



# World Seafood Congress GDST

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**Mike Platt**



GLOBAL DIALOGUE  
on Seafood Traceability



# Agenda

1. Seafood Industry Challenges - Traceability why do we need it
2. GDST development the benefits of digitalization.
3. GDST Standards and Development Tools
4. Why engage with the GDST and become a partner
5. Evolvement of the GDST and the re-opening of the Dialogue



# Seafood Challenges and Traceability

- Seafood is the most globalized sector of the food industry, bringing products to consumers from every corner of the planet. This globalized production and trade also includes risks, **such as seafood fraud and mislabeling, illegal fishing, labor abuses**, and challenges for managing complex supply chains to ensure products are responsibly sourced.
- Regulations in the U.S. and Europe **demand that the seafood industry step up its effort to track seafood** imports and prevent illegal fishing.
- Technologies and systems already exist that make it possible to trace seafood products from “boat to plate,” but they employ dozens (or even hundreds) of **different approaches that prevent systems from exchanging data efficiently**.
- **Reliable and affordable seafood traceability will only become a reality once basic technical standards are established to make systems “interoperable”** across the thousands of producers, processors, traders, packagers, wholesalers, and retailers who make up the worldwide seafood industry.
  - **To ensure the future of the seafood industry and our oceans,**
  - **Setting interoperable traceability standards is not optional.**

**The GDST standards were developed to help tackle and resolve these challenges**

# GDST Development and benefits of digitalization



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# Key Events in the Development of GDST



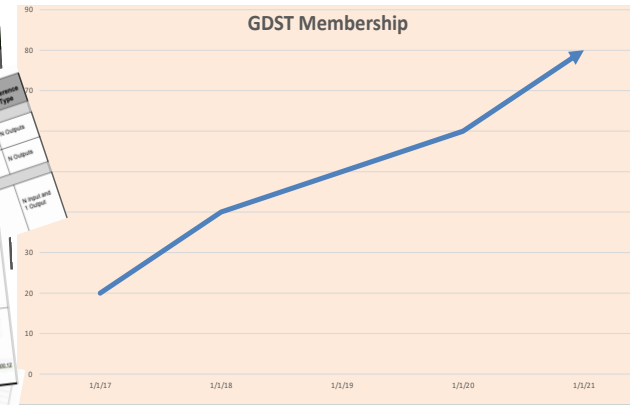
GDST Process



Boston 2017-03  
 Brussels 2017-03  
 Bangkok 2017-03  
 Seattle 2017-06  
 Qingdao 2017-10  
 Boston 2018-03  
 Brussels 2018-04  
 Tokyo 2018-04  
 Barcelona 2018-06  
 Hong Kong 2018-07  
 Tokyo 2019-02  
 Boston 2019-03  
 Brussels 2019-15  
 Cologne 2019-10  
 Bali 2019-10  
 Bergen 2020-03



Code No.	Code Name	Code Definition	Standard Data Options	Standards Org.	Life Link	Authorization Data Source	Authorization Data Document
W22	Vessel Registration	standardized number or identifier for designating vessels registered under the same flag nation.	Free-entry Field	N/A	N/A	Flag state regulatory body with oversight of the nation's fishing fleet	Respective flag state
W33	Wild Caught KDEs	Table C1: GDST EYES and Accounting Business Steps				EPCS Business Step	EPCS Disposition
VESSEL MASTER DATA							
Vessel Name	Vessel Registration	Vessel Identification	Public Vessel Registry	Vessel Flag	Availability of Catch Coordinates	Satellite Vessel Tracking	Transshipment Vessel Name
Transshipment Vessel Name	Transshipment Vessel PIC	Transshipment Vessel EPC	CERTIFICATIONS AND LCI	Fishing Authorization	Harvest Certification	Chain of Responsibility	Landing Authorization
Human Welfare Policy of	Human Welfare Policy of	TRACEABLE OBJECT INFO	Species	Product Form	Item / SKU / UPC /	Weight or Count	Unit of Measure
Event Date / Time	Event Read Point (or	Product Code	Information Provider	CATCH DATA	Global Catch	Information Provider	Fishery Improvement Project



- 2019 -

Steering Committee is Formed

- 2020 -

GDST 1.0 Standards Published

- 2021 -

Growing Participation + Recognition

- 2017 -

WWF & IFT Convene the Dialogue



- 2023 -

GDST 1.2 Standards Published

- 2022 -

Reorganization + Independence

- 2022 -

GDST version 1.1 and Capability Test Released





# GDST Vision & Mission

- ***GDST Vision***: *A world where universally adopted, digital traceability promotes trust in fishery and aquaculture supply chains.*
- ***GDST Mission***: *To champion and advance the standardization, adoption, and implementation of interoperable, digital traceability through global collaboration, dialogue, and practical tools.*

# The challenge a Common Approach for Seafood Traceability

GDST standards provide the **communication “pathway”** for an agreed set of CTEs/KDEs.

GDST does not favor one type of software over another or dictate how a traceability system “should” be built.

Whether you harvest, process or trade seafood, applying GDST standards **helps achieve regulatory compliance**, gives supply chain visibility to your customers and supports buyer specification requirements.

