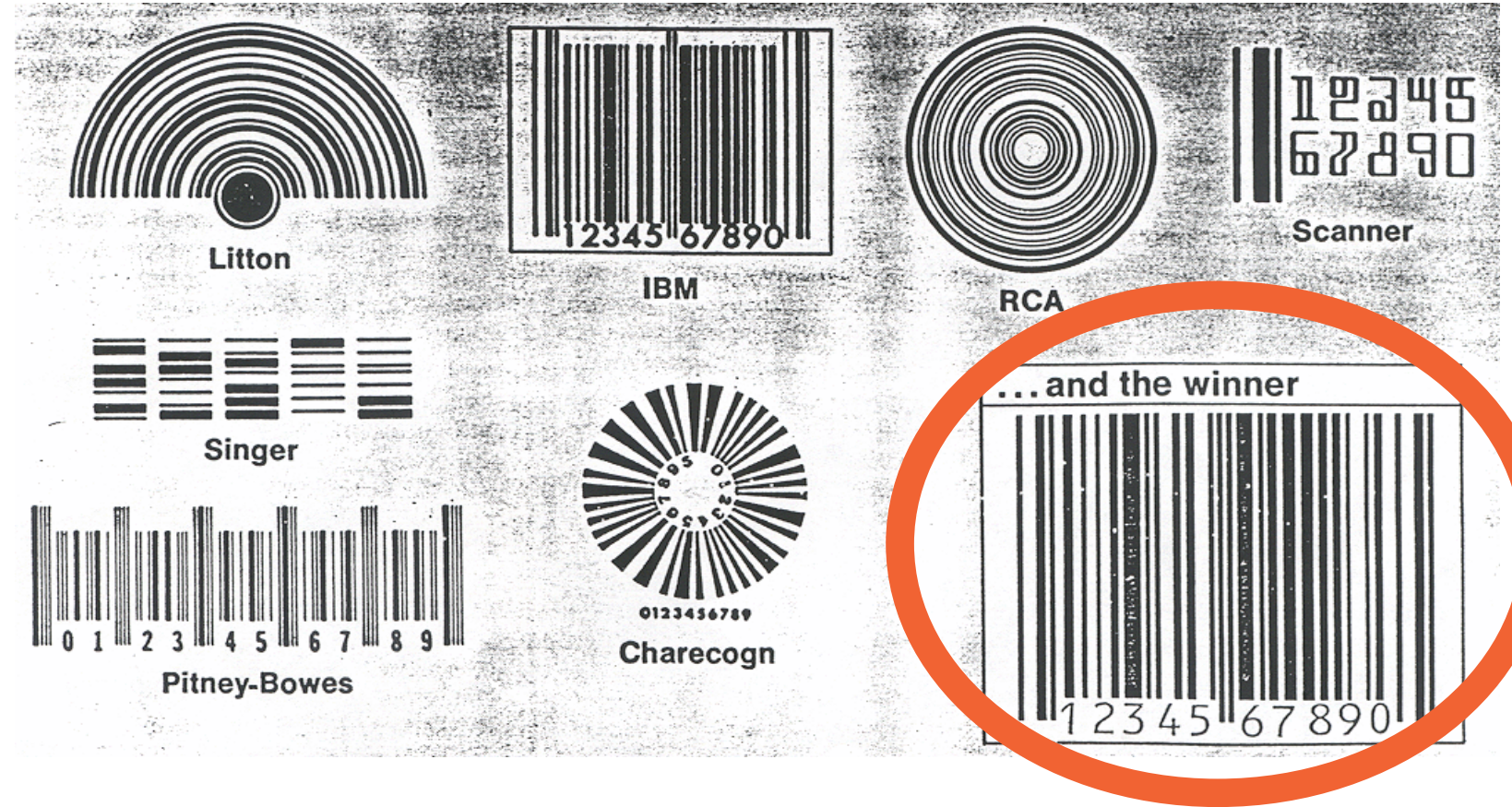
**GS1 UK**

01 June 2023





# Introducing the Barcode



# Solving industry challenges

In 1973 GS1 created the barcode to enable businesses to trade and grow. Today this is responsible for driving trillions of pounds worth of sales through the economy daily.



# Industry trends

Consumers demand more data



About  
**90%**  
of adults own a smartphone

In 2020  
**78%**  
of UK advertising spend was in digital



Manufacturers are under pressure to reduce packaging



On average consumers spend 3h 15 mins per day on their phones. And pick up their phones 58 times a day



In many categories it is becoming more difficult to advertise to consumers





# Industry's ambition

Top UK retail businesses have a clear ambition of what they want to talk to their consumers about.



# Growing legislative requirements



## High Fat Sugar and Salt (HFSS)

**Who's affected?** Food and beverage companies in the UK

Restrictions on the promotions in stores and online equivalents of certain foods and drinks.



## Digital Product Passport

**Who's affected?** If you trade in the EU.

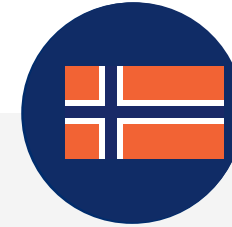
The brand must share information on products environmental impact, composition, packaging and supply chains digitally.



