

OPERATIONALIZATION OF THE VOLUNTARY GUIDELINES ON THE MARKING OF FISHING GEAR IN THE IOTC AREA

Pingguo He and Jon Lansley

FAO Fisheries and Aquaculture Department
Responsible Fishing Operations Team



Food and Agriculture Organization
of the United Nations

Organisation des Nations Unies
pour l'alimentation et l'agriculture

Organización de las Naciones Unidas
para la Alimentación y la Agricultura



VOLUNTARY GUIDELINES ON THE
MARKING OF FISHING GEAR

DIRECTIVES VOLONTAIRES SUR LE
MARQUAGE DES ENGINS DE PÊCHE

DIRECTRICES VOLUNTARIAS SOBRE EL
MARCADO DE LAS ARTES DE PESCA



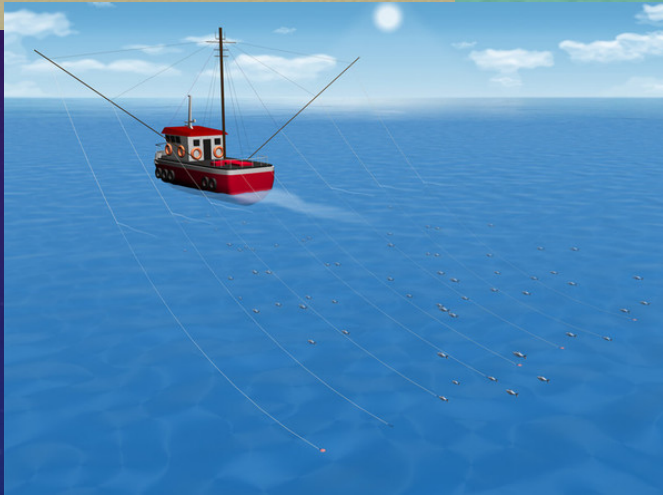
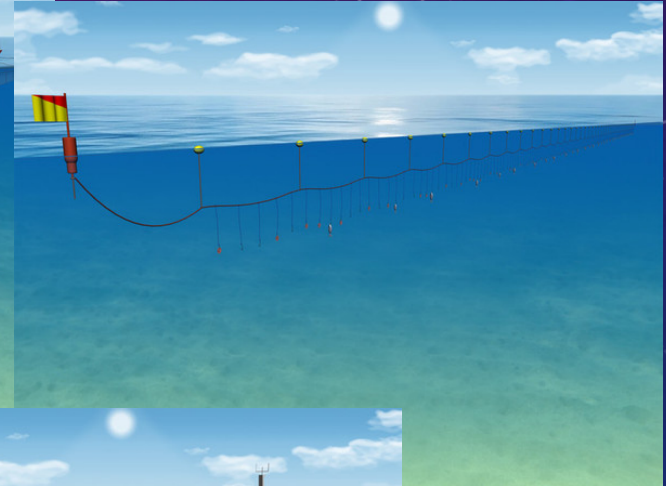
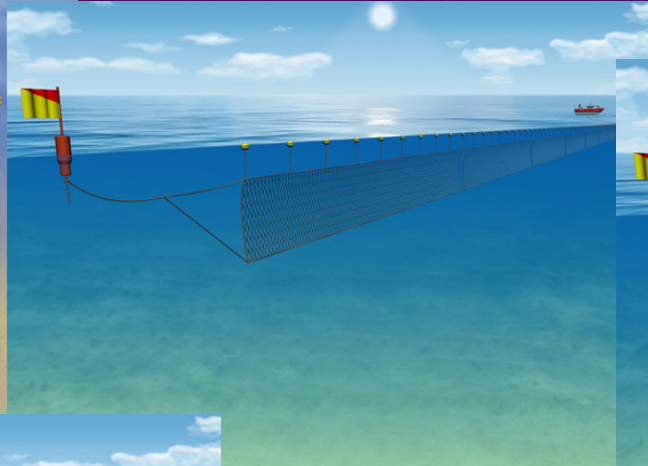
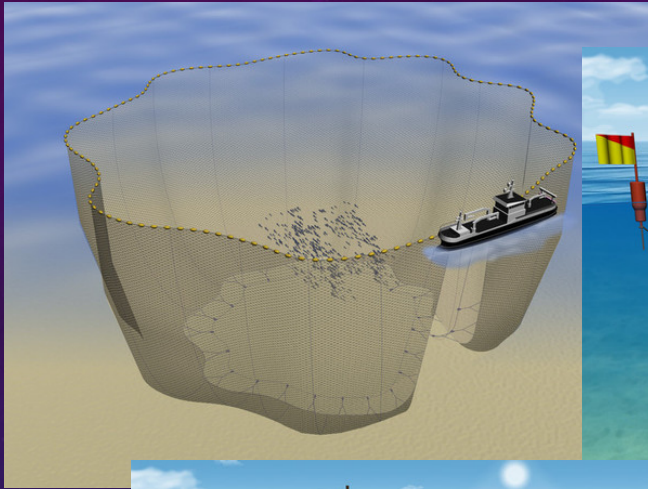
THE PURPOSE OF THE GEAR MARKING GUIDELINES

- Practical means of locating and identifying the ownership of fishing gear
- Guiding text on the development of appropriate marking systems
- A framework for undertaking risk assessment
- Contribution to reduce ALDFG and its impact

KEY PROVISIONS OF THE GUIDELINES

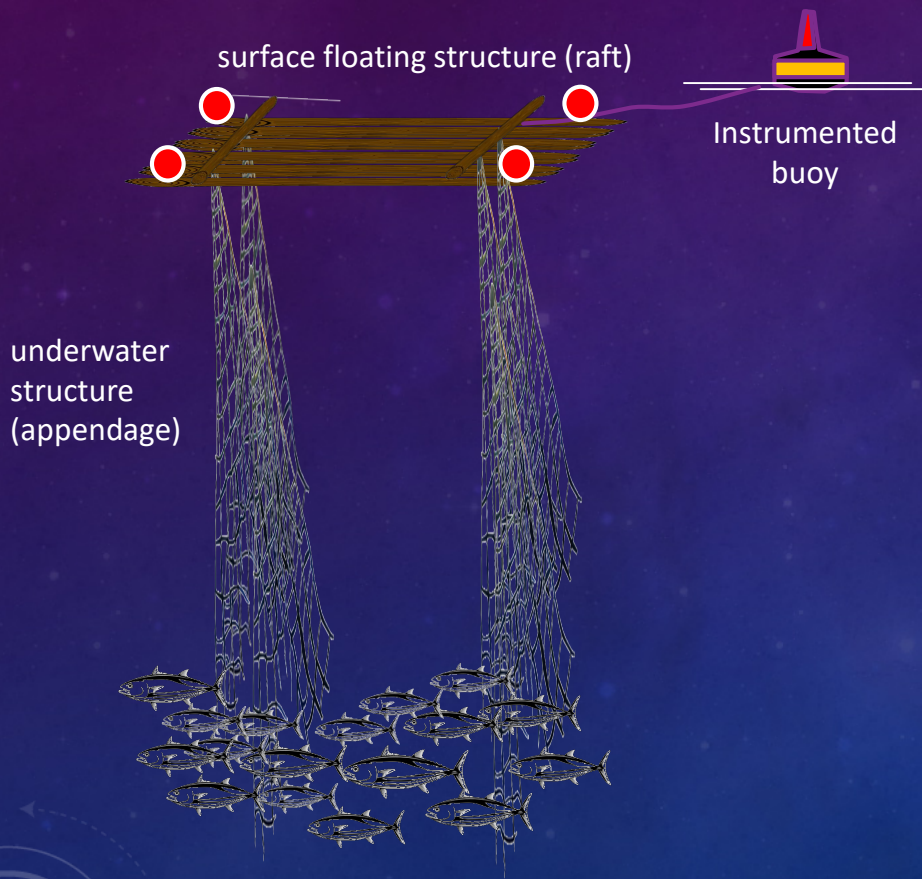
- Voluntary in nature, global in scope and apply to all fishing gear types
- Identification of the ownership and the position of fishing gear, and association with the vessel
- A system for the reporting/recovery/disposal
- A part of fisheries management
- A condition of fishing authorization or license

