GS1 Industry & Standards Event 2018
10-14 September 2018 – Dublin, Ireland
Transforming business together

Session: Implementing a traceability solution using GS1 standards
Time: 13:30 - 15:30 Thursday 13 September 2018

Who may attend: Everyone - Retail - Apparel, CPG, Fresh Foods, General Merchandise, Foodservice, eTailer, Marketplace

Speaker(s): Tim Marsh, Markus Mueller, Elena Tomanovich, GS1
Anti-trust caution

• GS1 operates under the GS1 anti-trust caution. Strict compliance with anti-trust laws is and always has been the policy of GS1.

• The best way to avoid problems is to remember that the purpose of the group is to enhance the ability of all industry members to compete more efficiently.

• This means:
  - There shall be no discussion of prices, allocation of customers, or products, boycotts, refusals to deal, or market share.
  - If any participant believes the group is drifting toward impermissible discussion, the topic shall be tabled until the opinion of counsel can be obtained.

• The full anti-trust caution is available via the link below, if you would like to read it in its entirety: http://www.gs1.org/gs1-anti-trust-caution.
Meeting etiquette

- **Meetings will begin promptly as scheduled**
- **Be present – avoid multi-tasking**
- **Avoid distracting behaviour:**
  - Place mobile devices on silent mode
  - Avoid sidebar conversations
- **Be considerate**
  - Avoid monologues
  - Keep comments concise
- **Respect work group decisions**
  - Avoid re-opening decisions unless there is a significant quality impact

- **Collaborate** in support of meeting objectives
  - Ask questions
  - Be open to alternatives
- **Be representative**
  - Avoid personal remarks
  - Do not speak for your company or community if you do not clearly understand their needs
  - Votes should reflect the needs of your company or community
GS1 Industry & Standards Event App

1. Get the App by searching your App store for "GS1 Global Events" (If you already have the Global App due to attendance at the Global Forum or Standards Event, you do not need to do this)

2. Once you have the Global App on your mobile device, type GS1IS18 in the search box. Please click the orange (+) to activate the event within your application.

3. Login with the email address you used to register for the event:
   Username: (your registered email)
   Password: GS1events
WiFi internet access

- Select network "**GS1network**" and connect
- Password: **GS1events**
Agenda

• Welcome, GS1 Anti-trust caution
• Overview of session, Ice Breaker
• Traceability - Apparel and General Merchandise
• Initiative: Traceability for Sustainable Textile Value Chain
• Traceability – CPG, Fresh Foods and Foodservice
• Case Study: La Juvenil and other initiatives
• Initiative: Implementing Traceability Solutions
• Initiative: Whole Food Supply Chain Traceability & Interoperability
• Best practices for implementation
• Continuing the conversation
• Session Evaluations
Ice Breaker – Building your network

ASK: please introduce yourself to the person sitting on your RIGHT

- **WHO** – Your name, your company, your role
- **WHAT** - give an example of WHAT your company is doing in “traceability”
- **HOW** - share 1 best practice for HOW to successfully implement traceability
Solutions & Innovation
Solutions & Innovation
Solutions & Innovation

- Greater awareness
- Education
- How as well as why & what
- Identity
- Data quality
Solutions & Innovation
Apparel & General Merchandise
"Transparency may be the most disruptive and far-reaching innovation to come out of social media."

PAUL GILLIN, TECHNOLOGY JOURNALIST
25% of chemicals manufactured globally are applied in the textile industry.

10% of textile-related substances are of potential concern to human health.

19% of all insecticides and 9% of all pesticides are used on cotton.

Producing 1 kg of cotton requires up to 20,000 litres of water.
Product safety challenges

Visibility into the apparel & general merchandise supply chain enables...

- The diversion of counterfeit goods
- The quality of materials and components
- The identification of suspicious suppliers
Apparel & General Merchandise supply chain

UPSTREAM

DOWNSTREAM
Why companies invest in traceability

1. **Product Safety**: Improved product safety due to availability of more robust, accurate and complete product data used in B2B and B2C processes and systems.