## EU wine labelling

**Who is affected?** Wine producers selling in the EU.

Product must include ingredients, nutrition information, allergens, and energy information along with the product using a digital label code.



## The Norwegian Transparency Act

**Who is affected?** Those trading in Norway

Requires fashion brands to identify & report on working conditions in their supply chain through QR codes on labels.

# Future of retail

At GS1 UK we are unlocking the future of retail by combining two of the greatest inventions of all time - **the internet and the barcode**.



# 2D barcodes will transform the world of retail



## Driving revenue

The 1D barcode was created to drive revenue by enabling trade, this is the next chapter in today and tomorrow's retail journey.



## Powering sustainability agendas

Comply and adapt to changing legislation whilst allowing consumers to make more informed choices for healthier lifestyles and better planet.



## Transforming digital strategy

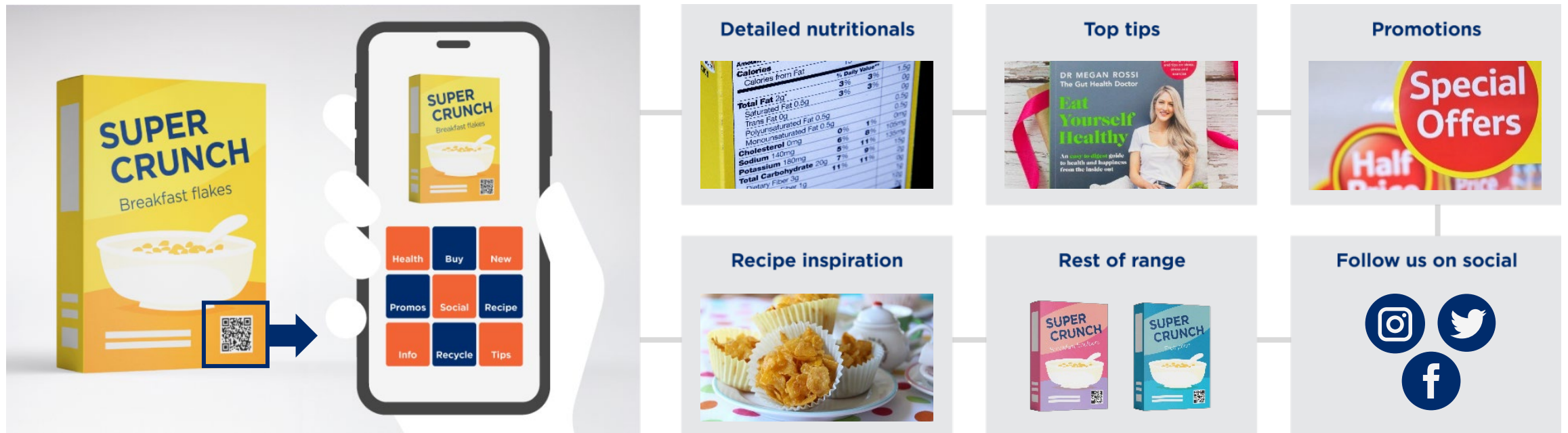
Adapt to the ever-digitising world of commerce to make brand marketing work smarter and harder to inform and delight the consumer.



## Enriching customer engagement

Speak directly to your consumers - provide instant access to trusted information, content and richer personalised experiences.

# What does this look like?



# What does this mean for you?

This is an opportunity for brands to:

- **Talk directly to their consumers** through their product's packaging
- Share key information **required by legislation**
- **Enhance customer engagement** through enriched digital content
- Power **sustainability agenda**
- **Meet diverse business KPIs**
- **Transform digital strategy**
- **Drive revenue**





