



Cephs and Chefs 'Octopus, Squid, Cuttlefish, Sustainable Fisheries and Chefs'

INTERREG (EAPA_282/2016)

WP5 – Global cephalopod market drivers

- ▶ USC | Gill Ainsworth, Pablo Pita, Joao Garcia-Rodrigues, Sebastián Villasante
- ▶ Aveiro | Cristina Pita, Katina Roubledakis, Daniela Castelo, Teresa Fonseca
- ▶ CSIC | Graham Pierce
- ▶ NUI Galway | Anne Marie Power
- ▶ MSC | Katie Longo



Task 5.2 Rapid literature review of global cephalopod market drivers

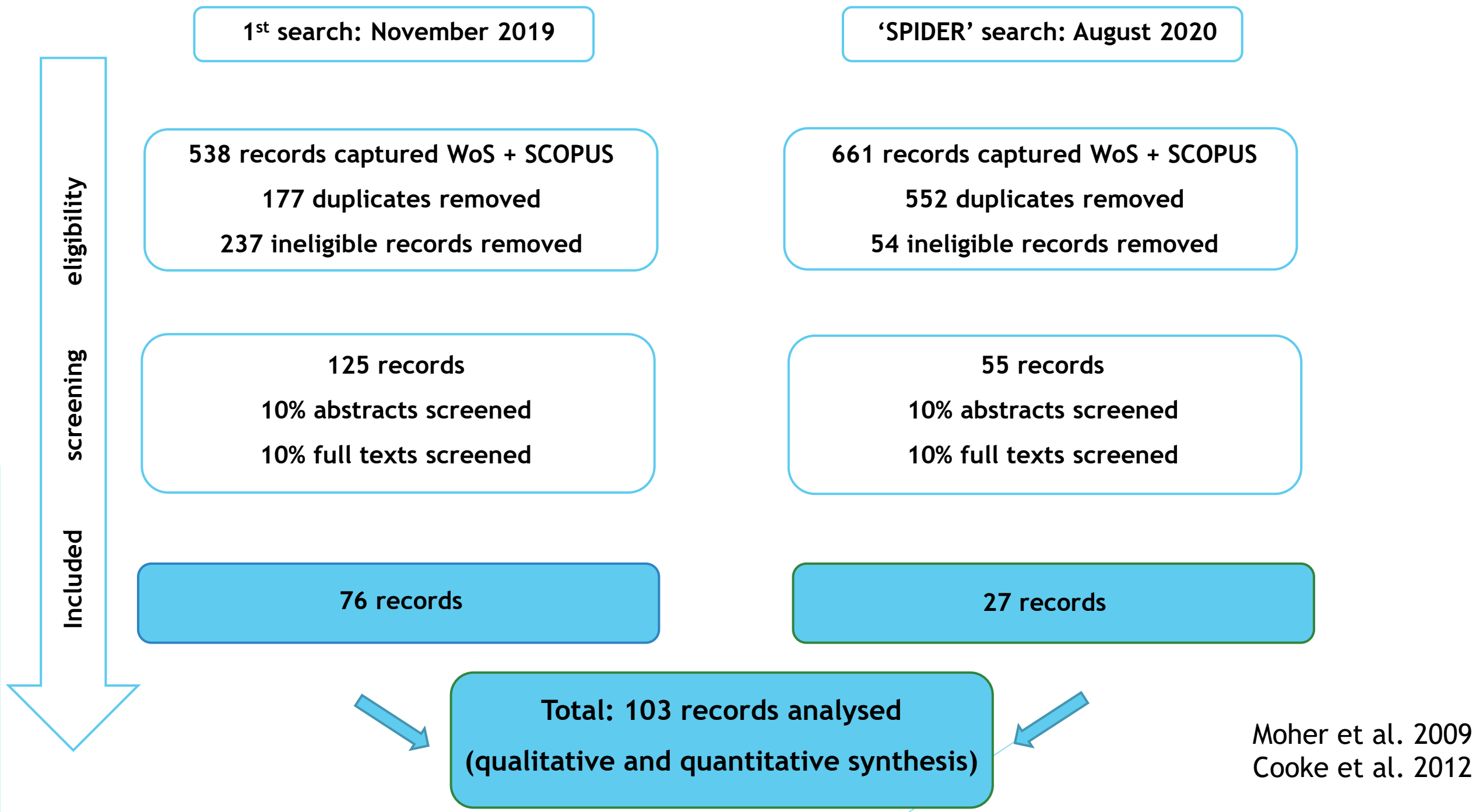
- ▶ Aim: To synthesise the available information on cephalopod (octopus, squid, cuttlefish) market drivers*
- ▶ Main objectives:
 - ▶ 1) to identify the most frequently reported market drivers affecting global cephalopod catch/trade/consumption;
 - ▶ 2) quantify which indicators are most frequently associated with these drivers;
 - ▶ 3) identify knowledge gaps and research needs.

