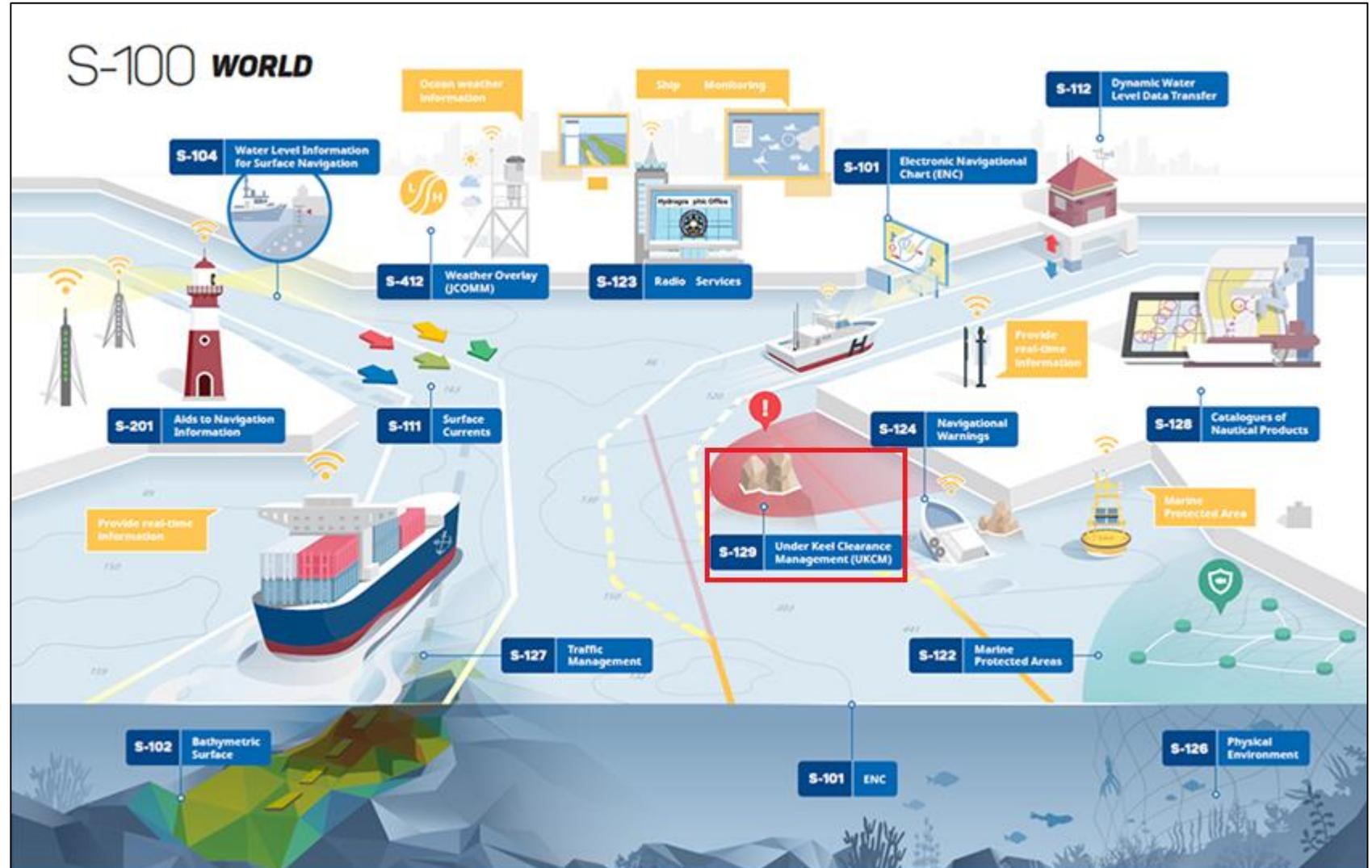# 7th S-100 Working Group Meeting
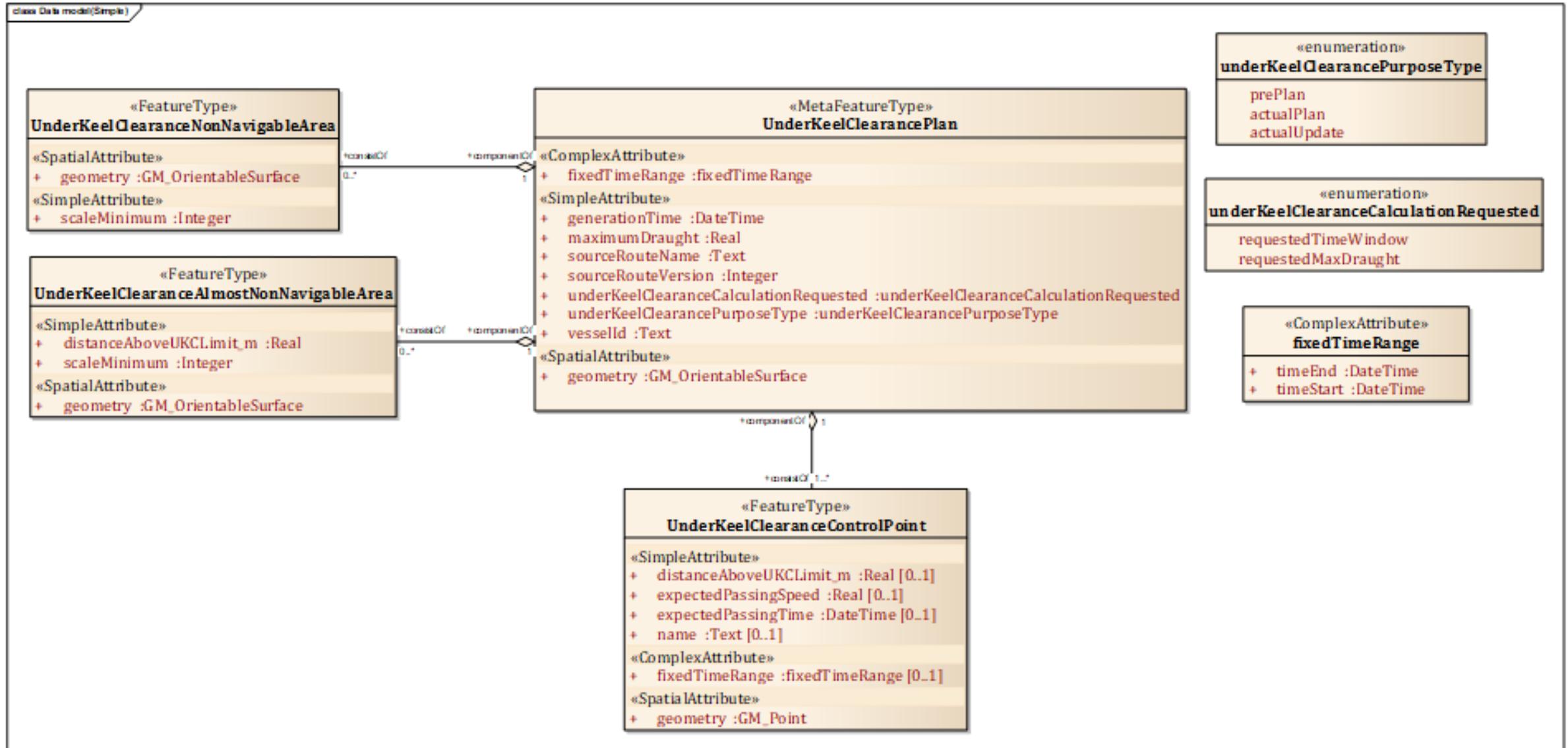
S-129 Project Team Report