MAJOR FISHING GEARS IN THE IOTC AREA



FISH AGGREGATING DEVICES (FADS)

Drifting fish aggregating device (dFAD)



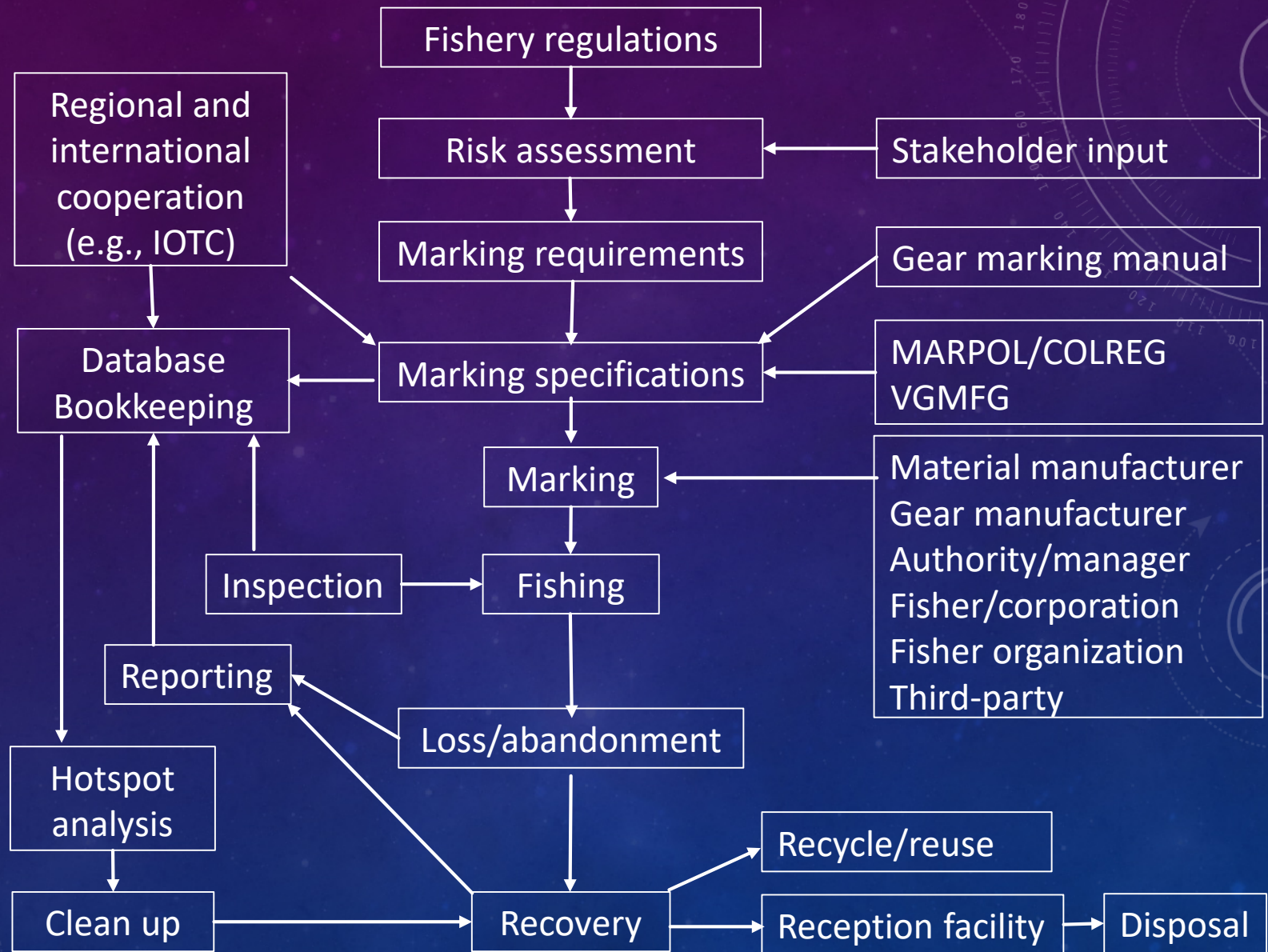
Anchored fish aggregating device (aFAD)



RELATIVE IMPORTANCE OF GEAR

Gear	ISSCFG code	Catch (tons)	Comments	Relative importance
Purse seine	PS	553,210	Purse seines only	5
Drift gillnet	GND	583,775	All gillnets, presumably majority are drift gillnets	5
Handline/pole-and-line	LHP	238,914	Handlines and bait boat (assuming pole-and-lines)	2
Drift longline	LLD	290,567	All longlines (drift longlines)	3
Trolling line	LTL	75,589	Including troll line, trolling non-mechanized, handline and troll line, trolline mechanized	1
Anchored FAD	aFAD		Handline, pole-and-line, and trolling line	3
Drifting FAD	dFAD		Purse seine	5