*NB: market driver = force that influences catch/trade/consumption of cephalopods in a positive/negative/ambivalent/neutral direction



Interreg
Atlantic Area
European Regional Development Fund



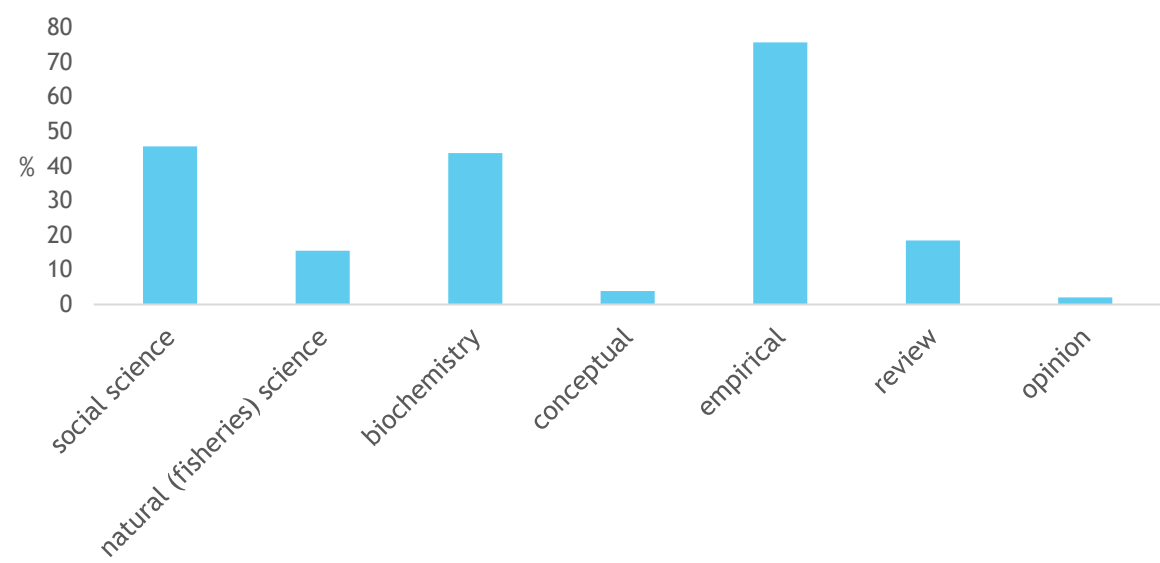


Analysis

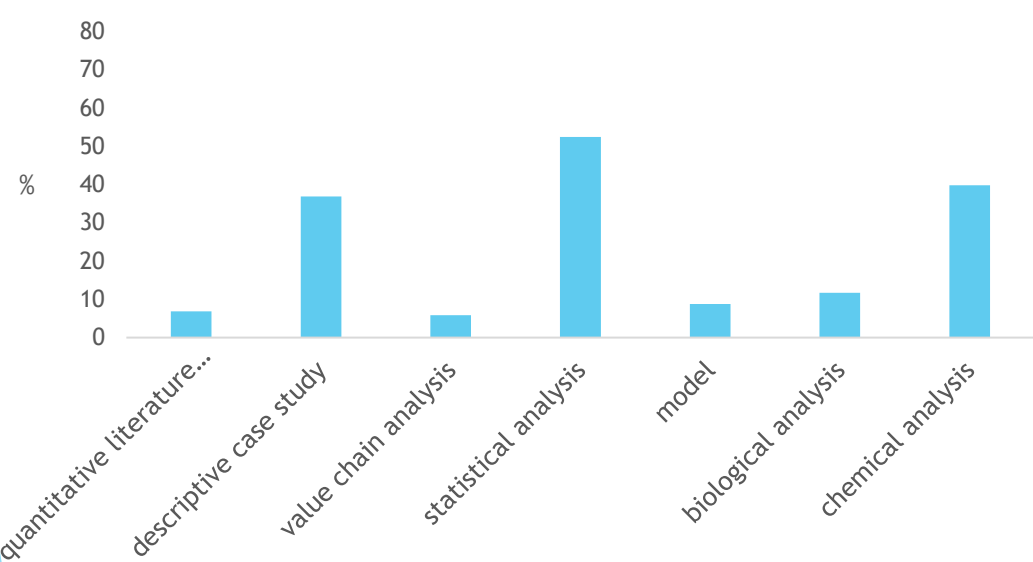
- ▶ Online Google Sheets template to code and quantify results (0, 1, 2)
 - ▶ Study characteristics:
 - ▶ year, journal, geographic area
 - ▶ research discipline, objectives, methods
 - ▶ cephalopod orders, key results, outcomes, knowledge gaps
 - ▶ key drivers, value chain actors, supply chain
 - ▶ key indicators: biological, ecological, catch, fisheries, economics, governance, social, preparation, food management, health & safety; environmental contaminants

