

Targets and Thresholds for MSFD



JRC MSFD Team

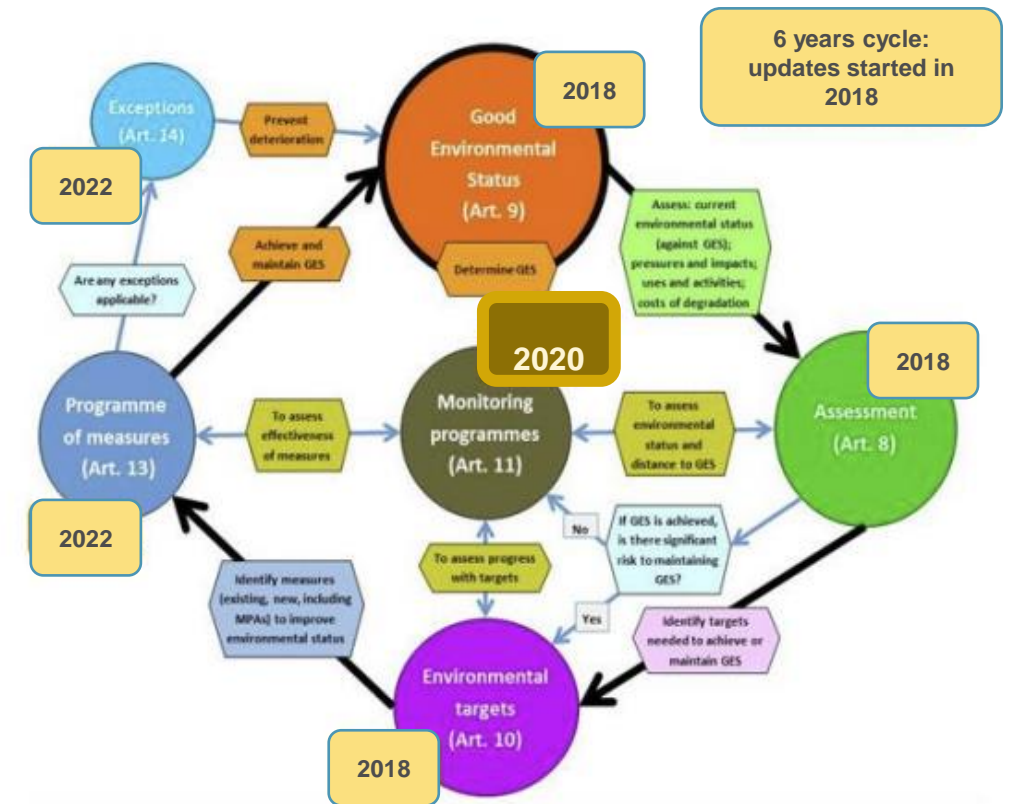
Vasilakopoulos P., Palma M., Pali Alexis A., Boschetti S.T., Cardoso A.C., Druon J.-N., Konrad C., Kotta M., Louropoulou E., Macias Moy D., Magliozzi C., Martini E., Piroddi C., Ruiz-Orejón L.F., Salas-Herrero F., Stips A., Tornero V., Hanke G.

MSFD Review Workshop 15.11.2022

MSFD Thresholds and Targets

Important structural elements of the MSFD Common Implementation Strategy

- Targets: MSFD Article 10
- Thresholds: introduced through 2017 ComDec



MSFD Targets



MSFD Article 10

Establishment of environmental targets

1., establish a comprehensive set of environmental targets and associated indicators for their marine waters so as to guide progress towards achieving good environmental status in the marine environment,

MSFD Targets

SWD (2020) 62 final

Background document for the Marine Strategy Framework Directive on the determination of good environmental status and its links to assessments and the setting of environmental targets

Key message

- The purpose of environmental targets and their relationship to measures under Article 13 suggests that they should primarily focus on the pressures from human activities causing the failure to achieve GES, or the associated environmental impacts.
- They can do this by defining the necessary level of reduction in each anthropogenic pressure needed to achieve GES.

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Review of MS Reports on Art. 10

JRC review of reports on Articles 8, 9, and 10 of the MSFD, for the 6-year reporting cycle (2012-2018), published in 2021.

