



The Global Language of Business

GS1 HONG KONG

Elevating Hong Kong Brand & Building Consumer Trust on Food and Foodservice Industries







Introduction

Growing international trade and modernised supply chains have enabled a more diversified, convenient and economical food supply. However, this also drives for increasing competition in food and foodservice industries. Competition and cost pressure drive trading partners to seek greater efficiencies. At the same time, there are major changes in consumer behaviour and they have more concern for food quality and safety, posing an increasing interest on “knowing what they eat”. The digital savvy consumer wants to have real-time access to food product information, when possible even using mobile technology.

As over 90% of food consumed in Hong Kong relies on imports, food supply chain operators and suppliers require a holistic approach to increase efficiency of supply chain, manage risks, respond to food safety incidents and conduct product recalls when necessary. Food product information (such as food origins, ingredients, processing, manufacturing and distribution) and visible supply chain management especially for cold food are fundamental to build consumer trust.

Why is Food Traceability Important?

Traceability not only plays an important role in food safety management, but is also becoming an essential tool to build trust between producers and consumers. To build consumer trust, food producers should be able to demonstrate that it can track its product and the ingredients - from raw ingredients (upstream) to the finished products (downstream). Traceability systems enable food companies to clearly identify products with any safety, quality or legal issues and withdraw them from the internal system or recall them from the supply chain in a timely manner. It may also minimise the loss and impact on the business due to product recalls, reduce public health risks, and ultimately enhancing brand image.



“ Food safety is a shared responsibility involving consumers, regulators, lawmakers and the food industry. ”

What is GS1 Hong Kong doing on Food Operation Efficiency and Food Traceability?

GS1 is a standards organization dedicated to improving supply chain visibility for all stakeholders along the product's journey from source to point of consumption. GS1 plays an ongoing, central role in driving industry discussions aimed at leveraging existing investments in the use of GS1 Standards to enhance traceability processes across all food categories.

GS1 Hong Kong supports food traceability for food safety by adopting the following approaches:



1 STANDARDS

Standards of Identification

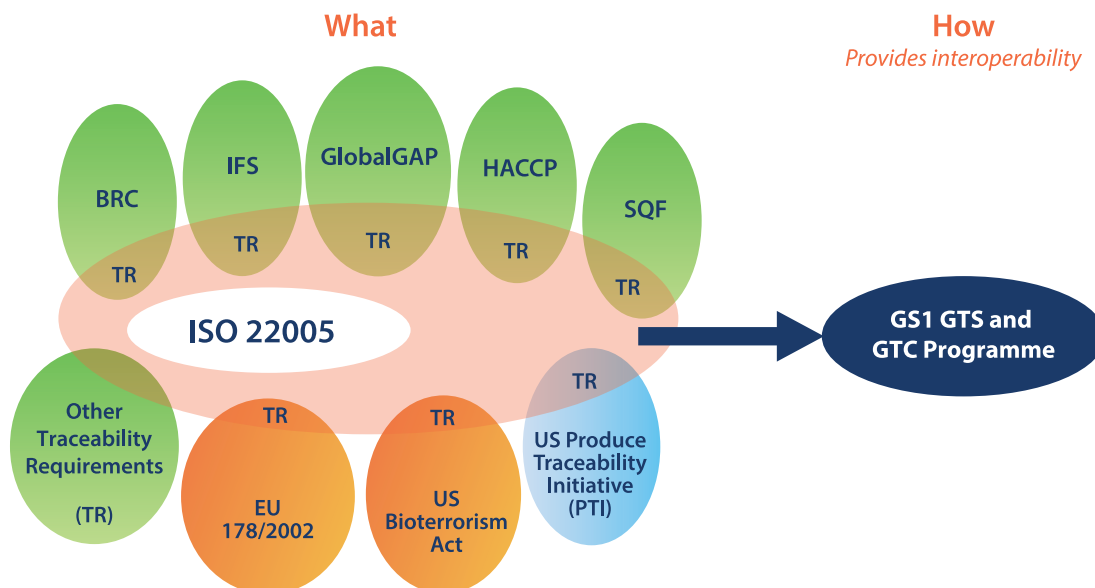
Implementing a traceability system within a supply chain requires all parties involved to share standardised information relating to products. The identification and communication standards that constitute the GS1 System, make them ideally suited for the purpose of traceability.

The GS1 identification key (barcode) provides access to information about a product/food item held in computer files. Thus, the barcode establishes as **“one source of truth”** for all food products and locations in the supply chain, helps the entire industry speak the same language to reduce confusion, errors and costs, also lays the ground-work for companies to establish their traceability and enhance food safety operations, thus bolster consumer confidence.