103 items analysed (articles, book chapters, reviews)

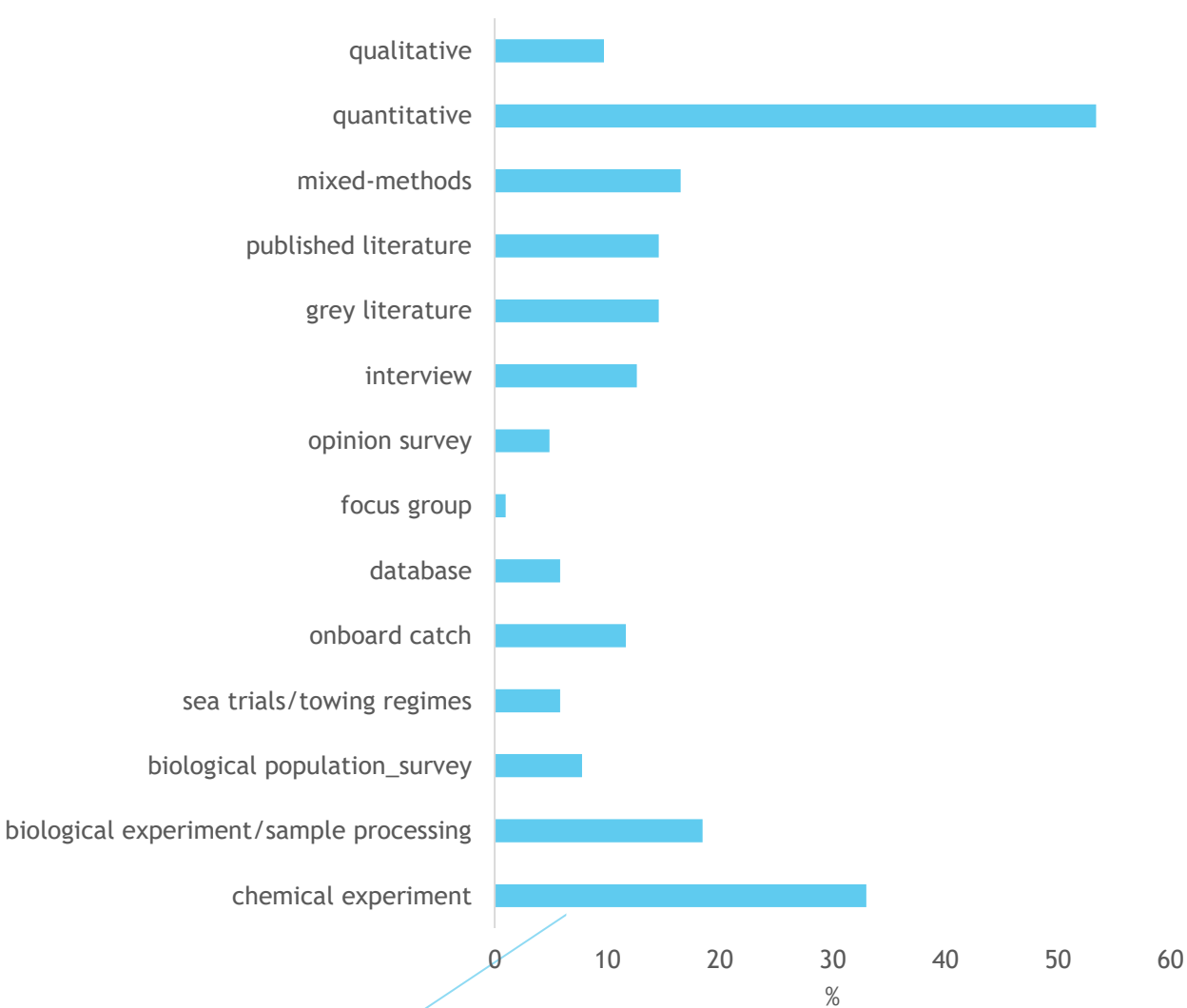
Research type



Data analysis

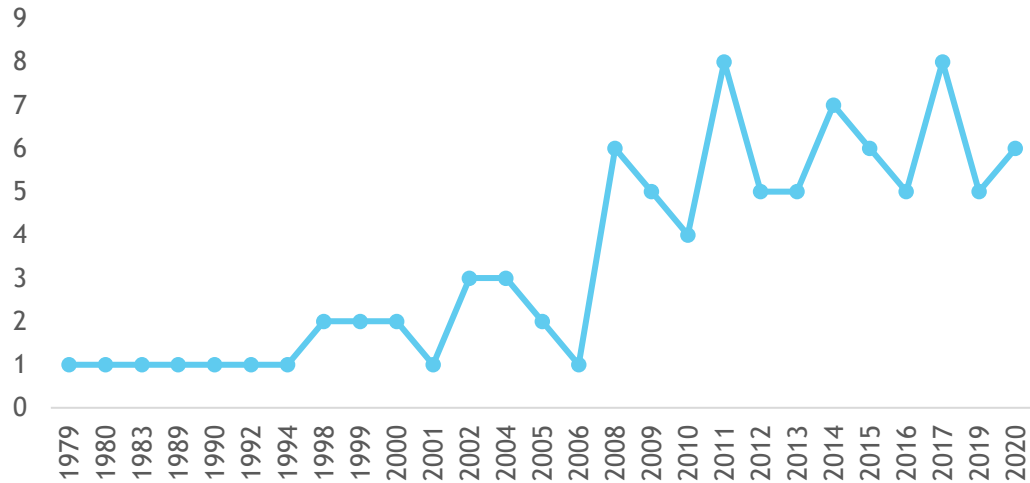