2. **Product Authentication**: Accurate and more rapid detection and deterrence of counterfeit products and instances of unauthorized distribution.

3. **Sustainability & CSR**: More efficient and accurate sustainability and CSR information, resulting from increased transparency and automated recording and sharing of traceability data.

4. **Supply Chain Efficiency**: Cost savings resulting from simplified and automated business processes such as order to cash, inventory management, order fulfilment and returns management.
Did you know that 40% of upstream apparel manufacturers across 25 of the major manufacturing countries use already GLN (Global Location Number) to identify locations?
Use of GLN to identify stakeholders in the upstream supply chain

**Potential:** Traceability is gaining importance in the Apparel sector. Companies and initiatives seek standardised solutions to identify locations along the supply chain.

**Reason:** Traceability and sustainability initiatives fail to consistently identify stakeholders along the supply chain, including raw material suppliers, manufacturers and waste disposal facilities.

**Opportunity:** GLN could be used as a standardised key to identify these locations across initiatives and solutions.
4 necessary steps to leverage transparency

We need to encourage industry and retail to take an active lead in creating trust by adding transparency to their supply chains!

1. Support and **encourage adoption of GLN** to identify stakeholders and locations along the entire supply chain.

2. Move from SKU or GTIN level to **serialization or batch/lot level**.

3. Facilitate **Source Tagging** on item level encoding serialized GTINs into **GS1 DataMatrix 2D-Barcodes**, e.g. on a product’s care label.

4. Enable industry and retail by **ensuring interoperability** of standards, solutions and systems.
A few of the traceability & transparency initiatives and examples from the sector
H&M – Be a fashion recycler

TOWARDS A MORE SUSTAINABLE FASHION FUTURE

CARE FOR YOUR CLOTHES
You can contribute to a more sustainable fashion future just by the way you look...

RECYCLE YOUR CLOTHES
Help us minimise the fashion industry’s environmental footprint – recycle your old clothes and textiles

THE WAY TO SUSTAINABLE FASHION
Making conscious choices while shopping shouldn’t be that complicated. All brands within the H&M group make...

Be a fashion recycler

https://www.youtube.com/watch?v=lDXCHZQm-4M
LEVI’S – forward-thinking methods of responsible production and design.

ZDHC – Zero Discharge of Hazardous Chemicals

Wastewater Quality

Audit Protocol

Data & Disclosure

Manufacturing Restricted Substances List (MRSL)

Research

Training

Source: https://www.roadmaptozero.com/
Traceability for Sustainable Textile Value Chain

Ms. Maria Teresa Pisani
Economic Cooperation and Trade Division
United Nations Economic Commission for Europe
Enhancing Transparency and Traceability for Sustainable Clothing
About UNECE – UN/CEFACT

- United Nations Centre for Trade Facilitation and Electronic Business is an intergovernmental body of the UNECE.

- UN/CEFACT’s mission is to develop a programme of work of global relevance to achieve improved worldwide coordination and cooperation in trade facilitation recommendations and electronic business standards.

UN/CEFACT’s GOALS

- Improve the ability of business, trade and administrative organizations to exchange products and relevant services effectively.
- Facilitate national and international transactions.
- Simplify and harmonize processes, procedures and information flows.
UNECE’s Trade Facilitation Pillars

UNECE Policy Rec.s UN/CEFACT

UNECE Standards UN/CEFACT

UNECE / UNNExT Guidelines, Briefs, Case Studies

Capacity Building & Technical assistance
A global scenario

Textile Value Chains

- GLOBAL
  - Global Value Chains: Main feature in international trade
  - Lengthy lead-times
  - Driven by big retailers and traders

- COMPLEX
  - Multi-stakeholder
  - First stage of value added manufacturing for many low income countries
  - Small and scattered production facilities
  - Short product lifecycles
  - Minimum production quantities

