GLOBAL DIALOGUE
on Seafood Traceability

GDST
IMPLEMENTATION GUIDE

How to Use This Document

The GDST Implementation Guide is designed to assist seafood supply chain actors in addressing the question, **"How do we implement the GDST Standard, and where do we start?"** This document provides a structured approach to GDST implementation through guided questions, recommendations, and resources relevant to each step.

The GDST Implementation Guide is divided into five steps:

1. **Scoping:** Setting your traceability goals.
2. **Gap Analysis:** Evaluating the current state of your traceability practices.
3. **Implementing:** Taking steps to address gaps in your traceability practices.
4. **Launching:** Training employees and piloting the system on a reduced scale.
5. **Maintaining:** Scaling and sustaining your traceability system.

These steps represent the comprehensive traceability journey. However, it is essential to recognize that this journey varies for each organization. The sequence of steps presented here is functional for any organization but is not intended to be universally prescriptive. For instance, while some organizations may prefer to establish their goals before analyzing supply chain gaps, others might begin with foundational supply chain mapping to inform their goal-setting.

It is equally important to acknowledge that organizations are at different stages of their traceability journey. Step one is particularly useful for those unfamiliar with GDST, whereas organizations with existing GDST commitments may find it unnecessary. We recommend briefly reviewing each of the steps to determine the best starting point and order of operations for your organization.

As you review, consider the scope and objectives of your desired implementation. Some organizations may choose to implement the GDST standard across their entire business, while others may focus on a single product line. Some may wish to prioritize technological capability, while others may opt to focus on foundational traceability work before implementing the specifics of the GDST Standard. The steps in this document are applicable regardless of scope or objective; answer the questions posed throughout the document within the scope of your desired implementation. Return to this document to repeat the process as you expand your traceability system over time.

For questions or additional implementation guidance, please contact info@gdst.org.

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- Supply Chain Data
- Traceability Foundations

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Develop and execute a plan to fill gaps

- Technology
- Supply Chain Data
- Traceability Foundations

Phase 4

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Train

Pilot

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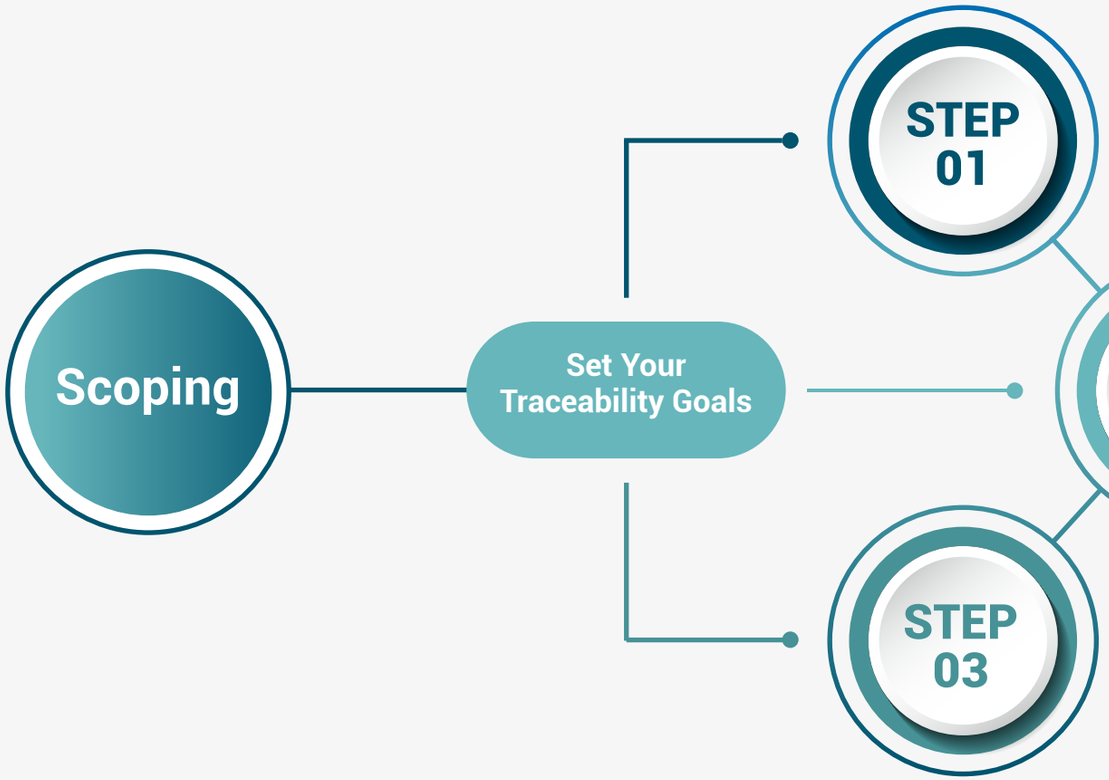
Maintaining → Maintain your traceability system