Data collection

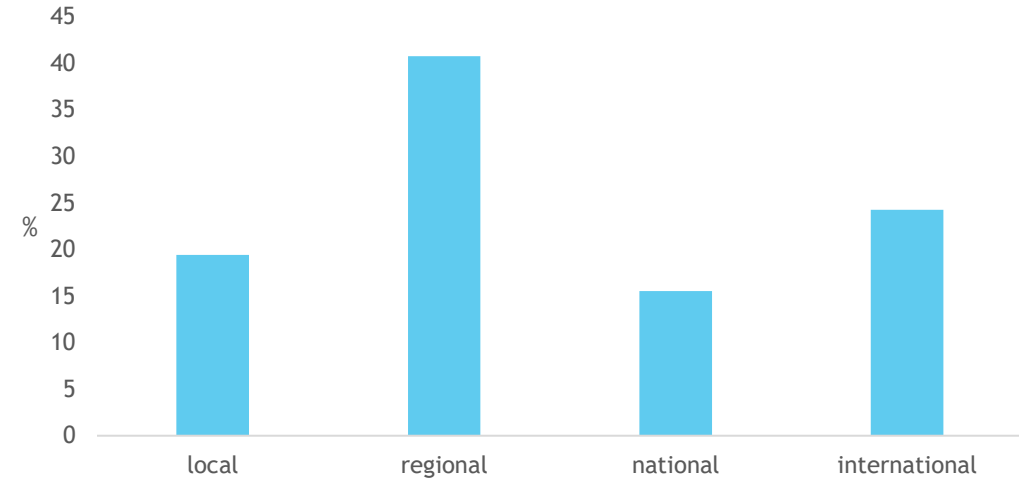


Scope of studies

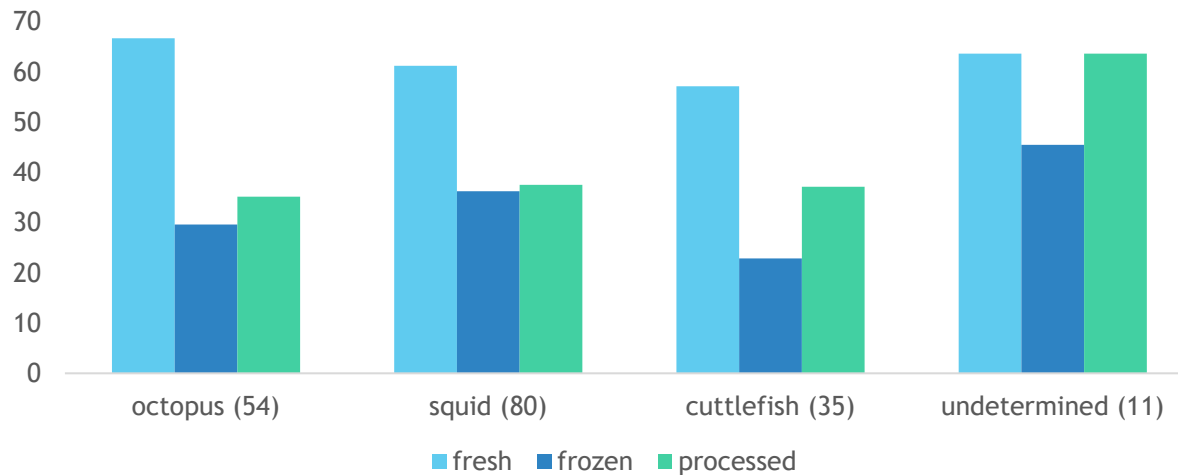
Year published



