



The Global Language of Business

Traceability & FLUX

Denis O'Brien, Director of Standards & Solutions, GS1 Ireland
29th September 2016



Welcome to GS1 . . .



Not-for-Profit

Costs and savings shared by members

Neutral



User Driven

Member organisation driving Global Standards

Global Reach – Local Presence !

What do we do ?



GS1 Standards for identifying, capturing and sharing information about **products**, business **locations**, **assets** and more, make it possible for companies to **speak the same language**. The results are greater **visibility**, **efficiency**, security and collaboration for their business and greater convenience, value, **safety** and satisfaction for their consumers.

Unique Identification . . .

A barcode identifies a product as it moves through the supply chain from manufacturer to distributor to retailer



Because so many companies use the data it is critically important that every product is uniquely identified and marked with the correct barcode symbol

e-Locate

The International Fish Traceability
Framework



What is e-Locate?



Sea Fisheries Protection Authority (SFPA)
Bord Iascaigh Mhara (BIM) and GS1 Ireland
(GS1)



“. . .have initiated a project to assess international best practice in the use of weighing, labelling and traceability technology, to identify the needs of the Irish fish industry and to provide resources to facilitate the adoption of these standards at all levels in Ireland . . .”



This project has been named 'e-LOCATE'

Implementation

- Partnership of competent authorities
- Establishment of a national project
 - Steering Committee
 - Stakeholder Forum
 - Industry Assessment
 - Launch of Grant-Aid Scheme



Co-funded by the
European Union



Bord Iascaigh Mhara
Irish Sea Fisheries Board







e-Locate



www.e-LOCATE.ie



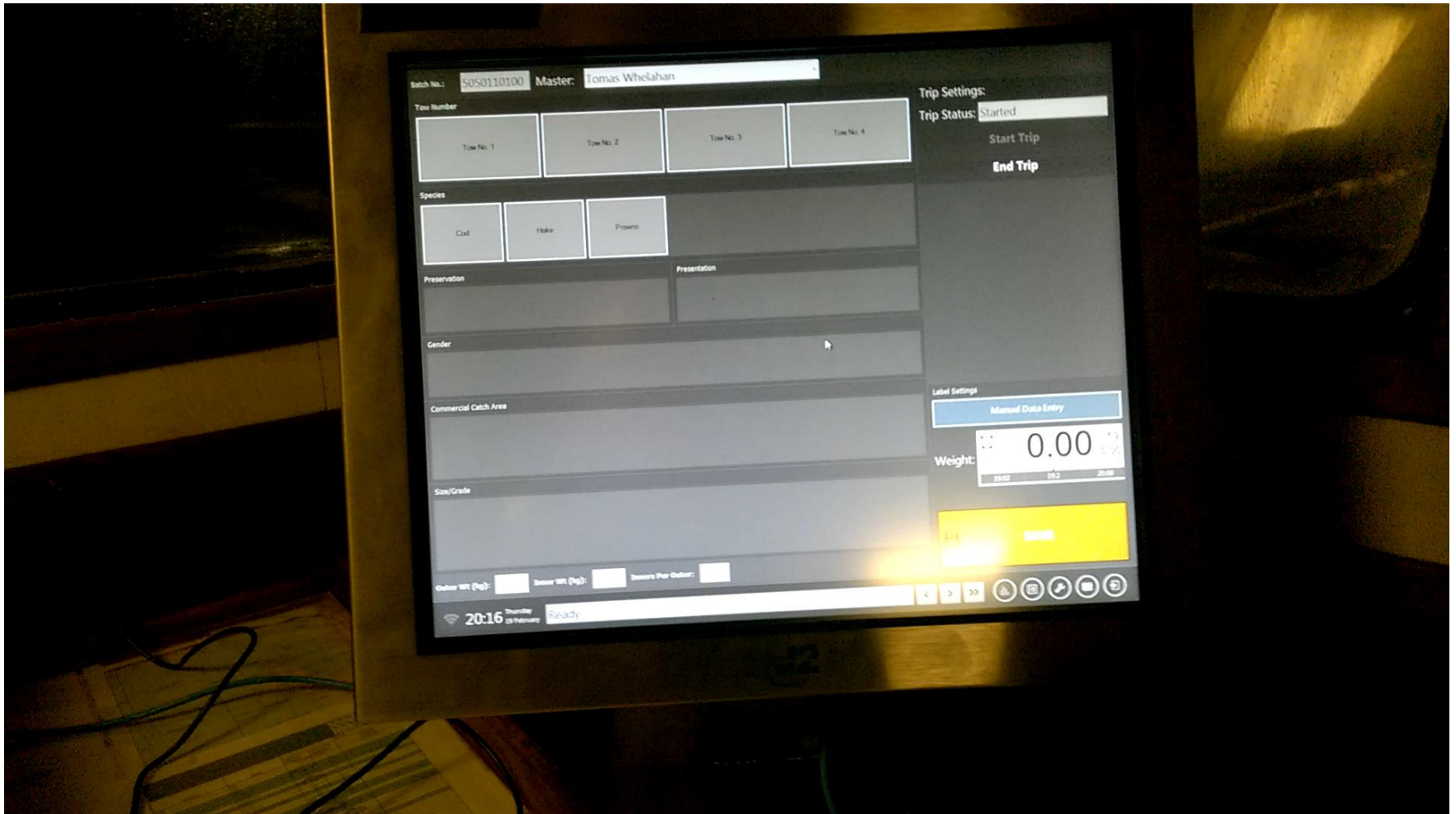
e-Locate Sample Label

Product Name : 11/15 Male - Irish Sea				Batch No : 5051000002							
Species : Norway lobster Nephrops norvegicus					Dates Of Catch : 20-Feb-15 20-Feb-15		Frozen Date : 20-Feb-15		Best Before : 21-Aug-16		
Production Method : Caught Wild At Sea					Fishing Gear : Otter Twin Trawls		Vessel : DA 8 - Celtic Warrior II				
Geographical Area : Area VIIa Irish Sea FAO 27 - NE Atlantic				Ingredients & Allergens : Nephrops Norvegicus, Sodium Metabisulphite (E223)							
Preservation : Frozen		Presentation : Whole		Freshness Grade : E		GLN : 5398888515873		GTIN : 05391523881142			
Weight : 3 x 3 kg		Store at -18°C									
9 KG		(01)05391523881142(10)5051000002(15)160821(3102)000900								Outer	
		www.cloghercoop.com		Clogherhead Co-Op, Clogherhead, Co. Louth, Ireland				372000931950510016			

e-Locate



e-Locate



e-Locate



e-Locate



e-Locate



fTrace – EPCIS Based Traceability



*f*TRACE

fTRACE – EPCIS Based Traceability

home fTRACE Code fTRACE partners about fTRACE recipes contact English

fTRACE

One click and you are well informed


Fresh Irish Lamb

Productinfos Origin Processing Quality

Product information

GTIN / EAN:	04054738000012
LOT-No.:	ICM_p4
Slaughterhouse:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of slaughtering:	26.10.2015
Cutting plant:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of cutting:	26.10.2015
Packing plant:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of packing:	27.10.2015
Best-before Date:	12.11.2015

Irish Lamb – an internationally regarded premium product



Irish Country Meats
The Lamb Specialists

What is fTRACE


With fTRACE you can trace products back to the individual batch. You can find out where a product comes from, when and how it was processed and how quality is controlled by the manufacturer.

Contact fTRACE

For any questions or suggestions on fTRACE do not hesitate to contact us. We are looking forward to your feedback.

>> [Get in contact](#)

fTRACE on a smartphone

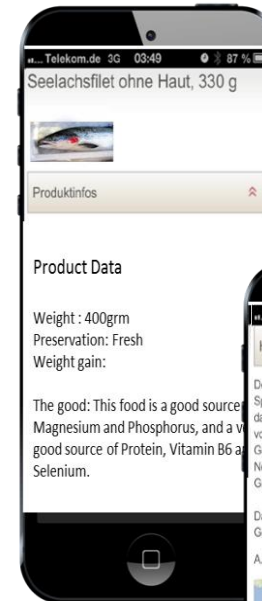


Download the fTRACE app.