Scale and maintain your traceability system

Phase 1: Scoping



Get familiar with the GDST

Learn about the GDST through our website

Get familiar with traceability

- Understand the concept of event-based traceability and the benefit of standardization.

Set Scope and Objective

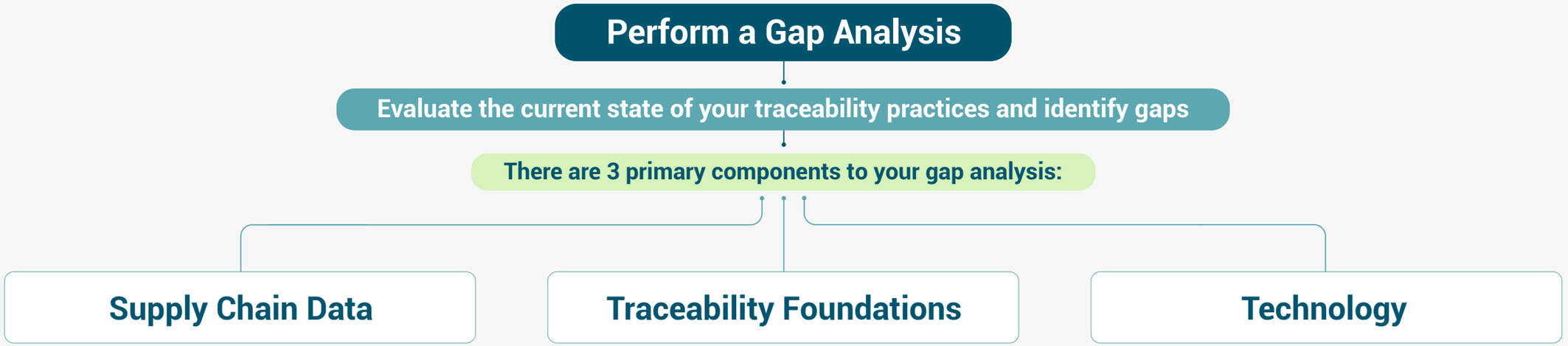
Determine business objective

- Does your company have a time-bound commitment to GDST? Does the commitment include all products, or a specific set?
- Establish short-term (pilot) objectives, and long-term objectives for future implementation phases.

Establish a traceability team

You may need a cross-functional team to design, implement, and maintain alignment with the GDST Standard. The size and makeup of the team will be dependent upon your business objectives as well as the size and complexity of your operation. Your team could include representatives from operations, food safety & quality management, supply chain management, IT & data systems functions depending on how roles and responsibilities are defined in your company.

Phase 2: Gap Analysis



You can work on each of these components simultaneously or tackle them one-by-one. The order in which you perform the gap analysis should suit your business needs.

For example, if you're looking to invest in a traceability solution, you may want to focus your efforts on the technology gap analysis. If you're not ready to think about technology, you may want to focus on the supply chain data initially.

You will likely need input from different business functions to complete each component of the gap analysis.

Phase 2: Gap Analysis

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Supply Chain Data

Determine your data capability

Which CTEs are you responsible for performing? Align your process steps to the GDST CTEs

What KDE's are associated with those CTEs?