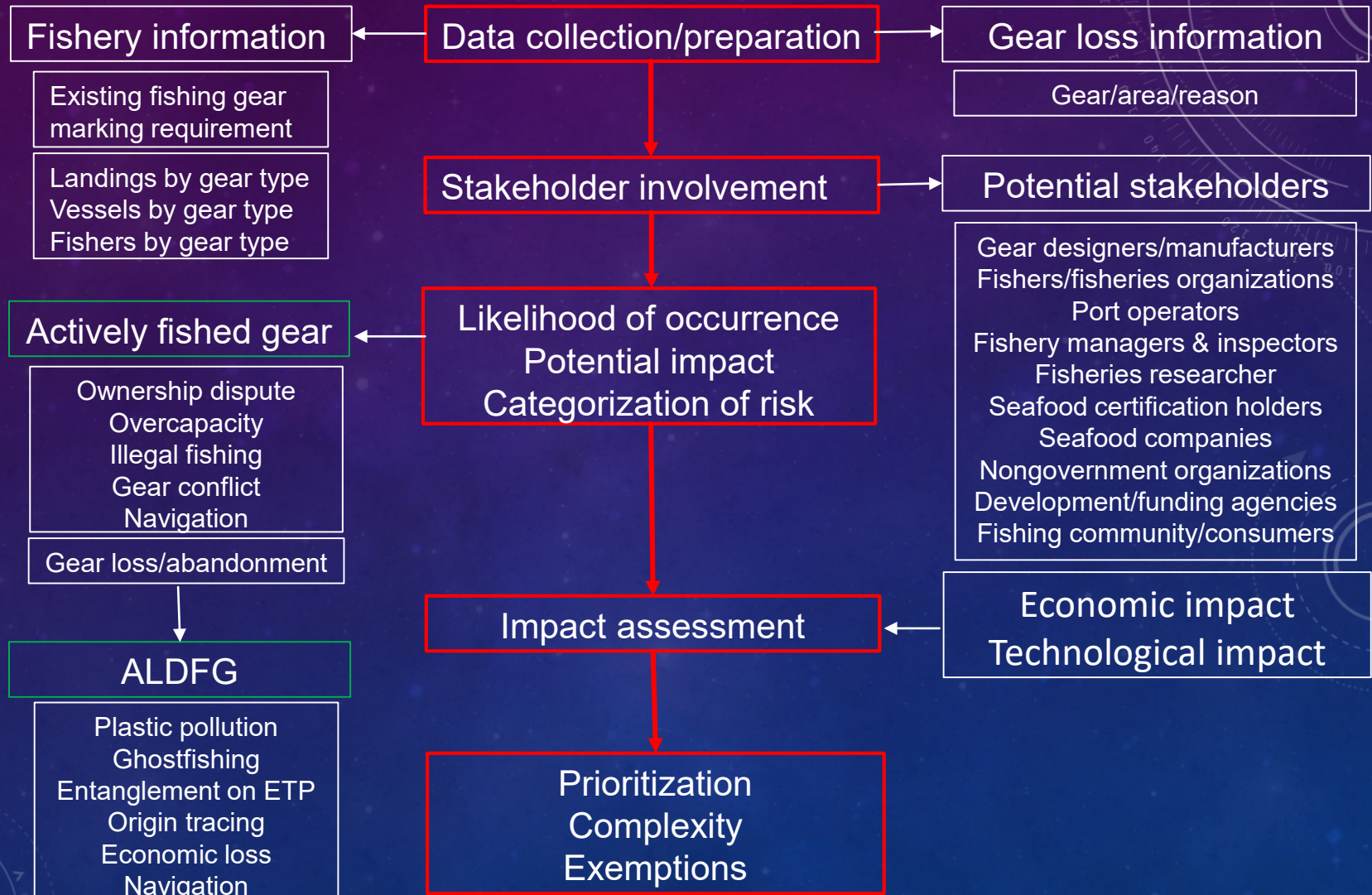
FRAMEWORK FOR A SYSTEM OF FISHING GEAR MARKING



RISK ASSESSMENT AND GEAR MARKING

- The VGMFG stresses that risk assessment should be a key component of gear marking implementation
- The VGMFG stipulates that the level and complexity of fishing gear marking and priority for actions should be based on the risk assessment
- The VGMFG provides general guidelines on what should be considered when conducting a risk assessment

FRAMEWORK OF RISK ASSESSMENT FOR THE MARKING OF FISHING GEAR



STAKEHOLDER INVOLVEMENT/INPUT

Potential stakeholders

- Gear designers/manufacturers
- Fishers/fisheries organizations
- Port operators
- Fishery managers & inspectors
- Fisheries researcher
- Seafood certification holders
- Seafood companies
- Nongovernment organizations
- Development/funding agencies
(GGGI, 2021)
- Fishing community/consume

Role of stakeholders

- Identification of the importance of gears in the region
- Identification of type of risks
- Score likelihood of occurrence
- Score Impact/importance of different risks
- Discuss and validate risk assessment outcomes

RISK ASSESSMENT – POTENTIAL RISKS/IMPACTS

- Environmental impact (plastic pollution)
- Ecological risks (ghosting fishing; impact on ETP species; habitats vulnerability and fragility)
- Economic risks (gear replacement costs, loss of fishing time; and cost of implementation, IUU fishing)
- Technological risks (Gear types; numbers of gear units; numbers of vessels; method of operation; marking technology)
- Safety and navigational risks (risks to the vessel operating the gear, risk to other fishing vessels and non-fishing vessels; risks to other ocean users)

RISK ASSESSMENT FOR GEAR MARKING

- Likelihood of occurrence of different risks if the gear is not marked or not adequately marked
- Importance/impact of different types of risks

Apply to:

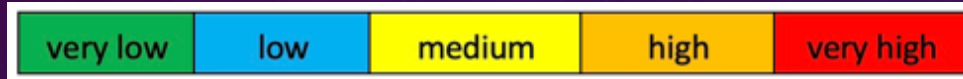
- Fishing gears under normal fishing conditions
- Fishing gear that have been abandoned, lost or otherwise discarded (ALDFG)

TYPE OF RISKS



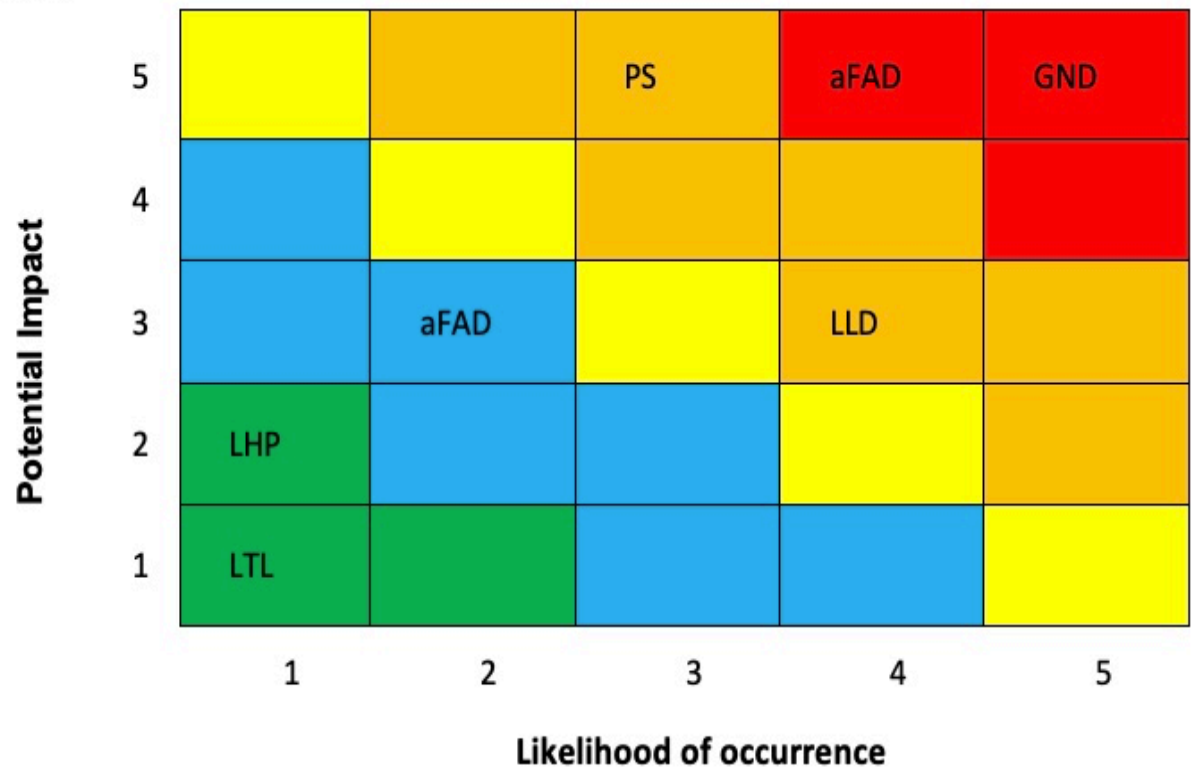
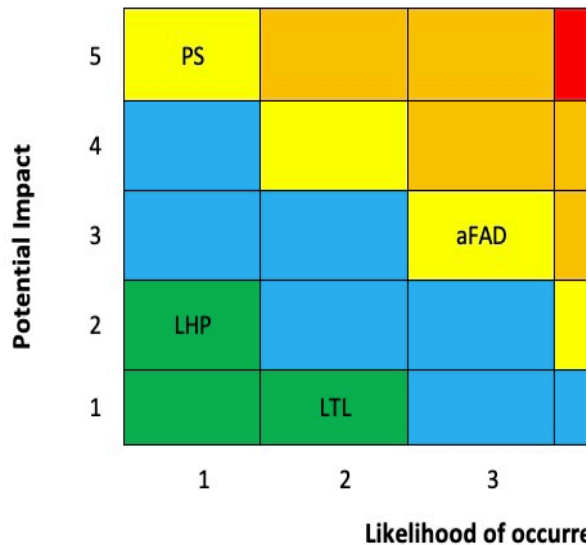
LIKELIHOOD – IMPACT TABLE