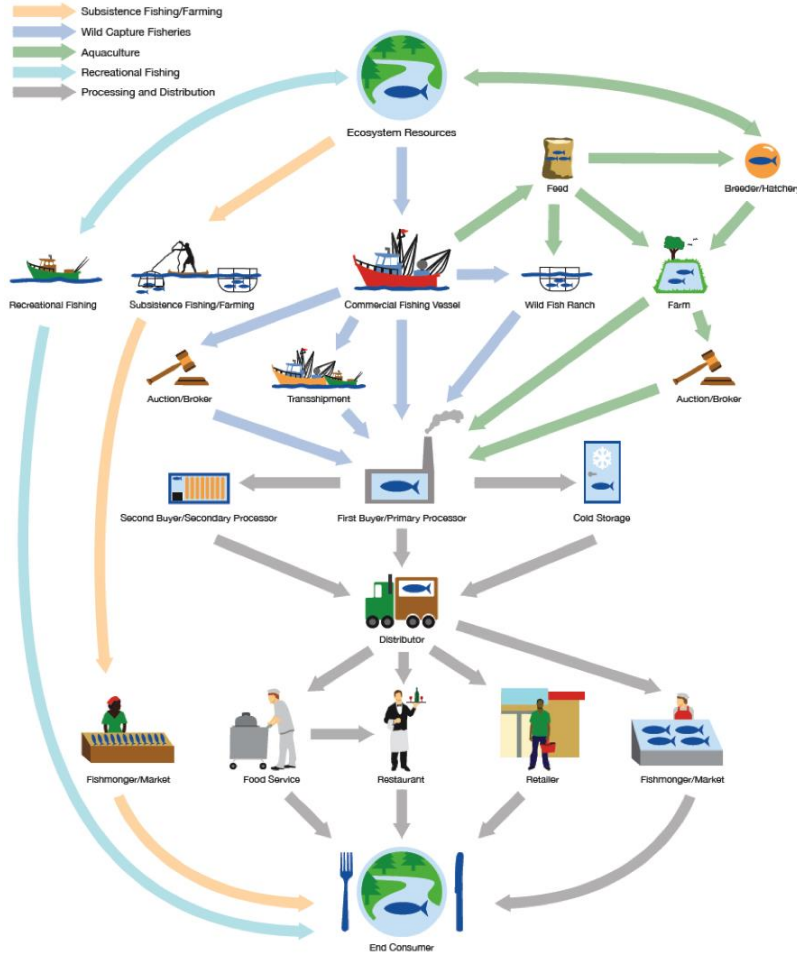


Image: FishWise

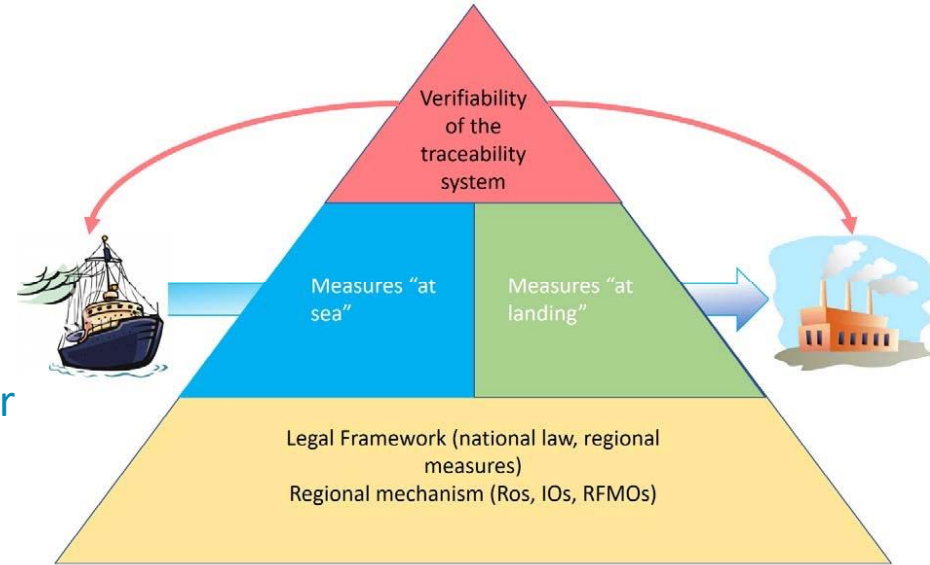