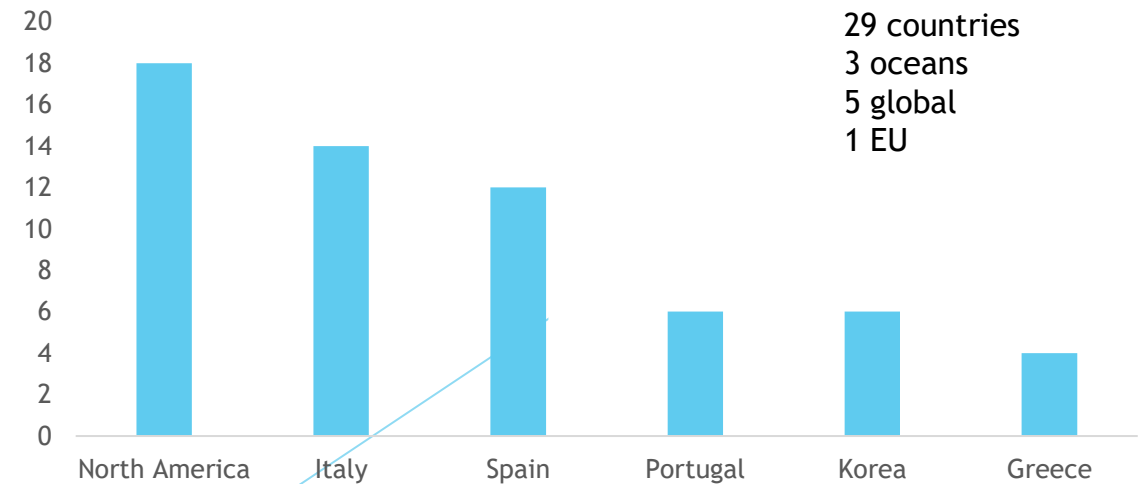
Geographic scope



Cephalopods studied

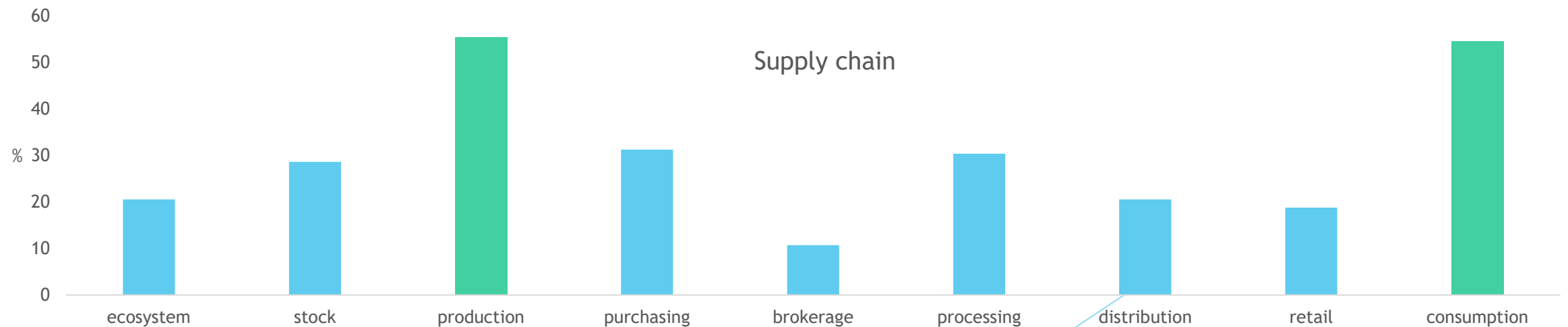
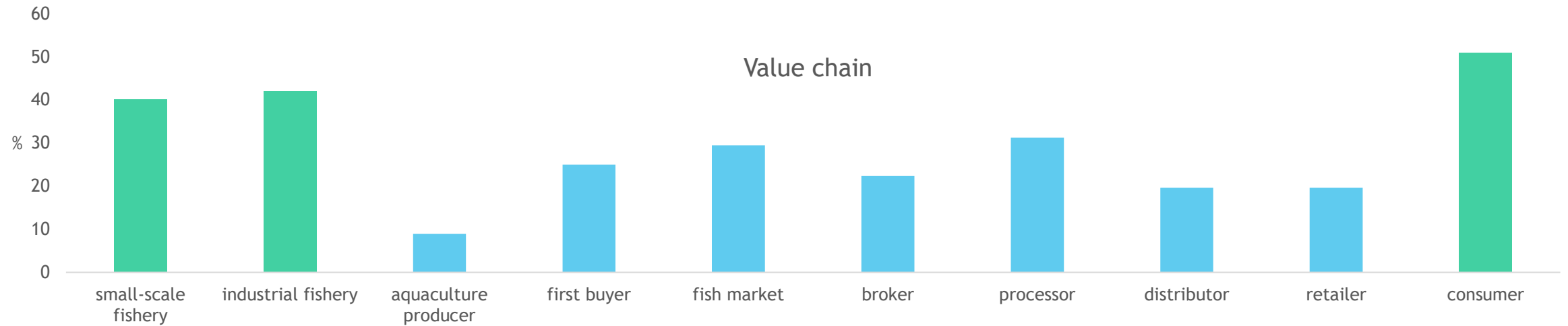


