

# GS1 INTERACT

HYBRID EVENT, VIENNA, AUSTRIA  
17 OCT 2024, 10 - 16h CEST



Sponsored by



**Ignacio Elola**  
Global Commercial  
Director Lactalis



**PARTNER  
FOR GROWTH**

**LACTALIS**

**GLOBAL SALES  
& MARKETING TEAM**



*Nurturing the future*

**EXPLORING QR CODE POWERED BY  
GS1**

for food industry application

INTERACT 17 Oct.  
PARIS



# EXPLORING QR CODE POWERED BY GS1

for food industry application  
Feasibility & Solutions

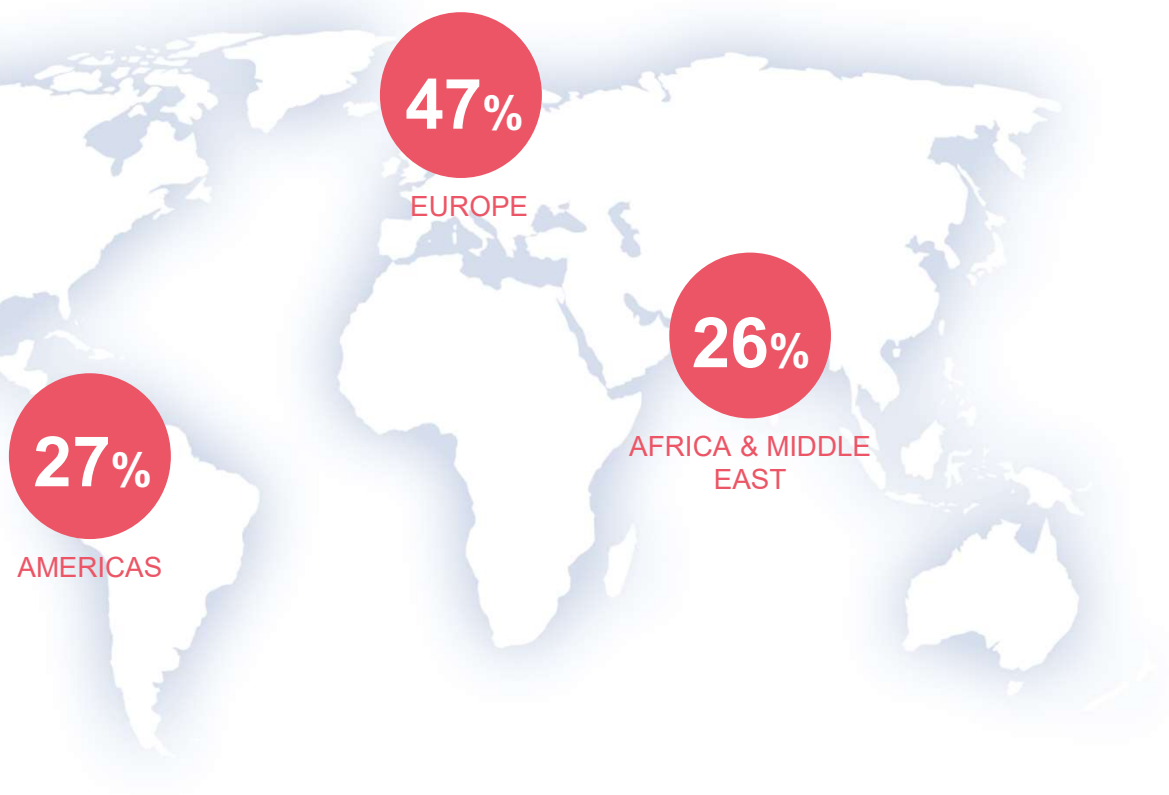
## AGENDA

- LACTALIS & GS1
- 2D codes powered by GS1
- STATIC QR code TO PRIORITIZE
- DYNAMIC QR code COMPLEX & COSTLY CHANGE