THE INDUSTRY IN NUMBERS

- 80 bln garment pieces
- More that 60 mln direct jobs
- 50% MSMs

Source: GFA, BCG, EU, 2017
Impacts and risks

Clothing Value Chains

10% of substances of concern to human health

25% of chemicals applied in textile industry

8% of skin diseases caused by textile and footwear

79 mln m³/year of water consumption

1,715 mln tons/year CO₂ emissions

92 mln tons produced waste

5.6 injured per 100 workers/year

87% non-compliance with minimum wage for women in certain countries

Minimum wage ½ of living wage

20% only recycled

Projected environmental impacts

Clothing Value Chains

Source: Boston Consulting Group & Danish Fashion Institute - Pulse of the Fashion Industry 2017
CEO’s Agenda of Priorities to advance Sustainability

Sustainable Clothing Value Chains

THREE CORE PRIORITIES FOR IMMEDIATE IMPLEMENTATION

- **SUPPLY CHAIN TRACEABILITY**: Trace tier-one and tier-two suppliers
- **EFFICIENT USE OF WATER, ENERGY, AND CHEMICALS**: Implement water, energy, and chemicals efficiency programs in processing stages
- **RESPECTFUL AND SECURE WORK ENVIRONMENTS**: Uphold standards for the respect of universal human rights for all people employed along the value chain

FOUR TRANSFORMATIONAL PRIORITIES FOR FUNDAMENTAL CHANGE

- **SUSTAINABLE MATERIAL MIX**: Reduce the negative effects of existing fibers and develop new, more sustainable fibers
- **CLOSED-LOOP FASHION SYSTEM**: Design products and invent novel collection and recycling systems that enable the reuse and recycling of post-consumer textiles at scale
- **PROMOTION OF BETTER WAGE SYSTEMS**: Collaborate with industry stakeholders to explore opportunities to develop and implement better wage systems
- **FOURTH INDUSTRIAL REVOLUTION**: Embrace the opportunities in the digitization of the value chain and engage with other brands, manufacturers, and governments to prepare for disruptive impact and the transition of workforces

Source: Boston Consulting Group & Danish Fashion Institute - Pulse of the Fashion Industry 2018
Global and regional initiatives for sustainable value chains

Guiding Principles on Business and Human Rights

Due Diligence Guidelines for Multinational Enterprises
About the UN/CEFACT Project
In partnership with ITC

Why Transparency and Traceability?

- A **priority** for the industry
- To increase its ability to manage its supply chains more **efficiently** and **sustainably**
- To give a **common understanding** of what the most critical issues across the value chain and impact areas are
- As a way of putting the **power of information** in the hands of consumers
- And as a means to guide business leaders towards **smarter choices** in the pursuit of lasting change.

**TRACEABILITY FOR SUSTAINABLE GARMENT**

- **ability to identify and trace the history, distribution, location and application of products, parts and materials,**
- **to ensure the reliability of sustainability claims, in the areas of human rights, labor (including health and safety), the environment and anti-corruption (UNGC)**
Garment Value Chains

Why Transparency and Traceability?

- 2% Annual Growth
- 36% Clothing Utilization in the last 15 years

Only 1/3 of 100 largest brands has traced and published their Tier 1 Suppliers

- 2/3 of negative sustainability impact occur at the raw materials stage (tier-four)

- 8% of skin diseases caused by textile and footwear

- 87% non-compliance with minimum wage for women in certain countries

TRANSPARENCY

- Help build trust
- Provide common understanding of risks

TRACEABILITY

- Enhance visibility
- Support efficient & sustainable Supply Chain management
The Project Initiative

How to enhance transparency and traceability?