# One code



**Consumer**



**Point of sale**



**Supply/stock**

# QR codes with GS1 standards will enable and end to end digital ecosystem





# How does it work?



Batch/lot: ABCD  
Serial: 123  
Expiry: 25-12-2024

# GS1 powered QR codes

**Your  
domain name**



**Batch**



**Expiry**



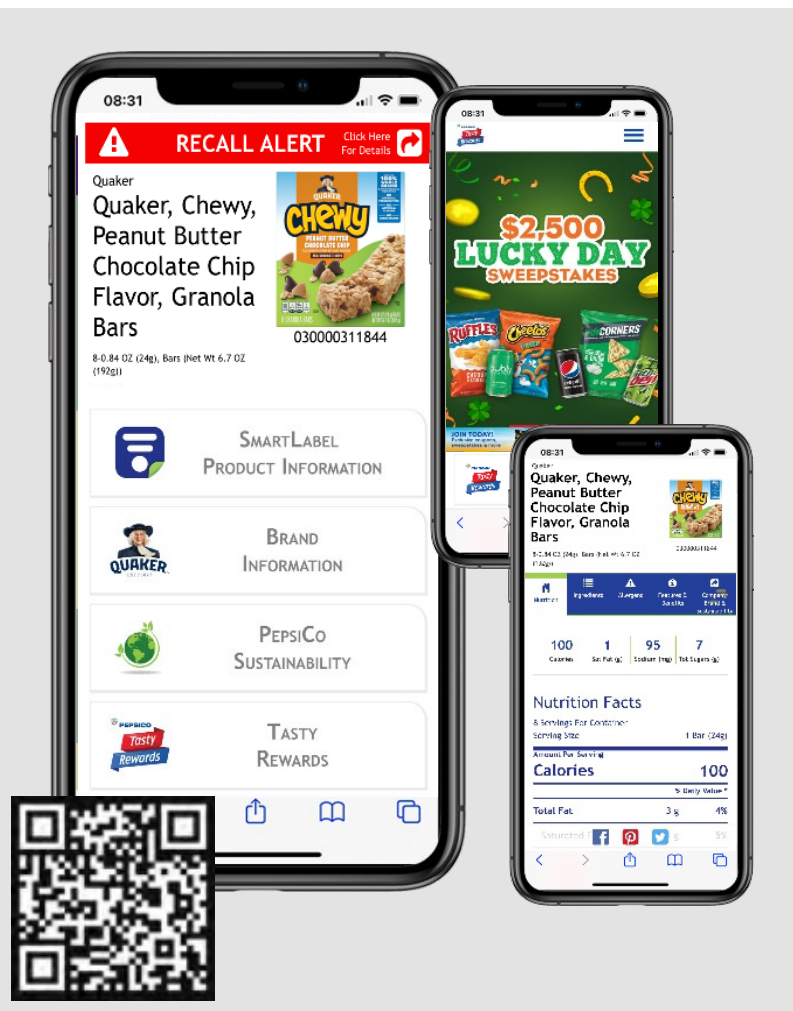
<https://id.ntsamauk.com/01/05060526860217/10/ABCD/21/123?17=241225>

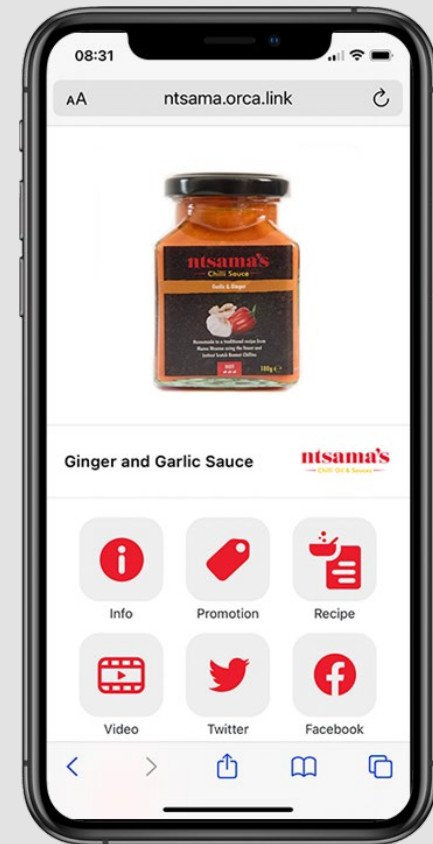
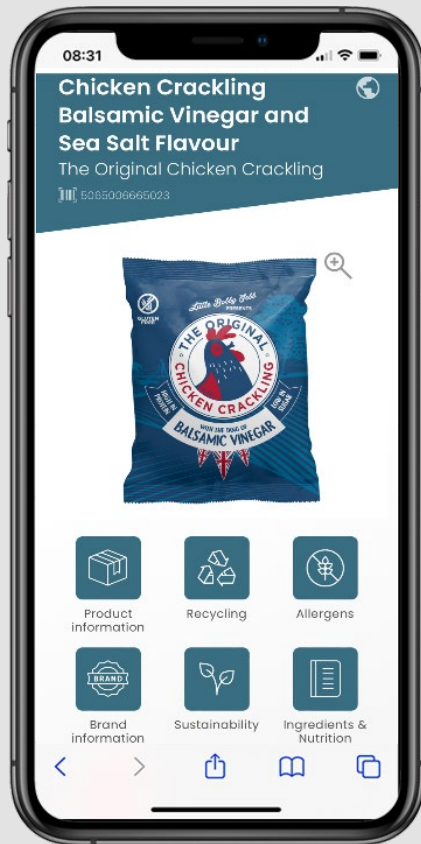


**Global Trade  
Item Number  
(GTIN)**



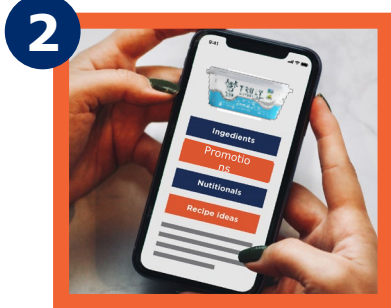
**Serial**





# Connecting with consumers

This will enable every product to become its own media channel **giving manufacturers the power to connect directly with their consumers**



Promote  
rest of range



Introduce seasonal  
variations



Offers  
promotions



Links to brands  
social media



Enables collection of  
first party consumer  
data

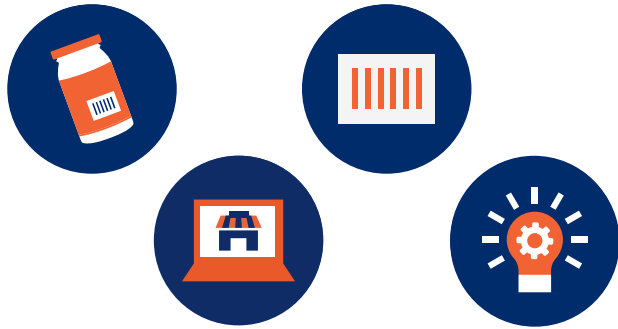


Less reliance on  
expensive  
campaigns (TV)



Content can be changed  
instantly by  
manufacturers

# You already have



Products



Product master data



Creative agencies



Barcodes



Digital product twins



Ecommerce teams



Website



Marketing content



Shopper marketing teams



Business KPIs



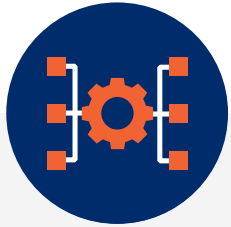
Commercial strategy



Category and sales teams



# How can brands do this today?



## Align on priorities

What business objectives do you want to achieve?



