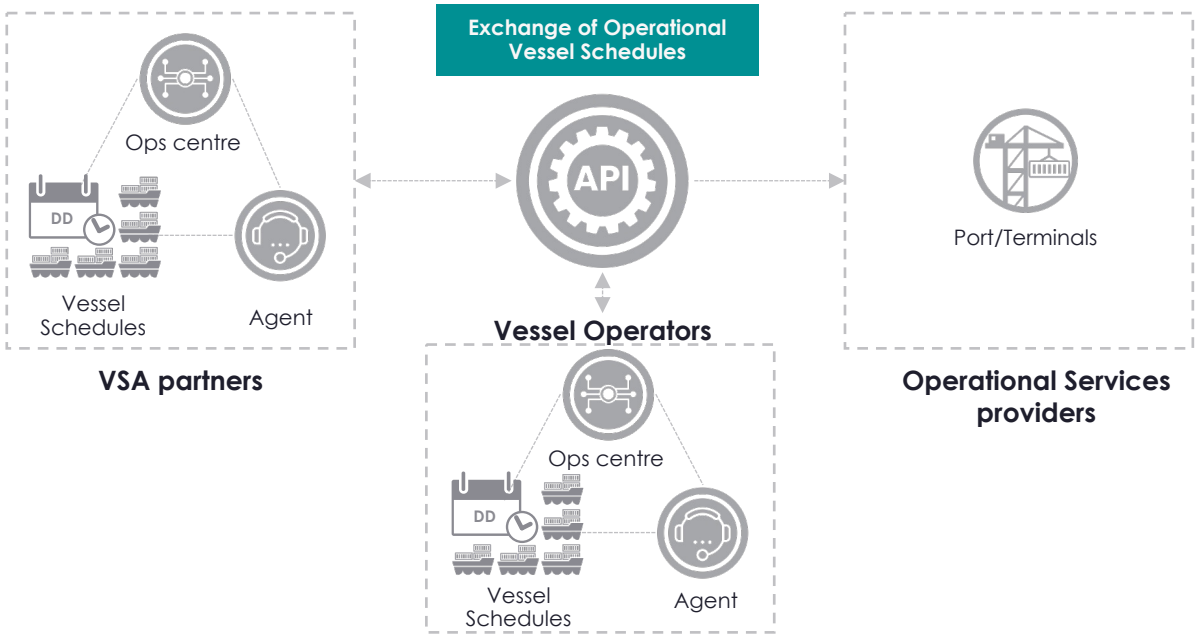
Exchange of Schedules with DCSA Operational Vessel Schedule 3.0 APIs:

DCSA OVS standards cover the following aspects of vessel schedules:

- **Long Term Schedule & Coastal Schedule**
  - Deep-sea (interregional services)
  - Intraregional & Feeder Services
- **Changes and Exceptions**
- **Universal References:** An agreed coding system for operational identifiers that will allow carriers and other stakeholders to reduce errors when referring to services:
  - Universal Service Reference (i.e. SR12345J)
  - Universal Voyage Reference (i.e. 2302W)



Operational Vessel Schedules (OVS)

Long Term Schedule & Regional/Coastal Schedule (Services, Vessels, Voyages, Port(terminals) calls.

- Deep-sea (interregional services)
- Intraregional & Feeder Services

Universal References

- Universal Service Reference
- Universal Voyage Reference
- Universal Port call Reference

Changes and Exceptions (i.e., Port Omission, Blank Sailing, Inducement, Phase In/Out, etc.)

Event types:

- Arrival (Planned, Estimated, Actual)
- Departure (Planned, Estimated, Actual)

Timestamps exchanged in Operational Vessel Schedules

Planned	Estimated	Actual
Is equal to the Long Term Schedule with a published rotation and named vessel.	Is equal to the latest voyage data and results from updates to the Coastal Schedule sent by partners.	Is equal to the actual timestamp of the scheduled event, after it happened, as published by the partner.
• Planned **Arrival** • Planned **Departure**	• Estimated **Arrival** • Estimated **Departure**	• Actual **Arrival** • Actual **Departure**

