

EO 4 Ecosystem Accounting 2022

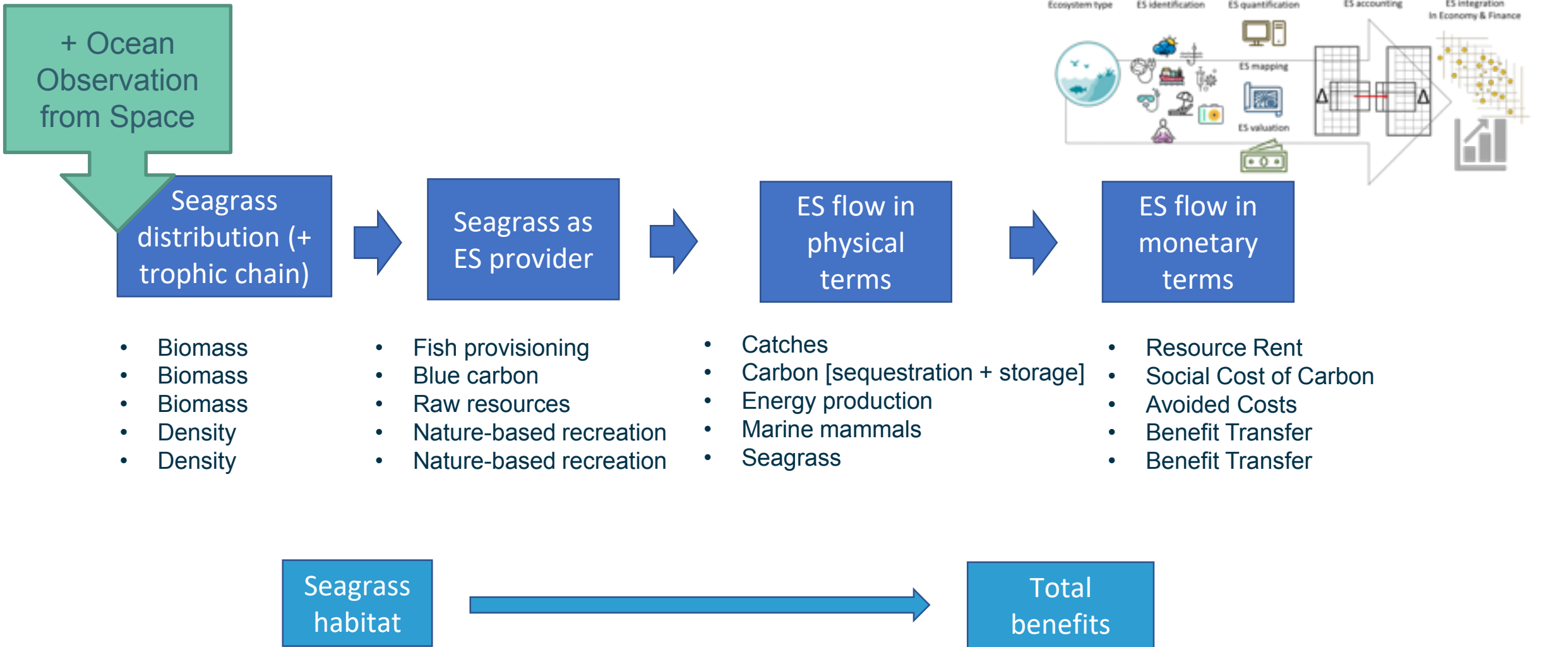
SPACE OBSERVATIONS FOR MARINE ACCOUNTING: THE MEDITERRANEAN CASE

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WORKFLOW



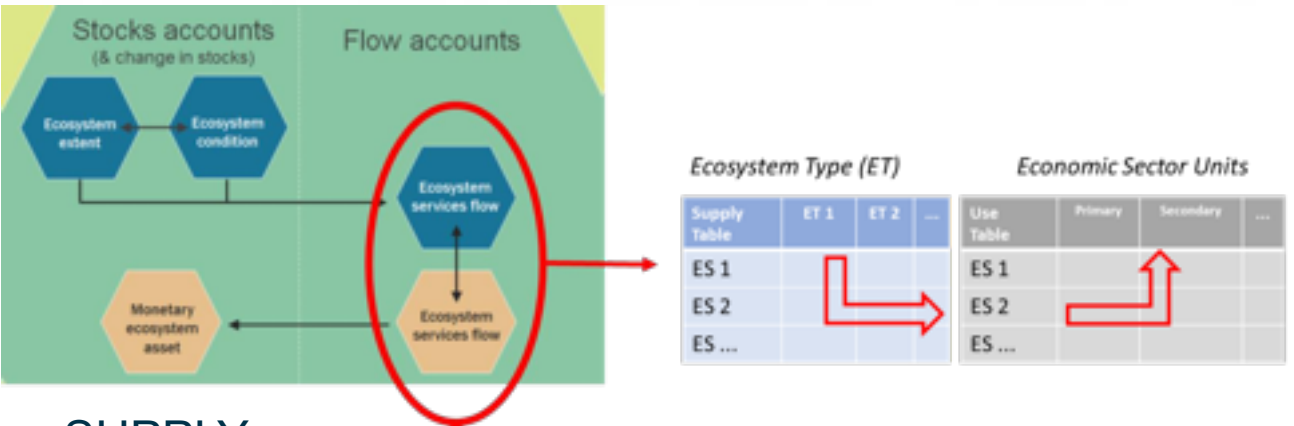
MARINE ECOSYSTEM SERVICES

- Biomass • Blue renewable energy → Biomass for energy + further applications
- Density • Nature-based recreation → Dives



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SUPPLY AND USE TABLES



ES are considered as a transition
‘ecosystem sectors’ → ‘socio-economic sectors’

SUPPLY

Ecosystem Services	Sub-regions of the Mediterranean Sea (GFCM)			
	Western Mediterranean Sea	Central Mediterranean Sea	Adriatic Sea	Eastern Mediterranean Sea
<i>tonne</i>				
Carbon sequestration SG	379	54	76	25
Carbon storage SG	260	37	52	17
Tot Blue carbon SG	639	91	128	42
Raw Biomass provision	3216	459	641	213
Anchovy	15740	4565	4565	4403
Mullet	2279	2592	845	483
Pilchard	5274	3289	3289	0
Sparidae	220	0	0	0
Thuna	4227	1447	1226	562
Tot Fish provision	27740	11892	9925	5447

USE

Ecosystem Services	Mediterranean Countries						
	Spain	France	Italy	Malta	Croatia	Slovenia	Greece
<i>tonne</i>							
Carbon sequestration SG	128	112	217	9	20	0,05	27
Carbon storage SG	88	77	149	6	14	0,03	19
Tot Blue carbon SG	216	188	366	15	34	0,08	46
Raw Biomass provision	1086	947	1841	73	172	0,40	232
Anchovy	10588	587	11391	0	2292	10,54	4403
Mullet	544	45	3799	0	424	1,95	1385
Pilchard	4925	349	4918	0	1652	7,60	0
Sparidae	220	0	0	0	0	0,00	0
Tuna	1082	2180	2537	0	616	2,83	1044
Tot Fish provision	17360	3160	22644	0	4984	22,92	6831

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- + optical (satellite imagery), and acoustic (sidescan sonar) remote sensing techniques
- + in situ methodologies (visual census; SCUBA diving, Towed Underwater Cameras, and Remotely Operated Vehicles)



limitations that still affect remote sensing product applications:

- similar products, and in some case may even show inconsistency among each other
- often missing information on products uncertainties
- not always available information on how to obtain best quality data
- OC product limitations for optically complex waters where adequate characterization from the point of view of inherent optical properties is still required

Thank you

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Slide 5: Image - Biofuel, source: <https://aegex.com/>; Slide 5: Image - Diving in the *Posidonia* seagrass beds, source: <https://divernet.com/>