Based on EEA reporting system output, JRC analysis of reporting elements by Descriptor



Targets

- In total 9277 reported Targets
- Many targets are repeated, e.g. for different country regions, etc.
- Many targets are provided for a pressure Criterion, then repeated for D1, D4, D6, e.g. in D1C6 and D6C5, leading to high target numbers for D1, D4, D6

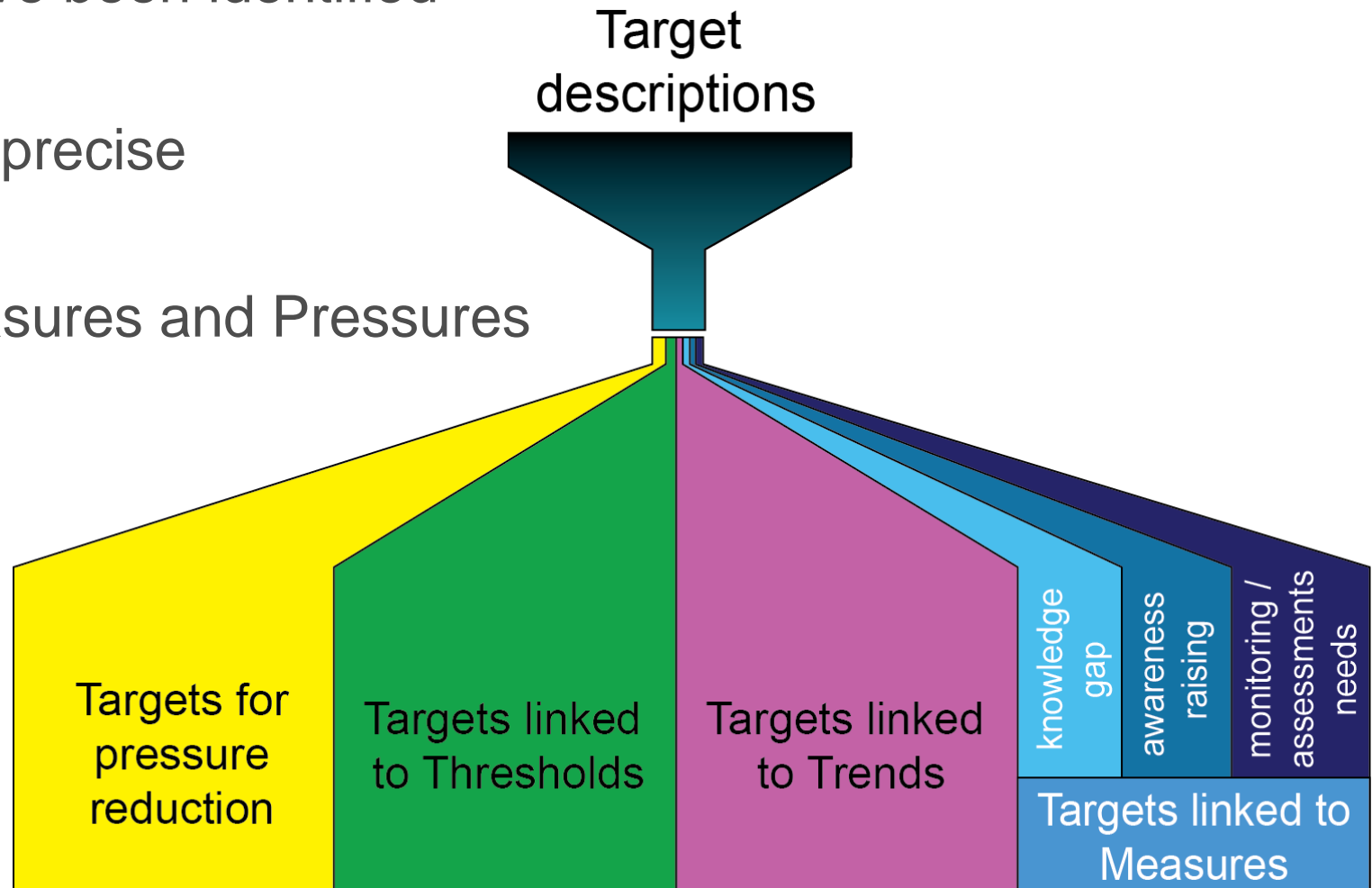
JRC Technical Report on MSFD targets is in preparation