Which KDE's need to be captured internally?

- What are you currently capturing internally?
- What are you missing?

Which KDE's need to be provided by trading partners?

- What data are you currently getting from trading partners?
- What data are you missing?

Use the Completeness Tool to quickly understand where data gaps exist in your supply chain within the context of your pilot.

Phase 2: Gap Analysis

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Traceability Foundations

Do you have foundational practices in place that support a traceability system?

Master data

Do you have centralized documentation of trading partners and goods?

You'll want to have documented information for all raw materials and ingredients received and the supplier facilities from which they are received; all products created and the facilities in which they are created; and all customers or downstream partners where these products are shipped.

Each product and location should have a unique identifier. This data serves as a foundational element for all business transactions and operations within an organization.

Event Data

Do you have a documented process flow?

You'll need to understand the flow of products through your own operation to determine your CTEs.

Do you have a documented supply chain map?

If your end goal is end-to-end traceability, you'll likely need to to map your supply chain to identify the CTE/ KDE data that you'll need your trading partners to capture.

Lot-Coding

Are you practicing lot-level or batch-level traceability?

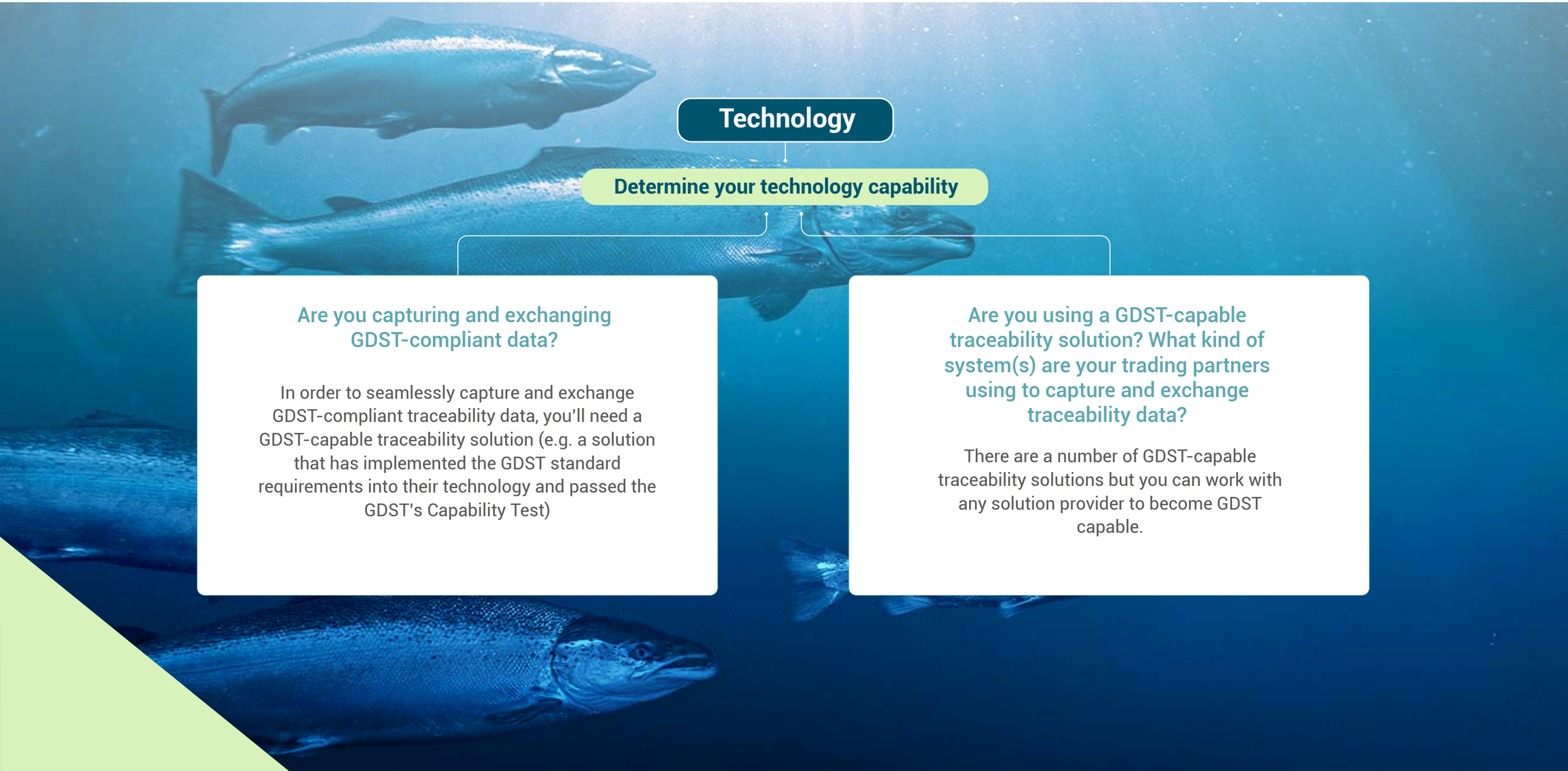
You'll want to have a lot-coding system in place that defines the parameters for one "lot" of product and assigns a unique identifier (lot code) to each lot.