- Policy Recommendation & Dialogue Platform
- Traceability Standard and Implementation Guidelines
- Piloting and Capacity Building

Previous experiences and publications
Component 1: Multi-stakeholder policy dialogue towards enhanced transparency and traceability for sustainable textile value chains

- **Multi-stakeholder policy dialogue platform** (2 meetings per year/3 years period)
- **Policy recommendation** and call for action to key stakeholders
- **A Call for action and a repository of commitments** along with a reporting mechanism to monitor progress and facilitate sharing of good practices (in UN/CEFACT Forums and Plenaries and other relevant fora)

**INDICATORS OF ACHIEVEMENT**

- Adoption of policy recommendation
- Nº of government officials, suppliers and stakeholders participating in the multi-stakeholders policy platform
- Nº of government officials, suppliers and stakeholders actively participating and committing in the collective action
Component 2: Transparency and traceability standard for sustainable textile value chains

- Mapping of traceability requirements and the analysis of business processes (BPA) for sustainable textile value chains
- Development of a set of standards for tracking and tracing sustainable production and retailing
- Development of implementation guidelines

INDICATORS OF ACHIEVEMENT

- Adoption of the set of standards
- Adoption of the guidelines
- Number of countries and suppliers in the garment sector implementing the traceability framework
DEVELOPMENTS IN THE AGRI-FOOD DOMAIN

Previous experiences

STANDARD MESSAGES
- e-CERT phyto and veterinarian sanitary certificate
- e-Daplos, e-CROP, agro product information message
- Animal identification and e-Animal passport
- Dispatch advice (batch number, identification)
- e-LAB laboratory observations report
- FLUX Fishing monitoring and reporting
- Track and Trace Animals (and Plant and Product)
- RASFF rapid alerts for food and feed

CODING
- Product (EPC, Codex Alimentarius)
- Location and Party identification (GLN, ... )

CERTIFICATION
- Authority
  - NGO
- Private business
  - (GlobalGap, Organic, Sustainable, CITES, Standard Maps ITC ... )

INTEGRATION OF DOMAINS
- e-Invoicing (fish, cutflowers, fresh fruits and vegetables)
- Transport and location (GN codes – GS1)
- CITES e-permits
- WCO datamodel III and IV
- Production, Trade and Retail
Component 3: All stakeholders involved in the textile and apparel value chains are enabled to implement and improve the traceability and transparency framework

- Stakeholder **empowerment** in implementing traceability approaches
- **Piloting** the use of the framework (at least in 1 country and 4 companies)
- **Training** on traceability approaches, policy recommendations and standards for project beneficiaries (6 training sessions in total)
- **Visibility** and **communication plan** (promotional material e.g. web content, brochures, videos)

**INDICATORS OF ACHIEVEMENT**

- No of parties in garment sector trained on traceability approaches, standard guidelines and tools
- No of parties in garment sector implementing the transparency and traceability framework
Next Steps

- Survey Questionnaire on Traceability for all relevant business partners
- Call for Interest and establishment of Groups of Experts by Project Component
To join the project please contact:

Maria Teresa Pisani
maria-teresa.pisani@un.org
Economic Cooperation and Trade Division
UNECE

Next steps

• Monthly conference calls of the Group of Experts

• 5th June 2018: Conference at the EUDD2018 in Brussels, jointly with EU DGDEVCO and ITC

• October 2018: Conference at the 32th UN/CEFACT Forum, China

• Set up of project space on the UN/CEFACT CUE

• Project timeframe: 2018-2020
Contact us to join the Group of Experts

Thank you!

Maria Teresa Pisani
maria-teresa.pisani@un.org
Economic Cooperation and Trade Division, UNECE
Apparel & General Merchandise
CPG, Fresh Foods and Foodservice
Trust starts with traceability
Traceability with GS1 standards

• Safer food and consumer products
• Improved ability to authenticate products
• Increased ability to understand level of regulatory compliance
• More effective, efficient supply chain management
Please meet...

Local expert and regional coordinator (Latin America)

Mr. Denis O’Brien “certified” traceability champion

https://www.youtube.com/watch?v=rs7TJ3NYC8U
Case Study: La Juvenil and other initiatives

Ms. Roxana Saravia
Traceability Project Manager, GS1 Argentina
Regional Traceability Coordinator, Latin America
Strategic focus - Traceability

GS1 Argentina and Latin America
Leveraging our experience – Fresh Foods examples
Fresh Foods
Alimentaria San Francisco
Alimentaria San Francisco is an SME dedicated to the production and commercialisation of bakery, confectionery and pastry products based in Argentina.