# LOCAL ENGAGEMENT

## ACROSS THE GLOBE



**270**  
MANUFACTURING  
FACILITIES IN 51  
COUNTRIES

**85 500**  
EMPLOYEES

PRODUCTS  
SOLD IN  
**150** COUNTRIES

OVER **80**  
NATIONALITIES  
REPRESENTED IN  
THE GROUP





# KEY FIGURES

## SOURCE OF OUR LEADERSHIP



**€29,5**  
BILLION REVENUE



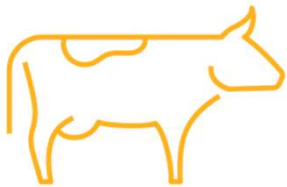
**1<sup>st</sup>**

GLOBAL DAIRY GROUP IN  
THE CHEESE MARKET



**2<sup>nd</sup>**

GLOBAL GROUP IN  
THE CHILLED DAIRY  
MARKET



**1<sup>st</sup>**

GLOBAL DAIRY GROUP



**2<sup>nd</sup>**

GLOBAL GROUP IN  
FLUID MILK



**10<sup>th</sup>**

LARGEST GLOBAL  
FOOD GROUP



**1<sup>st</sup>**

GLOBAL PLAYER IN  
PDO\* AND RAW MILK  
CHEESE

PDO\* : Protected Designation of Origin



# GS1 & LACTALIS

## INVOLVEMENT

GS1		LACTALIS	
BOARD	Ignacio ELOLA	GLOBAL SALES DIRECTOR	
CI QR Code	Olivier BODIN	CORPORATE SUPPLY CHAIN MANAGER	
	Laurent COUTANT	NUTRITIONAL MARKETING DIRECTOR	
Local support (France)	Michel LENEVEU	BUSINESS SUPPORT GROUP LEADER	



# 2D codes powered by GS1

2 SYSTEMS TO MANAGE



# GS1: QR Code & Datamatrix

## 2 x 2D GS1 SYSTEMS TO MANAGE

COHABITATION OF 2 SYSTEMS

### QR Code with GS1 Digital Link



<https://id.gs1.org/01/09506000149301/10/AB-27?17=271231>

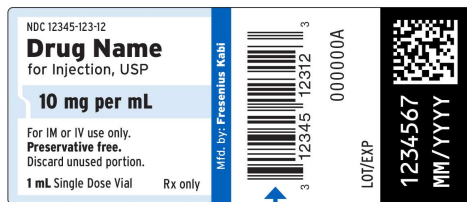


### GS1 DataMatrix



(01) 09506000149301  
(10) AB-27  
(17) 271231

### STANDARD FOR PHARMACEUTICAL PRODUCTS



Data Matrix barcode (2D)

Linear barcode (1D)

Applicable for other products in some countries

### Russia example



Cryptokey Validation key GTIN



GS1 datamatrix (Australia)

MIGROS





**STATIC**  
**QR code powered by GS1**  
*SOLUTION TO PRIORITIZE*



# STATIC information QR CODE

## SOLUTION TO PRIORITIZE

### PRE-PRINTED SOLUTION ON PACK

Embedded data : **URL+EAN13**

= NO ON-LINE PRINTING EQUIPEMENT NEEDED

#### BUT NOT NEUTRAL

Estimated cost per article : 1,5 – 3 k€  
(ex. for France approx 10 m€)

+ GRAPHIC PLACE ON PACK



9781234565789  
EXP. 05/03/2026  
Lot 800002741

TRANSITION PERIOD  
3 PRINTS REQUIRED

DEADLINE OF  
TRANSITION  
PERIOD  
NEEDED !