Fishing gear in normal fishing conditions



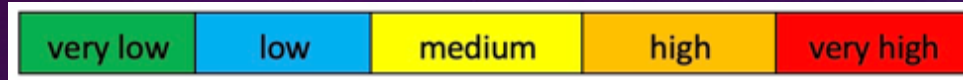
Overall impact

Gear loss



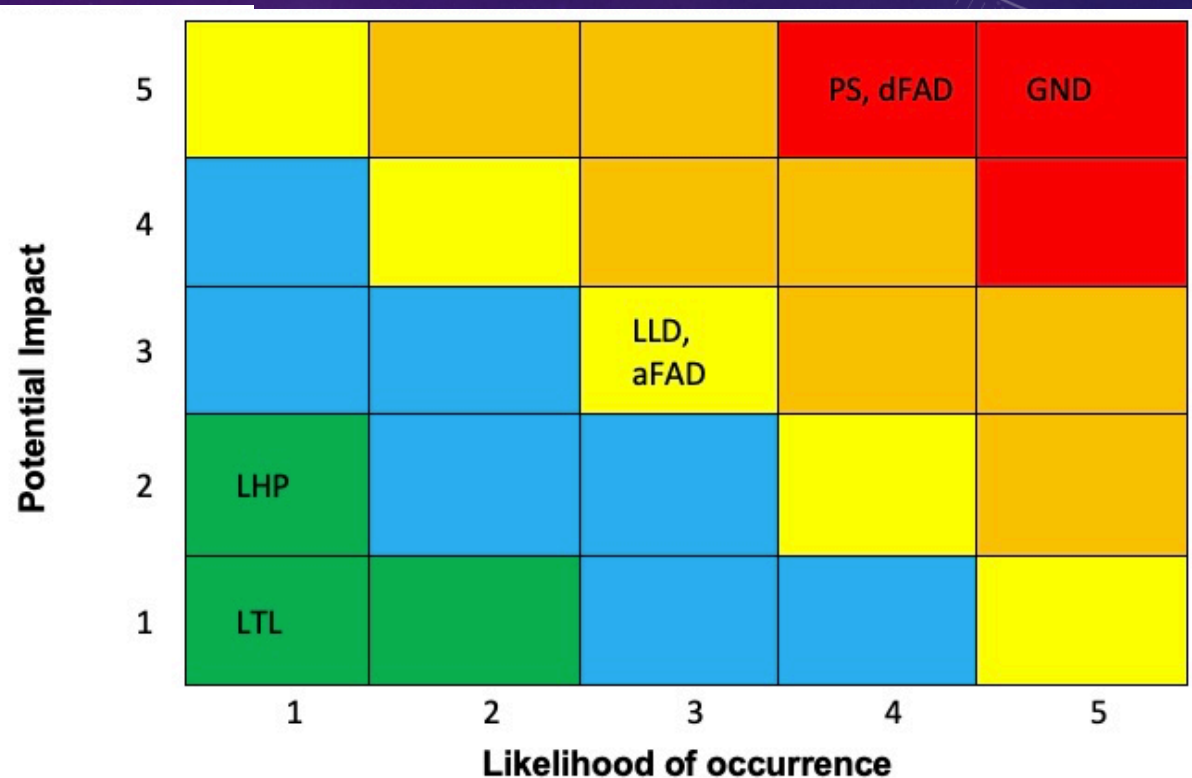
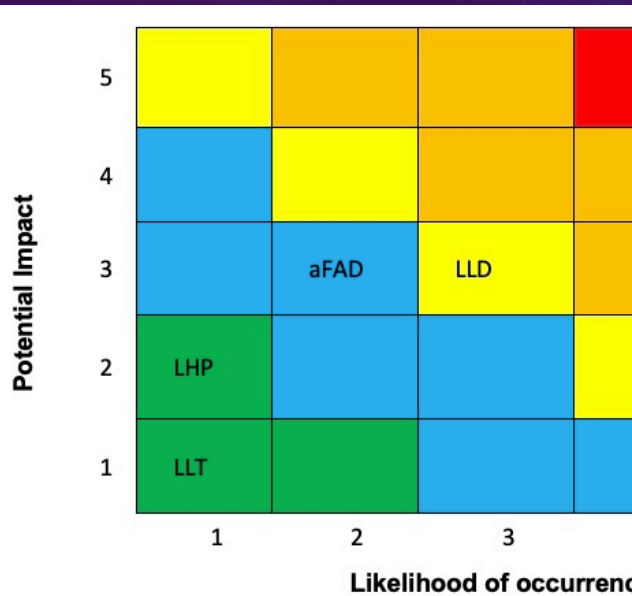
LIKELIHOOD – IMPACT TABLE

Abandoned, lost or otherwise discarded fishing gear (ALDFG)