Challenge
To meet the demand coming from the retail shelves to have safe products and to be more transparent with customers and consumers.

Approach
They worked with GS1 Argentina in order to automate their traceability system. Today they have systems enabling automatic data capture, with high data quality, possibility of integration in the information systems of their clients, tracking till the first distribution line and have a more secure product recall process in case it would be needed.

Results

More efficient data collection and streamlined business processes

Improved the accuracy, consistency and security of data

All information is now in a single location

More easily respond to complex data requests

Control of shrink and loss prevention

Accurate access to customers’ information and history
GS1 Traceability Implementation

Initial Evaluation
- An objective evaluation – GTC Checklist

Traceability Report
- Defines the most important issues to ensure internal and external traceability

Our commitment
- Training and implementation support
- Keeping close contact, easing the change

Solution Provider
- Best practices
- Software and technology implementation
- GS1 Standards implementation

Advance Evaluation
- GTC Checklist evaluation to verify and check the implementation
GTC Evaluation – progress over 5 companies

Traceability Implementation

- **GTC Checklist** - Objective evaluation for initial situation
- Focus to achieve traceability
- Common tool to evaluate the supply chain
- Customized implementation plan
- Training & Workgroup discussion with some sectors GFSI - Poultry
Expanding our traceability work into Foodservice

• GS1 Argentina works with SMEs to implement solutions that allow them to improve their processes and, consequently, improve the reliability of the market.

• La Juvenil, a pasta factory, approached GS1 Argentina to learn the steps to follow for the implementation of the GS1 Traceability System.

La Juvenil
La Juvenil, a pasta factory, started in the Belgrano neighborhood of Buenos Aires, with a location that multiplied in many more, to become a leading brand that has a central floor of 2000 square meters in Villa Ortuzar. Its weekly production capacity is 50 tons in pasta and derivative products, and today it has decided to implement a Traceability system to guarantee the quality of its products.

It was thus that representatives of the company arrived at GS1 Argentina, and how they began the tasks of advising on the implementation of the traceability system GS1-GTS, with which it will be possible to trace from the raw material to the dispatch of the products.

The project began with a survey of all production processes, with which a work plan was determined. The aspects that could be improved were identified, those that had to be modified or created, strategic points were established to implement new methodologies for the identification in the reception of raw materials and inputs, the identification in the production plant of all the raw material used, and the identification of all finished and semi-finished products that arrive at warehouses and go to their final destination.

Foodservice Case Study: La Juvenil

- With **57 years in the market**, La Juvenil is the leading pasta factory in Buenos Aires and surroundings.
- The taste for quality raw materials, love for work and family pride were key players in this successful trajectory.
- Their supply organization involves a **central factory plant and 20 brand stores and restaurants**. They also supply **hotels, retailers and others food-court**.
- They have their own logistic structure to deliver every day to each location providing final and semi-elaborated products

**COMPANY**

originating in the province of La Coruña, Spain, three generations of the Juvenile family have been successfully dedicated since 1959 to keep alive the spirit of the home, respecting the flavours and the warmth of family cooking.

Case Study: La Juvenil

**GS1 standard and best practices implementation**

- GTIN
- SSCC – logistic labels
- GS1-128 traceability data: lot nr, expiration date
**Results**

**Foodservice**

**La Juvenil**
GS1 Argentina has been working with SMEs in the implementation of the traceability standard to achieve improvements in: electronic commerce, inventory control, production management and quality certifications.

---

**Challenge**
Guarantee the operation of the SME by adapting the use of the standards and best practices of large companies to an agile and less structured management that also requires a cultural change.

**Approach**
The work was focused with each company on an ad-hoc implementation project based on the standard GS1 traceability methodology. Achieving innovation in technology and implementing changes in the internal management of each company.