Image: FAO

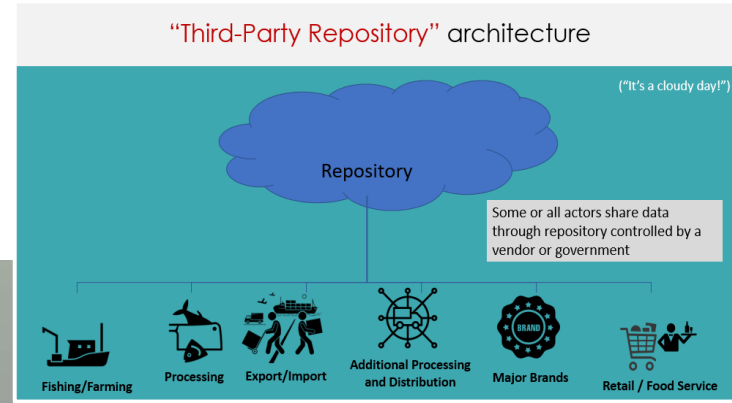
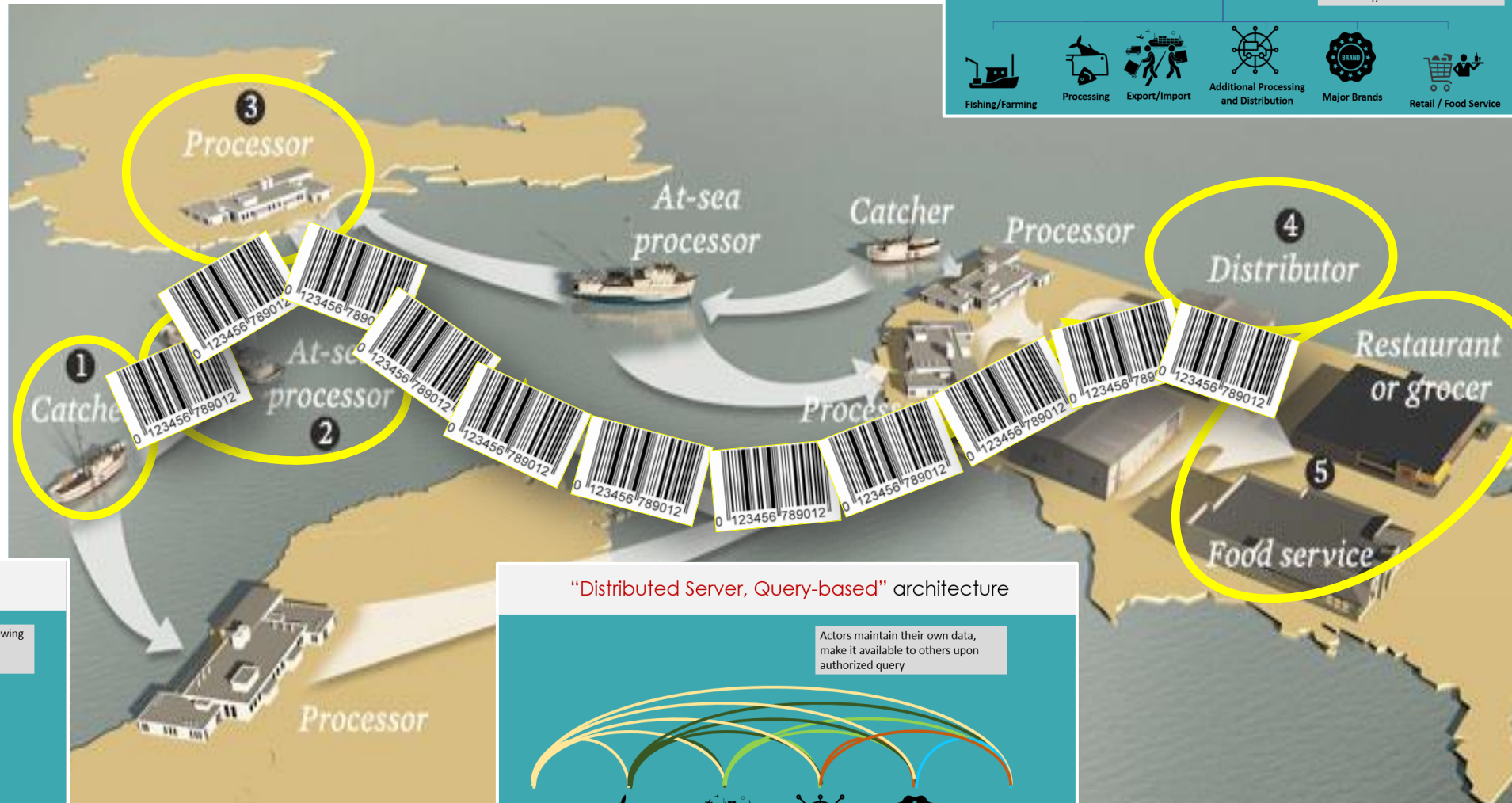