## Select focus area

Where do you want to start within your product portfolio?



## Identify messages

What do you want to talk to your consumers about?



## Evaluate collateral

Does this content already exist?



# How can brands do this today?



## User experience

Create space for this content to live (eg. Your website or subdomain)



## Link to your products

Create a QR code with embedded product identifier



## Launch

Update products' packaging with GS1 powered QR code



## Test and learn

Analyse how customers are interacting with your products



# Members' ambitions

What do you see as being the main opportunities for your business around implementing connect to consumer using QR codes on pack?

Visibility of product data and **access to information** that is relevant to individuals.



Customer facing: Giving customers **access to more information** (e.g. packaging materials recycling information, ingredients, nutrition, provenance) and **rich content. Promotions.**

Operational: more **product information for traceability and dynamic Inventory management.**



Recipes, provenance, sustainability, ingredients & nutritional info. **Promotions & marketing content.**



Packaging material & recycling information. Carbon footprint & **sustainability story.**

**Wellbeing** & additional health information. Product recipes & ingredient provenance. **Promotions & coupons.**



Brand **loyalty.** Increased **sales.** Building consumer **trust.** Supply chain **savings.**



Room to **shout about your products in many ways.** Allows consumer to **find relevant information with ease.** Provenance & sustainability info for the conscious consumer. **Flexible and adaptable** information that **can be targeted** (e.g. based on geo-location).



# Members' ambitions

How does implementing connect to consumer using QR codes on pack fit in with current business strategy?

Ability to talk to consumers about sustainability, recipe inspiration and other marketing info related to new products – **we can never get enough on physical packs.**



**We are already successfully using QR codes to connect with consumers on freshly made items in store.**

This is successful in talking to consumers around food safety, allergens, provenance and quality.



**Opportunities around item traceability** and stock handling decisions that comes from using 2D barcodes on pack.

**Continuing post purchase conversations and education with customers** around marketing, sustainability, ingredients, product quality and provenance.



Reaching consumers around **sustainability alongside on pack offers and promotions.**



**Inclusivity and accessibility for shoppers** is also key area here.

How can we use digital solutions to help overcome any visual impairments.



Talking about sustainability and perfect serve are some of the most important areas for us. **Getting the right content, keeping the content interesting and engaging for shoppers is priority.** We need to understand how to keep content fresh. In an ideal world we could use this to create tailored content for consumers.





**Speak with the team  
today to get started**



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**Or visit our website  
to learn more**



# The Case for shelf management with freshness sensitivity

David Kat  
Bus / Dev  
wasteless







# wasteless

Insights that repair  
the food value chain



# Food Waste is costing us dearly



- **€10 T**  
Total value food system
- **€12 T**  
Food's cost to the planet<sup>\*</sup>
- **€4 T**  
ca. 40% of food is wasted<sup>\*\*</sup>

\* Land use Coalition, [Growing Better](#) exhibit 8, page 38 and box 4 on the same page    \*\* FAO





**Food Waste  
causes  
10% of all  
Carbon  
Emissions**

**WASTING FOOD  
FEEDS CLIMATE CHANGE.**





# A fortune to unlock

On retail's shelves



€€ **Waste** €€

**2.5% - 4%**

Waste loss in annual sales



€€ **Markdowns** €€

**1.5% - 2.5%**

Markdowns cost in annual sales





## Current practice

**Markdowns.**  
... of up to 60%



wasteless



# That's wrong

# Expensive

Badly Managed



## Arbitrary markdowns

Based on emotions and rules developed in the 1970s



## Too deep, too late

Last minute large-discounts have high cost and are badly perceived



## Single period markdowns

Having a single markdown point is a loss of potential

The background features a dark blue gradient with four concentric circles. Four bright green dots are positioned on these circles: one on the outermost circle at the top right, one on the second circle at the top left, one on the third circle at the bottom left, and one on the innermost circle at the bottom right.

# **Retails**

## **Sell More & Waste Less**

### **with data-driven AI based markdowns**







# It works!



Eliminating waste in salads



Eliminating waste in packed meals



Eliminating waste in meat & poultry



# Cross functional values

## CFO



### Make money

By selling a products before they become surplus food **and slashing fresh waste by +50%**



### High ROI

Wasteless charges SAAS per SKU/ Store/Month. With this model, supermarkets realize ROI from the first month.



### Reduction of markdown cost

Supermarkets can **reduce markdown costs by 50%**, optimizing their markdown decisions with AI.