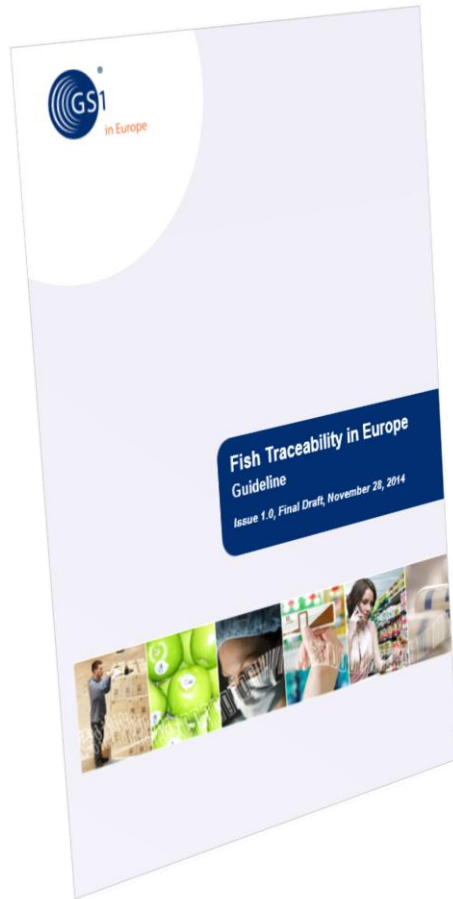
>> [Get the fTRACE GS1 iPhone-app](#)

>> [Get the fTRACE GS1 Android-app](#)

If you don't have an iPhone or Android device, you can also use any other free barcode reader. Or go to the



Fish Traceability in Europe Guidelines



Fish Traceability in Europe – Framework for Common Approach

4. Overview of Attribute Implementation within GS1 System Components

The following table provides an overview of how the relevant key data elements could be implemented using certain components (or combination of components) from the GS1 System portfolio.

Attribute / Key Data Element	AIDC	EANCOM DESADV	GS1 XML Despatch Advice	EPCIS 1.1	GDSN
1 GTIN	AI (01) GTIN or AI (02) CONTENT	SG17_LIN_7140	Gtin		
2 Lot	AI (10) BATCH/LOT	SG17_PIA_7143 = NB (Lot Number) [3]	lotNumber	epcClass (urn:epc:class:gtin: CompanyPrefix. ItemRefAndIndicator.Lot)	gtin
3 Quantity or Net Weight	AI (30) VAR COUNT AI (310) NET WEIGHT (kg) AI (320) NET WEIGHT (lb)	SG17_QTY	tradeItemQuantity	QuantityElement/quantity + uom	
4 Expiration or Best Before Date (dependent upon product of concern)	AI (17) Expiry or AI (15) Best Before Date	SG17_DTM_2005 = 36 (Expiry date) SG17_DTM_2005 = 361 (Best Before date)	itemExpirationDate bestBeforeDate		
5 Fishing Vessel GLN	AI (703) PROCESSOR [1]	SG20_LOC_3227 = 44E Fishing vessel [3]		ilmd section [7]	
6 Fishing Vessel Name		SG20_LOC_3224	fishingVessel (TransactionalParty/gtin) [4]		
7 Production Unit GLN	AI (703s) PROCESSOR [1]	SG20_LOC_3227 = 19 (Factory / plant)	fishingVessel (TransactionalParty/address/name) [4]	ilmd section [7]	
8 Production Unit Name	GLN master data [5]	SG20_LOC_3224	aquaCultureProductionUnit (TransactionalParty/gtin) [5]	GLN master data [5]	
9 Fish Species	AI (700s) AQUATIC SPECIES [2]	SG17_PIA_7143 = XZ5 (Fish species) [3]	aquaCultureProductionUnit (TransactionalParty/address/name) [4]	ilmd section [7]	
10 Scientific Name	GTIN master data [6]	SG17_IMD_7081=SCT (scientific name) [3]	aquaticSpeciesCode [4]	GLN master data [5]	
11 Commercial Designation	GTIN master data [6]	SG17_IMD_7081=ANM (Commercial designation)	aquaticSpeciesName [4]	GTIN master data [6]	AVP speciesForFisheryStatistics PurposesCode
12 Catch Area	AI (7005) CATCH AREA [2]	SG17_IMD_7081=GEO (Geographical area) [3]	tradeItemDescription [4]	GTIN master data [6]	
13 Catch Dates	AI (7007) HARVEST DATE [2]	SG17_DTM_2005 = XZ2 (Catch date/time) [3]	catchArea [4]	ilmd section [7]	
14 Supplier GLN	AI (412) PURCHASE FROM	SG2_NAD_3035 = SU (Supplier)	catchDateTime (DateTime) [4] catchEndDate (Date) [4] catchStartDate (Date) [4] seller (TransactionalParty/gtin)	GTIN master data [6] ilmd section [7] ilmd section [7]	AVP catchArea AVP catchDateTime
				readPoint	

Issue 1.0, Final Draft, November 28, 2014 All contents copyright © GS1 in Europe Page 9 of 47

Traceability

An overview

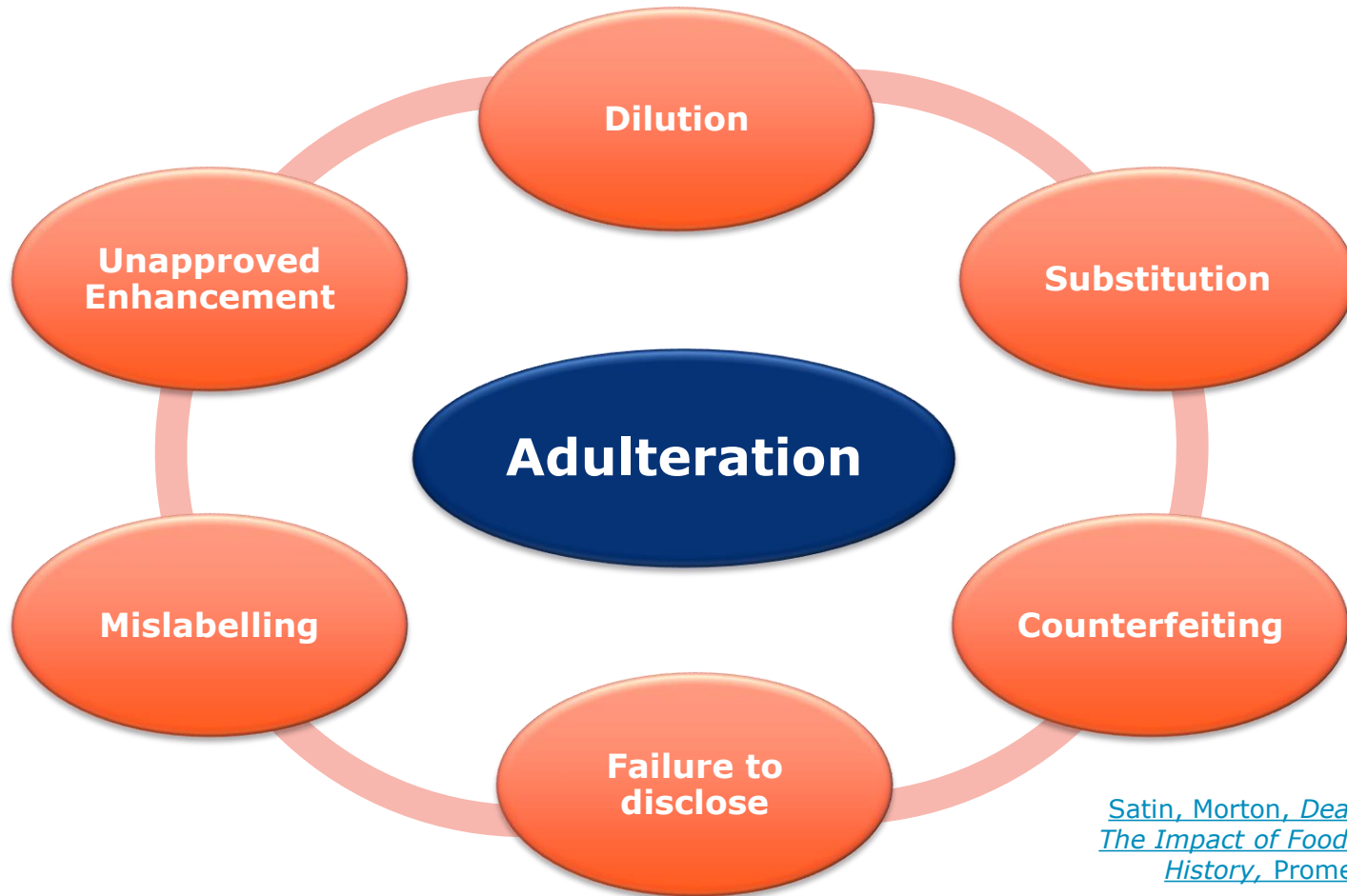
Denis O'Brien, Director of Standards & Solutions, GS1 Ireland



Reasons for Traceability are many . . .



Traceability – why?



[Satin, Morton, Death in the Pot: The Impact of Food Poisoning on History, Prometheus Books, \(2007\)](#)

Traceability – Why ?

In 2010 officials in Ireland issued a warning about counterfeit brake pads that don't meet official standards. These products were labelled with brands like Volkswagen/Audi.

