



# Improved Fisheries Management Models

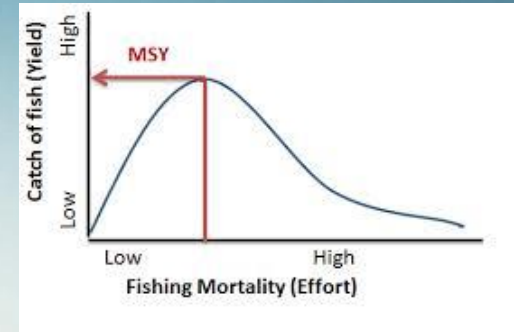
A view from DFPO

presented by Michael Andersen

**Axelborg, 8th October 2019**

# Article 2

# Fish at Fmsy

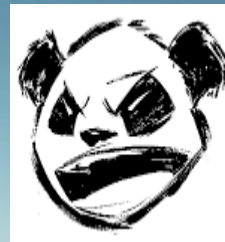
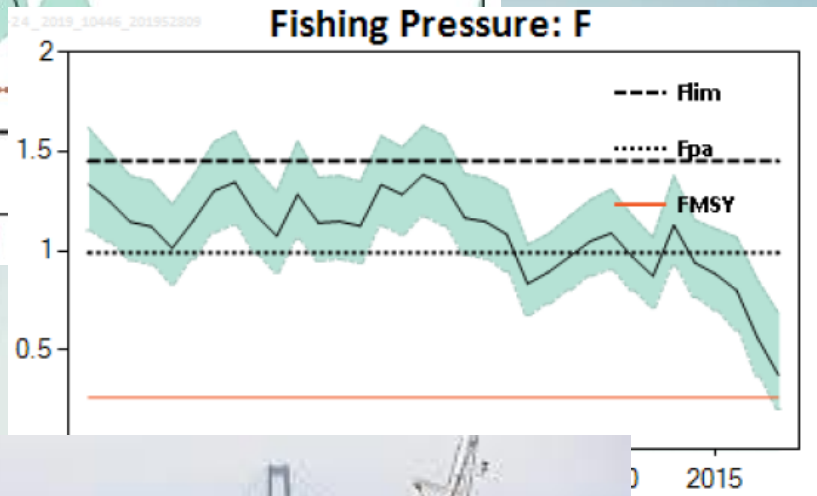
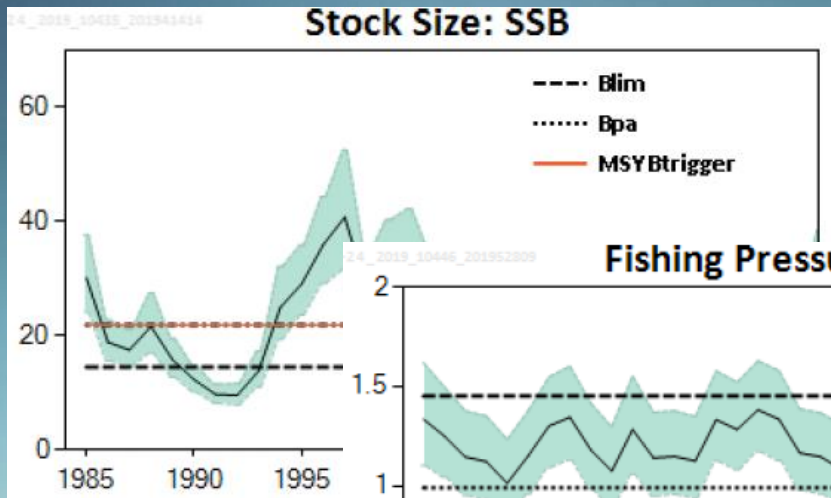


ICES

Fmsy is...