## CIO



### Higher data accuracy and usability

Using Wasteless results in accurate data sets that lead to better traceability and performance. Within our data sets; **waste** data, **stockout**, and possible **consumer-specific pricing sensitivity** – data's holly grail. All data available through dashboards and periodic reports

## COO



### Quick scale-up from demo to chain level

Wasteless' system is the only system that can **scale** at a flick of a switch making it the only system that is both **fully automated** and can work while reducing the **labor involvement** very low

## MRO – Scope 3 – SBT i



### Green impact

With Wasteless' visibility in the supermarket, the Green image of the retailer is measurably be improved.



### High customer engagement and loyalty

There's an immediate reward for the customer, as we target everyone in the supermarket. This results in a long-lasting brand loyalty.

## CSO



### Reduce food waste

With wasteless you can **take an action** and lead consumers to make a strong positive impact on the environment



The background features a dark blue gradient with four concentric circles in a lighter blue shade. Four bright green dots are positioned on these circles: one on the outermost circle at the top right, one on the second circle at the top left, one on the third circle at the bottom left, and one on the innermost circle at the bottom right.

# Connecting Digital to Physical

easy to proof the

## 2D Business Case



# The elements are already available



Upload  
Assortment



Scan  
Product



Type Quantity &  
expiration date



Wastless AI



Apply optimal  
markdown sticker  
(if applicable)



# Integration-free to prove business case



STORE is protected US IP laws





# Wasteless Store



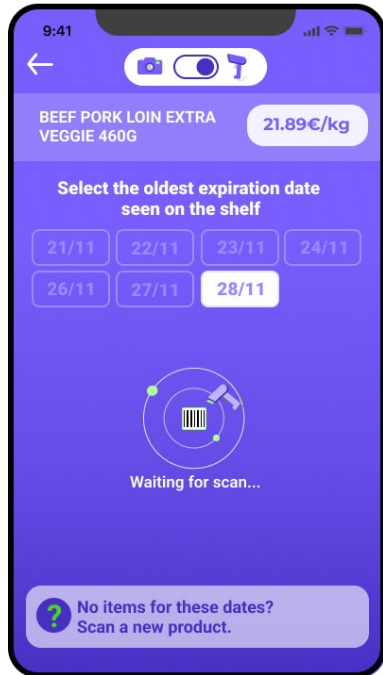


# How does it work?

STORE SOLUTION: Zero IT integration needed

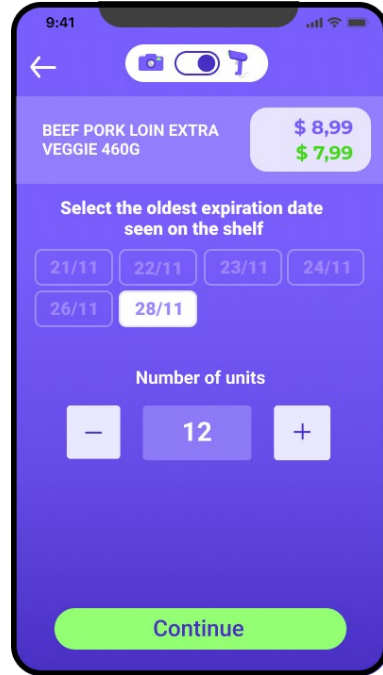
## STEP 1

Scan any SKU and check the expiration dates on the shelf



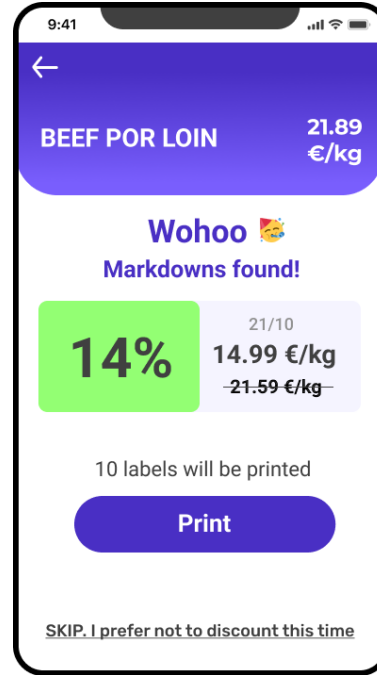
## STEP 2

Add units for the oldest expiration found on the shelf



## STEP 3

The optimal discount is calculated in milliseconds.



## Hardware needed



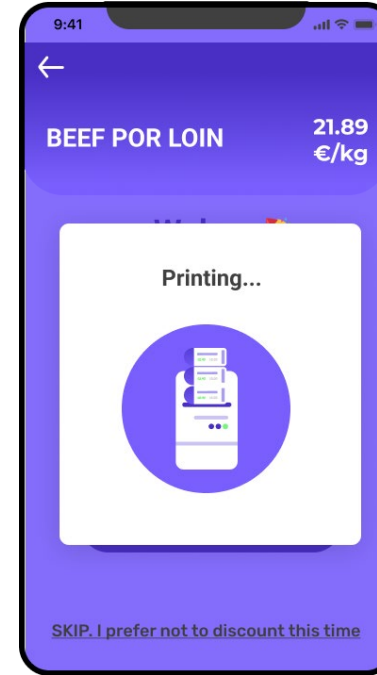
Handheld device with Wasteless Mobile App



Bluetooth Label Printer

## STEP 4

The labels are printed and applied to the required units.