They were found to have 30% less braking efficiency than genuine brake pads



US-based Consumer Reports also said some counterfeit brake pads were found to be made with “kitty litter, sawdust, and dried grass.”

Traceability – Why ?

There are rather sophisticated and large-scale factories that manufacture fake popular prescription drugs.

The key is getting the bottle, labels, and physical attributes of the pills right. Some of the counterfeiters try to replicate the real drug, while others don't even bother.

Counterfeits may have included;

Viagra, for erectile dysfunction

Plavix, a blood thinner

Casodex, for prostate cancer

Zyprexa, for schizophrenia



Source: International Business Times (US Edition), April 9th, 2015

Traceability – Why ?



Europe's Horsemeat scandal

- FSAI found horse and pork DNA in beef products in 2012
 - Found some of the beef had come from a Polish company
 - A company in France, 2 Romanian slaughterhouses & A company in Netherlands were implicated
 - Continued to find DNA of horse in other products such as lasagna etc.
 - Even meatballs in Ikea were adulterated with horse meat
-
- Retailers in the UK and Ireland recalled more than €10 million of hamburgers

Traceability – Why ?

Even more serious . . .

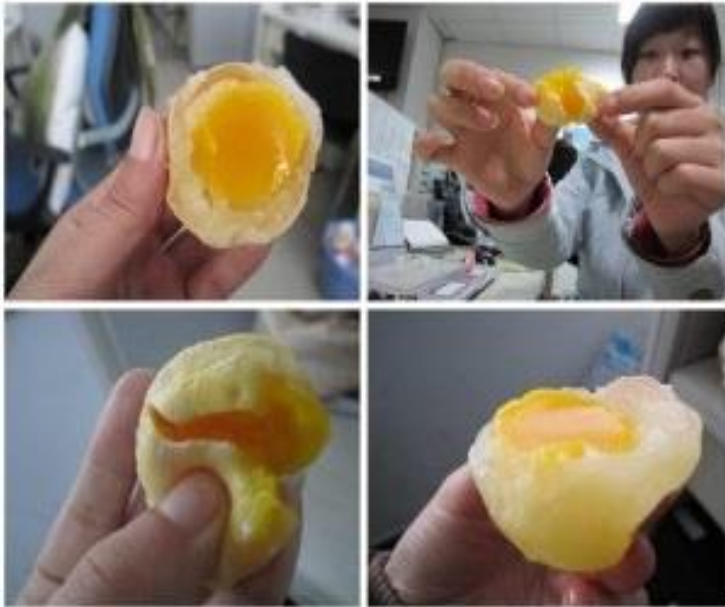
- In 2002 the Food Safety Authority of Ireland (FSAI) was notified by the Food Standards Agency UK of an incidence of **methanol contamination** of counterfeit Whisky.
- The notification was issued after a member of the public made a complaint to the distributors.



Source: Food Safety Authority of Ireland, <https://www.fsai.ie/details.aspx?id=6412>

In 2015 a leading Vodka brand was found in a major retailer with very high quality counterfeit labels claiming to be “Made In Ireland” – there are no such production facilities for that brand in Ireland !

Traceability – Why ?



Even very low value products are not immune . . .

Back in 2005, the Chinese state news agency, Xinhua, reported that

“Fake eggs first appeared in the mid-’90s and production spread all over China”

At that time, the production cost of a fake egg was half that of a real one.

Another Xinhua report stated that
“With the proper equipment and materials, one person can produce 1,500 fake eggs per day”



Source: <http://newsfeed.time.com/2012/11/06/how-to-make-a-rotten-egg/> November 12th, 2012



GS1 Global Traceability Programme around the world



64 Member Organisations deploying the Global Traceability Programme,
74 accredited auditors, over **240** trained auditors

GTC – Global Traceability Conformance

- The Global Traceability Standard (GTS) was developed by a community of more than 800 companies from Asia, Europe and the Americas regions representing retailers, suppliers, GS1 Member Organisations and solutions providers in a wide range of industries.
- GTS makes traceability systems possible on a global scale for both small and large organisations, throughout the supply chain regardless of the numbers of companies involved and the enabling technologies applied.
- The GS1 GTS compliments and does not compete with other international standards such as;
 - the ISO, Safe Quality Food (SQF), British Retail Consortium (BRC)
 - Global Food Standards, Food Marketing Institute, GLOBAL G.A.P.
 - Hazard Analysis Critical Control Point (HACCP)

GTC - Global Traceability Conformance

- **What is it?**
- A global traceability system used to review & assess a company's traceability system and to benchmark a company's capability to perform traceability in accordance with customers requirements, regulations, best practices, and global standards.
- **What does it do?**
- It defines, in a measurable way, the essential elements of best-practices for the production and distribution of trade items acceptable to every Industry worldwide.



e-Locate Traceability Conformance Assessment Checklist

Assessment Checklist												
N°	CONTROL POINTS	COMPLIANCE CRITERIA	L	Observations								
1. CHOICE OF OBJECTIVES												
1.1	Does the Organisation know the Traceability regulations of the countries to which its trade items are sold?	The Organisation must have a copy of the applicable traceability requirements for all countries to which its trade items are sold.	REC									
	GS1 (S)US2	Fulfills	GS1	DB26	HACCP	IFS	BRC	SQP	WH	GGAP	NA	CONF
1.2	Does the Organisation know the traceability regulations and the implementation guidance (global or country specific) to which its trade items are sold?	The Organisation must have a copy of the traceability standards and implementation guidance (global or country specific) applicable to countries which its trade items are sold.	REC									
	GS1 (S)US2	Fulfills	GS1	DB26	HACCP	IFS	BRC	SQP	WH	GGAP	NA	CONF
1.3	Does the Organisation know the traceability requirements of all its trading partners to which its trade items are sold?	The Organisation must have a copy of the applicable traceability requirements for all trading partners to which its trade items are sold.	WH (S)US2									
	GS1 (S)US2	Fulfills	GS1	DB26	HACCP	IFS	BRC	SQP	WH	GGAP	NA	CONF
1.4	Has the Organisation defined in a document updated at least annually the objectives and scope of its Traceability System and has designated a person responsible for it?	The Organisation must have appointed a person responsible for the Traceability System and must have clearly defined the objectives and scope of the Traceability System in a document revised annually and available to all employees.	WH (S)US2									
	GS1 (S)US2	Fulfills	GS1	DB26	HACCP	IFS	BRC	SQP	WH	GGAP	NA	CONF

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End-To-End Traceability is Complex

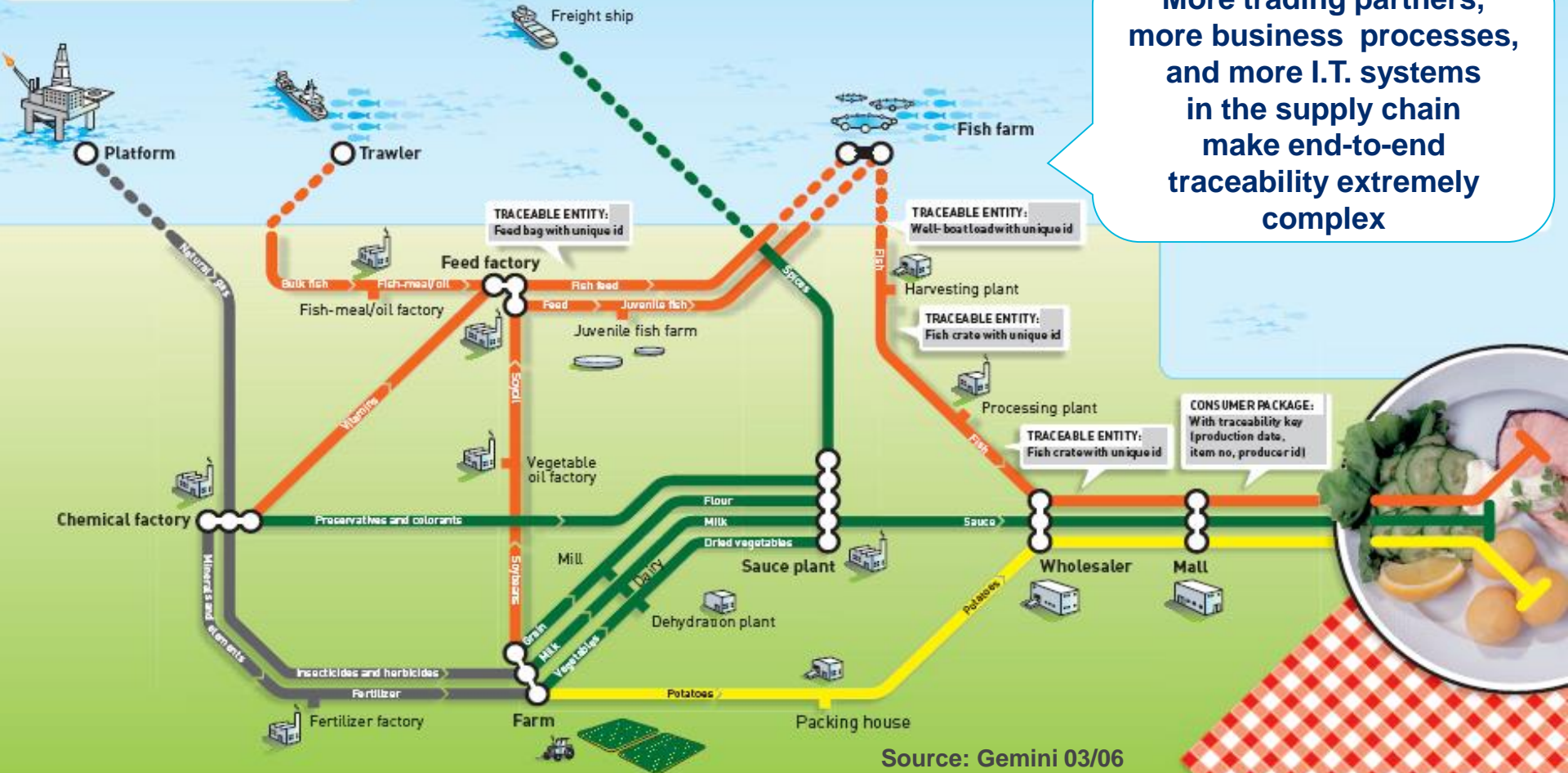
SYSTEM FOR TRACING FOOD:

- Your dinner has been through a complex value chain before it ends up on your plate - the graph shows this.
- SINTEF, together with Fiskeriforsknings, has participated in creating the «TraceFish» standard, which describes how an efficient traceability system for fish can be designed. An example is highlighted along the salmon chain.
- The TraceFish standard builds on a general purpose method called «TraceFood» that can be applied to any type of food.

Many actors in many countries!



More trading partners, more business processes, and more I.T. systems in the supply chain make end-to-end traceability extremely complex



Barriers to effective Supply Chain management . . .

1. Inadequate Information Sharing
2. Poor/conflicting measurement
3. Inconsistent operating goals
4. Organisational culture & structure
5. Resistance to change – lack of trust
6. Poor alliance management
7. Lack of supply chain vision/understanding
8. Lack of managerial commitment
9. Constrained resources
10. No employee passion or empowerment



“By the time it gets to the CEO, it’ll be two words: Cut Costs.”

Benefits, Barriers, and Bridges to effective supply chain management Stanley E. Fawcett, Gregory M. Magnan and Matthew W. McCarter
Supply Chain Management: An International Journal Volume 13 · Number 1 · 2008 · 35– 48

Barriers to effective supply chain management . . .

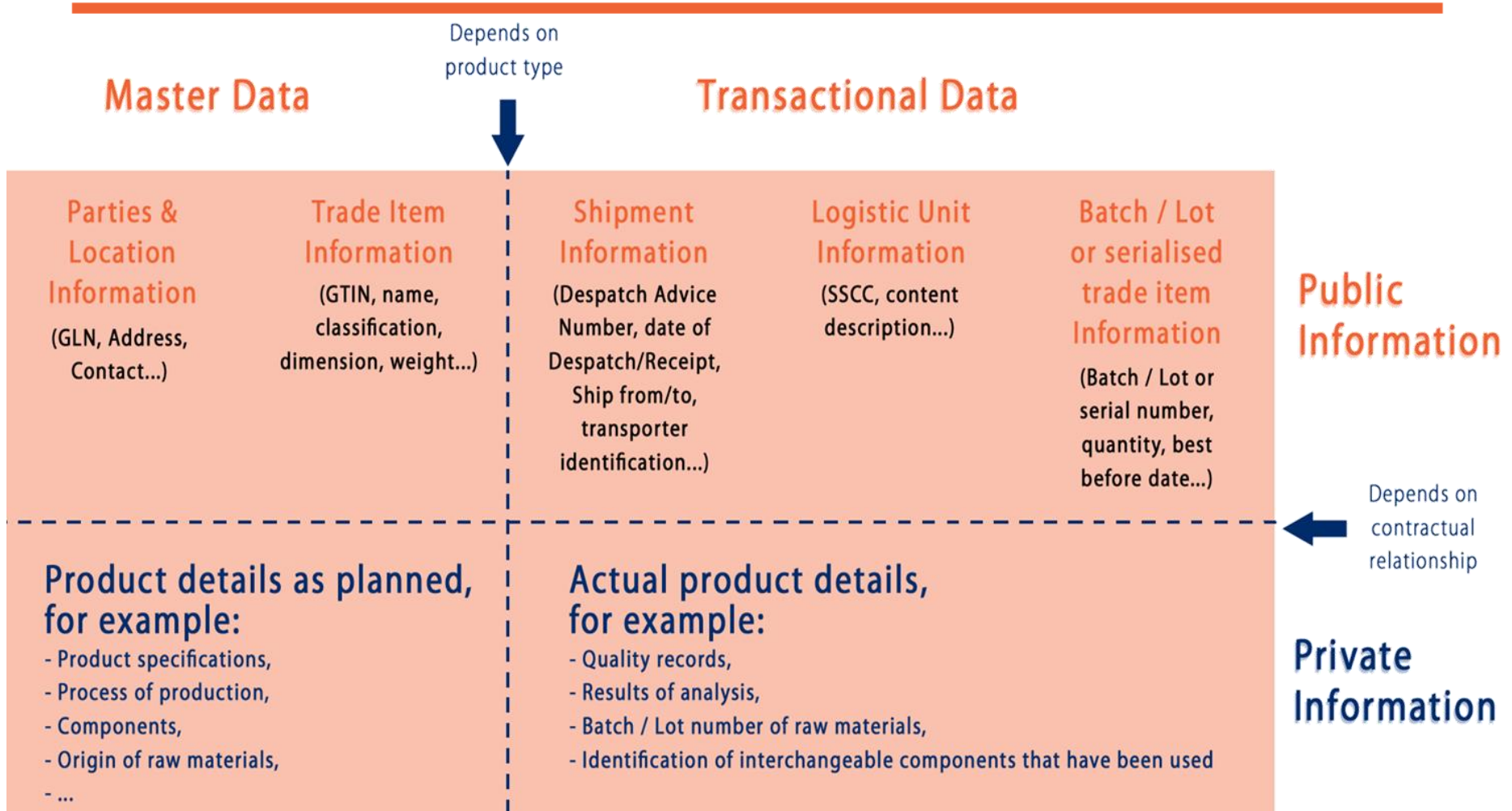
1. **Poor Data Synchronisation**
2. Perpetual Inventory (PI) failure
3. Distorted forecasting
4. Excessive backroom inventory
5. Faulty shelf-space allocation
6. Low planogram compliance
7. Poor stocking practices



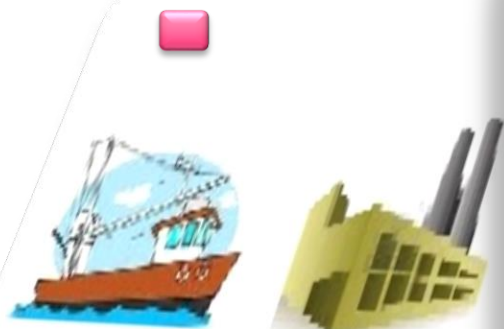
Procter & Gamble: A Comprehensive Guide To Retail Out-of-Stock Reduction In the Fast-Moving Consumer Goods Industry
Thomas W. Gruen and Dr. Daniel Corsten, 2007

Traceability Data

Can be both public and private



Data Sharing is the challenge



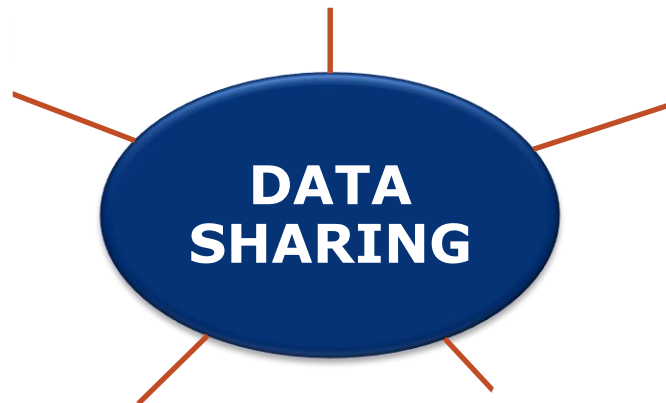
Trawler

Co-op

- 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)
- **FLUX ? (Fisheries Language for Universal eXchange)**
- EPCIS (Electronic Product Code Info. System)
-

*Source: GCI/CapGemini Report: "Internal Data Alignment", May 2004

Traceability – How ?



