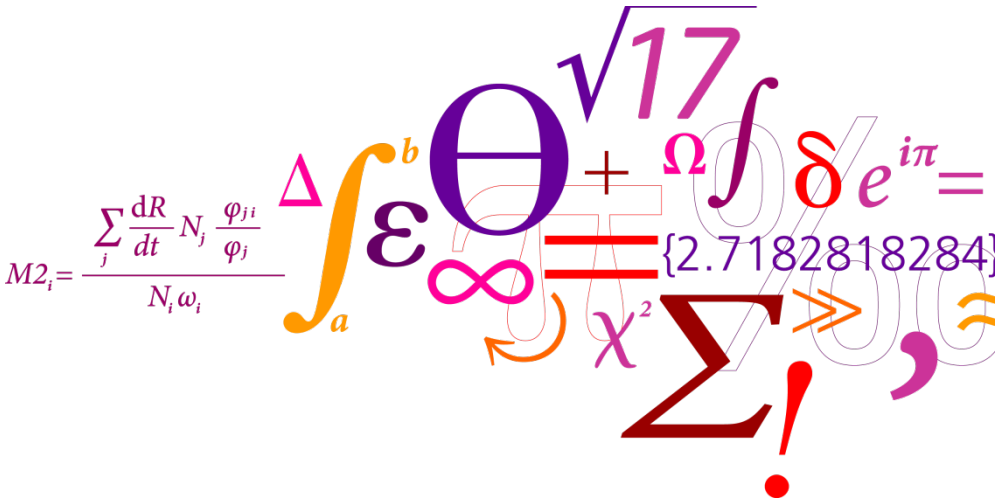
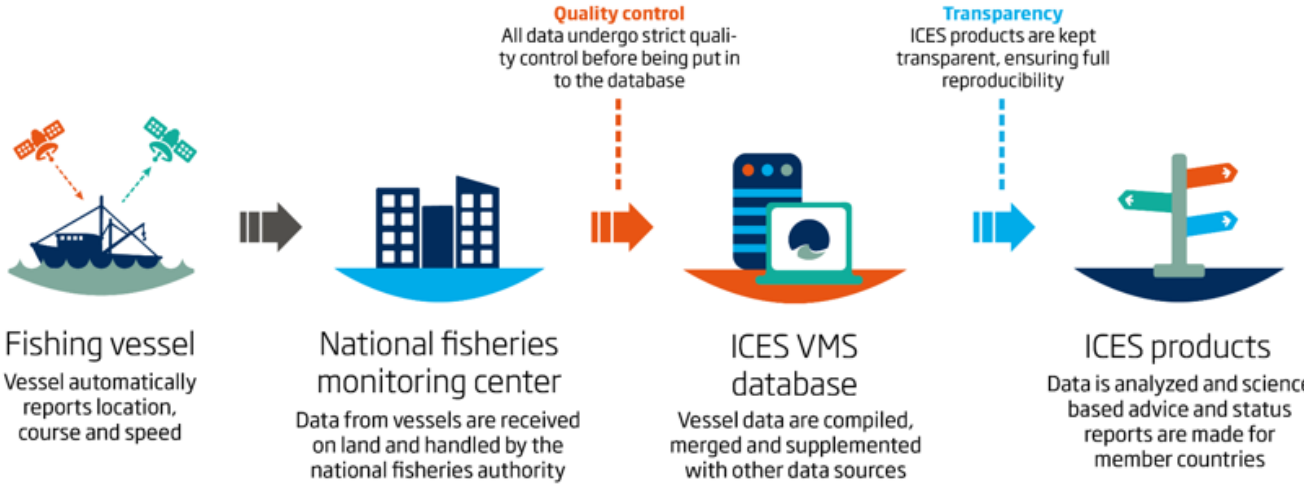
ICES VMS data

Josefine Egekvist,
DTU Aqua, Denmark



DTU Aqua
National Institute of Aquatic Resources

VMS/logbook data workflow



Annual ICES VMS/logbook datacall. Standard R-script Aggregation

Year, month, c-square (0.05*0.05 degrees), vessel length group, DCF metier

Variables

Fishing hours, kW*fishing hours, landings weight, landings value, average fishing speed, average vessel length, average kW.

All countries from the Baltic Sea except Russia answered the datacall

VMS/logbook data confidentiality (GDPR)

The level of detail in the data call was discussed during RCG's (Regional Coordination Groups) 2018.

General rule of thumb: at least 3 vessels within aggregation level when publishing data