Main study areas

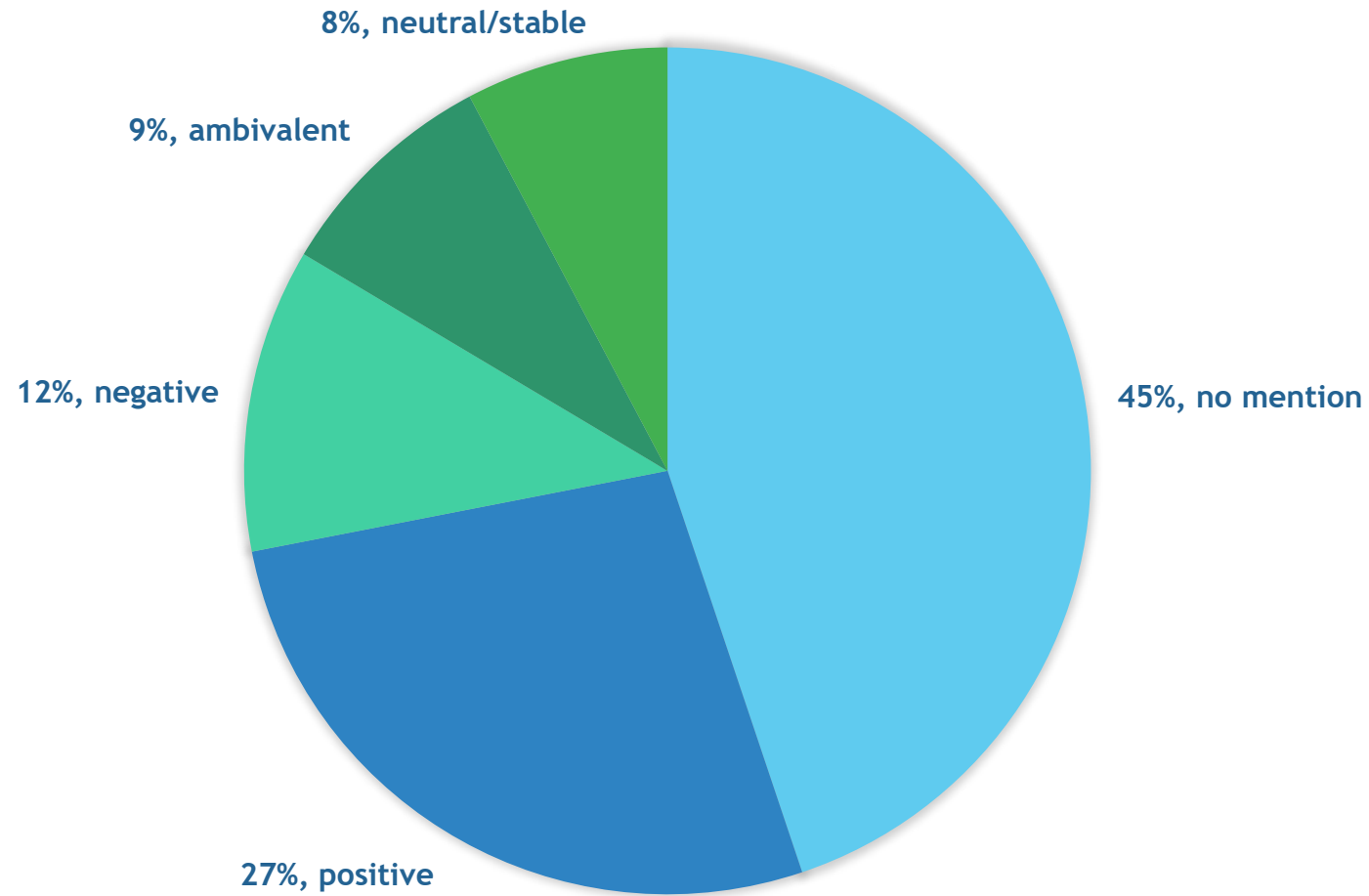


29 countries
3 oceans
5 global
1 EU

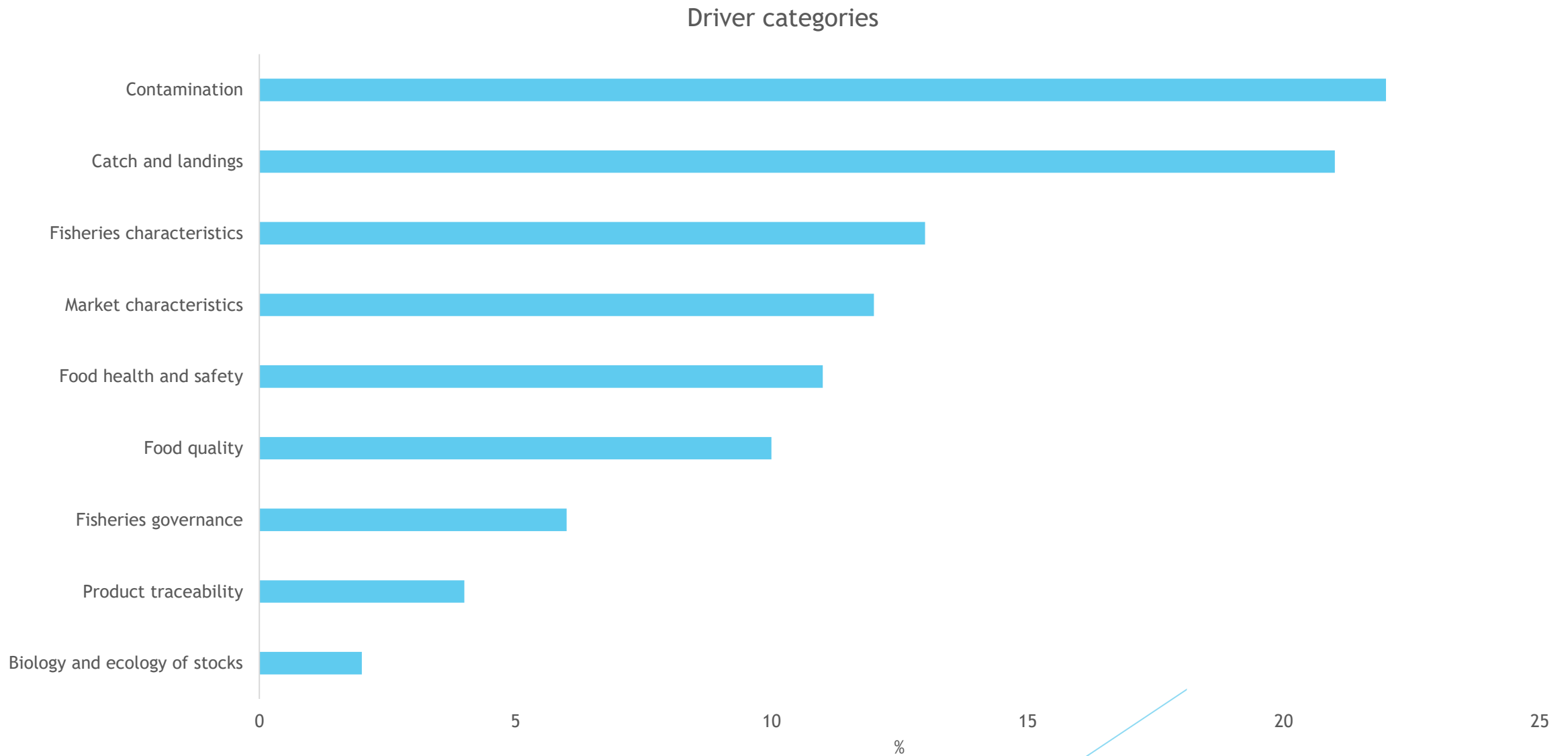
Actors/components discussed



Impact of drivers on markets



Key driver categories



57 indicators

Biological	Ecological	Climatic	Catch	Fisheries	Economics	Governance	Social	Preparation	Food Management	Health & Safety	Environmental Contaminants
biology	habitat	acidification	bycatch	fishery type	demand	policies	markets	fresh	freshness	quality	organic compounds
body size	ecology	climate change	cephalopod species	fishing tactics	supply	fisheries management frameworks	consumer preference	frozen	cooking		heavy metals
cephalopod life cycle	ecosystem		discards	fishing traditions	domestic trade	regulations (laws and norms)	products	processed	processing		
distribution / abundance	seasonality		fishing effort		international trade		value chain actors		nutrition		
biological sampling	environmental conditions		gear type		exports		role in the value chain		labelling		
	geographic layout of fishing grounds		landings		imports				parasites		
			non-cephalopod species		volume				hygiene		
			stock assessment		value						
					revenue						