What is **GTS**?

- GS1 Global Traceability Standard (**GTS**) is a business process standard. It improves the ability to trace forward the movement of products along every stage in the supply chain and trace backward the history, application or location of products in accordance with the corresponding GS1 identifiers.
- GS1 global traceability standards (**GTS**) is jointly developed by a community of more than with 73 industry experts over 20 countries, 800 companies from Asia, Europe and the Americas regions representing retailers, suppliers, GS1 Member Organisations and solutions providers from different industries.
- **GTS** is one single traceability process that complies with multiple international standards: The GS1 GTS does not compete with other international standards but helps companies and organisations meet the demands of these standards and certification by providing the tools to achieve the required levels of traceability.
- **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.
- **GTS** is a building block for developing:
 - Traceability systems
 - Traceability assessments and auditing tools
 - Industry or country specific traceability Implementation Guidelines
- In food industry, GTS provides “an effective traceability process” in food supply chain that complies with the multiple international regulatory and business requirements.



TR = Traceability Requirements
 The GTC program addresses the TR requirements
 BRC GLOBAL STANDARD – FOOD, Issue 4, January 2005, British Retail Consortium
 GLOBALGAP, “Control Points and Compliance Criteria Integrated Farm Assurance Fruit and Vegetables, Version 3.0 – 2 Sep 07”
 IFS FOOD Version 5, International Featured Standard.
 ISO 9001:2000, “Quality management systems - Requirements”

ISO 22005:2007, “Traceability in feed and food Chain – General principles and basic requirements for system design and implementation”
 SQF 2000 CODE, “A HACCP Supplier Assurance Code for the Food Industry, 5th Edition – Issued November 2005”, SQF Institute
 GS1 GTS, GS1 Global Traceability Standard
 GS1 GTC, GS1 Global Traceability Programme



2 TRAINING WORKSHOP

Besides arranging the basic and advanced barcode workshops, GS1 also offers practical workshop to provide basic introduction of food traceability, relevant regulations, international standards and industry requirements, strategic step-by-step guideline from theory to implementation and case studies to uplift corporate food safety and traceability concept in food supply chain and operation management system.

The workshop is an accredited course by VTC NTTS. Successful candidate can receive a subsidy up to HK\$2,000.

Certificate will be given to participants with 100% attendance.

For more updated details, refer to www.gs1hk.org/training

3 ASSESSMENT

- The GS1 Hong Kong Quality Food Traceability Scheme (also name as Food Scheme) provides all-round assessment based on GTS and Global Traceability Conformance on interoperable food traceability. It defines a comprehensive set of traceability requirements suitable for local food businesses to achieve full chain traceability.
- Launched by GS1 HK in 2015, the food scheme recognises and awards local enterprises which demonstrate excellence in food traceability practices. It provides a means for the industry to monitor its standards. In 2015, 14 food pioneers have been awarded for the scheme. In 2016, 18 food and food services compaies were recognized under the Scheme.



Benefits for businesses

- Increased trust and reputation of the business within the existing customer base as well as through the food chain by providing higher degree of visibility of the food chain;
- Improved efficiency in managing due diligence documentation and internal records by helping the business to find more time-cost effective solutions;
- Brand protection by offering simple and time effective tools to enable efficient management of critical situations such as product withdrawal and recalls in the unlikely occurrence of an incident;
- Capability to provide real-time and accurate documentation requested by trading partners such as product specifications and production records;
- Efficient tool to test the efficiency of the company quality and safety management system and perform gap analyses aimed to the continuous improvement of the system itself.

QUALITY
FOOD
Traceability
Scheme



4 CONSULTATION AND SOLUTION

- GS1 is a neutral, not-for-profit, global organisation that develops and maintains the most widely used supply chain standards system in the world. GS1 Hong Kong helps to drive and optimise the business efficiency and performance of Hong Kong food companies through the provision of world-class supply chain standards, technologies, knowledge, consulting service and solutions.
- Depending individual food or foodservices company's need, our consultant and food safety experts will offer tailor-made consulting services spanning from performing analysis and diagnosis, making recommendations on process and proposing technical solutions, providing guidance with technical information, facilitating learning, to assisting implementation. GS1 Hong Kong also works closely with various stakeholders to ensure food quality and consumer safety.

According to Aberdeen's Food Safety and Traceability Report 2011, the best performing food companies have a 60% adoption rate of GS1 standards versus non-performing food companies. GS1 makes a difference because of the provision of global standards which support and respond to industry's needs.