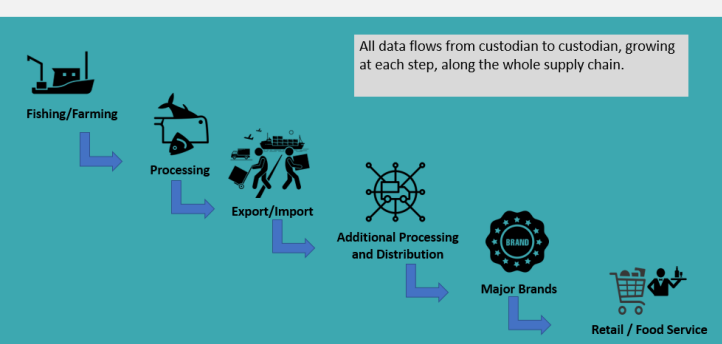


# GDST are standards that let different digital traceability systems communicate

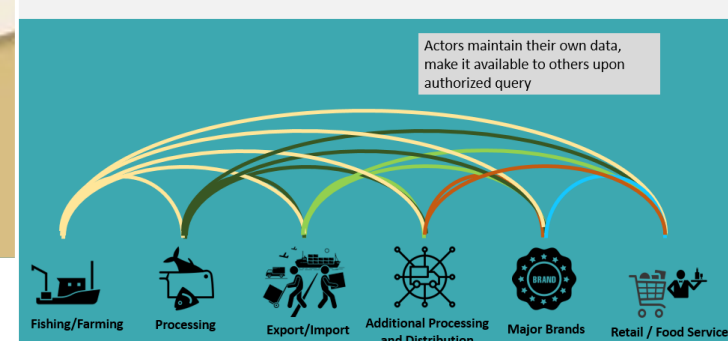
GDST is not an app or a system



**"Point to point, full pedigree" architecture**



**"Distributed Server, Query-based" architecture**

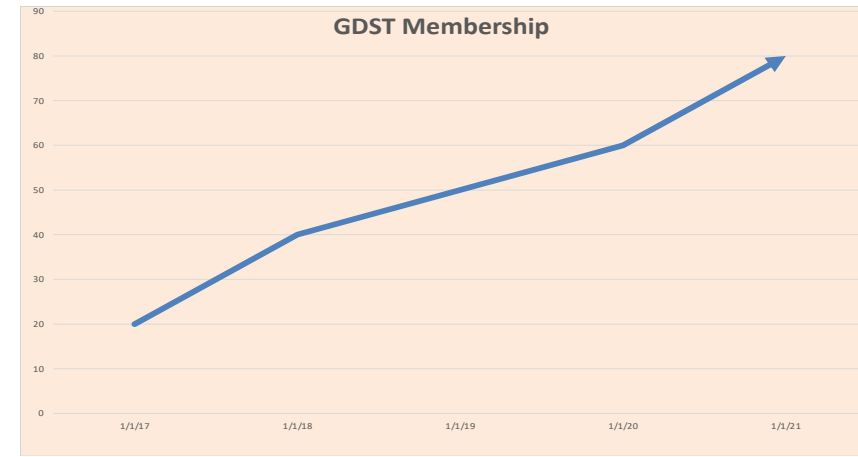




# GDST Global Adoption

The GDST is already supported by businesses **in over 28 countries** around the world

Accelerating growth since the launch of GDST standards in March 2020



Over 100 companies adopted or endorsed the GDST standards







# GLOBAL DIALOGUE on Seafood Traceability

**GDST is an integral part of the commitments that several companies have agreed to within in several initiatives:**

- WWF Basket Blue for Action
- Global Tuna Alliance
- SeaBOS & META Coalition

## GTA 5 YEAR PLAN

### Transparency & Traceability



Global Dialogue on Seafood Traceability (GDST)

100% Observer Coverage

Electronic Monitoring (EM)

Port State Measures Agreement (PSMA)

Transshipment Regulations

Public tracking of fishing vessels and carrier vessels

Support publication of Authorised Vessel lists

Support Unique Vessel Identification/Global Record of Fishing Vessels

### Environmental Sustainability



Sourcing Policy

Harvest Strategies

FAD Management

Fins Naturally Attached (FNA) advocacy and policies

Ending Harmful Subsidies

Biodiversity

### Social Responsibility



Ensuring Socially Responsible

Seafood Supply Chains

ILO 188

Cape Town Agreement

Observer safety

## WWF'S RETAILERS' COMMITMENT FOR NATURE



6th November 2021

### FOOD IS AT THE HEART OF OUR BUSINESSES AND A THRIVING SOCIETY

Globally the food system is also the leading cause of biodiversity loss and a key contributor of climate change. And so it must be part of the solution.

As CEOs of leading UK food retailers, we recognise that a future without nature is a future without food. By 2030 we collectively need to halt the loss of nature.

Therefore, for the first time we are coming together with WWF-UK to commit to taking action across seven areas where food has a disproportionate impact on climate and nature.

### WE COMMIT TO

- Working with WWF to halve the environmental impact of UK Baskets by 2030, focusing on climate, deforestation and conversion of habitat, agricultural production, marine, diets, food waste and packaging as measured by the WWF Basket.
- Reporting data annually to WWF against these pillars and publicly reporting on actions taken.
- Meeting the business commitment to 1.5 by setting 1.5-degree SBTs in all scopes, near term and long term by end of 2022.

### Signatories:



Steve Murrells  
(CEO, Co-op Group)



Stuart Machin  
(Managing Director, M&S Food and Chief Operating Officer, M&S)



Simon Roberts  
(CEO, Sainsbury's)



Ken Murphy  
(CEO, Tesco)



James Bailey  
(Executive Director, Waitrose)



**Statement on Traceability and Port State Measures**

Tuesday, 16 February 2021





GLOBAL DIALOGUE  
on Seafood Traceability

# GDST Interaction With Regulatory Initiatives

Major new regulations will create strong requirements for digital, lot-based traceability



## Canadian “boat to plate” ministerial level consultations

### Government of Canada Launches Consultation on Boat-to-Plate Traceability For Fish and Seafood Products

Canadian Food Inspection Agency Seafood August 17, 2021

OTTAWA, ON – The Government of Canada is working in collaboration with Canada’s seafood industry to ensure they remain competitive in the global marketplace and to protect consumers and fisheries by preventing seafood fraud and taking action to stop illegal, unreported and unregulated fishing.