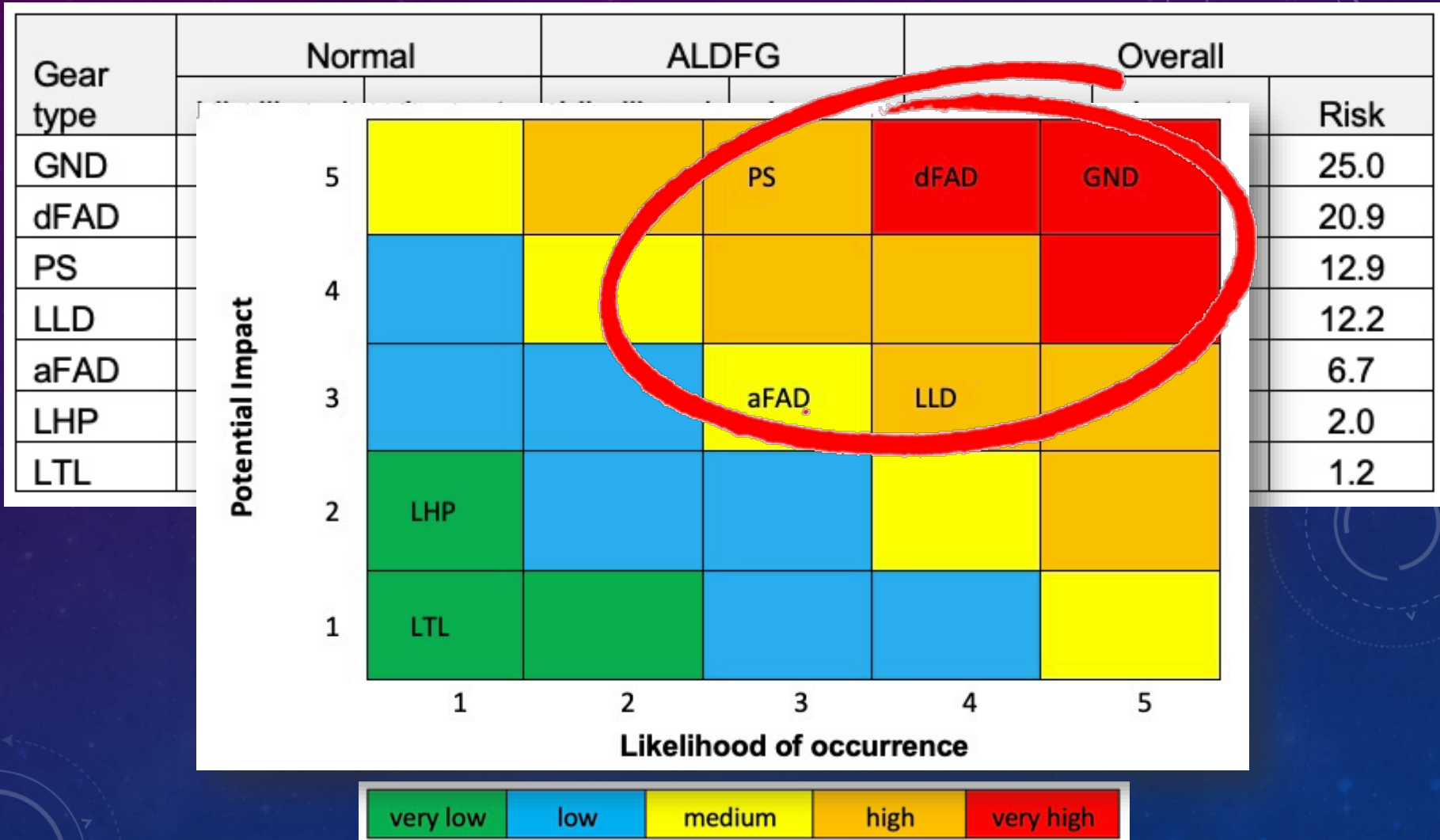
Plastic pollution

Overall impact



LIKELIHOOD – IMPACT TABLE

Combined risk scores for fishing gear in normal fishing condition and ALDFG



RECOMMENDED INFORMATION ON MARKS

- Country code of the fishing vessel flagged (flag state): 3-letter ISO codes
- Fishing gear code: 2- or 3-letter ISSCFG codes
- A unique letter or number (or a combination of them): license/permit number, IMO number of the vessel, IOTC number, or any identifiable number
- The year when the mark is issued/applied

AUS 2021 GND
1234567

Optional:

- A bar code and/or QR code may be printed to the tag with additional information.