Just in Time Port Call scope & explanation

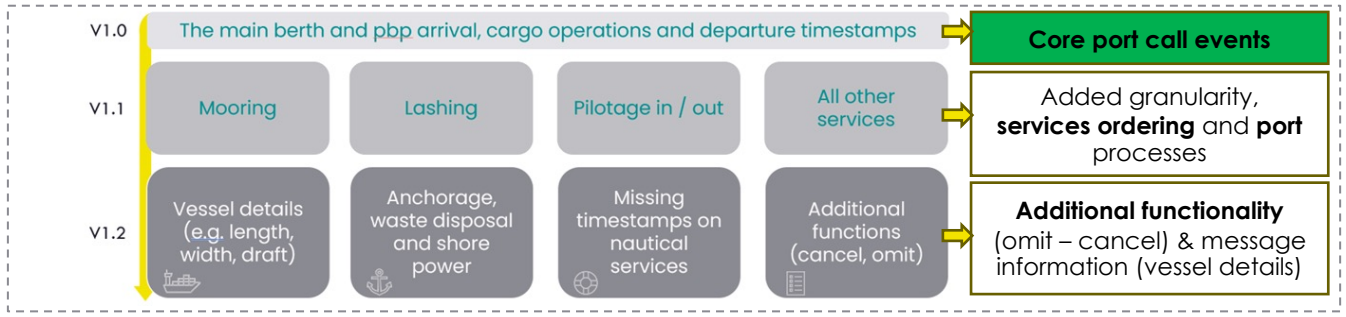
Understanding the Just in Time operational implementation framework

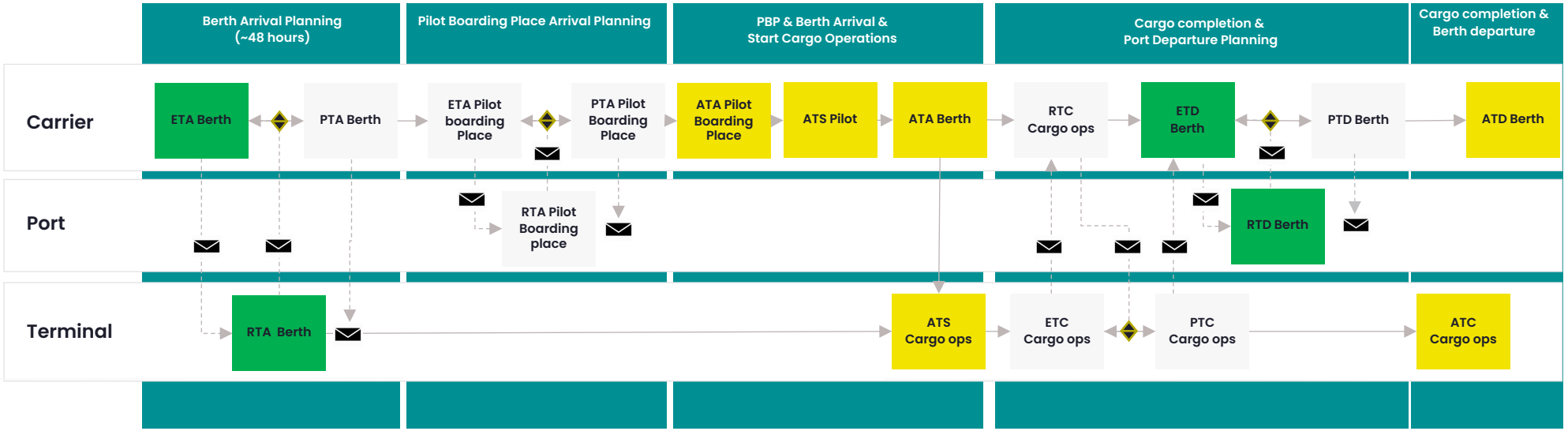
Scalable: Using IMO Comp. semantics and definitions; DCSA added message format, IM & API specs

Usable: Message format very clear to communicate about important operational port call events.

Lightweight: Only 22 data attributes, of which only 6 are needed for the core message

Complete: Nearly all port call events and services included as a pick & choose portfolio





DCSA observation: Current adoption focuses on berth window management / berth alignment (the **green** timestamps), **because:**

- Biggest business value for carriers & terminals
- Current tooling focuses on berth alignment
- Timestamps already commonly used

Most value experienced in local ecosystems.

Planned Event | Actual Event

Every timestamp is a communication moment of a port call event, and is defined with a publisher, a message format and a recipient.