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**Foodservice**

**La Juvenil**
GS1 Argentina has been working with SMEs in the implementation of the traceability standard to achieve improvements in: electronic commerce, inventory control, production management and quality certifications.

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**Results**

**+95% of orders**
are EDI. Achieved error reduction and customer delivery satisfaction

**Zero paper**
in the work area

**Product information, production control and productivity:**
provides business information for better decisions

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**Inventory control**
**Supplier control**
**Better control of returns and causes (reasons)**

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**New opportunities and challenges**
**Growth and positioning of the brand**
Implementation – best practices

- what worked really well? What did the company learn?
  - create middle controls
  - involve the staff throughout the process
  - create responsibility
  - monitor changes
  - steering support

- What is their next project?
  - Expanding their building
  - opening of stores by franchise

- what standards will they adopt NEXT?
  - Digital store
GS1 Argentina Award

- November 2017 award winning for Implementation:
  - La Juvenil, for "Implementation of the Traceability System according to the GS1-GTS standard, technology innovation and digitalization of plant processes"
Electronic SPS Certificate with GTIN

Sanitary and Phytosanitary (SPS) certificates
SENASA electronic SPS Certificate with GTIN

- **SENASA**: The National Health Service and Food Quality agency dependent of the Ministry of Agro-industry.
- **ASU**: chambers of Supermarkets represented by

[Image of logos: Carrefour, LA ANONIMA, Dia, Jumbo, Walmart]

[Diagram of flow from Manufacturer to Retail Store with SPS Certificate at each step]
Electronic SPS Certificates

**Requirement:**

- Each product should be accompanied by an SPS certificate from the origin.
- The distributed product from the retail to stores, should be linked to the entrance SPS certificate.
Electronic SPS Certificates, complexity

Different suppliers for the same product!
Difficulty to maintain traceability at the Distribution Centre by case level
## Electronic SPS Certificates, “Group GTIN” → GPC

### Data Alignment

<table>
<thead>
<tr>
<th>SENASA → GS1</th>
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<tbody>
<tr>
<td>SENASA’s products list</td>
</tr>
<tr>
<td>CAPA Nr. / Company</td>
</tr>
</tbody>
</table>

### GTIN Assignment

- **Manufacturer GTIN codification**

- **Generic GTIN**
  - 7 790001 1000 18

- **Peceto GTIN 1**
  - N° CAPA 1

- **Peceto GTIN 2**
  - N° CAPA 2

- **Generic GTIN**
  - 7 790001 1000 18
  - GTIN Owner → CAPA Nr.

### Share

- **GDSN DATACOD**

- **Retail**
Operation of the SPS electronic certificate

Manufacturer

ORIGEN SPS
GTIN + CAPA +
LOT + kg

Requirement: SPS - CAPA

Retail Distributor

Requirement
SPS + CAPA +
GTIN

GS1TrazAR
Traceability Platform
GS1 technologies

Retail Store

SPS
Generic GTIN +
Kg
Contact Information

Roxana Saravia
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Implementing Traceability Solutions

Mr. Denis O’Brien
Director of Standards & Solutions, GS1 Ireland
Implementing Traceability Solutions

Denis O’Brien, Director of Standards & Solutions, GS1 Ireland
13th September 2018
Reasons for Traceability are many . . .
Traceability – why?

Unapproved Enhancement
Dilution
Substitution
Mislabelling
Counterfeiting
Failure to disclose

Adulteration

Supply Chain Traceability – Why?