TYPE OF MARKS/MARKINGS FOR DIFFERENT GEAR COMPONENTS

AUS 2021 GND
1234567



RECOMMENDED MINIMUM REQUIREMENTS FOR THE MARKING OF FISHING GEAR

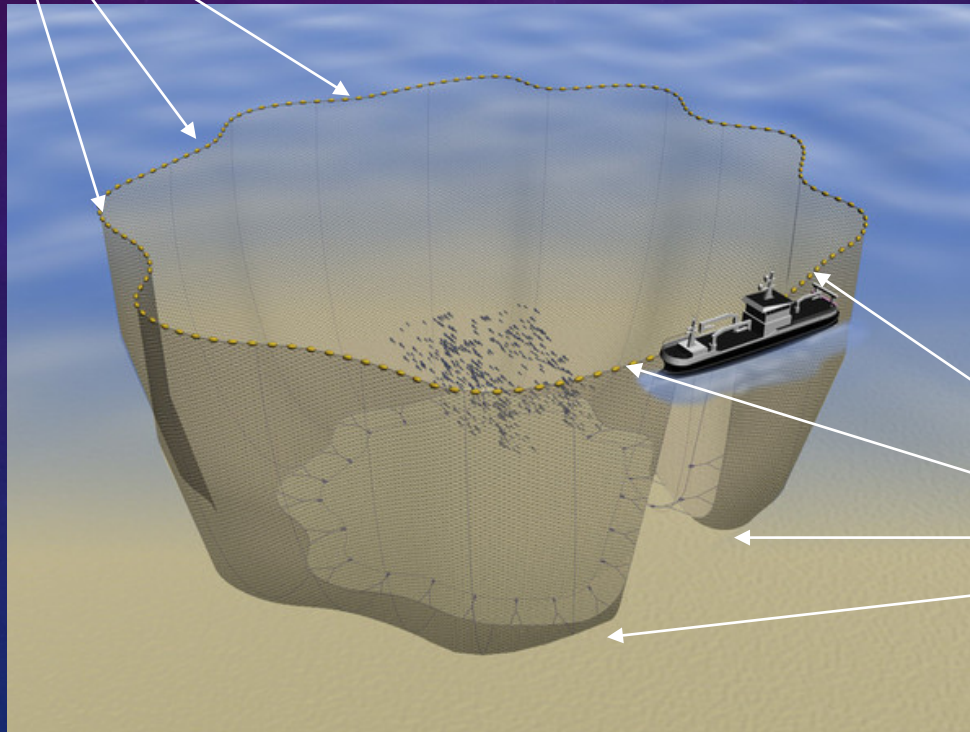


GEAR MARKING EXAMPLES

Purse seine



Every 50 m

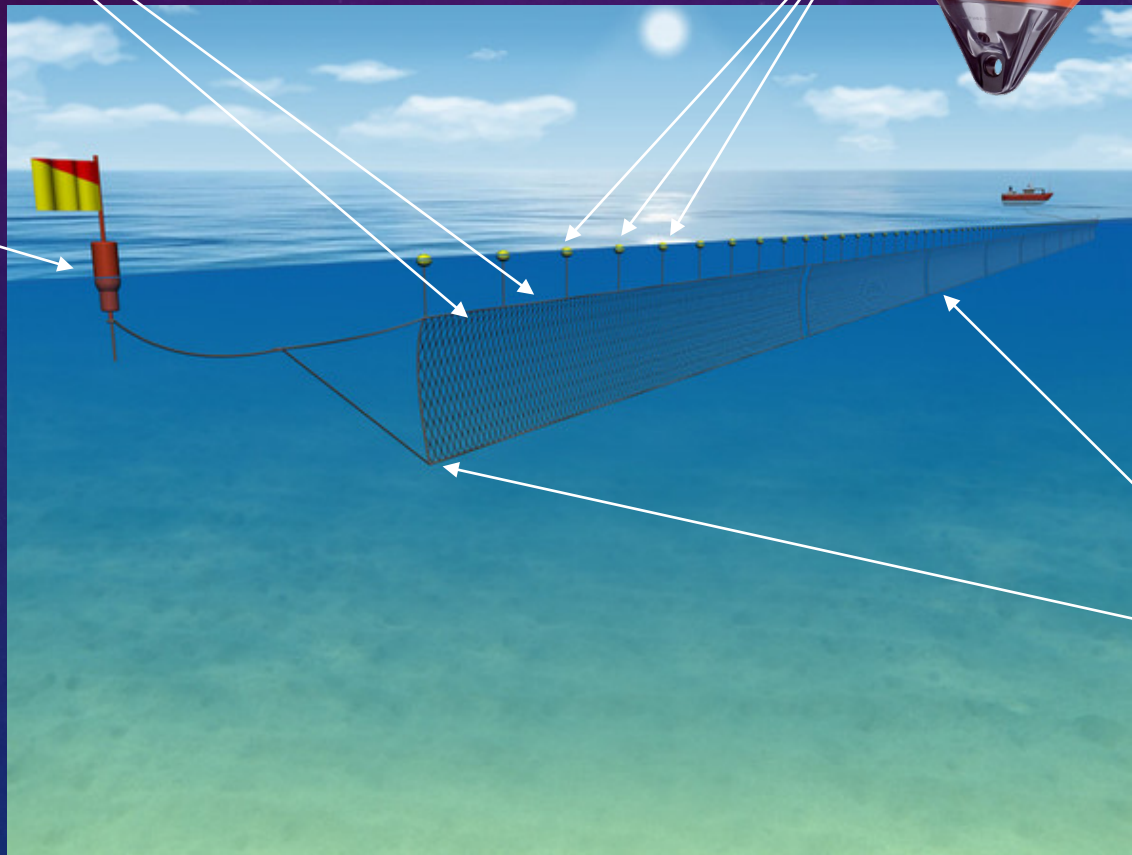