In support of the December 2019 mandate commitment to develop a boat-to-plate traceability program that will help Canadian fishers better market their high-quality products, the Canadian Food Inspection Agency (CFIA), along with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada, is launching a consultation on a **discussion paper** that will inform the development of proposals to enhance boat-to-plate traceability of fish and seafood in Canada.

The discussion paper was developed after engaging with various stakeholders in the fish and seafood sector, including industry, Indigenous organizations, non-government organizations (NGOs), academia and other levels of government. The Government of Canada is now seeking feedback on this discussion paper from a broad range of stakeholders, including consumers. This consultation is an opportunity to review the traceability systems currently in place and to help understand how these may be further developed to better respond to stakeholder’s, including consumer and industry, needs.

Canadians and interested stakeholders are invited to share their views on 3 key themes explored in the discussion paper:

- Consumer protection and food safety (as it relates to fish and seafood)
- Sustainability and fisheries management related to traceability and combatting global illegal, unreported and unregulated fishing
- Market access, trade, and marketing of Canadian fish and seafood

The 120-day consultation is open for comment until December 11, 2021.

The boat-to-plate traceability complements the Government of Canada’s 2019 investment of \$24.4 million over 5 years, under the Food Policy for Canada, to enhance the federal capacity to tackle food fraud in order to protect consumers from deception and companies from unfair competition. With this funding, the CFIA is conducting inspections, collecting samples, testing foods for authenticity, and gathering intelligence to better target its oversight activities.



Brussels, 30.5.2018  
COM(2018) 368 final  
2018/0193 (COD)

Proposal for a

### REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Council Regulation (EC) No 1224/2009, and amending Council Regulations (EC) No 768/2005, (EC) No 1967/2006, (EC) No 1005/2008, and Regulation (EU) No 2016/1139 of the European Parliament and of the Council as regards fisheries control

{SEC(2018) 267 final} - {SWD(2018) 279 final} - {SWD(2018) 280 final}

## EU Corporate Sustainability Due Diligence

## Revision of Japanese anti-IUU regulations

## FSMA Law Section 204

The FDA is proposing to establish additional traceability recordkeeping requirements (beyond what is already required in existing regulations) for persons who manufacture, process, pack, or hold foods the Agency has designated for inclusion on the Food Traceability List. The proposed rule, “Requirements for Additional Traceability Records for Certain Foods” (Food Traceability Proposed Rule) is a key component of the FDA’s New Era of Smarter Food Safety Blueprint and would implement Section 204(d) of the FDA Food Safety Modernization Act (FSMA). The proposed requirements would help the FDA rapidly and effectively identify recipients of those foods to prevent or mitigate foodborne illness outbreaks and address credible threats of serious adverse health consequences or death. The comment periods for the proposed rule and information collection will now be extended and will now be available for public comment until February 1, 2022.

At the core of this proposal is a requirement for those who manufacture, process, pack, or hold foods on the **Food Traceability List (FTL)** to establish and maintain records containing **Key Data Elements (KDEs)** associated with different **Critical Events (CEs)**. While the proposed requirements would only apply to the FTL, they were designed to be suitable for all FDA-regulated food products and would encourage the voluntary adoption of these practices industry-wide.



# GDST Standards and Supporting Tools Development

Monitizer



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# Technical Progress: Standard Updates

## Standard Update Objectives:

- **Improve Interoperability:** A technical working group reviewed and approved a simplified communications protocol based on GS1's Digital Link standard to promote interoperability in the GDST Standard.
- **Align with Industry Practices:** In 2022, GS1 released an update to their EPCIS standard. The GDST standard was then updated to maintain alignment we adopted JSON-LD as the data format for the GDST.

## Standard Update Scope:

- The updates **did not change the CTE/KDE matrix**. Changes were made only to the Technical Implementation Guidance document.





# What do the technical updates mean for the GDST?

Accessible  
Interoperability

A single, common data format and data communication mechanism eases implementation of the GDST Standard for all stakeholders.

Tool  
Development

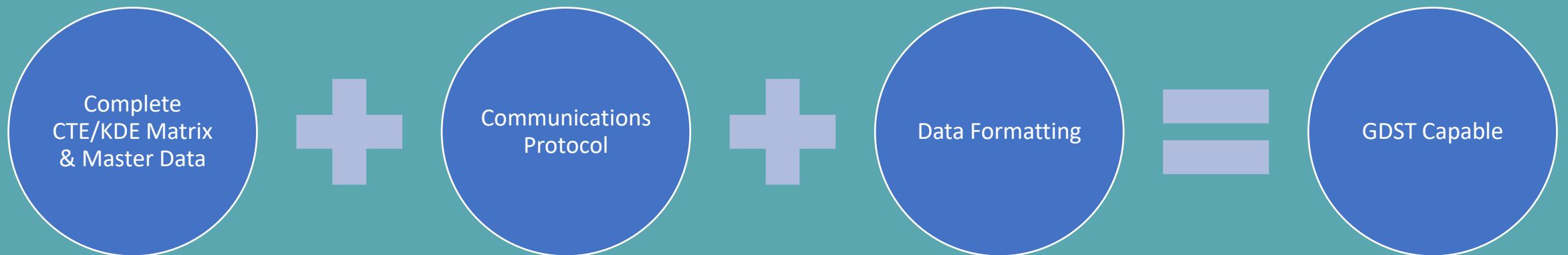
The simplified protocol allows for the development of [automated tools](#) to test the technical capability of solution providers and supply chain actors.