Jason Rhee (S-129 PT Chair)

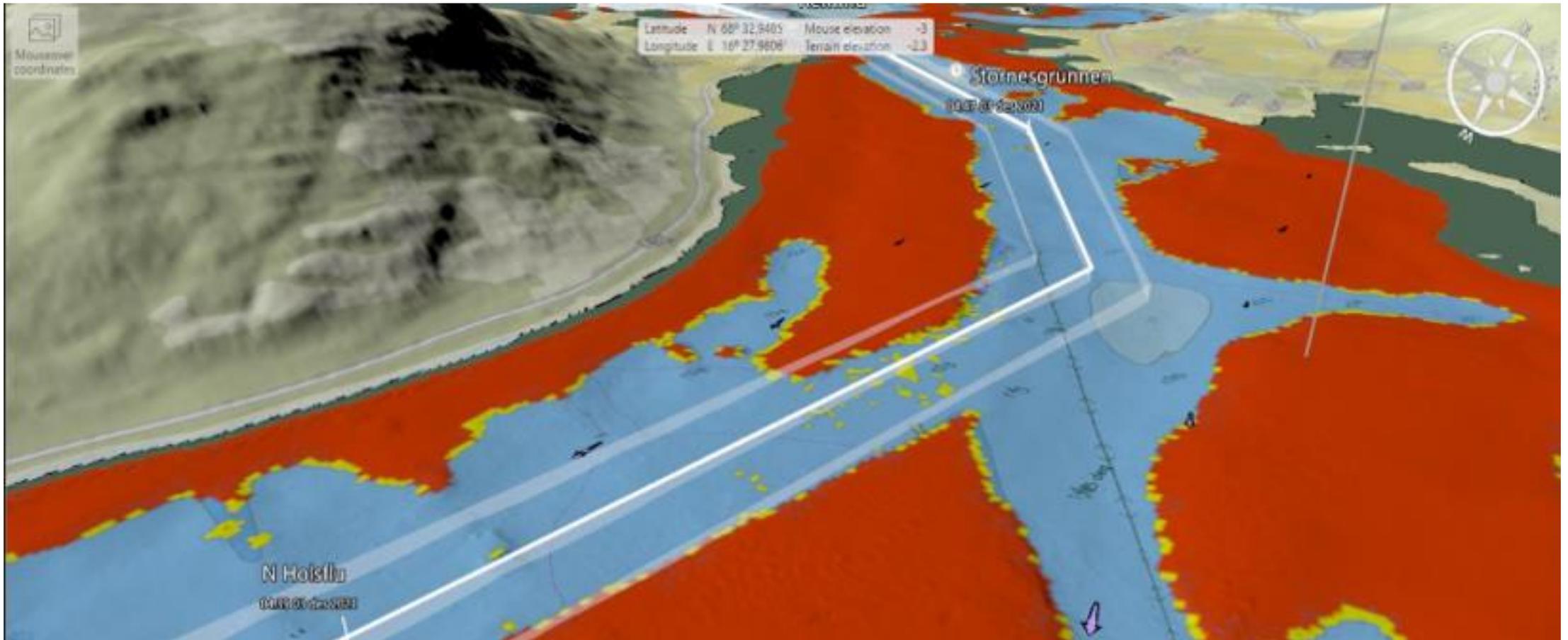# S-129 - Under Keel Clearance Management