GEAR MARKING EXAMPLES

Drift gillnet

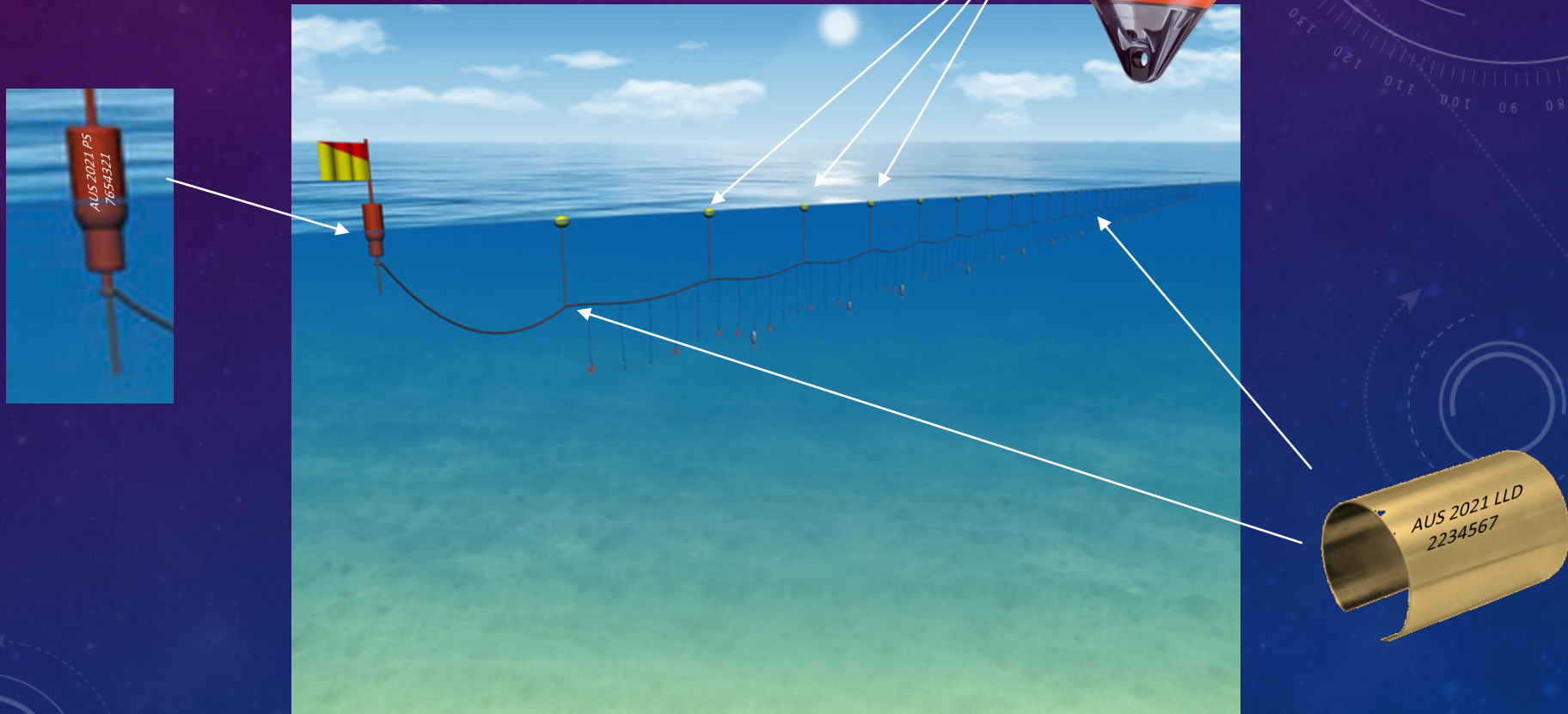


Every 50 m



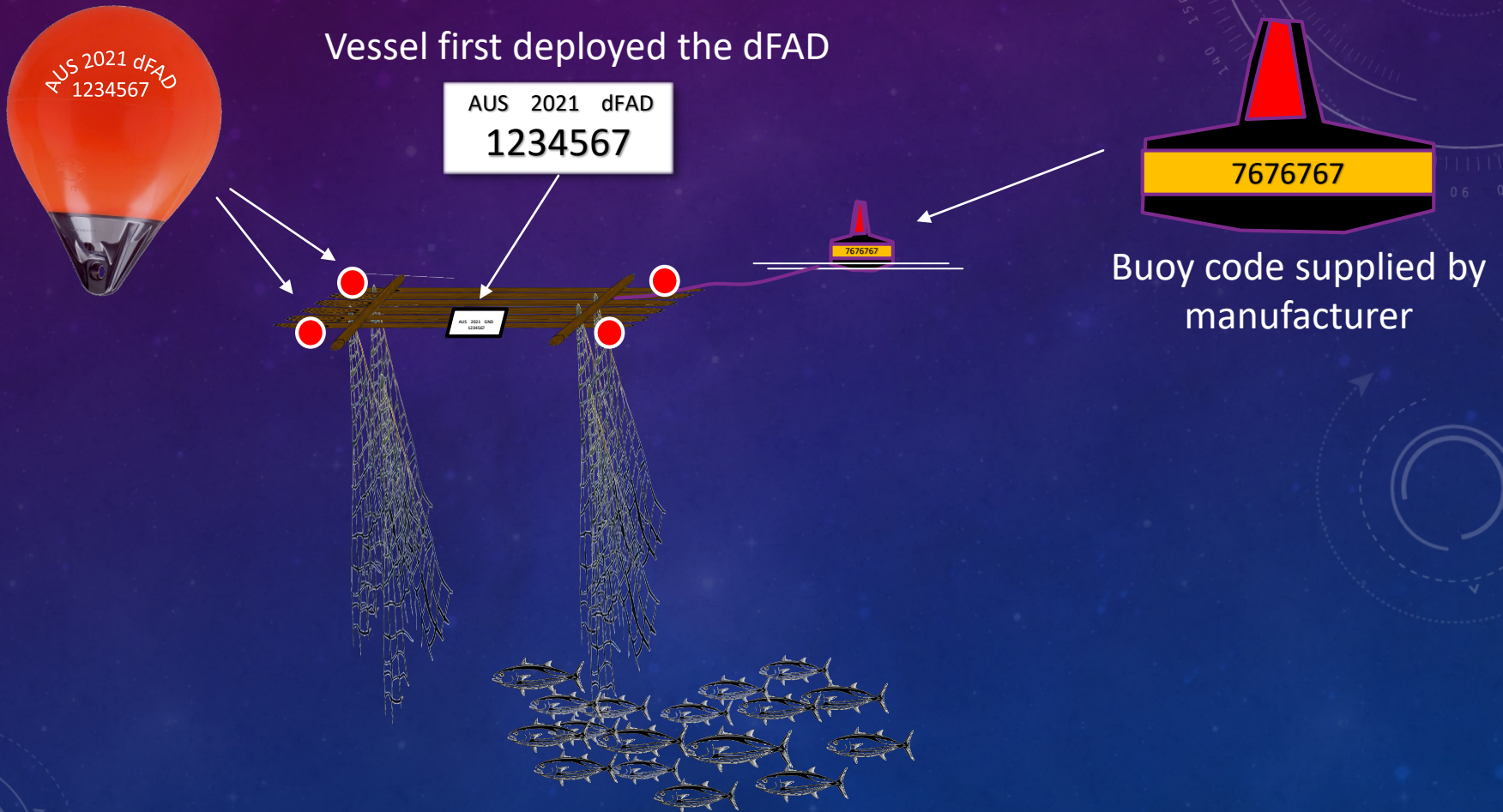
GEAR MARKING EXAMPLES

Drift longline



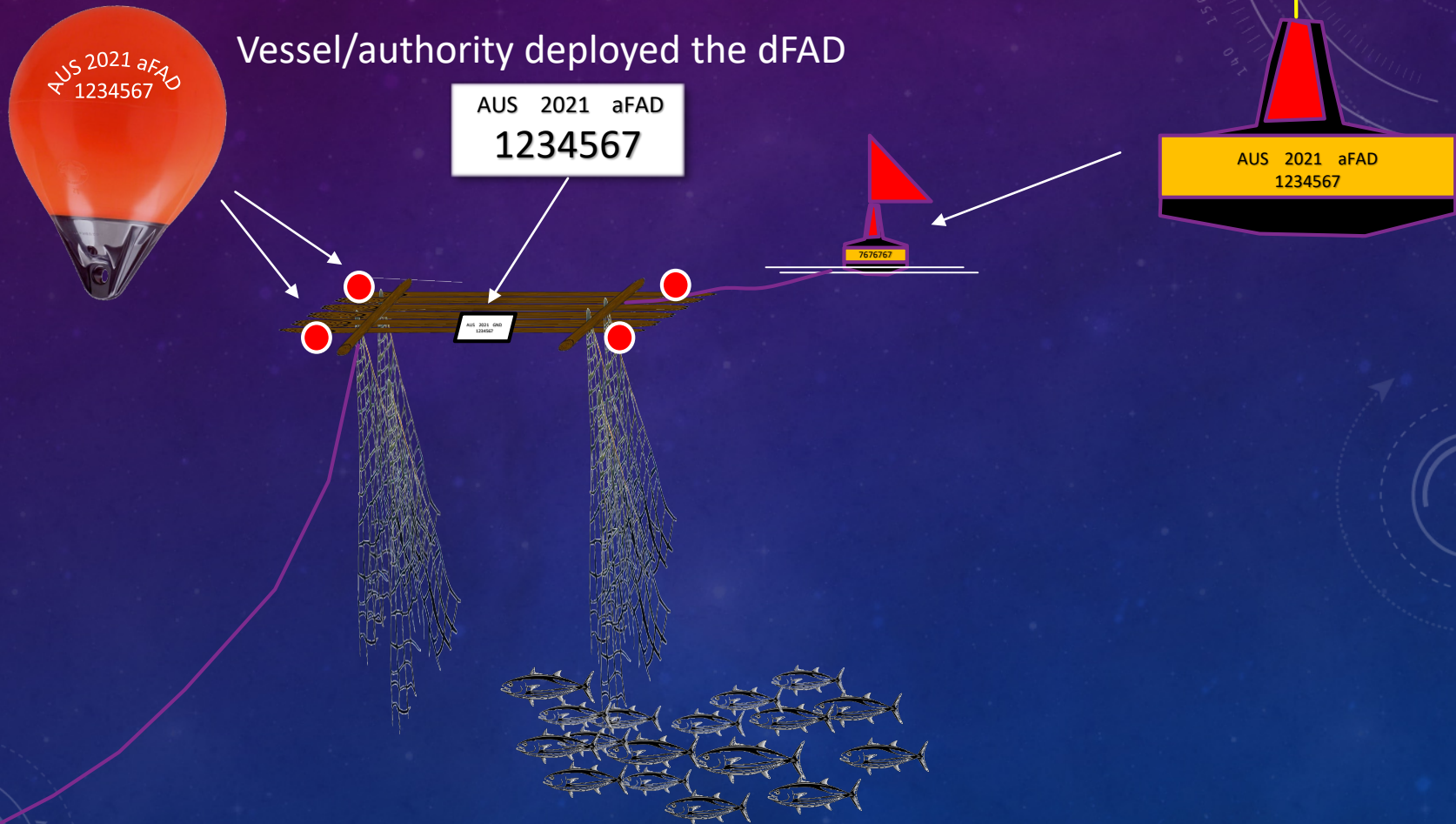
GEAR MARKING EXAMPLES

Drifting fish aggregating device (dFAD)