SOLUTIONS THAT GS1 HK DEVELOPED:

- GS1 HK delivers supply chain visibility for better product quality through the ezTRACK™, a cloud-based EPCIS-standard traceability network enabling real-time visibility of goods and information flow
- GS1 ensures the quality and safety of temperature sensitive products via the RFID-based Cold Chain Management Solution powered by ezTRACK™
- GS1 enhances operational efficiency across the supply chain through ezTRADE, an industry-wide B2B platform facilitating electronic transaction messaging via EDI and Web





ezTRACK™

GS1 HK supports development and deployment of industry-specific guidance and best practices for managing the food supply chain leveraging the GS1 System of Standards, which provides a means for structuring and sharing visibility information. While improving key business processes, companies can also enhance track and trace capabilities.

GS1 Hong Kong, building on the success of the HKSAR government-funded EPC network Project, has developed ezTRACK™ - a service that addresses today's companies' critical need for a highly reliable solution that can effectively track and trace the flow of goods and product information from point of manufacture to point of sale through a robust Electronic Product Code™ (EPC) standard-based platform.

ezTRACK™ runs various solutions that allow enterprises to instantly access business-critical product information related to work-in-progress status, product inventory data, delivery schedules, etc.

GS1 HK also ensures the quality and safety of temperature sensitive products via the RFID-based Cold Chain Management Solution powered by ezTRACK™.



CASE STUDY 1 - CAFÉ DECO GROUP DELIVER FULL DINING EXPERIENCE WITH BARCODE MAGIC



CHALLENGE

Café Deco Group foresaw growing challenges posed by continuous expansion, especially regarding the need for supply chain visibility, efficient warehouse management and a modernized ordering system.



SOLUTION

On the advice of GS1 Hong Kong, Café Deco Group implemented the GS1 global Barcode system fulfilling multiple objectives of product traceability, increased stock visibility, and cost effectiveness.



RESULTS

With the implementation of the Barcode system, Café Deco aligned its existing flow of product processes for enhancing product traceability and visibility. In turn, this helps:

- Expedite inventory taking to enable timely decision
- Avoid excessive inventory holding
- Prevent out-of-stock
- Enhance food safety requirements

The new system has enabled provision of traceable and quality products and services to customers and a smooth logistics flow.



“We are immensely pleased with the beneficial effect on the optimization and efficiency of our operation. It is as encouraging as it is gratifying, and a big boost to our capacity and resource needed to move the business to a high level of performance and excellence,”

Mr. Thomas Mak,
Director of Business Development and Supply Chain,
Café Deco Group



For more details, refer to :
<http://bit.ly/gshk-cafe-deco-group>
(pg 34-37)



CASE STUDY 2 - DCH LOGISTICS SOUGHT END-TO-END TRACEABILITY SOLUTION THROUGH GS1 STANDARDS



大昌行物流
DCH LOGISTICS



CHALLENGE

Specialized in delivering high-end logistics and cold-chain management services to frozen products, DCH Logistics turned to GS1 for help to build up an integrated traceability solution for providing premium services to a leading e-tailer in the mainland.



SOLUTION

DCH adopted GS1 Global Traceability Standards, GS1 ezTRACK, an EPCIS standard-based globalized track and trace platform and RFID-based cold-chain solution, sharing easily and instantly traceable and retrievable product information with its client, the e-tailer.

Besides, SSCC (Serial Shipping Container Code) is deployed to uniquely identify each distributed unit. Coupled with adopting QR code at item level, consumers are able to retrieve traceable information through mobile scanning.



RESULTS

Since January 2016, DCH has been launching fully traceable logistics services from Argentina to Shanghai and to Shenzhen when providing door-to-door delivery for frozen products. Both DCH and the e-tailer are considering extending the solutions to other product types and regions.



“We believe that food traceability and supply chain visibility are the keys to ensure food safety. Each step taken within the supply chain needs to be recorded clearly. The GS1 HK traceability platform enables us to track and trace every process along the supply chain.”

Mr David Kuk,

Managing Director, DCH Logistics



For more details, refer to :
<http://bit.ly/gs1hk-dch-logistics> (pg 8-11)



CASE STUDY 3 – ENABLING RETAILER: CITY'SUPER DELIVER FOOD QUALITY

city'super

Reducing food safety risks through quality monitoring of perishable products via GS1 Hong Kong's Cold Chain Management Solution



CHALLENGE

To tackle the challenges, city'super sought the advice from GS1 Hong Kong and adopted the ezTRACK Cold Chain Management Solution to monitor the temperature of food imports from overseas to Hong Kong, overcoming the data logger delay in reporting the food temperatures.