GDSN – SHARING PRODUCT MASTER DATA

```

UNA:+?
UNB+UNOC:3+5030670121199:14+5033075052347
:14+050114:1043:32:UNNN+113+ORDERS:D:96A:UN
:EANDOS:BGM+220+113+9'DTH+137:20050114:102'
UNB+UNOC:3+5030670121199:9'NAD+SU+5033075052
:14+050114:1043:32:UNNN+113+ORDERS:D:96A:UN
:EANDOS:BGM+220+113+9'DTH+137:20050114:102'
NAD+BY+5030670121199:9'NAD+SU+5033075052
347:9'FFP+V+12211370154:CUK+2:EUR:PLN+?1
A+S+1088A:0085:IBMD+L+009+:::Put, Manu?
van derIMD+L+010+:::PutIMD+L+011+:::Manus?
differentUNT+00023+113:UNZ+110+:::Sales theory of linear
equationTMD+L+110+:::Sales theory of linear
B:10'RF+L1:32755:REF+BFN+110518BKU2
2003TDT+20+113:UNZ+110+:::Sales theory of linear
UNT+00023+113:UNZ+110+:::Sales theory of linear

```

Manufacturer /Processor

```

UNA:+?
UNB+UNOC:3+5030670121199:14+5033075052347
:14+050114:1043:32:UNNN+113+ORDERS:D:96A:UN
:EANDOS:BGM+220+113+9'DTH+137:20050114:102'
NAD+BY+5030670121199:9'NAD+SU+5033075052
347:9'FFP+V+12211370154:CUK+2:EUR:PLN+?1
A+S+1088A:0085:IBMD+L+009+:::Put, Manu?
van derIMD+L+010+:::PutIMD+L+011+:::Manus?
differentUNT+00023+113:UNZ+110+:::Sales theory of linear
equationTMD+L+110+:::Sales theory of linear
B:10'RF+L1:32755:REF+BFN+110518BKU2
2003TDT+20+113:UNZ+110+:::Sales theory of linear
UNT+00023+113:UNZ+110+:::Sales theory of linear

```



A or B

X

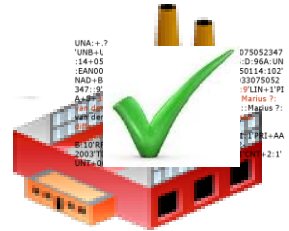
Distributor

Distributor

Distributor

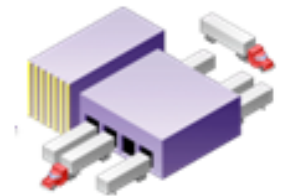


GDSN – SHARING PRODUCT MASTER DATA

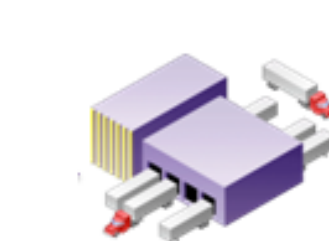


Manufacturer /Processor

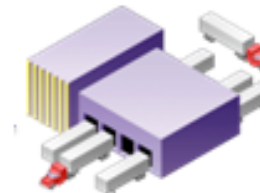
GDSN



Distributor



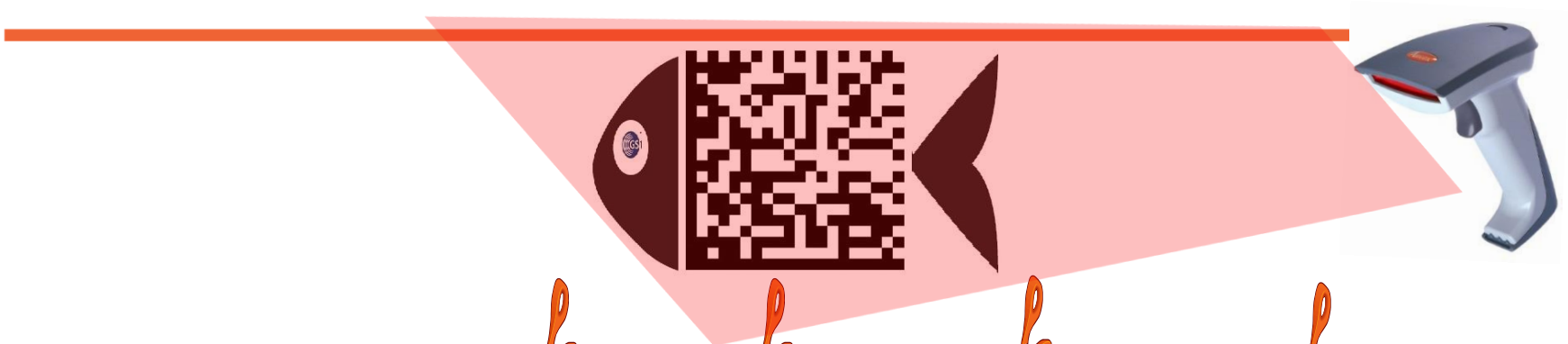
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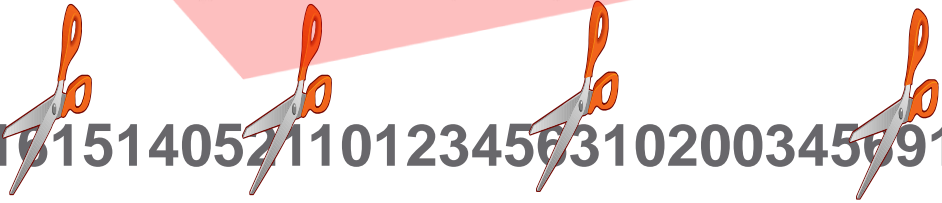
Distributor



Data Sharing Technologies



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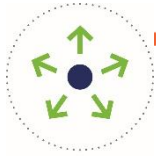


0109012345670016 **15140521** **10123456** **3102003456** **9127.7**

09012345670016 21 May 2014 123456 34.56kgs 27.7

ERP Entries	PRODUCT:	<input type="text"/>	WEIGHT:	<input type="text"/>
		DUBLIN BAY PRAWNS	BEST BEFORE:	<input type="text"/>
	BATCH/LOT:	<input type="text"/>	FAO AREA:	<input type="text"/>