Germany – hazelnut products
France – Counterfeit seasoning products
Portugal – Over 300,000 tin cans of fish
Italy - Mineral water
Italy – Fake wine
Denmark - virgin olive oil
Greece – smuggled alcohol
Spain – molluscs and clams
Ireland - unrefrigerated, unpacked, unlabelled frozen, cooked, smoked meats, alcohol and tobacco, jars of fruit, vegetable, soup, sauce, jams

Traceability - Principles & Aims

- **Upstream Suppliers**
- **Internal Traceability** (Manufacturing and Storage)
- **Downstream Traceability**
- **Downstream Clients**

**Downstream Traceability**

**Internal Traceability** (Manufacturing and Storage)

**Upstream Traceability**
Traceability Data
Can be both public and private
Data Sharing is the challenge

- Data to be shared must be;
  - Complete, Consistent, Accurate,
  - Standardised & Timely *
- Data should be shared;
  - Easily, Quickly, Reliably, & Cheaply
- Data Sharing Technologies;
  - GDSN (Global Data Synchronisation Network)
  - Barcodes
  - EDI (Orders, Despatch Advice, Invoices)
  - EPCIS (Electronic Product Code Info. System)

*Source: GCI/CapGemini Report: "Internal Data Alignment", May 2004
Traceability – How?
Types of Traceability Networks

- One up – One down
- Single source database
- Cumulative tracking
- Distributed Information Sources

The optimum model for the future?
Foodtrace™

Red Meat, Poultry & Fish Traceability
### SuperValu Raheny

**FoodPrint Traceability System**

**Date Range:** 01-03-2003 - 24-03-2003

#### Traceability Information

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<th>Date</th>
<th>FoodPrint NW Product</th>
<th>BatchCode</th>
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<th>City Of Dispatch</th>
<th>Factory Of Dispatch</th>
<th>Factory Of Delivery</th>
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Foodtrace™

<table>
<thead>
<tr>
<th>Todays Cuts</th>
<th>*S ROUND ROAST</th>
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</thead>
<tbody>
<tr>
<td><strong>Factory of Slaughter:</strong></td>
<td>EC IRL 394 New Grange EC IRL 387 Bergin Mts</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Factory of Cutting:</strong></td>
<td>EC IRL 533 Kepak Ballymahon</td>
<td></td>
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</tr>
<tr>
<td><strong>Batch Numbers:</strong></td>
<td>1N48 3P48</td>
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Foodtrace™ Dashboard
Foodtrace™ Store Connections . . .
Foodtrace™ Product Withdrawal/Recall...
GS1 RESOURCES AVAILABLE

• Membership Services
  • Helpdesk - Telephone Support with Level 2 Technical Support
  • Events and Educational Workshops and materials/brochures

• Professional Services
  • Advisory / Consultancy (Technical and Commercial)
  • Verification
  • Training (in-house & in-company, online webinars)
  • Solution Partner Programme and Industry Engagement

• Business and Sector Development

• Community Management: project implementation and on-boarding
Questions?

Denis O’Brien
Director of Standards & Solutions
GS1 Ireland

eMail: Denis.Obrien@GS1ie.org
Whole Food Supply Chain
Traceability & Interoperability

Mr. Andrew Kennedy
Interim Director
Global Food Traceability Center at the Institute of Food Technologists®
## Initiatives Compared

### Global Dialogue on Seafood Traceability
- **Year Started:** 2017
- **Motivation:** IUU Seafood
- **Scope:** Global Seafood Industry
- **Retail & Foodservice:** 12 Organizations
- **Producers & Assns:** 48 Organizations
- **Dialogue Advisors:** 52 Orgs (incl. GS1)
- **Primary GS1 Standards Used:**
  - EPCIS
    - Critical Tracking Events
    - Key Data Elements

### Produce Traceability Initiative
- **Year Started:** 2008
- **Motivation:** Foodborne illness
- **Scope:** N. American Produce Industry
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- **Solution Providers:** 77 Organizations
- **Primary GS1 Standards Used:**
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  - GTIN + Lot
  - SSCC
  - EDI 856 (ASN/Despatch Advise)
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> Numerous Active Supply Chains Experimenting with Blockchain
Piloting around the world

> >60% of cases are labeled
Several whole chain programs in place
Adding Certification Documents
Testing Blockchain.
Mutual Goal: **Whole Chain Interoperability**

Note: *Red line indicates convergence*
PTI Label with Walmart Requirements
Examples of ID and Capture in Seafood