- Suitable format for exchange of digital data pertaining to:
  - maritime safety
  - efficiency of marine traffic

- Necessary attribution features to enable info. exchange b/w
  - a UKCM System, &
  - onboard navigation systems

S-129 - Under Keel Clearance Management

S-129 Data Model (Ed. 1.0.0)

S-129 - Under Keel Clearance Management

https://s-100.no/operational-test-s-129-under-keel-clearance-management-tested-in-tjeldsundet-norway/

S-129 Progress - since Edition 1.0.0

Date	Description
Jun 2019	S-129 Edition 1.0.0 published for implementation and testing
Jun – Sep 2019	Testing (KHOA)
Jun-Aug 2020	Testing (NIWC)
Aug 2020	FC & PC revised (KHOA, KRISO)
Oct 2020 – May 2021	Testing (NIWC) – some issues identified
(Further development and testing on hold until S-100 Ed. 5.0.0)	
Dec 2021	S-129 Operational Tests, as part of S-100 Demonstrator Project
Mar 2022	5th S-129 PT meeting – S-129 Operation Test findings discussed

S-129 Operational Test

- Has identified:
  - Need for more end user testing
  - End user interaction with product
    – not standardised
  - Need for "non assessed" area

- Validation against PS identified:
  - Inconsistencies & ambiguities within PS

7.2.1.1 UnderKeelClearancePlan

Role	Name	Description	Mult	dataType	Remarks
Class	UnderKeelClearancePlan	A UKC plan calculated for a particular ship and a particular passage		MetaFeatureType	
SimpleAttribute	generationTime	Time the plan was generated	[1]	DateTime	
SimpleAttribute	shipID	Unique identification of the ship used for the calculation	[1]	Text	
SimpleAttribute	sourceRouteName	Identification of the route used as a source for the calculation	[1]	Text	Using the value of S-421.Route.routeInfoName
SimpleAttribute	sourceRouteVersion	Identification of the route used as a source for the calculation	[1]	Integer	Using the value of S-421.RouteHistory.routeHistoryEditionNo
SimpleAttribute	maximumDraught	The maximum ship draught in meters, used as base for the calculation	[1]	Real	
SimpleAttribute	ukcPurpose	The purpose of the current calculation	[1]	underKeelClearancePurposeType	
SimpleAttribute	typeOfCalculation	The type of calculation	[1]	underKeelClearanceCalculationType	
SpatialAttribute	geometry	Boundaries of the Under Keel Clearance management area	[1]	GM_OrientableSurface	geometric object comes from Geometry class in S-100 standard
ComplexAttribute	fixedTimeRange	Time period	[1]	fixedTimeRange	

Work Plan (2023)

Now – Early 2023	Throughout 2023

• Submit proposal for Ed 2.0.0
• Draft & propose "UKC non-assessed area" feature
• Revisions & clarifications to PS Ed 1.0.0, based on:
    • S-129 Operational Test outcomes
    • S-129 PT meeting no. 5 outcomes
• Commence updates to PS based on S-100 Ed 5.0.0
	• Update PC, FC, DCEG
	• Prepare test datasets
	• Test S-129
	• Further revisions as necessary

Summary

- S-129 Edition 1.0.0 has been tested:
  - Via S-100 Viewer software
  - As part of S-129 Operational Test under the S-100 Demonstrator Project

- S-129 Operational Test provided valuable findings
  - Identified updates required on current PS

- S-100 Edition 5.0.0
  - More changes to S-129 product expected - need to identify what
  - Update away!

Thank You

Jason Rhee (S-129 PT Chair)