**DYNAMIC**  
**QR code powered by GS1**  
**A COMPLEX & COSTLY CHANGE**





# QR CODE IMPLEMENTATION

## MULTIPLES ISSUES – MULTI-EXPERTISE WORKING GROUP

- **INDUSTRIAL:** printing, organization, data management...
- **I.T:** websites revision, resolver, data management, technical solutions...
- **QUALITY:** QR code control, Traceability data, recall management...
- **MARKETING:** Communication, data exploitation...
- **SUPPLY:** Logistic, identification
- **PURCHASING:** Packaging modifications...
- **GS1 SUPPORT**



**DIRECT IMPACTS ON PLANT ORGANISATION**



# QR CODE IMPLEMENTATION

## EXPENSIVE & COMPLEX CHANGES



### ON-LINE PRINTING

**Productivity impact :**  
**-3% to -5% vs experience**  
On-line control needed  
% error, production rate



### HIGH-TECH. PRINTER

+

Control camera  
Estimated cost/line  
50 k€ - 100 k€



### DATA-MANAGEMENT

Organisation  
IT new solutions  
Data management

**NOT POSSIBLE FOR EVERY PRODUCTS: PRIORITIZATION NEEDED**



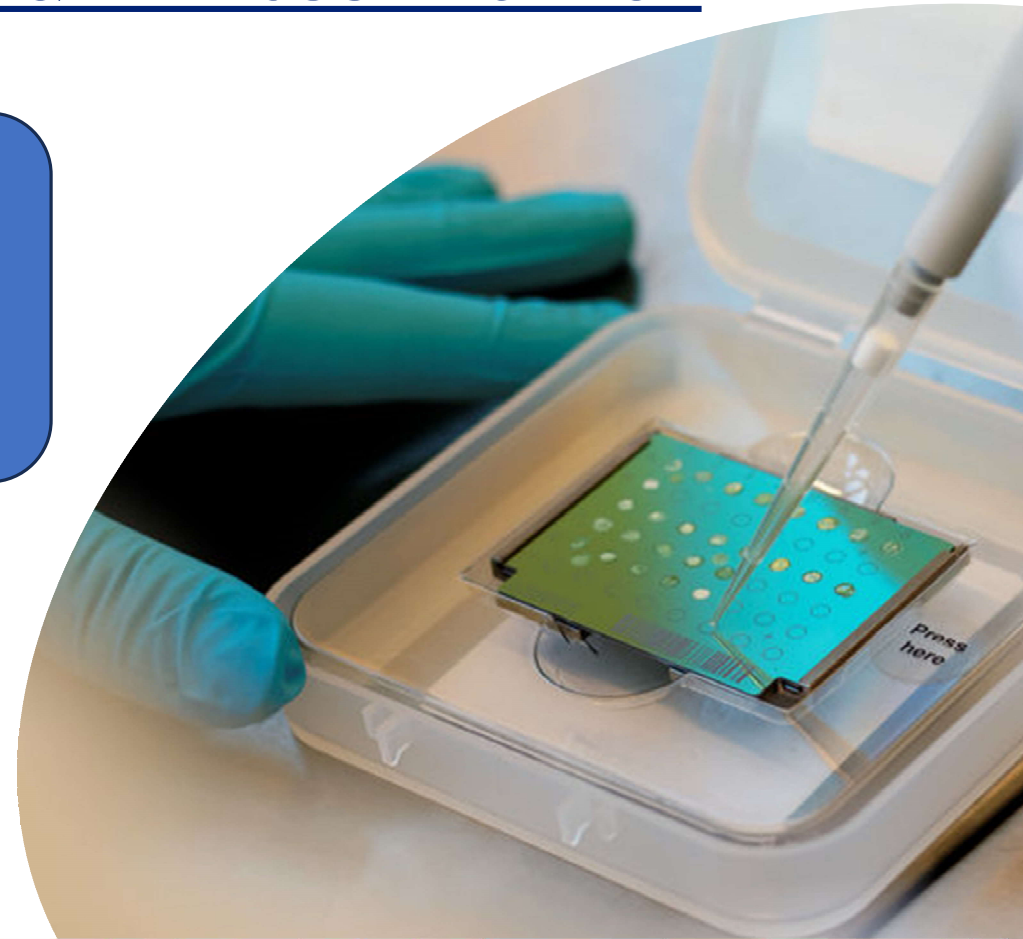
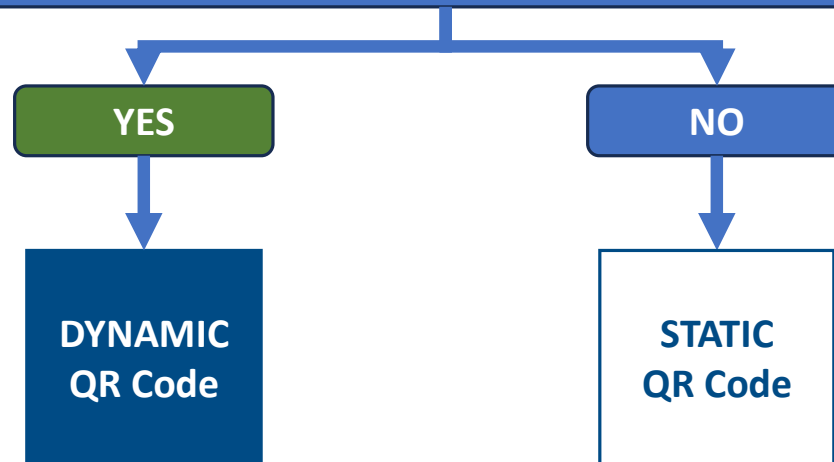
# STATIC vs DYNAMIC information QR CODE