Program Admin

Do you have a traceability plan?

It's a best practice to have a documented plan that describes the scope and objective of your traceability system as well as the data management, product identification, and lot-coding practices that support your traceability system.

Phase 2: Gap Analysis



Technology

Determine your technology capability

Are you capturing and exchanging GDST-compliant data?

In order to seamlessly capture and exchange GDST-compliant traceability data, you'll need a GDST-capable traceability solution (e.g. a solution that has implemented the GDST standard requirements into their technology and passed the GDST's Capability Test)

Are you using a GDST-capable traceability solution? What kind of system(s) are your trading partners using to capture and exchange traceability data?

There are a number of GDST-capable traceability solutions but you can work with any solution provider to become GDST capable.

Phase 3: Implementing

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Implementing

Begin taking measures to fill gaps in your traceability practices

- **Supply Chain Data**
- **Traceability Foundations**
- **Technology**

Begin your implementation process by taking steps to address the gaps you identified in the three key areas of your gap analysis: technology, supply chain data, and foundational traceability practices. This approach will likely result in three distinct workstreams, each managed by different teams. These workstreams can be executed either simultaneously or sequentially, depending on your business needs and capacity.

Collaborate with your traceability team to evaluate the necessary resources, assess available assets, determine your investment capabilities, and project the expected return on investment.

Develop an implementation plan that outlines timelines for pilot testing and subsequent implementation phases.

Phase 3: Implementing

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Supply Chain Data

Evaluate your next steps in filling data gaps:

Internal Data

- Work internally to develop a plan for capturing missing data
- Consider a phased approach. Focus your efforts on select CTEs and/or KDEs before scaling up to capture ALL GDST CTEs/KDEs.

External Data

- Work with supply chain partners that have gaps in their data to understand the nature of the missing data.
- Develop a plan to ensure that missing data is captured and exchanged.
- Consider a phased approach. Begin with like minded trading partners or those with whom you have strong relationships. Focus your efforts on select CTEs and/or KDEs before scaling up to capture ALL GDST CTEs/KDEs.

Use the Completeness Tool to quickly understand where data gaps exist in your supply chain within the context of your pilot.

Phase 3: Implementing

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Traceability Foundations

Evaluate your next steps in filling foundational gaps:

Master data

Work with supply chain management and product management teams to ensure that each product and location in your supply chain can be uniquely identified.

Event Data

Work internally and with trading partners to determine which GDST CTEs are relevant for your supply chain.

Event-Based Traceability

Lot-Coding

Work with your traceability team to develop a lot-coding system if one does not already exist.

Program Admin

Work with your traceability team to document a traceability plan if one does not already exist.

Phase 3: Implementing

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Technology

Evaluate your next steps in filling the technology gaps:

Do you have a system that is GDST Capable?

If so, focus on ensuring all data is being collected by you and your supply chain partners and that your supply chain partners are also using a Capable system.

Do you use a software system that could be updated to become GDST Capable?