Reported numbers of Targets

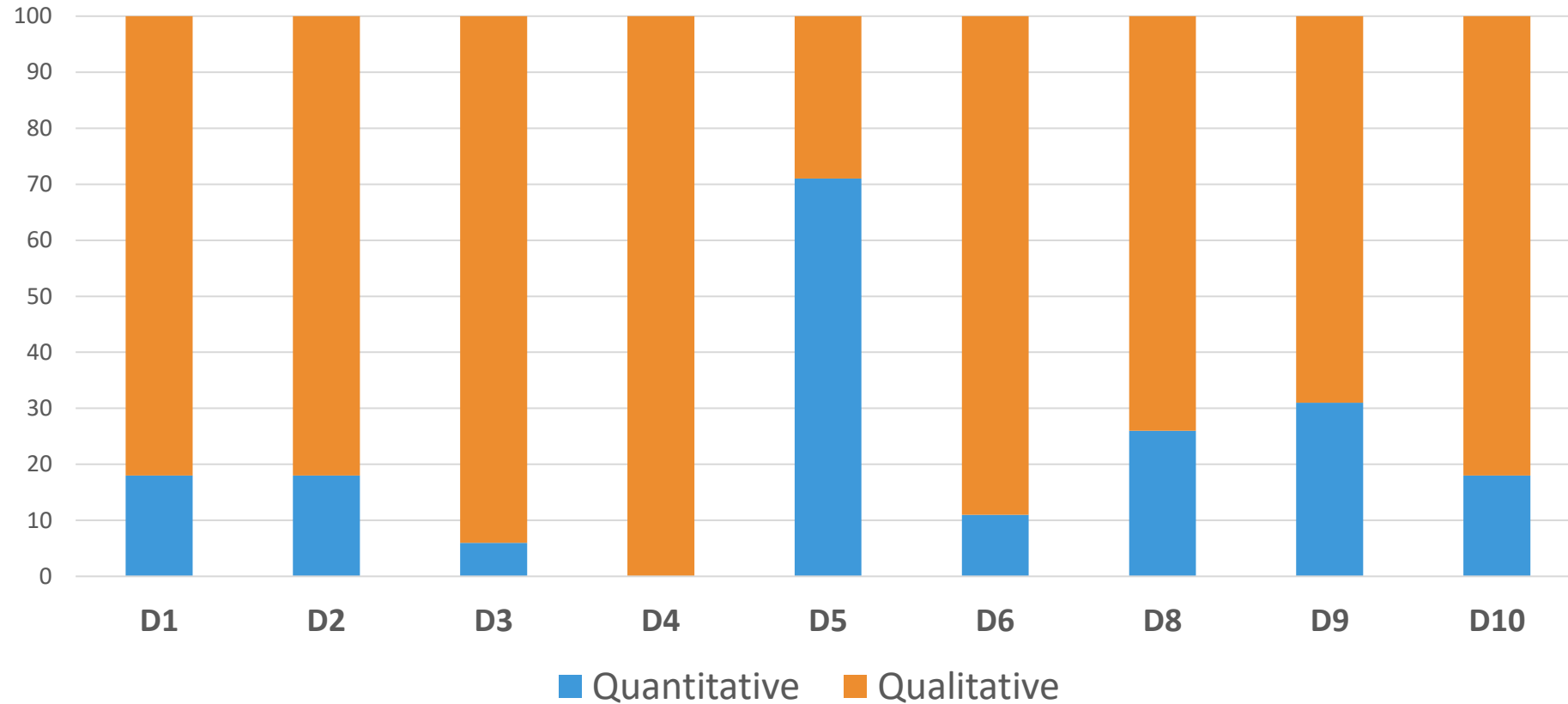
Description	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11
Targets per Descriptor	4683	254	381	611	584	965	322	598	302	359	218
Targets per Descriptor without duplicates	508	141	187	300	180	354	152	215	125	162	122
Targets only reported for 1 Descriptor	148	49	52	31	79	36	48	108	36	82	48

Types of Targets

- Different types of targets have been identified
- Difficult to group or analyse
- Descriptions are not always precise
- Descriptions mention:
 - Trends, Thresholds, Measures and Pressures



Quantitative and Qualitative Targets



Few Qualitative unique Targets per Descriptor

Recommendations

Technical discussions and agreements on definitions of MSFD targets could support target setting. This would enhance harmonisation among MS and across Descriptors.