# Proof Optimal Markdown



**1 week to implement** and setup the AI-powered dynamic pricing



**3 stores** (and 3 mirror stores)



**Up-to 1,000 SKUs covered**  
Fresh meat and Fish



**4 Months** to fine tune business case



**2 staff per store trained** to use the solution in store.



The background features a dark blue gradient with four concentric circles in a lighter blue shade. Four bright green dots are positioned on these circles: one on the outermost circle at the top right, one on the second circle at the top left, one on the third circle at the bottom left, and one on the innermost circle at the bottom right.

# Connecting Digital to Physical

easy to proof the

## 2D Business Case



# Initial Project Goals

## Goal 1

Reduce food waste % by anticipating waste events. This gives customers better deals, fresher products and allows them to **help the environment**.



**-30%**

Waste Reduction

## Goal 2

Hoogvliet originally wanted to rule out that Wasteless would reduce sales and revenues



**+0%**

Sales variation

# Targets & Results

## Goal 1

Target 1: Reduce Waste by 30%



**-63%**

Waste Variation

This is the average **change** between Wasteless stores and Control Stores. This delta is the same when calculating it with Hoogvliet and with Wasteless approach.

## Goal 2

Target 2: Protect Sales & Margins



**+10.4 pp**

Margin Variation

Wasteless stores showed **+21.70% margin increase**, compared to **+11.21% in control stores**.

**Revenue increase was 30%** compared to control stores (14% increase vs. 11% increase in CS)

A graphic consisting of four concentric circles on a dark blue background. Four small, bright green dots are positioned on the outermost circle at approximately the 10, 2, 4, and 8 o'clock positions. The text "Then scale it" is centered within the innermost circle.

**Then scale it**



 **ZERO WASTE**

# DOBRA ŻYWNOŚĆ LAST MINUTE

Kupuj dobre produkty z krótszym  
terminem ważności i oszczędzaj!

**makro**  
TWÓJ SUKCES TO NASZ BIZNES



PODUDZIA Z KURCZAKÓW  
ZAGRODOWYCH ŚWIEŻE KLASA A

Pakowano w atmosferze ochronnej  
Pochodzenie: Polska  
Nie spożywać po obróbce cieplnej  
WALEŻY SPOŻYĆ DO 05.04.2022  
Przechowywać w temperaturze od -2°C do +4°C  
Numer partii: 253785

MAŁA NETTO  
4,970 kg  
12 szt

SED TUL ZE SKRZ ZAGR.OK.5

**13,49**  
netto za kg

**14,17**  
z VAT 5 %

**9,09**  
netto za kg

**9,54**  
brutto za kg

451372  
286979000000

33% rabat na produkty z datą ważności do 16.12.20

**ZAGRODOWY**







## Summary



Shrinkage & Waste  
(KG)

**36% - 46%**

**Less Waste**



Shrinkage & Waste  
(PLN)

**41%**

**Less Waste Costs**



Margins  
(PLN)

**25%**

**More Margins**



Revenues Utilization  
(PLN)

**1%**

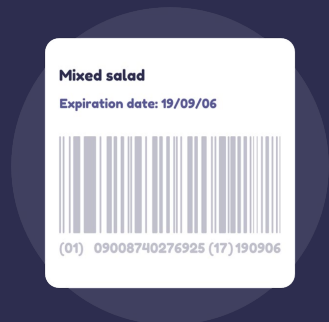
**More Captured Revenues**



# Wasteless Enterprise

An AI-driven markdown optimization engine for fresh food to **increase revenues** and **reduce shrinkage**

## Date enabled Barcode



Fresh Products are equipped with date enabled barcodes.