Make sure your technology partners are aware of the resources available through the GDST:

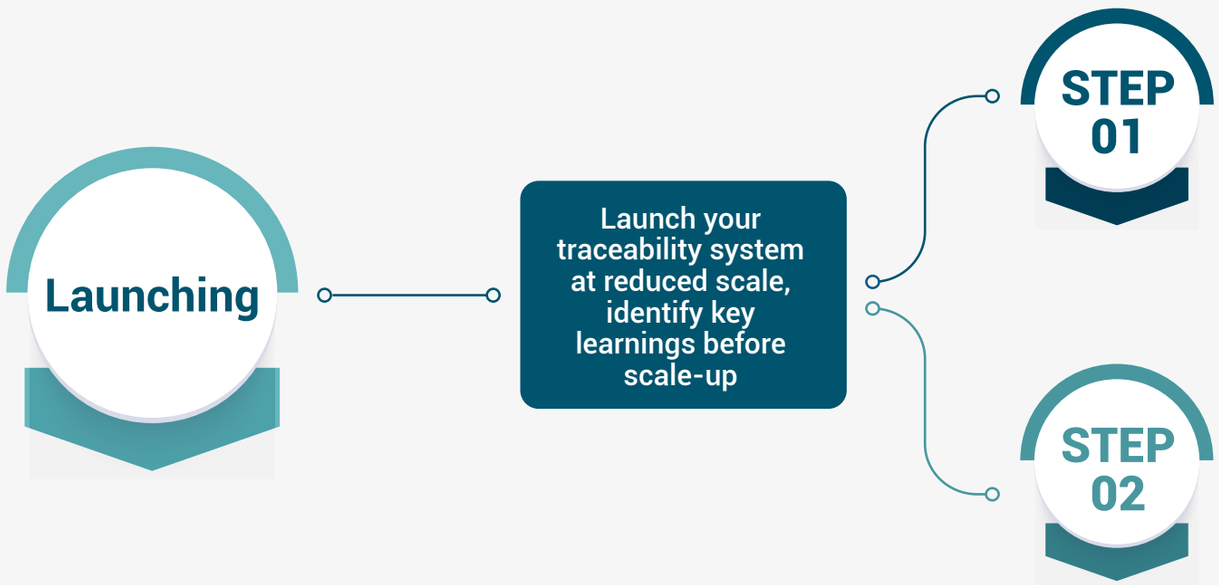
- Software Development Kit
- Developer Documentation
- Resources for Technology Professionals

Focus on ensuring all data is being collected by you and your supply chain partners and that your supply chain partners are also using a Capable system.

Is your organization preparing to adopt a new system?

If so, first consider choosing a solution that has already passed the Capability Test.

Phase 4: Launching



Train

Identify staff responsible for data collection; data verification, validation & analysis; data management & security; digital system maintenance; and overall traceability plan management. Ensure they are trained on basic traceability concepts as well as the tasks specific to their job function.

Pilot

Pilot the system at a reduced scale before launching a full rollout. You'll likely want to start with a small pilot, implementing the GDST Standard with a select few products, trading partners, or perhaps within a specific segment of your supply chain.

Product Mix

- Do you have any products in your supply chain that are reasonably well documented or less complex?
- These products may be good candidates for piloting or early implementation of your traceability system.

Trading Partner Mix

- Where do you have strong relationships with likeminded partners?
- These partners are a good place to start.

Supply Chain Segment

- Is there a specific segment of your supply chain that you want to work on (e.g. processing, distribution)?
- Consider focusing early implementation and relationship building efforts on this segment before scaling throughout your entire supply chain.