**DYNAMIC = NEEDS RATIONALE & REAL JUSTIFICATION**

## RISK ANALYSIS

### PRODUCT/NON COMPLIANCE RISK

- Sensitive to microbiological/chemical/physical contamination
- Non-compliance rate/recall frequency
- Health risk/Intended for an at-risk consumer target (infants, immunodepressed...)
- High value vs destruction & recall difficulties
- Shelf life duration
- ...



# PRE-PRINTED DYNAMIC QR CODE = SERIALIZATION

## PACKAGING Manufacturer

Serialization of QR code pre-printed on pack = **Each pack is pre-identified with a unique serial N°** (Application Identifier 21)



## DIGITAL LINK to Batch n° & Expiration date

**On-line Camera identification** of the pack and digital association of the serial N° of the pack with production informations

## RECALL based on Serial n° concerned

At cashier, the refusal of sale is based on the incriminated serial numbers



### Information access

Off-line : URL + EAN13 + Serial Nb

On-line : Batch number + Expiration date





# NewMilk – New Zealand

## 4 QR Code on 1 Product (China Market)



**ALL QR CODES ARE PRE-PRINTED**

QR CODE 1



QR code 1 on the film done by package manufacturer

QR CODE 2



QR code 2 on the film inside done by package

QR CODE 3



QR code 3 on the bottom stuck during production

Label applicator put paper QR code on each bottom of the can.



2 cameras read the paper QR code, and the QR code on the outside of the film and link them.



6 cameras to read the QR codes on the bottom of Can

**8** control cameras  
**3** QR codes

Infant milk



**Traceability and Authenticity:**

*QR codes combination can be used to verify the authenticity of a product and track its origin and supply chain, helping to prevent counterfeiting.*



GLOBAL SALES & MARKETING TEAM



PARTNER FOR GROWTH







# NewMilk – New Zealand

## Customer experience

### Bottom & Top QR code 1 & 3 Scan



product date of use by

press to countine for more information



Video of production line



Information of goods:

Stage 2  
900g  
Original: New Zealand  
Production date: 2023-11-30  
Date of use by: 2025-11-30  
Batch No.: L-M-173  
Manufacturer:  
138 Pavilion Drive, Auckland Airport, Auckland, Auckland, New Zealand  
注册编号: 1380  
Business No.: 1380