ECOM (/FLUX ?) - Share Transactional Data



SHARE

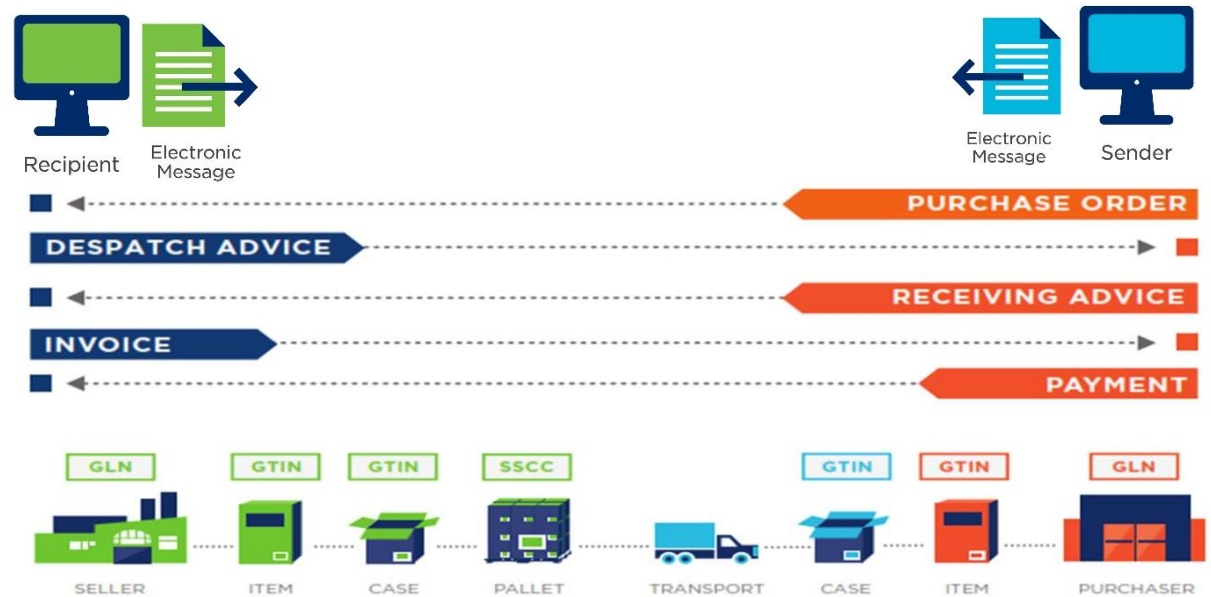
Transactional Data

eCom Electronic Communication

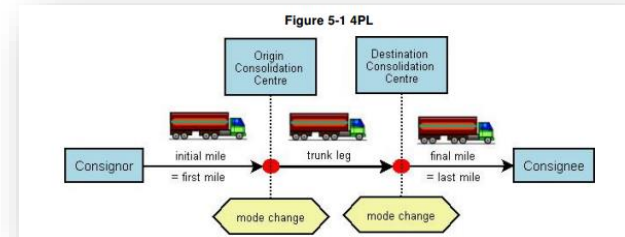
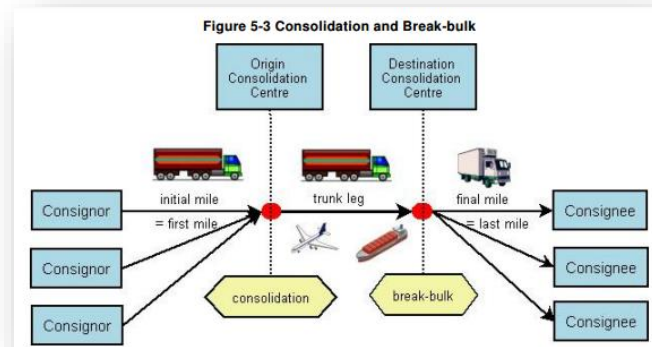
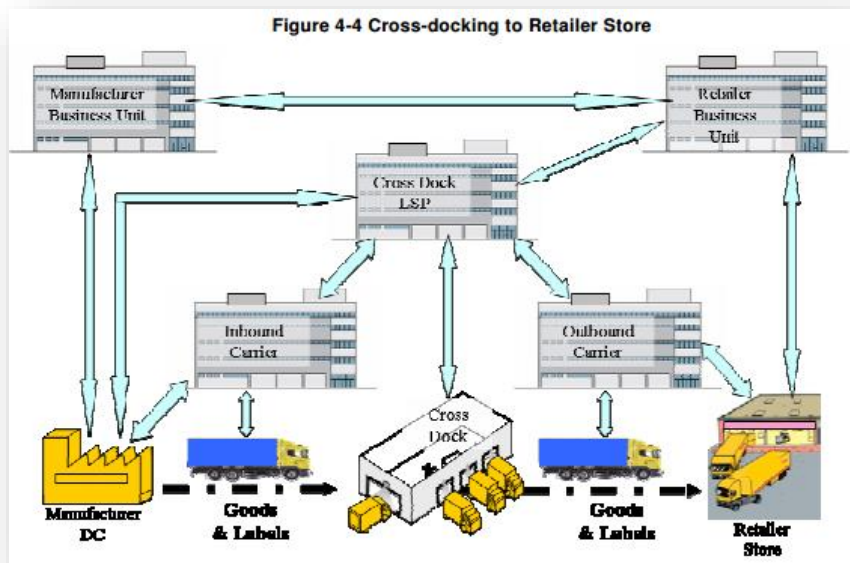
GS1 eCom standards provide clear guidelines for Electronic Data Interchange (EDI), enabling electronic sharing of accurate business transaction information between trading partners.

What Goes Into It

- GTIN, GLN, SSCC, GSIN, GINC, GDTI, GRAI, GIAI
- Purchase Order
- Despatch Advice
- Transport Instruction
- Invoice
- Payment



Logistics Interoperability Model (LIM)



Logistics Interoperability Model (LIM)

Align Data & Transport

- Transport Instruction and Response
- Item Data Notification

Order

- Configure to Order, Order & Order Response

Deliver

- Consumption Report, Receiving Advice
- Despatch Advice, Inventory Report

Pay

- Advanced Remittance Notification
- Buyer Reconciliation of Request for Payment
- Claims Notification, Debit/Credit Advice, Invoice
- Request for Payment, Settlement

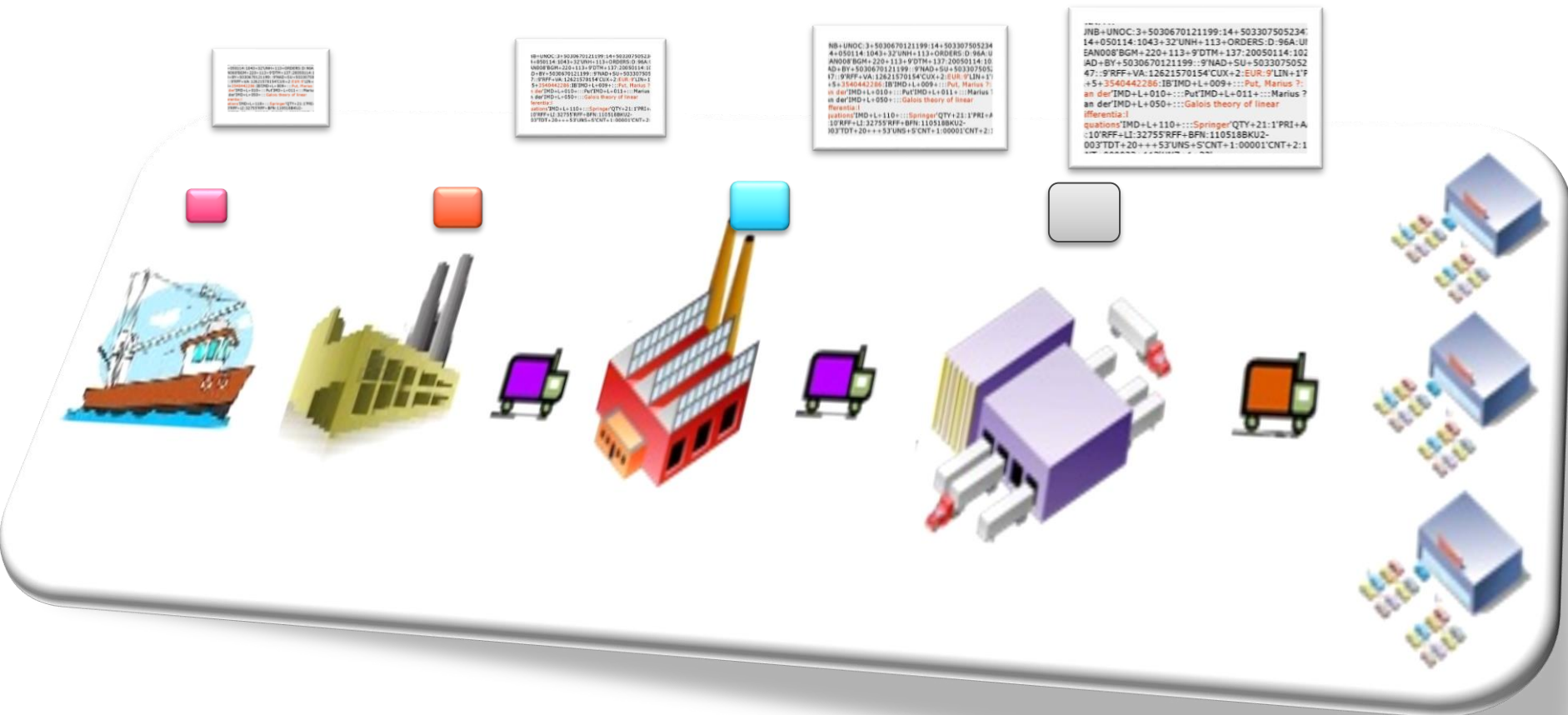
Planning

- Goods Requirements
- Goods Requirements Response
- Performance Measurement
- Purchase Conditions
- Replenishment Proposal
- Replenishment Request

Warehousing

- Logistics Inventory Requests & Reports
- Warehousing Inbound Instruction & Notification
- Warehousing Operations Instruction & Notification
- Warehousing Outbound Instruction & Notification