Barcodes are applied in-store OR at the production line

## Pricing Engine



Wasteless calculates the optimal SKU markdown

This is done continuously, in real-time

## PoS Integration



Sales data is retrieved from the PoS

Retrieving dates and applying the price

## ESL / labels / App

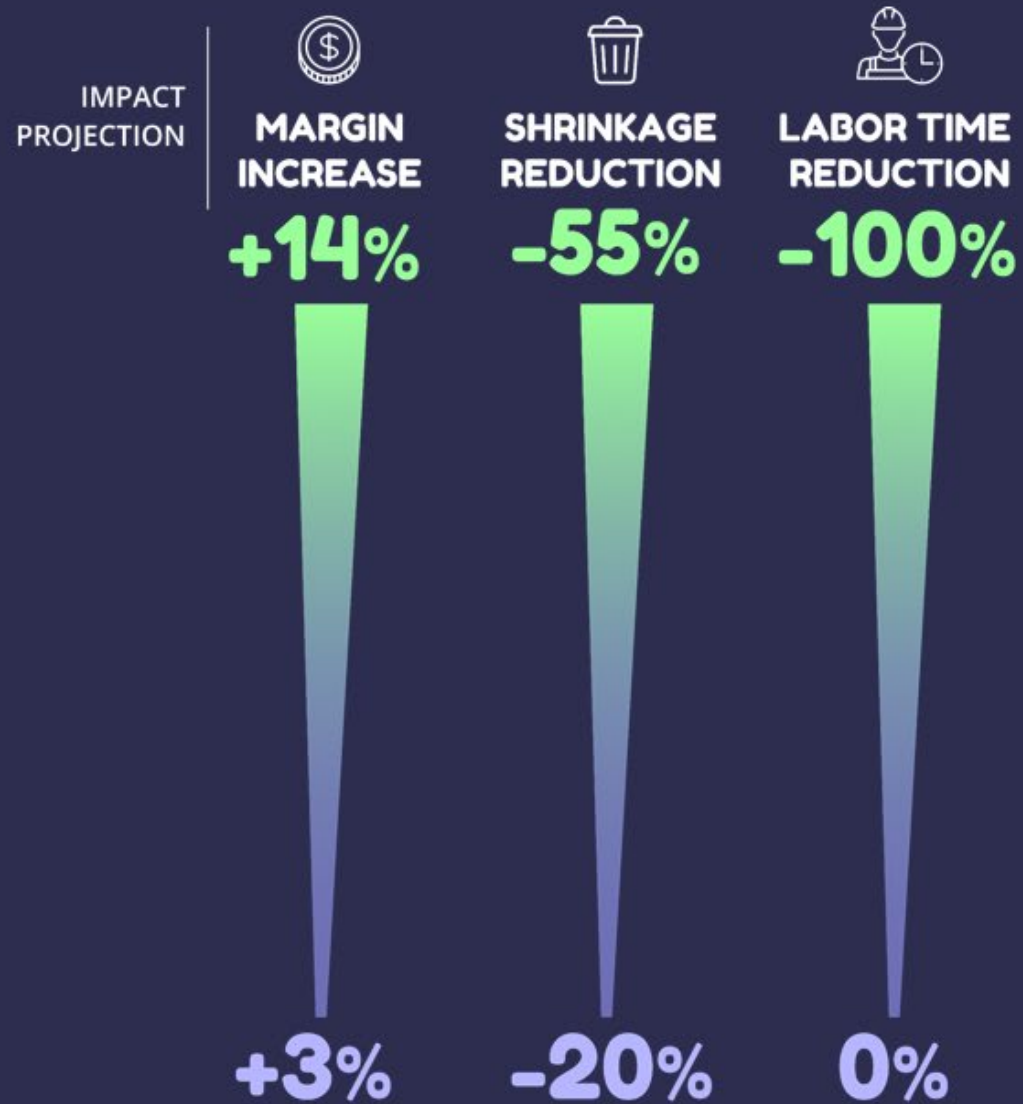


Shelf labels of any kind reflects smart markdowns

The solution fits perfectly to online & Food Delivery



# From Fast to Smart



## FULLY AUTOMATED / FULL POTENTIAL

**DATA ENABLED BARCODES ON PRODUCTS**  
ONE-TIME HISTORICAL DATA (SELL-OUT, SELL-IN, WASTE, MARGINS)

**ELECTRONIC SHELF LABELS (ESL)**  
DISCOUNTS ARE UPDATED AND SHOWN IN REAL TIME

**POS CONNECTION WITH WASTELESS PRICES**  
CHECKOUT AUTOMATICALLY APPLIES THE MARKDOWN BASED ON THE SCANNED ITEM

**INCOMING PRODUCTS DATA**  
DAILY FEED OF INCOMING PRODUCTS W/EXPIRATION DATES

**POS SELLOUT DATA**  
DAILY FEED OF UNITS AND PRICES SOLD AT CHECKOUT

**DAILY WASTE DATA**  
DAILY FEED OF WASTE RECORDED (UNITS TRACKED AS WASTE)

**HISTORICAL DATA**  
ONE-TIME HISTORICAL DATA (SELL-OUT, SELL-IN, WASTE, MARGINS)

## FAST DEPLOYMENT





# These retailers sell more and waste less

**METRO**

**makro**  
SUPERMAYORISTA

**JUMBO**  
supermarkten ■

  
Carrefour

  
**giant eagle**

 **môjobchod**

**Dirk**

  
EDEKA

# prove VALUE



## First in ACH

Quick start for rapid results and scaling



## Operations

Reduce staff time, increasing quality, freshness, visibility of out-of-date items and precise ordering



## Production

WHEN and WHAT to produce



## Sales

PoS recognizing the item and freshness, applying discounts in real-time with intra-day alterations if needed



## Customer value

Understanding shopping preferences, choices, and sensitivity towards freshness, we help offering consumers what they want and create long lasting loyalty



# wasteless

**Let insights make a positive impact – fast**

**David Kat | Bus Dev**

david@wasteless.com

wasteless.com



**David Kat**

VP Bus Dev at Wasteless. Food100  
Innovator. Drawdown evangelist. Public...