Common definitions and agreed targets at EU, regional and subregional scale could facilitate target setting.

Target codes and descriptions in the reporting system should be revised, as target description is currently not code-unique. For example, the same target code is used by different MS and with different descriptions.

Limiting to the use of quantitative targets would enhance their applicability.

Targets for pressure reduction, closely linked to the implementation of MSFD Measures appear most efficient.

The use of unique targets per Descriptor and Criteria should be encouraged, avoiding their repetition.

The role of Targets in relation to Assessments and Measures, as a means to quantify and document ambition should be clearly defined in the MSFD implementation guidance.

The development of measurable targets and agreed measurable targets, closely linked to Assessments and Measures, should be prioritised in the MSFD CIS.

The ideal MSFD Target? Food for thoughts....

- Quantitative
- An expression of ambition/commitment within a timeframe
- Expressed in a Unit that relates to an MSFD parameter
- Related to identified concrete Measures and their implementation
- Example:
 - „X % reduction of Y until 20ZZ“
 - „Reaching X (e.g. TV, or an intermediate Value) until 20ZZ“



MSFD Thresholds



MSFD COMMISSION DECISION (EU) 2017/848

- (8) Threshold values are intended to contribute to Member States' determination of a set of characteristics for good environmental status and inform their assessment of the extent to which good environmental status is being achieved.....
- (13) Threshold values should reflect, where appropriate, the quality level that reflects the significance of an adverse effect for a criterion and should be set in relation to a reference condition.....

MSFD Thresholds

SWD (2020) 62 final

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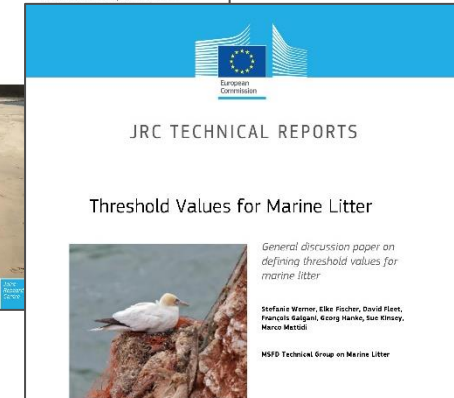
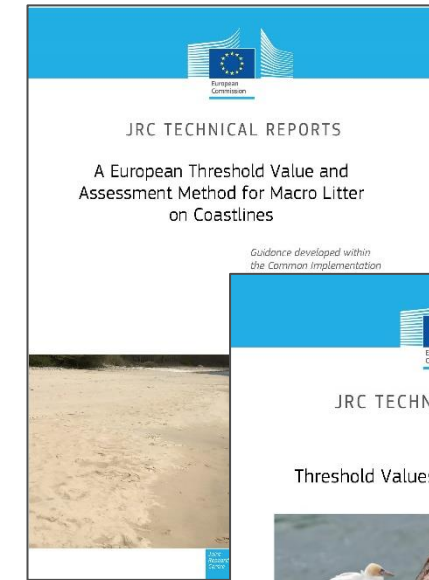
Key message

- Threshold values are set in relation to a reference condition, and may include an 'acceptable deviation' from this reference condition. This allows for sustainable uses of the marine environment whereby some level of pressures and their impacts can be accommodated, provided the overall quality of the environment is maintained.

Thresholds for MSFD Descriptors

Descriptor specific Threshold Reports (partially still under discussion):

- Biodiversity, Invasive Species, Eutrophication, Seabed, Contaminants, Litter, Noise,
- Note: Threshold developments include different approaches as based on „adverse effects“ or „spatial extent“