SOLUTION

Thermo-sensor RFID tags are mapped with GS1 Global Individual Asset Identifiers (GIAI) to identify and monitor the temperature of each batch of products. Thermo-sensor RFID tags were sent to city'super Japan, which placed the tags in each pallet for shipment to Hong Kong. With the use of a RFID reader, the temperature data of RFID tags embedded with the pallets were collected immediately and uploaded to the ezTRACK Cold Chain Management Portal, which tracked the food throughout the shipment process, from the point of origin to the airports or seaports and cargo release, all the way to their arrival at city'super distribution centre for loading and finally arriving at the warehouses in Hong Kong.



RESULTS

The solution offers a higher accuracy rate with faster data downloading speed than that of the data logger. After full implementation of the ezTRACK Cold Chain Management Solution offered by GS1 Hong Kong, city'super also attained higher visibility of its perishable items during their transportation along the supply chain. With the products' temperature data accurately captured and uploaded onto ezTRACK, city'super is able to quickly retrieve data and obtain analytic graphs through ezTRACK Portal for daily monitoring as soon as the cargoes arrive at its warehouses in Hong Kong.



“ezTRACK Cold Chain Management Solution enables city'super to monitor the quality of its temperature-sensitive food items, from the point of origin all around the world to their storage location in Hong Kong. Through trace-and-track, we can detect deterioration of the perishable food items along supply chain more easily, thereby minimising potential financial losses and ensuring that they remain fresh and safe for customer consumption,”

Mr. K. L. Chan,

Senior Head of Supply Chain Division,
city'super Group.



For more details, refer to :
<http://bit.ly/gs1hk-citysuper> (pg18-21)



ezTRADE

GS1 HK also helps enhancing operational efficiency across the supply chain through ezTRADE, an industry-wide B2B platform facilitating exchange of data such as orders, invoices, shipment notices among trading partners via electronic means (EDI and Web).

It ensures efficient and accurate transmission of commercial documents to trading partners along the supply chain using EDI messaging formats. A mobile app version commenced in Q2 2016. Today, ezTRADE supports 70% of Chinese fast food restaurants in Hong Kong for purchase order processing.



CASE STUDY 4 - EZTRADE OPTIMIZED PROCUREMENT SYSTEM FOR MAXIM'S GROUP



CHALLENGE

As the complex supply chain involved diverse trading partners, thus, inducing a massive number of procurement transactions processed manually in traditional ways of information exchange.



SOLUTION

Maxim's Group has decided to adopt ezTRADE to advance its procurement system in two phases. Phase I focused on the shift to the paperless procurement process in terms of electronic Purchase Orders (POs), eliminating potential human errors. POs can also be revised by Maxim's, if needed, electronically, saving a significant amount of labour and time. Email notifications will be generated to suppliers upon the delivery of any new or revised PO; after such PO is read by the suppliers, an acknowledgement will be automatically returned to Maxim's, forestalling the chance of missing orders. Moreover, the data is delivered in a standard format to all suppliers, dramatically improving the data exchange accuracy and efficiency.

Phase 2 enabled electronic Advance Shipment Notice (ASN) and invoice from suppliers before and after goods delivery respectively. It will further allow suppliers to sort and split one PO from Maxim's into different delivery notes and invoices per such criteria as delivery location.



RESULTS

The implementation of the ezTRADE solution enabled Maxim to achieve higher efficiency, greater information reliability, food safety through supply chain visibility, improve productivity, thus, competitiveness, and enhance relationship with trading partners.



For more details, refer to :
<http://bit.ly/gs1hk-maxims-group>
(pg 13-14)

Collaborative Effort on Driving Food Safety

Increasing consumer confidence in food safety is a collaborative effort among businesses, trade associations, industry groups, and regulatory agencies.

Global Data Standards - Key to Achieve Cross-Border Supply Chain Visibility

The APEC Business Advisory Council (ABAC) has been driving the Global Data Standards (GDS) initiative since 2012. It recommended government border agencies to leverage business data and systems such as product identification and data sharing standards in cross-border control and supply chains for improved transparency and better risk management, resulting in better product visibility and improved efficiencies, faster clearance, less spoilage, etc.



CASE STUDY 5 -

APEC GDS PILOTS 2015

SUPPLY CHAIN CONNECTIVITY - CORNERSTONE TO APEC'S TRADE FACILITATION



APEC is looking to facilitate trade with enhanced supply chain connectivity through applying GDS on pilot cases. While food incurs challenges of perishability, counterfeit, and different customs regulations and formalities, thus, food was chosen on cross-border trade pilot cases.