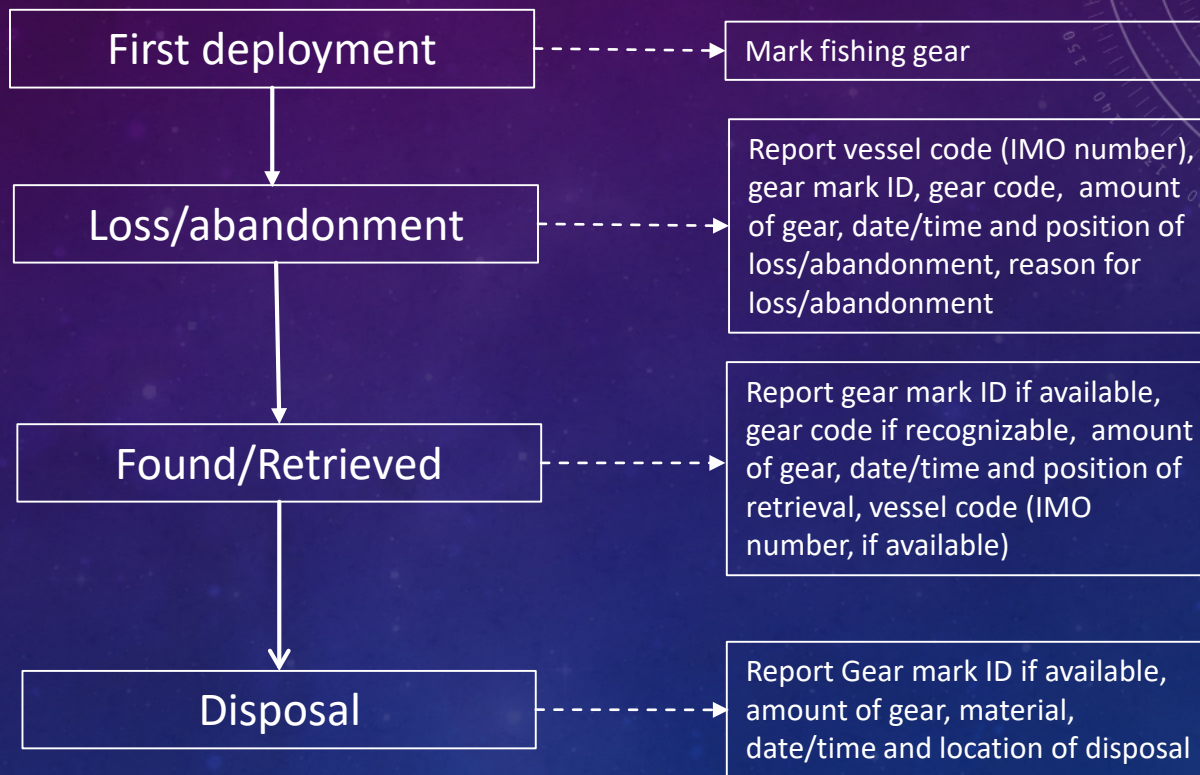


GEAR MARKING EXAMPLES

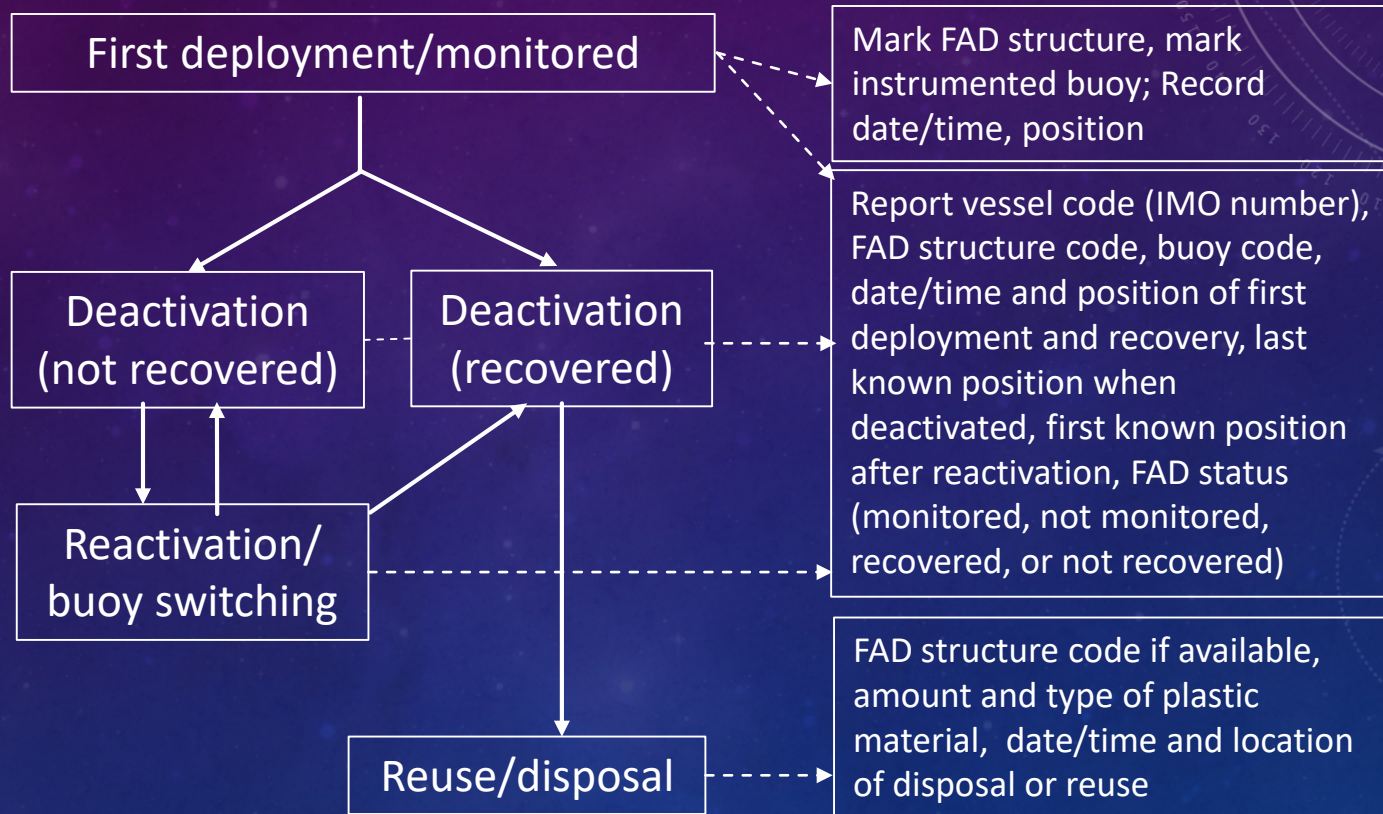
Nschoed fish aggregating device (aFAD)



FISHING GEAR MARKING AND REPORTING REQUIREMENT



DRIFT FAD MARKING AND REPORTING REQUIREMENT



THANK YOU

Jon Lansley is a fishery officer in FAO Fisheries and Aquaculture Department, Responsible Fishing Operations Team, which focuses on technologies and operations for sustainable capture fisheries

jon.lansley@fao.org

Pingguo He is a professor of fisheries at the University of Massachusetts Dartmouth, on a special assignment at FAO. Dr. He specializes in fish capture technology for sustainable fisheries, healthy ecosystems and clean oceans.

phe@umassd.edu