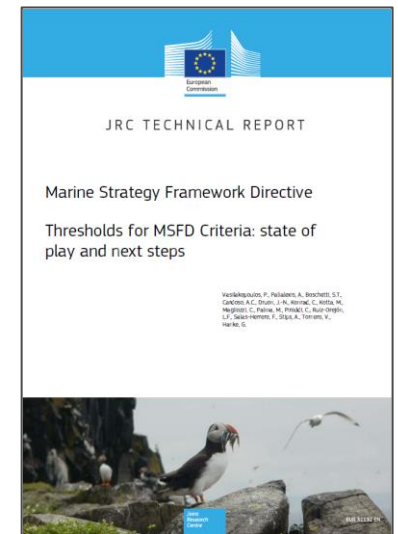
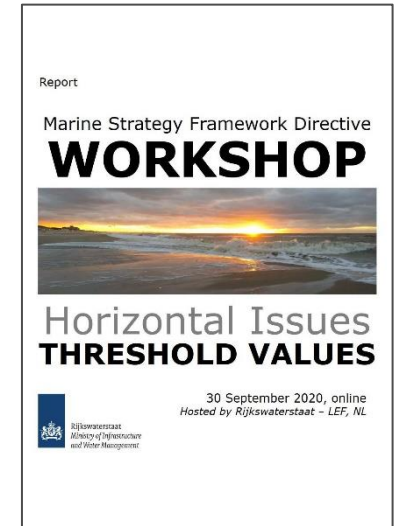
Available at: <https://mcc.jrc.ec.europa.eu/main/index.py>

Thresholds

- 2020 Horizontal Issues Workshop on Threshold Values
- JRC Report:
Thresholds for MSFD Criteria: State of Play and Next Steps
- Report published in July 2022. Reference time: **January 2022**
- Brief (40-page) overview of **MSFD** thresholds availability (not in-depth analysis; not RSC thresholds)
- Descriptor-specific experts drafted each section
- JRC maintains an updated MSFD Threshold Value overview table

Available at:

<https://publications.jrc.ec.europa.eu/repository/handle/JRC128344>



Overview

Descriptor	Criterion	Agreed threshold methods	TVs available
D2	D2C1		
	D2C2		
	D2C3		
D3	D3C1		
	D3C2		
	D3C3		
D5	D5C1		coastal
			open sea
	D5C2		coastal
			open sea
	D5C3		
	D5C4		coastal
			open sea
	D5C5		coastal
		open sea	
D5C6		coastal	
		open sea	
D5C7		coastal	
		open sea	
D5C8		coastal	
		open sea	
D6 (impact)	D6C1		
	D6C2		
	D6C3	Update October 2022	
D7	D7C1		
	D7C2		
D8	D8C1	water	water
		biota	biota
		sediment	sediment
	D8C2		
D8C3			
D8C4			
D9	D9C1		
D10	D10C1	coastline	coastline
		surface	surface
		seabed	seabed
	D10C2	coastline	coastline
		surface	surface
D10C3			
D10C4			
D11	D11C1		
	D11C2	Update October 2022	

Descriptor	Criterion	Agreed threshold methods	TVs available
D1 (species)	D1C1	Birds	Birds
		Mammals	Mammals
		Reptiles	Reptiles
		Fish & cephalopods	Fish & cephalopods
	D1C2	Birds	Birds
		Mammals	Mammals
		Reptiles	Reptiles
	D1C3	Fish & cephalopods	Fish & cephalopods
		Birds	Birds
		Mammals	Mammals
	D1C4	Reptiles	Reptiles
		Fish & cephalopods	Fish & cephalopods
		Birds	Birds
	D1C5	Mammals	Mammals
		Reptiles	Reptiles
Fish & cephalopods		Fish & cephalopods	
D1 (pelagic habitats)	D1C6		
D6 (state)	D6C4		
	D6C5	Update October 2022	
D4	D4C1		
	D4C2		
	D4C3		
	D4C4		

Requirements for developing Thresholds

- Sustainable Monitoring System in place (temporal and spatial coverage)
- Solid set of fit-for-purpose data to understand and evaluate the problem
- Baseline availability
- Agreed Methodology for Threshold setting
- Agreed Assessment Approach
- Scientific + Societal agreement on Threshold Value

Key findings

- MSFD heterogeneity complicates the harmonised interpretation of threshold (non-)availability
- Pressure-related TVs identify parameter-specific trigger values; others based on the spatial extent (e.g. D6, D7)
- Better availability of agreed TV-setting approaches than of actual TVs
- Better availability of TV-setting approaches and TVs for primary than secondary criteria; better for some Descriptors (e.g. D3, D5, D9) than others (e.g. D4, D7)
- Unclear what kind of action is/should be triggered by the current TVs of several Descriptors (e.g. D1, D4, D6)
- How to improve: extend monitoring, technical collaborative work, joint interpretations through guidance, adjustments in content of Criteria/Descriptors etc.

Thank you