Most frequently mentioned indicators

Biological	Ecological	Climatic	Catch	Fisheries	Economics	Governance	Social	Preparation	Food Management	Health & Safety	Environmental Contaminants
biology	habitat	acidification	bycatch	fishery type	demand	policies	markets	fresh	freshness	quality	organic compounds
body size	ecology	climate change	cephalopod species	fishing tactics	supply	fisheries management frameworks	consumer preference	frozen	cooking		heavy metals
cephalopod life cycle	ecosystem		discards	fishing traditions	domestic trade	regulations (laws and norms)	products	processed	processing		
distribution / abundance	seasonality		fishing effort		international trade		value chain actors		nutrition		
biological sampling	environmental conditions		gear type		exports		role in the value chain		labelling		
	geographic layout of fishing grounds		landings		imports				parasites		
			non-cephalopod species		volume				hygiene		
			stock assessment		value						
					revenue						

Levels of toxic elements due to heavy metal contamination (e.g. cadmium) (16%)

Biological	Ecological	Climatic	Catch	Fisheries	Economics	Governance	Social	Preparation	Food Management	Health & Safety	Environmental Contaminants
biology	habitat	acidification	bycatch	fishery type	demand	policies	markets	fresh	freshness	quality	organic compounds
body size	ecology	climate change	cephalopod species	fishing tactics	supply	fisheries management frameworks	consumer preference	frozen	cooking		heavy metals
cephalopod life cycle	ecosystem		discards	fishing traditions	domestic trade	regulations (laws and norms)	products	processed	processing		
distribution / abundance	seasonality		fishing effort		international trade		value chain actors		nutrition		
biological sampling	environmental conditions		gear type		exports		role in the value chain		labelling		
	geographic layout of fishing grounds		landings		imports				parasites		
			non-cephalopod species		volume				hygiene		
			stock assessment		value						
					revenue						

Volume, value and landings of cephalopods (11%)

Biological	Ecological	Climatic	Catch	Fisheries	Economics	Governance	Social	Preparation	Food Management	Health & Safety	Environmental Contaminants
biology	habitat	acidification	bycatch	fishery type	demand	policies	markets	fresh	freshness	quality	organic compounds
body size	ecology	climate change	cephalopod species	fishing tactics	supply	fisheries management frameworks	consumer preference	frozen	cooking		heavy metals
cephalopod life cycle	ecosystem		discards	fishing traditions	domestic trade	regulations (laws and norms)	products	processed	processing		
distribution / abundance	seasonality		fishing effort		international trade		value chain actors		nutrition		
biological sampling	environmental conditions		gear type		exports		role in the value chain		labelling		
	geographic layout of fishing grounds		landings		imports				parasites		
			non-cephalopod species		volume				hygiene		
			stock assessment		value						
					revenue						

Levels of bacterial contamination (e.g. *Listeria monocytogenes*) (9%)

Biological	Ecological	Climatic	Catch	Fisheries	Economics	Governance	Social	Preparation	Food Management	Health & Safety	Environmental Contaminants
biology	habitat	acidification	bycatch	fishery type	demand	policies	markets	fresh	freshness	quality	organic compounds
body size	ecology	climate change	cephalopod species	fishing tactics	supply	fisheries management frameworks	consumer preference	frozen	cooking		heavy metals
cephalopod life cycle	ecosystem		discards	fishing traditions	domestic trade	regulations (laws and norms)	products	processed	processing		
distribution / abundance	seasonality		fishing effort		international trade		value chain actors		nutrition		
biological sampling	environmental conditions		gear type		exports		role in the value chain		labelling		
	geographic layout of fishing grounds		landings		imports				parasites		
			non-cephalopod species		volume				hygiene		
			stock assessment		value						
					revenue						

Next steps...

- ▶ Analysis
 - ▶ Further explore key market drivers and indicators
 - ▶ Describe how drivers and associated indicators relate to cephalopod value chains
 - ▶ Identify knowledge gaps
- ▶ Database with market drivers (Output Task 5.1) ✓
- ▶ Paper in progress: Ainsworth et al. Global cephalopod market drivers



CEPHS
&
CHEFS

Cephs and Chefs 'Octopus, Squid, Cuttlefish, Sustainable Fisheries and Chefs'

INTERREG (EAPA_282/2016)

Thank you

gill.ainsworth@usc.es