Traditional Supply Chain Traceability



Trawler

Co-op

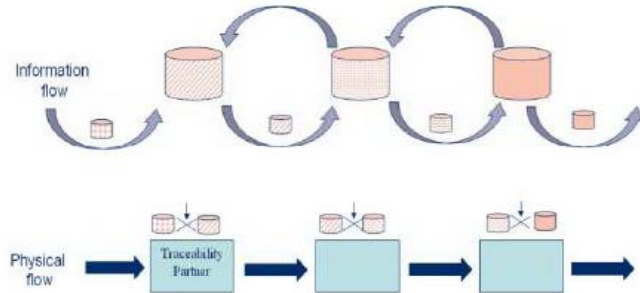
Processor

Distributor

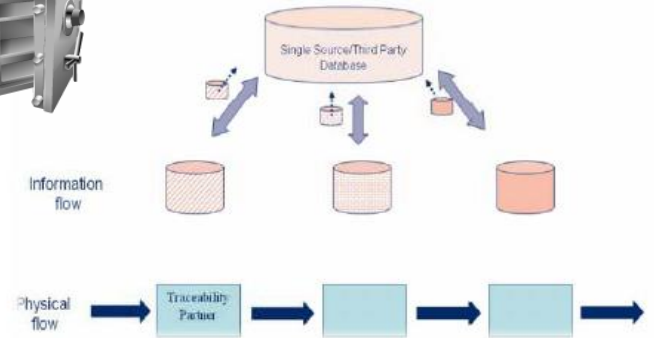
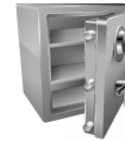
Retailer

Types of Traceability Networks

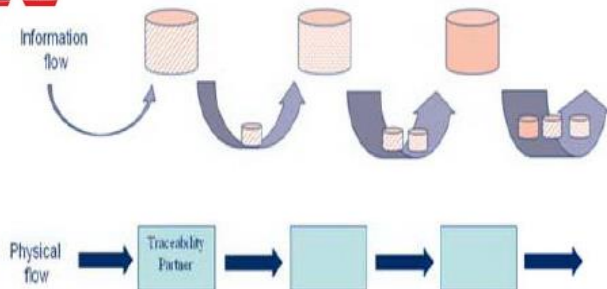
One up – One down



Single source database



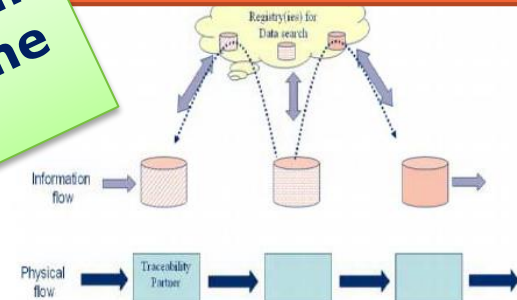
Cumulative tracking



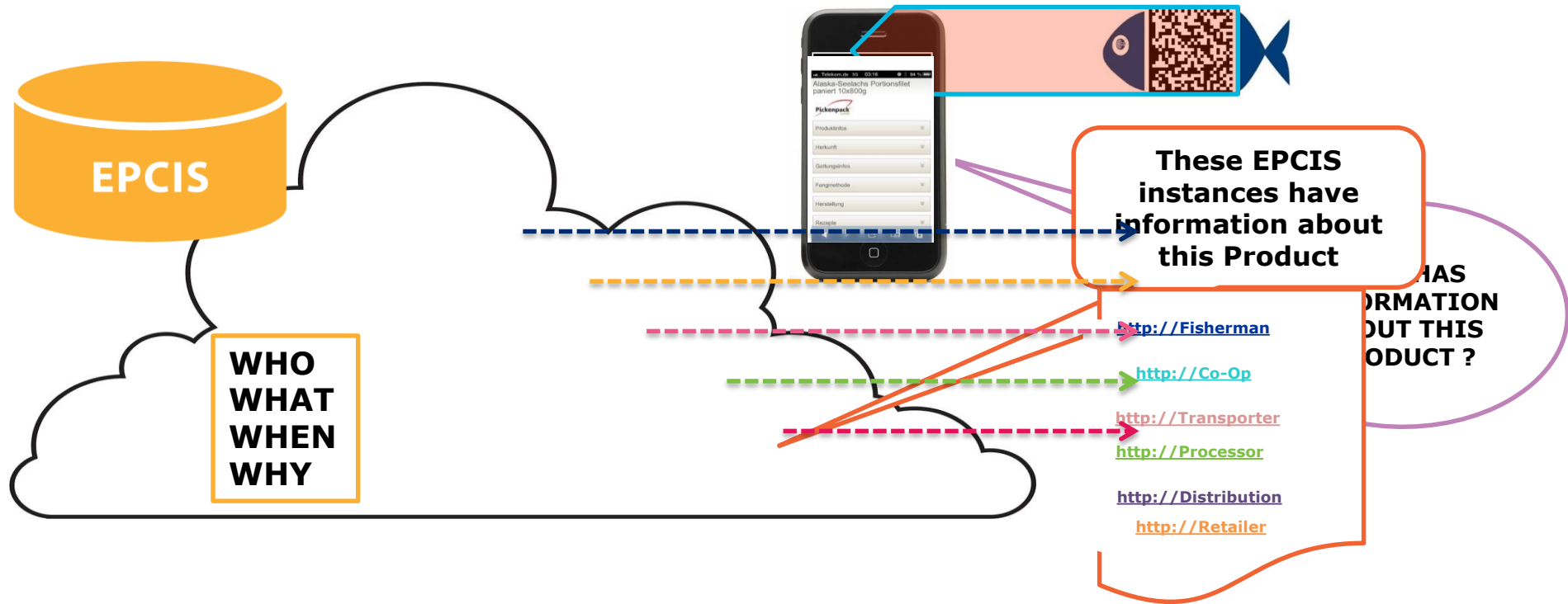
Distributed Information Sources « traceability network »



The optimum model for the future?



EPCIS – ultimate supply chain collaboration



 <http://Fisherman>

 <http://Co-Op>

 <http://Transporter>

 <http://Processor>

 <http://Distribution>

 <http://Retailer>



Fisherman



Co-Op



Transporter



Processor



Distribution



Retailer

fTRACE – EPCIS Based Traceability

home fTRACE Code fTRACE partners about fTRACE recipes contact English

fTRACE

One click and you are well informed


Fresh Irish Lamb

Productinfos | Origin | Processing | Quality

Product information

GTIN / EAN:	04054738000012
LOT-No.:	ICM_p4
Slaughterhouse:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of slaughtering:	26.10.2015
Cutting plant:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of cutting:	26.10.2015
Packing plant:	Irish country Meats Mullaghboy Industrial Estate Enniscorthy
Date of packing:	27.10.2015
Best-before Date:	12.11.2015

Irish Lamb – an internationally regarded premium product



Irish Country Meats
The Lamb Specialists

What is fTRACE


With fTRACE you can trace products back to the individual batch. You can find out where a product comes from, when and how it was processed and how quality is controlled by the manufacturer.

Contact fTRACE

For any questions or suggestions on fTRACE do not hesitate to contact us. We are looking forward to your feedback.

>> [Get in contact](#)

fTRACE on a smartphone

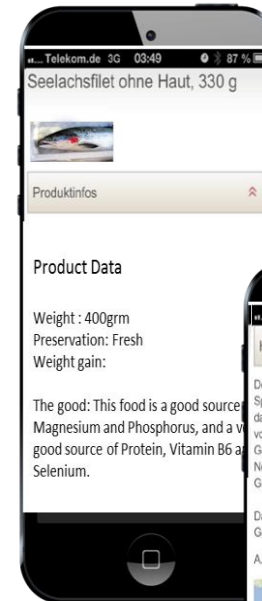


Download the fTRACE app.