CHALLENGE

Prior to the adoption of GDS, there was limited visibility in cross-border shipments and translocations

Due to the vessel swapping in Singapore port, GSIN was also added to identify the shipment grouping of the containers for tracking and identification.



SOLUTION

The pilot projects were conducted in two routes:

1. Wine exported from Australia and imported to Hong Kong, China

Commenced in October 2015 the product identification on wine pilot was utilised at the carton level, pallet level and finally to container level. In this pilot, the transport event messages were supplemented to the existing transactional data which enabled real time visibility to all stakeholders, using EPCIS integrated supply chain platform, ezTRACK.

A 3rd party logistics (3PL) company organised all clearances for the shipment which included electronic interface with the Australian Customs and Border Protection Service Integrated Cargo System to receive a cleared Export Declaration

2. Boxed beef exported from Australia and imported to the USA

Boxed beef was packed at the meat processing plant based on orders placed through EDI (Electronic Data Interchange) messaging. On arrival at the Port of Philadelphia, the importer liaised with the meat clearance centre and organised the transportation to 3PL cold storage facility in New Jersey for grading, USDA/FSIS inspection and storage prior to distribution.

The project has brought to a number of benefits including improved visibility, enhanced efficiency, better innovation as well as product integrity.



**CASE STUDY 6 –
APEC GDS PILOTS 2016
GLOBAL DATA STANDARDS STRENGTHEN SUPPLY CHAIN
CONNECTIVITY AND VISIBILITY**



CHALLENGE

APEC ministers welcomed the progress made on a suite of Global Data Standards (GDS) pilot projects effected in 2015. Thus, a new round of pilot projects (2016 GDS Pilots) has been set to make further investigation of GDS effectiveness on selected international supply chains, incurring more cross-border routes and more varieties of food.



SOLUTION

GS1 HK is appointed as the project manager of the 2016 GDS Pilots, and is responsible for the overall coordination with 6 different GS1 local offices for the project implementation in 6 economies. The following international supply chains are being executed in 2016, including:

1. Fresh and frozen durian exported from Malaysia, and imported to Hong Kong and China adopting cold chain and traceability solution to support detection of anti-counterfeit food products as well as fulfilling border agencies' food-related customs formality;
2. Fresh asparagus exported from Peru, and imported to the United States adopting cold chain solution and fulfilling border agencies' food-related customs formality;
3. Tequila exported from Mexico, and imported to the United States adopting traceability solution to support detection of anti-counterfeit wine products as well as fulfilling border agencies' customs formality.



TARGETS / BENEFITS

Riding on the success of the 2015 GDS Pilots, it is expected that the 2016 GDS Pilots will enhance supply chain efficiency and visibility, improve food (product) integrity and create an innovative platform through 'smart' supply chain processes.



For more details, refer to:

**<http://bit.ly/gs1hk-global-data-standards>
(pg 12-19)**



Get in touch

Food Traceability is critical to all stakeholders. There are a wide variety of traceability applications and services that can be made possible by the GS1 Global Traceability Standard (GTS), which allows users to deploy applications and services based on an entire range of GS1 Standards and industry practices.

GS1-Standards not only address B2B processes, but take a holistic approach on all stakeholders: e.g. B2C solutions are built on these standards and various governments are uptaking the solutions used in the industry for B2G purposes in fulfilling national regulations.

GS1 Hong Kong helps to drive and optimise the business efficiency and performance of Hong Kong food companies through the provision of world-class supply chain standards, technologies and knowledge.

To learn more, <https://www.gs1hk.org/our-industries/food-and-food-services>

About GS1 Hong Kong

Founded by the Hong Kong General Chamber of Commerce in 1989, GS1 Hong Kong is the local chapter of GS1®, a not-for-profit, standards organisation that develops and drives adoption of easy-to-implement global standards for business to uniquely identify, accurately capture and automatically share vital information about products, locations and assets. Headquartered in Brussels, Belgium, GS1 has over 110 national chapters in 150 countries.

GS1 Hong Kong's mission is to enable Hong Kong enterprises to improve the efficiency, safety, and visibility of supply chains across multiple sectors and facilitates commerce connectivity through the provision of global standards and a full spectrum of standards-based solutions and services. GS1 Hong Kong engages with communities of trading partners, industry organisations, government, and technology providers to understand and respond to their business needs through the adoption and implementation of global standards.

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