Phase 5: Maintaining

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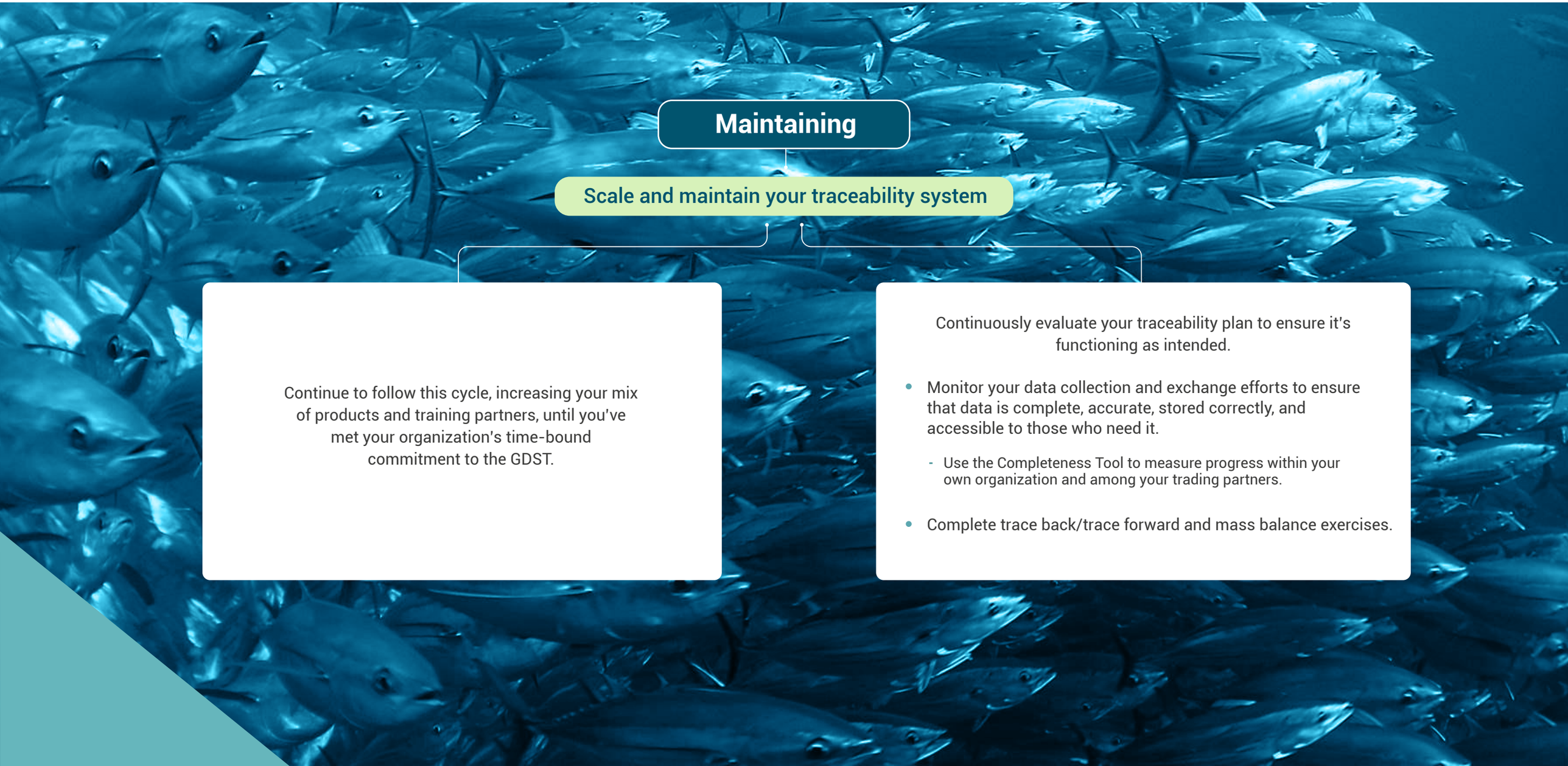

Maintaining

Scale and maintain your traceability system

Continue to follow this cycle, increasing your mix of products and training partners, until you've met your organization's time-bound commitment to the GDST.

Continuously evaluate your traceability plan to ensure it's functioning as intended.

- Monitor your data collection and exchange efforts to ensure that data is complete, accurate, stored correctly, and accessible to those who need it.
  - Use the Completeness Tool to measure progress within your own organization and among your trading partners.
- Complete trace back/trace forward and mass balance exercises.