# Technical Progress: Tool Development

The **Capability Test** is a piece of software that communicates directly with a traceability solution, simulating how two traceability systems would share data during a routine business transaction

The GDST developed this test to perform a technical software analysis to give our Partners a simple YES or NO answer to the question: **Is this traceability solution capable of sending and receiving traceability data based on the GDST standard?**





# Technical Progress: Tool Development

The **Completeness Tool** is software that communicates directly with an organization's traceability solution, **simulating how a system shares data with a supplier or customer during a routine business transaction.**

Once connected, the tool assesses which GDST KDEs are present and CTEs are complete for a **specific product over a specified time period chosen by the user.**

The tool **provides a report** intended to act as a benchmark for organizations to determine their progress towards GDST implementation

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## GDST Assessment Results

**Company**  
ACME Inc.

**Date**  
Monday, April 4th, 2023 at 4:03pm

**Query Date Range**  
3/1/2023 → 4/1/2023

**Facility GLN**  
urn:gdst:example.org:location:loc:123.456

**GTINs**  
urn:epc:id:sgtin:08600031303.0, urn:gdst:example.org:product:class:TR.123

**Completeness**  
98%

**Top 3 Incomplete KDEs**  
Gear Type, Farming Method, Existence of Human Welfare Policy

**Top 3 Incomplete CTEs**  
Feed Mill, Hatchery, Fishing Event

**Products**

Short Description	Species	Product Form	EPC	Completeness	
Salmon	Salmon	Whole	urn:gdst:example.org:product:lot:class:TR.123.456	98%	<a href="#">View Results</a>

**Digitally Signed Results**  
<https://signed.traceability-dialogue.org/ABCSID-2193-321331>

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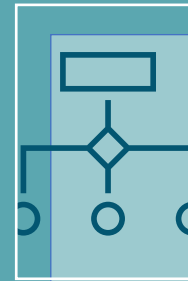




# Technical Progress: Resource Development

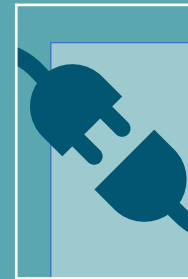
The GDST has developed open-source software development kits (SDKs) that will support developers with the transition to the requirements of the GDST 1.2 Standard and make it easier for solutions to become GDST-Capable.

**These resources will lower the learning curve and cost of development for both traceability solution providers and in-house traceability solutions.**



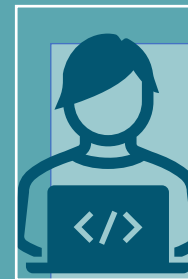
## Object Models

Represent the logic used within software to define the relationship between data.



## Object Mappers

Tools used to convert different object models into a consistent data format.



## Utility Code

General purpose code that can be integrated into other code bases to perform specific functions.



# Upcoming Work: Resource Development

**FDA announces  
the release of the  
Food Traceability  
Final Rule**



## Implementation Support

- Develop resources (e.g. foundational education, FAQs, technical tools, etc) to ease the process of implementing the GDST Standard.

## Regulatory Resources

- Develop modules that will illustrate how GDST traceability data can be leveraged or enhanced to fulfill the data requirements of relevant regulations (e.g. FSMA 204).