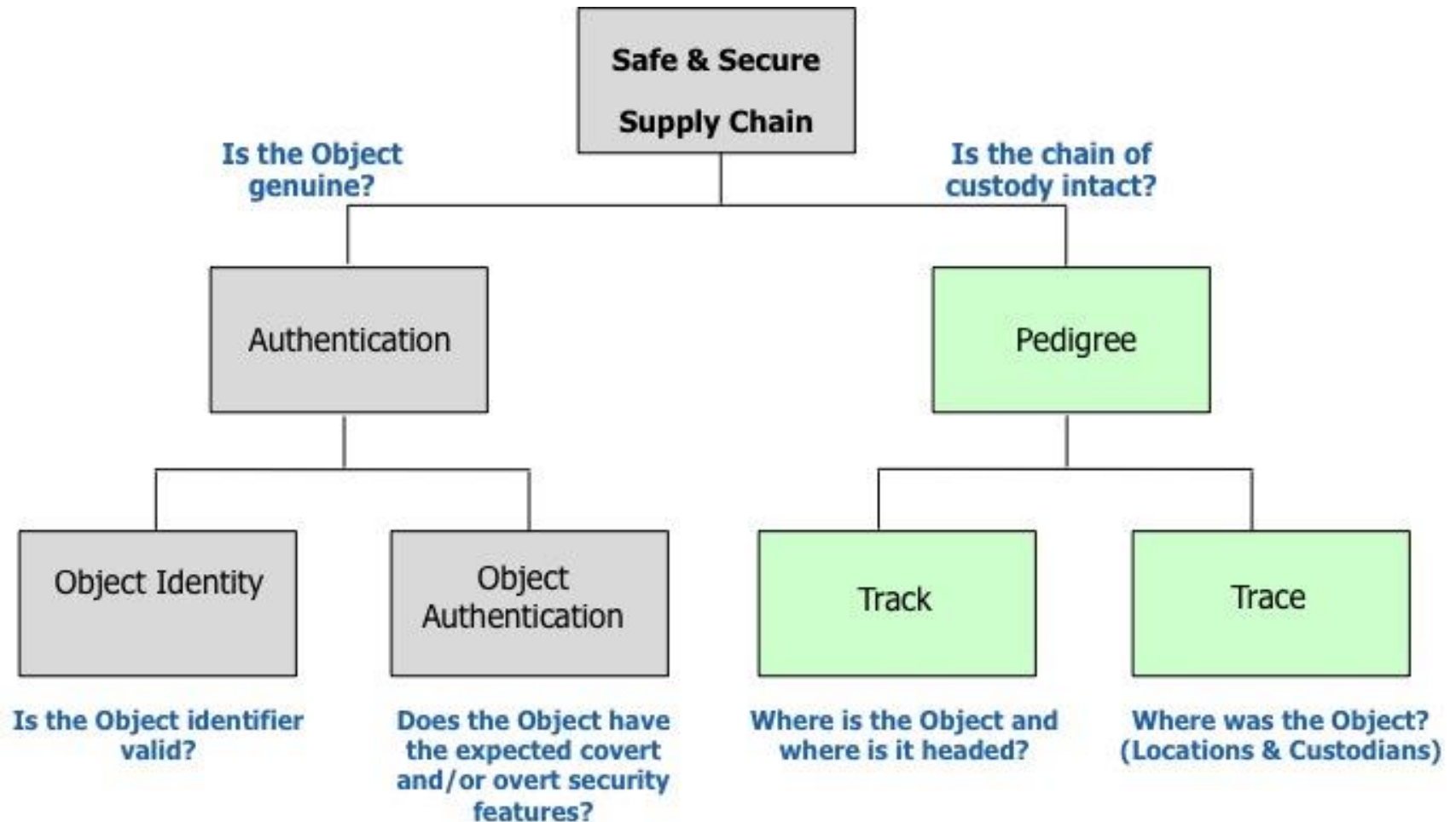
>> [Get the fTRACE GS1 iPhone-app](#)

>> [Get the fTRACE GS1 Android-app](#)

If you don't have an iPhone or Android device, you can also use any other free barcode reader. Or go to the



GS1 and Anti-Counterfeiting



Anti-Counterfeiting: Holograms

Unique 1D and 2D barcodes in the form of photopolymer volume holograms



Anti-Counterfeiting: Digital Signatures



Work Station: PRODUCTION

Close New Batch Refresh Label

Scan

Product: 95011037068657 PORK RINDLESS BELLY BONELESS 562731 Oliv-

Batch: 123RTE798hbomZl

Use By: 30-Jun-2026

SSCC: 053912340000000597

Scan: Digital Signature Validated !

SSCC:

Scan: INVALID DIGITAL SIGNATURE !

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Next steps . . .

Data attributes Gap Analysis . . .



4. Overview of Attribute Implementation within GS1 System Components

The following table provides an overview of how the relevant key data elements could be implemented using certain components (or combination of components) from the GS1 System portfolio.

Attribute / Key Data Element	AIDC	EANCOM DESADV	GS1 XML Despatch Advice	EPCIS 1.1	GDSN
1 GTIN	AI (01) GTIN or AI (02) CONTENT	SG17_LIN_7140	Gtin	epcClass (urn.epc.class:lgtin:CompanyPrefix.ItemRefAndIndicator.Lot)	gtin
2 Lot	AI (10) BATCH/LOT	SG17_PIA, 7143 = NB (Lot Number) [3]	lotNumber		
3 Quantity or Net Weight	AI (30) VAR.COUNT AI (310) NET WEIGHT (kg) AI (320) NET WEIGHT (lb)	SQ17_QTY	tradeltemQuantity	QuantityElement/quantity + uom	
4 Expiration or Best Before Date (dependent upon product of concern)	AI (17) Expiry or AI (15) Best Before Date	SG17_DTM, 2005 = 36 (Expiry date) SG17_DTM, 2005 = 361 (Best Before date)	itemExpirationDate bestBeforeDate	ilmd section [7]	
5 Fishing Vessel GLN	AI (703s) PROCESSOR [1]	SG20_LOC, 3227 = 44E Fishing vessel [3] SG20_LOC_3224	fishingVessel (TransactionalParty/gln) [4] fishingVessel (TransactionalParty/address/name) [4]	ilmd section [7] GLN master data [5]	
Fishing Vessel Name					
6 Production Unit GLN	AI (703s) PROCESSOR [1]	SG20_LOC_3227 = 19 (Factory / plant) SG20_LOC_3224	aquaCultureProductionUnit (TransactionalParty/gln) [5] aquaCultureProductionUnit (TransactionalParty/address/name) [4]	ilmd section [7] GLN master data [5]	
Production Unit Name	GLN master data [5]				
7 Fish Species	AI (7008) AQUATIC SPECIES [2]	SG17_PIA, 7143 = XZ5 (Fish species) [3]	aquaticSpeciesCode [4]	GTIN master data [6]	AVP speciesForFisheryStatistics PurposesCode
Scientific Name	GTIN master data [6]	SG17_IMD, 7081=SCT (scientific name) [3]	aquaticSpeciesName [4]	GTIN master data [6]	
Commercial Designation	GTIN master data [6]	SG17_IMD, 7081=ANM (Commercial designation)	tradeltemDescription [4]	GTIN master data [6]	
8 Catch Area	AI (7005) CATCH AREA [2]	SG17_IMD, 7081=GEO (Geographical area) [3]	catchArea [4]	ilmd section [7]	AVP catchArea
9 Catch Date(s)	AI (7007) HARVEST DATE [2]	SG17_DTM, 2005 = X22 (Catch date/time) [3]	catchDateTime (DateTime) [4] catchEndDate (Date) [4] catchStartDate (Date) [4]	ilmd section [7]	AVP catchDateTime
10 Supplier GLN	AI (412) PURCHASE FROM	SG2_NAD, 3035 = SU (Supplier)	seller (TransactionalParty/gln)	readPoint	

FLUX – Next steps ?

Attribute / Key Data Element	AIDC	EANCOM DESADV	GS1 XML <u>Despatch Advice</u>	EPCIS 1.1
1 GTIN	AI (01) GTIN or AI (02) CONTENT	SG17_LIN_7140	Gtin	epcClass (urn:epc:class:lgtn:CompanyPrefix:ItemRefAndIndicator.Lot)
2 Lot	AI (10) BATCH/LOT	SG17_PIA, 7143 = NB (Lot Number) [3]	lotNumber	QuantityElement/quantity + uom
3 Quantity or Net Weight	AI (30) VAR.COUNT AI (310) NET WEIGHT (kg) AI (320) NET WEIGHT (lb)	SQ17_QTY	tradeItemQuantity	imd section [7]
4 Expiration or Best Before Date (dependent upon product of concern)	AI (17) Expiry or AI (15) Best Before Date	SG17_DTM, 2005 = 36 (Expiry date) SG17_DTM, 2005 = 361 (Best Before date)	itemExpirationDate bestBeforeDate	imd section [7]
5 Fishing Vessel GLN	AI (703s) PROCESSOR [1]	SG20_LOC, 3227 = 44E Fishing vessel [3] SG20_LOC_3224	fishingVessel (TransactionalParty/gln) [4] fishingVessel (TransactionalParty/address/name) [4]	GLN master data [5]
Fishing Vessel Name				imd section [7]
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Production Unit Name	GLN master data [5]			GTIN master data [6]
7 Fish Species	AI (7008) AQUATIC SPECIES [2]	SG17_PIA, 7143 = XZ5 (Fish species) [3]	aquaticSpeciesCode [4]	GTIN master data [6]
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Commercial Designation	GTIN master data [6]	SG17_IMD, 7081=ANM (Commercial designation)	tradeItemDescription [4]	GTIN master data [6]
8 Catch Area	AI (7005) CATCH AREA [2]	SG17_IMD, 7081=GEO (Geographical area) [3]	catchArea [4]	imd section [7]
9 Catch Date(s)	AI (7007) HARVEST DATE [2]	SG17_DTM, 2005 = XZ2 (Catch date/time) [3]	catchDateTime (DateTime) [4] catchEndDate (Date) [4] catchStartDate (Date) [4]	imd section [7]
10 Supplier GLN	AI (412) PURCHASE FROM	SG2_NAD, 3035 = SU (Supplier)	seller (TransactionalParty/gln)	readPoint

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Questions ?

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How do you program a projector to explode?"**