### Inside QR code 2 Scan



- Get a reward (points or cash)
- Exchange products by points

### Inside QR code 2 Scan

### Location of the scan + date



Daily scan number trend



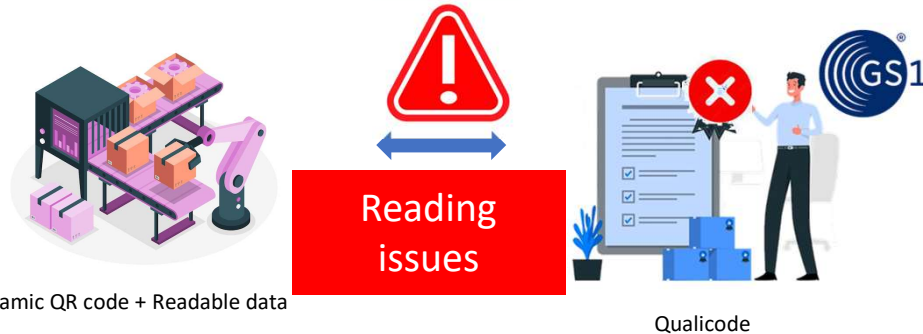
# ON-LINE PRINTED DYNAMIC QR CODE

## ON-GOING EXPLORATION = POC SANULAC

### INDUSTRY

Started January 2023

- PROJECT STATUS: PRINT TESTS ARE STILL ON-GOING



Limitation of the impact on productivity

- DATA INTERFACING BETWEEN SYSTEMS ISSUES

=> Automatic on-line QR code generation : URL + GTIN + Batch N° + DDM

- ON-LINE CONTROL CAMERA : Planned but not at startup

### MARKETING

- Reorganization of products pages for connection with QR code URLs  
(No current project on batch/best before date information)



# RECALL MANAGEMENT ISSUE STILL REMAINING...

Common recall  
management procedure  
**TO BE DEFINE**



How to coordinate internal management of non-compliant batches  
between food operators and retailers to activate recalls at checkout  
in ALL points of sale ?

Centralized/shared database ?



THANK YOU





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## THANK YOU !!!

THE SLIDE DECK AND THE RECORDING OF  
THE SESSION WILL BE SHARED AFTERWARDS

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**Laura Knüfermann**  
Co-Founder  
Glowkitchen





**GLOWKITCHEN**  
enjoy naturally.

# Banana BREAD

**neu** **Snackeröße**

V-LABEL INTERNATIONAL  
V-LABEL.COM

A vertical advertisement for Glowkitchen Banana Bread. The top part features the brand name "GLOWKITCHEN" in a bold, sans-serif font, with the tagline "enjoy naturally." below it. The product name "Banana BREAD" is prominently displayed in large, yellow and white letters. Below the text is a close-up photograph of a round, golden-brown banana bread roll with a bite taken out of it, revealing a soft, moist interior. At the bottom of the advertisement, there are two orange callouts: "neu" (new) and "Snackeröße" (snack size). In the bottom right corner, there is a small circular logo for "V-LABEL INTERNATIONAL" with the website "V-LABEL.COM" below it.

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Sargheve Sukumaran  
CTO  
SWAPP!



# Enabling Traceability & Unique ID



Deposit-free Reusable  
Packaging Solution  
for  
Gastronomy Businesses



Awarded by



Supported by





# The Plastic reality

Humanity consumes **about**  
**1 million plastic bottles**  
every **minute\***

\* <https://www.plasticsoupfoundation.org/en/2017/07/the-worlds-population-consumes-1-million-plastic-bottles-every-minute/>



# Change is needed

## Food industry



contributes to **23% of the \$75 Billion** annual env. damage caused by plastic pollution

[\\*shorturl.at/CHKS2](https://shorturl.at/CHKS2)

## EU



introduced new & stricter directives on Single-Use Plastics (SUP) usage in **Feb 2022**