# Why engage with the GDST and become a partner?



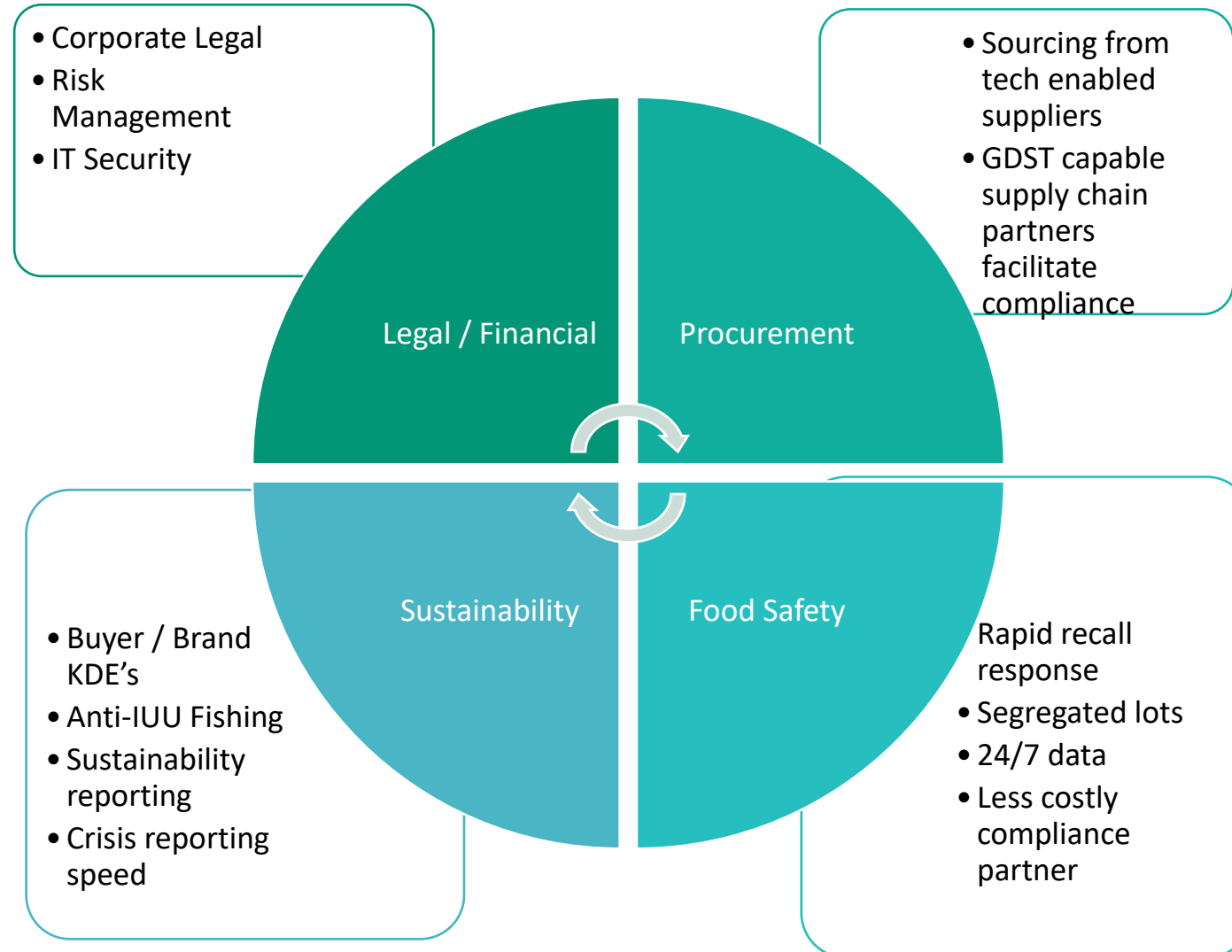
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# Organizational Benefits

*Implementing seafood traceability could double the profit margin of fish processors while reducing investors' risks.*