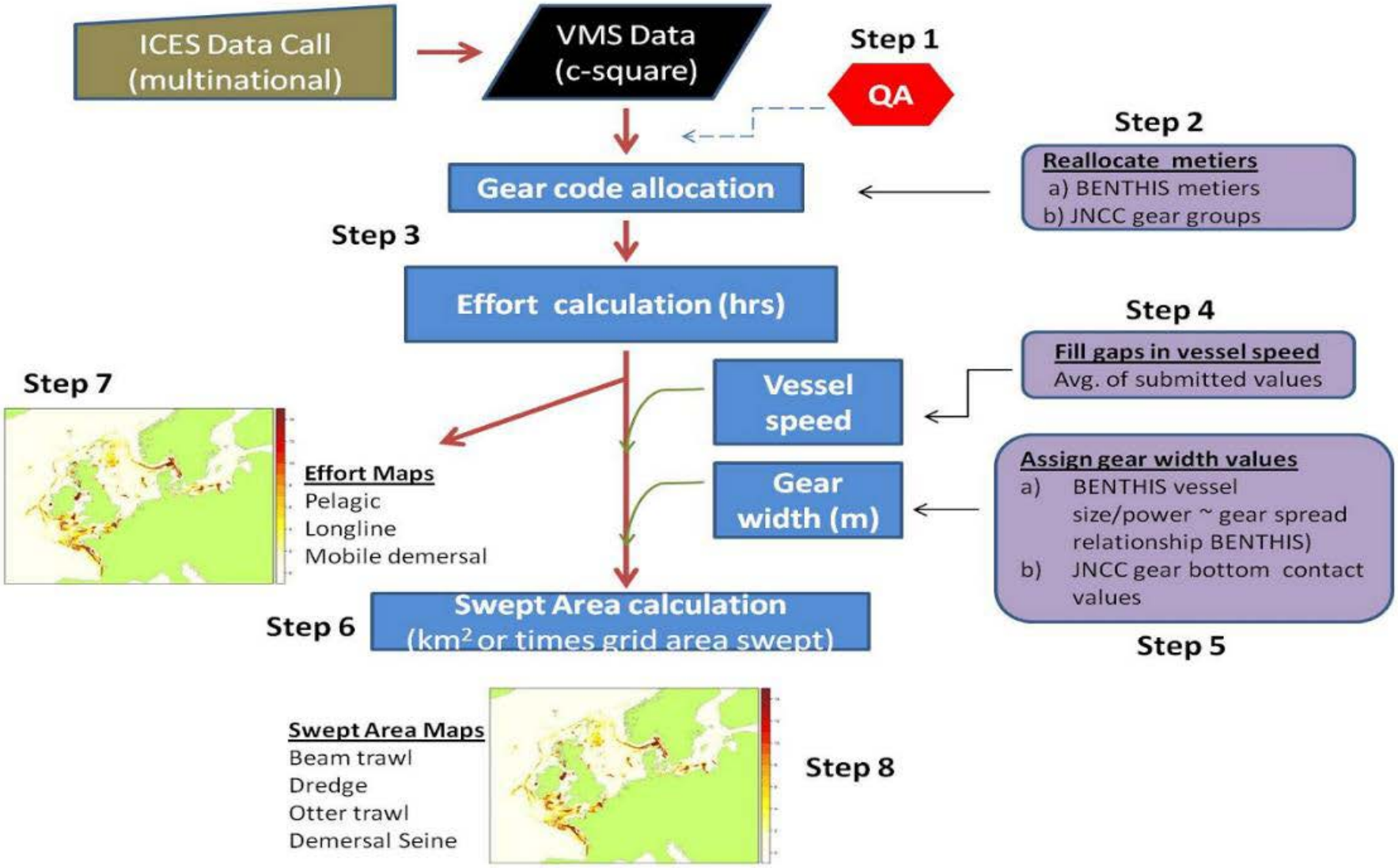
Present data call: 80% of the rows in Danish data has less than 3 vessels

Suggestion from RCG's:

- Include number of vessels in the Data
- All national data submitted to ICES
- When publishing data, ICES makes sure that there are at least 3 vessels in the aggregation level.

From VMS datacall to pressure maps in ICES

Using Eigaard et al., 2016



ICES WGSFD and WGFBIT

ICES Working Group on Spatial Fisheries Data (WGSFD)

Some of the ToR's proposed for 2019

- Evaluate inclusion of AIS data in the ICES datacall
- Evaluate the need to move towards higher spatial resolution (using interpolation methods)
- Develop spatial effort indicators for static gears

ICES WGSFD and WGFBIT

ICES Working Group on Fisheries Benthic Impact and Trade-offs

Following up on ICES workshops in 2017 (WKBENTH, WKTRADE)

- Produce a framework for MSFD D6/D1 assessment related to bottom abrasion of fishing activity at the regional/subregional scale and identify key ecological processes input requirements
- Apply the framework to make a regional assessment for the North Sea, Celtic, Baltic and Barents Seas

ICES WGSFD and WGFBIT
Fishing pressure indicators

Plan to calculate indicators by MSFD sub-regions

Annual pressure indicator	Description	Notes
1 – Intensity	Average number of times the area is swept by bottom-contacting fishing gears. Estimated as the sum of swept area for all vessels using bottom-contacting gears or by métier divided by the total area of the considered area (regional/ subregional sea, or broadscale habitat type within that sea).	'Swept area' is an estimate of the area of seabed in contact with the fishing gear and is a function of gear width, vessel speed, and fishing effort. This indicator is a proxy of the number of times the area is swept.
2 – Proportion of grid cells fished	The number of grid cells (c-squares) fished at least once (irrespective of the swept area within the cell), divided by the total number of grid cells (c-squares) within the considered area.	
3 – Proportion of area fished	The sum of swept area across all grid cells in a considered area, where swept area in a specific grid cell cannot be greater than the area of that grid cell, divided by the summed area of all grid cells.	This indicator provides the best estimate of the proportion of area fished.
4 – Aggregation of fishing pressure	The smallest proportion of the grid cells (c-squares) where 90% of the total swept area occurs.	

Multiple year indicator	Description
5 – Persistently unfished areas	In order to understand the length of time that grid cells remain unfished, Indicator 2 could be evaluated over six years.