[\\*shorturl.at/ghjZ4](https://shorturl.at/ghjZ4)

## Extreme wastage



of resources in the current SUP supply chain. **95% of value lost** ~ **\$80-120 Billion** loss annually

[\\*shorturl.at/dgivZ](https://shorturl.at/dgivZ)



# Legislation

From **January 1, 2024**, Poland has new regulations limiting the use of **single-use takeaway plastic** (so-called single use plastic - SUP)

**Gastronomy businesses are now forced to:**



a) provide **alternative in the form of reusable packaging** (from July 2024)



b) **withdraw disposable expanded polystyrene packaging** from circulation



c) **cover the costs of collecting waste** resulting from these products



d) **collect added fee from the end user** purchasing these products - **20gr for a cup, 25gr for food packaging**



Swapp!

# REUSE-as-a-service

(a deposit free system)



4. Zwróć

Oddaj opakowanie  
w ciągu 5 dni do jednego  
z naszych partnerów.

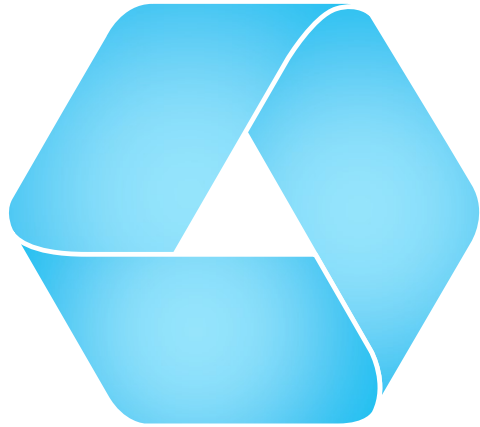


# SWAPP Reuse Solution

A system for **managing reusable packaging**, for gastronomy businesses, with **real-time demand** and **impact monitoring**.

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# The Challenge



**Reusability**

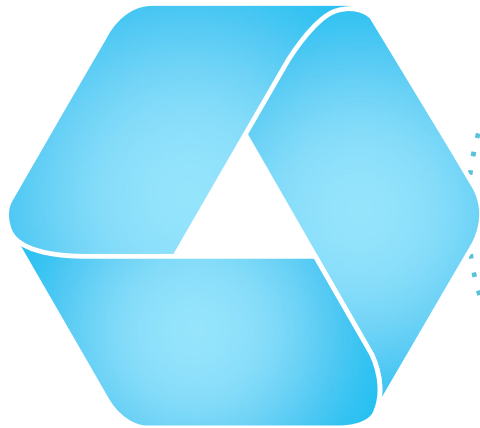


**Traceability**



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# Bridging with **GS1 Digital Link**



**Reusability**



**Traceability**

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# Is it just a QR Code?



# It's all in the code!

## 1. Brand, Product & Service Promotion

Scanning the QR using any mobile camera app opens up a weblink – promoting Swapp!, products & services.  
(enabled using unique link assigned to the GTIN with JSON code)

## 1. Packaging Recognition in the Customer & Partner App

Scanning the QR using Swapp! mobile app recalls the unique packaging ID which is assigned to the packaging. Packaging ID is connected to a master GTIN. Every SKU of the packaging has a master GTIN with a backend definition containing key metadata – weight, carbon footprint, packaging name (vendor name, packaging type, size code etc.



# It's all in the code!

## Brand, Product & Service Promotion

<https://swapp.zone/inventory/reusecups/?11=230601>



### Reusable Cups

Available capacity:  
220ml, 330ml

Reuse cycles:  
About 500 times

Material:  
Polypropylene

Other info:  
Designed in the UK, Patent Pending

Along with Carrefour & Yope they launched Refill Stations in retail shops, where customers can refill their daily-use products like shampoo, soap, laundry products etc in reusable bottles. Now, Swapp! has a network of refill & pasta stations in Carrefour & Auchan in major cities in Poland.