## Q&A

- Q:** What type of assortment is covered? ————— **A:** Packed Fresh: Meat, Poultry, Meals, Salads, F&V
- Q:** How many SKUs are covered by the solution? ————— **A:** Typically 800-1200 SKUs
- Q:** How long it takes to integrate? ————— **A:** Usually 4-6 weeks from kick-off to go-live
- Q:** Can the solution work without ESL systems? ————— **A:** Definitely yes
- Q:** Can consumers “learn & hack” the solution? ————— **A:** No, that is impossible
- Q:** Do I need to re-tag food items? ————— **A:** No, that is not needed
- Q:** How do you price the solution? ————— **A:** We charge Per SKU/Store/Month
- Q:** What is the expected ROI? ————— **A:** Depends on the covered SKUs, usually < 2 Month

# About

Focus: Dynamic markdown optimization to increase revenues and reduce food waste

Technology: Deep ML

Founders: Oded Omer (CEO), Yossi Regev (CTO)

Subsidiaries: Wasteless Ltd (TLV) | Wasteless Inc (NYC) | Wasteless BV (Amsterdam)

Funding: \$11M

Grants: Israel Innovation Authorities (\$1.5M)

IP: 6 patents and trademarks granted

Prizes: EU Horizon Seal of Excellence (Twice), XTC Global 1<sup>st</sup> place in food-tech & agritech, AI Awards

# Fragen an unsere ExpertInnen



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2D bis 2027 am Point-of-Sale:  
Unternehmen bekennen sich zur Absichtserklärung Schweiz

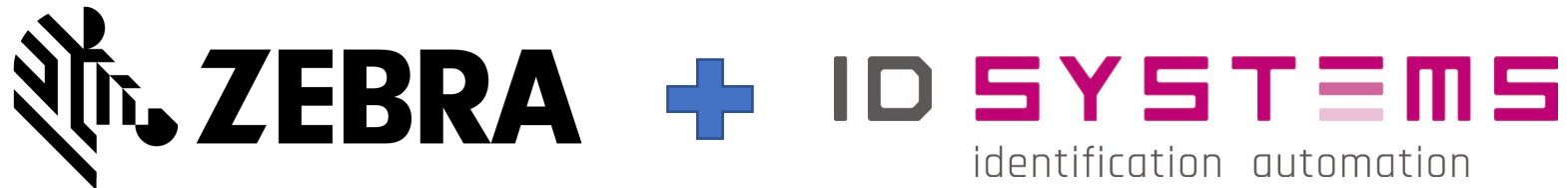


**MIGROS**

**Ospelt**  
Food matters.



- Besuchen Sie draussen die Stände der **Solution Partner** oder
- Melden Sie sich an zum **Webinar** vom 02.11.23 «Umsetzung von 2D am POS» mit



Bei Fragen zum Thema stehe ich und die Standards Experten von GS1 Switzerland sehr gerne zur Verfügung.







## Ihr Kontakt

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Consumer Goods/Retail

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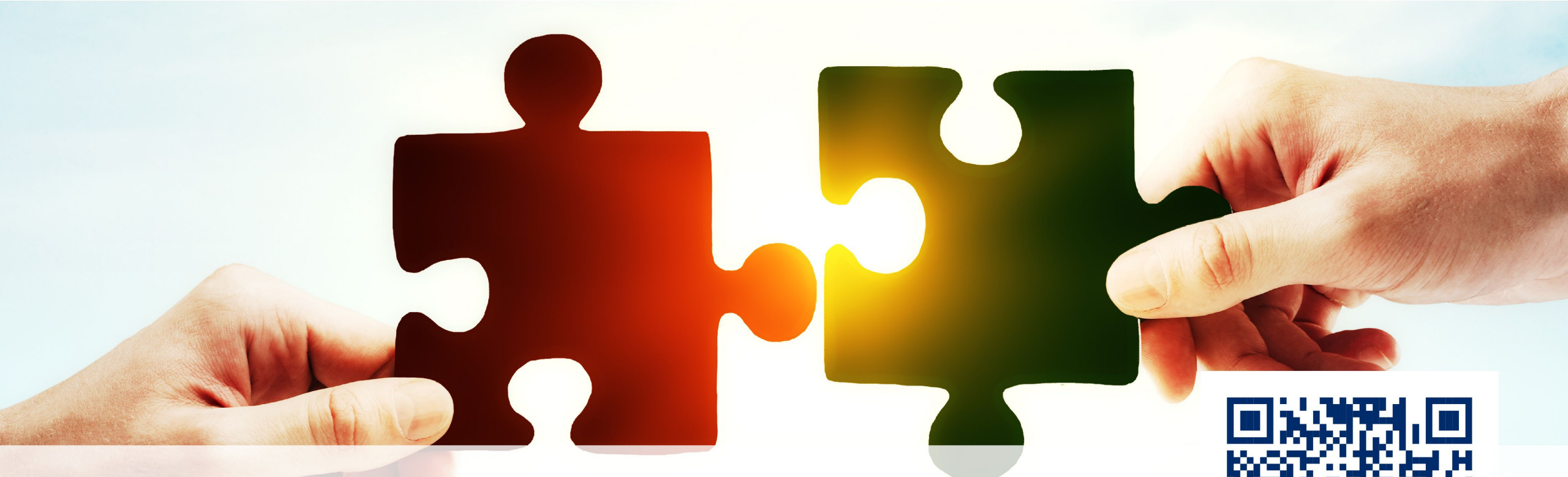
 Jonas.batt@gs1.ch

 [www.gs1.ch](http://www.gs1.ch)

# 2D Webinar

2. November 2023, online





# **Solution Partner Event**

31. August 2023 im Westhive, Zürich



# Vielen Dank für Ihre Aufmerksamkeit!