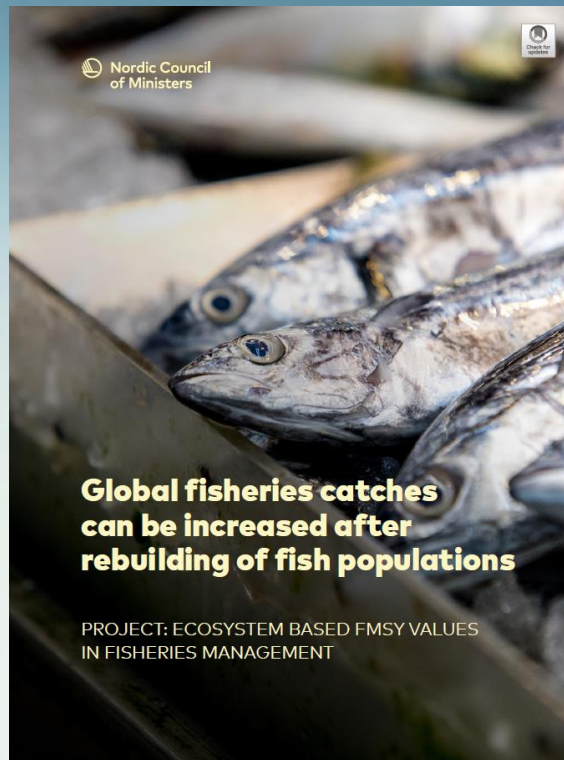
Management plans No socio-economic considerations





**OVERFISHING !!!**





We propose an approach that is simple, scientifically sound, builds on the existing stock assessment framework, and which removes known bias in current methodology.

# The cod case

	ICES Fmsy	NMTT Fmsy
Baltic 22-24	0,26	0,51
North Sea/Skagerrak	0,31	0,71

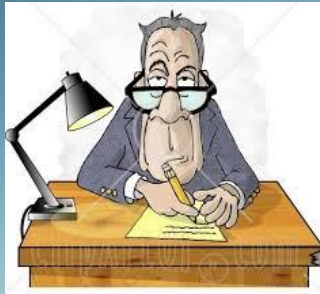
## No new biomass reference points

Always been told that F and SSB are positively correlated

	EU LTMP	NMTT	Difference	rough value
Baltic 22-24	5.105	12.350	7.245	72.450
NS/Skagerrak	21.873	48.745	26.872	537.440