Source: Farid Maruf, USAID Oceans and Fisheries Partnership
Emerging Approach: **Blockchain + EPCIS**

**Blockchain Transaction**

Transaction Information

Transaction hash:

TxReceiptStatus: Success

BlockHeight: 260013 (2/3838 blocks confirmed)

Timestamp: 5 days 13 hours ago (Aug-30-2018 08:13:23 AM UTC)

From:

To:

Value: 0 Ether (0.00)

Gas Limit: 2300000

Gas Used By Txs: 9400

Gas Price: 0.000000001 Ether (1 Gwei)

ActualGasPrice: 0.000000001 Ether (1 Gwei)

Nonce & Position: 44 [13]

Input Data:

```
{3Cf
`ahh
\s

```

**Pedigree of Product Stored Off-chain (IPFS)**

```
"catchEvent": { 
  "eventType": "objectEvent", 
  "bizStep": "Commission", 
  "action": "ADD", 
  "seafoodEventType": "Catch", 
  "organisationName": "Meiho Gyogyo Co., Ltd.", 
  "vesselOwnerName": "Meiho Gyogyo Co., Ltd.", 
  "vesselName": "Meiho Maru No.22", 
  "vesselId": "MBS141100199", 
  "vesselFlagState": "JP", 
  "fishingGearTypeCode": "LNB", 
  "productionMethodCode": "91 (Caught at Sea)", 
  "grossWeight": "766", 
  "grossWeightUOM": "kg", 
  "storageTempCode": "FZ (Not Previously Frozen )", 
  "containerId": "GNA100017960.2213.12.567896", 
  "quantity": "1", 
  "quantityUOM": "EA", 
  "license": "http://docs.meiho.com/licenses/612130123", 
  "catchCertificate": 
"https://ipsis.ipsis.com/tpm13kgcDuUTYXhCzV4rYhV5bxBVYy8hYjYXwqkh", 
  "eventTime": "2018-08-30T06:68:49Z", 
  "eventTimeZoneOffset": "+9:00", 
  "harvestStartDate": "2018-04-01", 
  "harvestEndDate": "2018-04-12"
}
```

```
"landingEvent": {...}, // 2 items
"paymentEvent": {...} // 3 items
```
Challenges to Implementation

### Seafood
- Alignment on Key Data Elements and Critical Tracking Events
- Assuring non-GS1 identifiers are shared in globally unique format.
  - Vessel IDs
  - Catch Location
  - IoT Devices
  - Fish Species
  - Employees
- Incorporating many different ID, capture and share methods.

### Produce
- Agreeing to capture using KDE’s, CTE’s
- Handling the explosion of GTINs and Label Requirements generated in fresh produce
  - Commodity/Variety/Pack Size & Style
  - Labeling systems
  - GDSN adoption
- Label and Data Quality
- Scanning at Restaurant and Retail store
- Scanning at Distribution Centers
- Handling commingling and repack
Contact Information

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IFT Global Food Traceability Center

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E akennedy@ift.org

www.globalfoodtraceability.org
GS1 standards benefits and value

Trust

Physical/Digital Identification & Interoperability

Transparency & Visibility
Best practices for implementation

Traceability
Best practices for implementation

- **Lay the foundation** for a successful traceability project: unique, persistent identification across the physical and digital AND exchange of accurate, complete data.

- **Identify the key motivation (the “WHY”)** for your traceability activities. These could be Consumer/Product safety, Reduce food loss and waste, Anti-counterfeit, Sustainability & Corporate Social Responsibility (CSR), etc.

- **Clarify the business challenge (the “WHAT”)** you are trying to solve.

- Implementing a traceability solution will impact: **People, Business Processes and Technology (the “WHO” and the “HOW”)**

- **Get support from people who have done this - contact your local GS1 Member Organisation!**
Continuing the conversation
Continuing the conversation

Meet other attendees – find your group and exchange business cards!
Please complete the session survey in the Event App!
Contact Information

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