In 2023, they took it further by launching a reusable packaging solution for take-aways aimed at helping gastro businesses to reduce their packaging waste. It provides customers with a sustainable alternative to enjoy their favourite meals guilt-free in reusables. After use, customers could drop it to any of the Swapp! Partner locations.

Thank you once again! Now, with your help, we can really Swapp! the world!

Stay tuned!



Explore Swapp!

Customers can make use of Swapp! Packaging using our free app available in Apple Store & Google Play.



## Packaging Recognition in the Customer & Partner App

<https://id.gs1.org/01/05905771808006/10/0001/21/00345?11=230601>

TYP OPAKOWANIA	<a href="#">Cup-M</a>
PRZYPIŚANY UŻYTKOWNIK	
PRZYPIŚANY PARTNER	Coffeedesk Kawiarnia
KOD OPAKOWANIA	<a href="https://id.gs1.org/01/05905771808013/10/0001/21/00001?11=230810">https://id.gs1.org/01/05905771808013/10/0001/21/00001?11=230810</a>
NAZWA	CUP-M-00001
AKTUALNY STATUS	Niewspierany
PROCENT ZUŻYCIA	1
CREATED AT	10-08-2023 15:49
UPDATED AT	27-08-2023 09:52



# Our Segments



Catering



Restaurants



Canteens



Cafes



Food Corners



Hospitals



Airlines



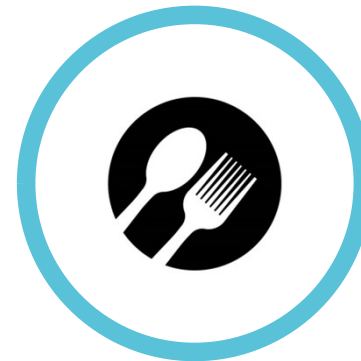
Schools



Retail

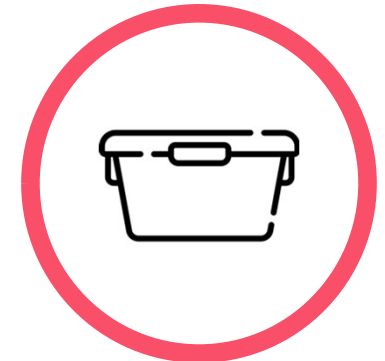


## Takeaways (Restaurants, Cafes, Food courts)



In the Polish market  
there are **70,000**  
gastro points\*

## Diet Catering



Box catering mkt. is  
steadily growing  
**300k meals** daily

\*<https://bit.ly/3vxO5yG>

Now, you can enjoy your **Meals & Drinks** in



reusable **Swapp!**  
packaging!