More than 600 mill. DKK to gain

but also reduces risk of chokes

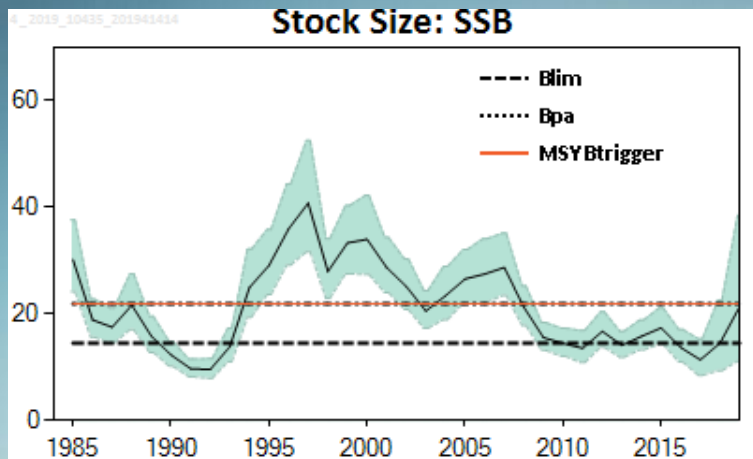


**Better management demands a better understanding of the msy concept**



**But there is also a need for better use of it**

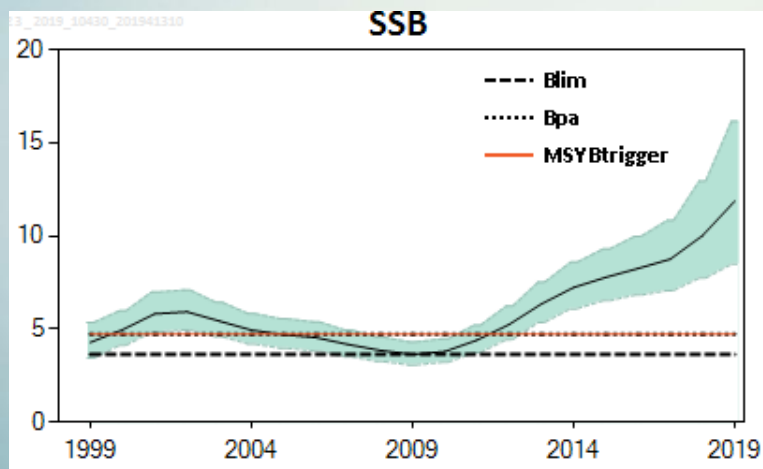
## Cod Western Baltic



## COM proposal



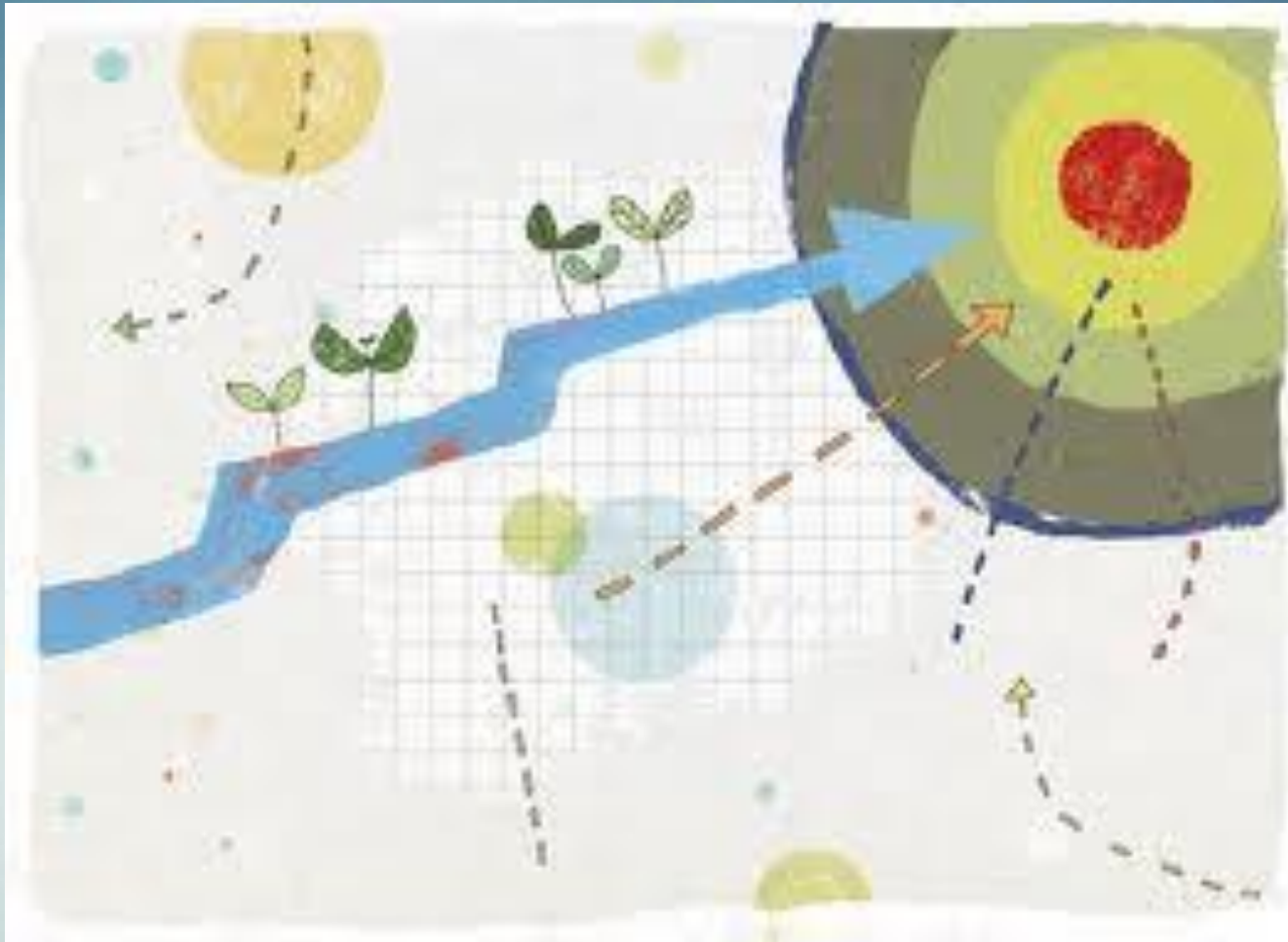
## Plaice 21-23





# Steps in the right direction

	$SSB < Blim$	$Blim < SSB < MSYBtrigger$	$MSYBtrigger < SSB$
Stock increasing	TAC is kept stable	TAC increased, but F reduced	TAC increased to $F_{msy}$
Stock stable	TAC reduced	TAC stable	TAC set to $F_{msy}$
Stock decreasing	TAC reduced	TAC reduced	TAC reduced



We'll get there but we need to bring the industry along

Time should not be given a high role – direction should