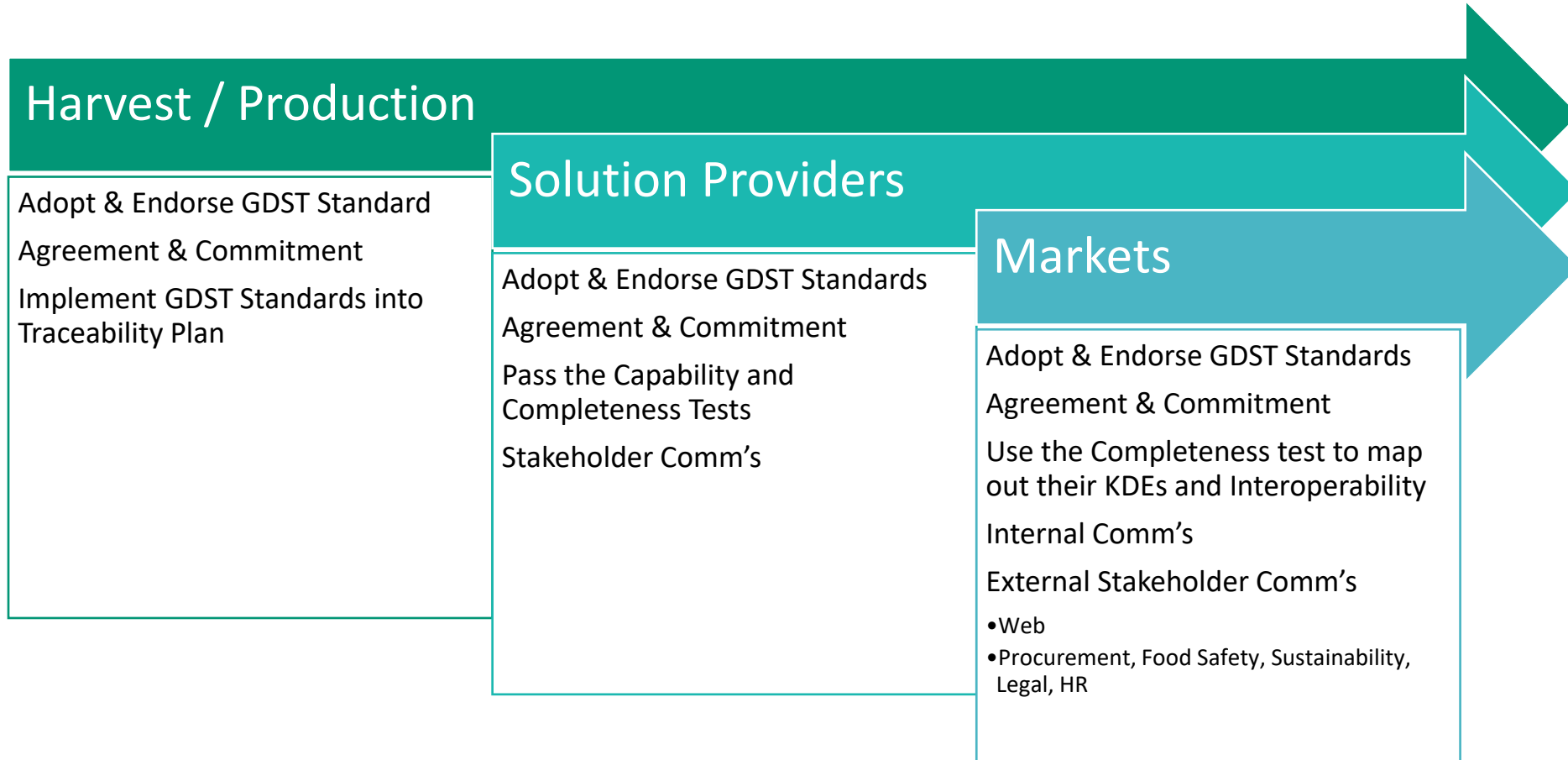
Planet Tracker, Aug. 2021







# Supply Chain Actions



10/13/2023

# Evolution of the GDST and the re-opening of the Dialogue



[www.traceability-dialogue@thegdst.org](mailto:www.traceability-dialogue@thegdst.org)





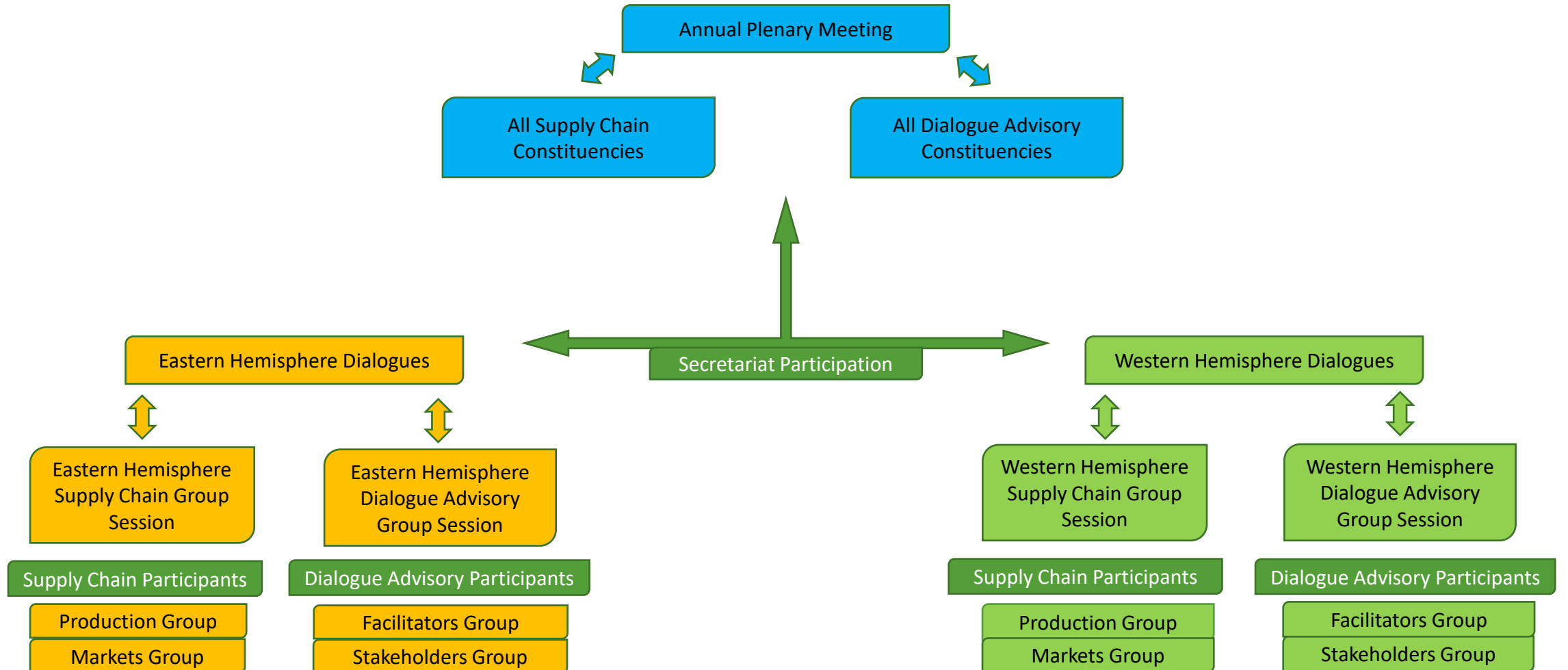
## New Frameworks proposed by GDST Partners

1. Francisco Aldon CEO –  
MarinTrust- Marine  
Ingredients By product  
Utilization
2. Marcelo Hidalgo- FIA- PNG-  
Social Accountability





# Membership/Participation Program





# Dialogue Timetable

1<sup>st</sup> Dialogue Meeting (ASIA) - Conducted in Singapore 11 September 2023

2<sup>nd</sup> Dialogue Meeting (EMEA)- Planned for South Africa October 2023

3<sup>rd</sup> Dialogue Meeting ( Americas) – Planned for Boston March 2024

Annual Plenary Meeting- Planned for Barcelona April 2024

**Get involved as its your opportunity to share in the future of the GDST**



Thank you, Q&A,

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