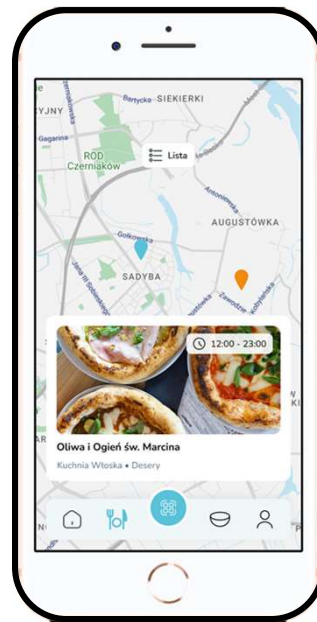
# How does it work? **Takeaways**

1



**Get Swapp! App & Register!**

2



**Find a restaurant with Swapp! reusables**

3



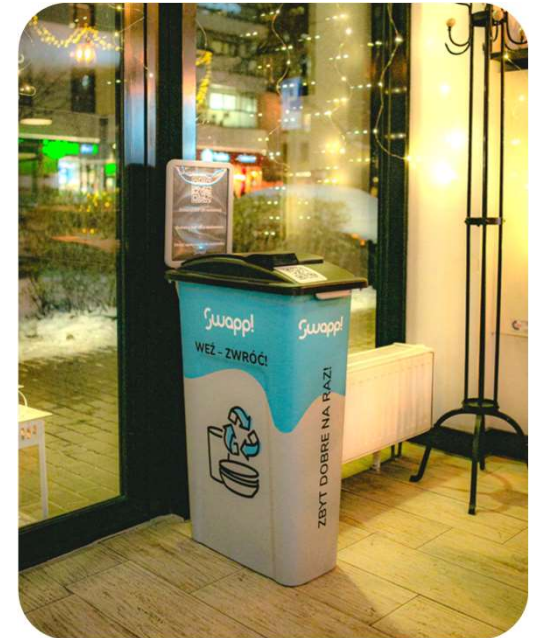
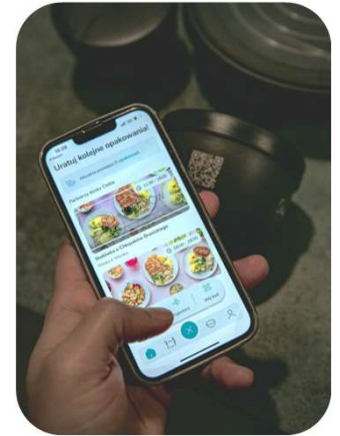
**Scan the packaging and get your takeaways in reusables**

4



**Return pkg. in the next 5 days to any of the partner points**





---

# How does it work? **Diet Catering**

**Fill/Refill & Packing**



**Delivery to Customers**



**Pickup from Customers**



**Wash & Recirculate**







# Competition



About  
**6,000**  
points



About  
**20,000**  
Points



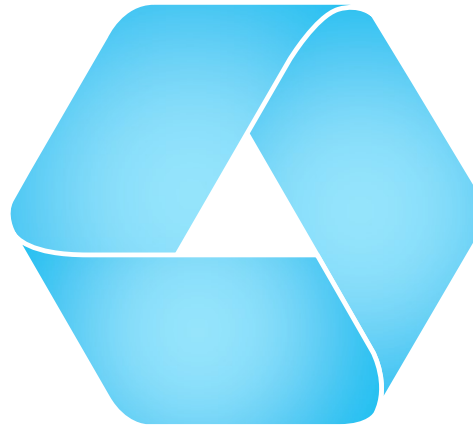
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# How do we earn?

## Reuse as-a-service

**Restaurants,  
Cafes,  
Food Courts**

**Restaurants pay for  
each refill of our  
packaging**



**Diet  
Catering**

**Catering companies pay for  
each used packaging, reusable  
bag, and circular service.**



# Founding Team

**Szymon Barabasz**  
Business Development  
& Sales

**Andrzej Sarapata**  
Marketing  
& Finance

**Sargheve Sukumaran**  
Design  
& Technology

## OUR STRENGTHS

- Drive for innovation
- Extensive domain knowledge
- Compatibility
- Vision & long-term thinking
- Strong motivation

# Awards



Special award  
CEE Startup  
Challenge 2020

Main award & Circular Eco.  
leader title Stena Circular  
Economy Award 2020-21

Company for climate  
2021 for environmental  
protection

First price Samsung  
Incubator Climate  
Leadership 2021

Golden Innovation  
FMCG & RETAIL  
2022

Circularity Leader  
Circularity  
Conference 2023

# Opportunities

- 1. Easy discovery of Use Cases**
- 2. Easy application for GTIN's**
- 3. Seamless onboarding**
- 4. Digital link creation & generation of Unique codes per SKU**
- 5. Access to code printing vendors regionally (central DB of verified vendors)**
- 6. Easy guide for web link creation, uploading and implementation**





Swapp!

Thank you!!

**Sargheve Sukumaran**  
suku@swapp.zone  
+48 884 746 822



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**Bernardino Sani**  
CEO  
Argiano









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