

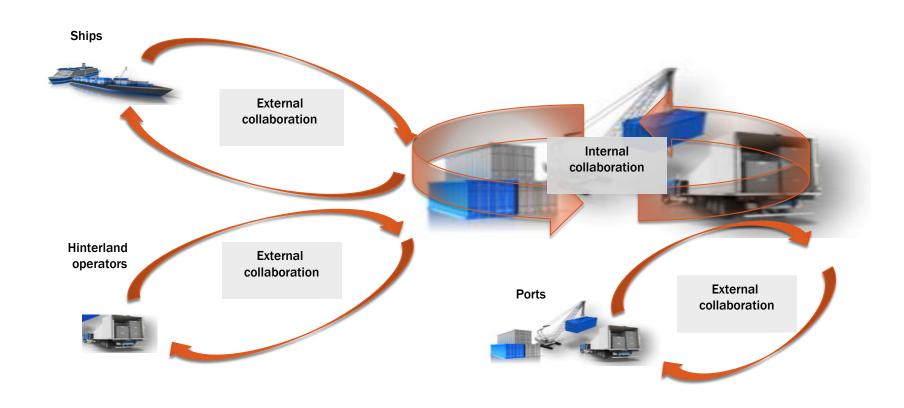


INTRODUCTION IMO CARES PROPOSAL DIGIPORT

June 2024

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SMART SHIPPING: COLLABORATION IS PARAMOUNT

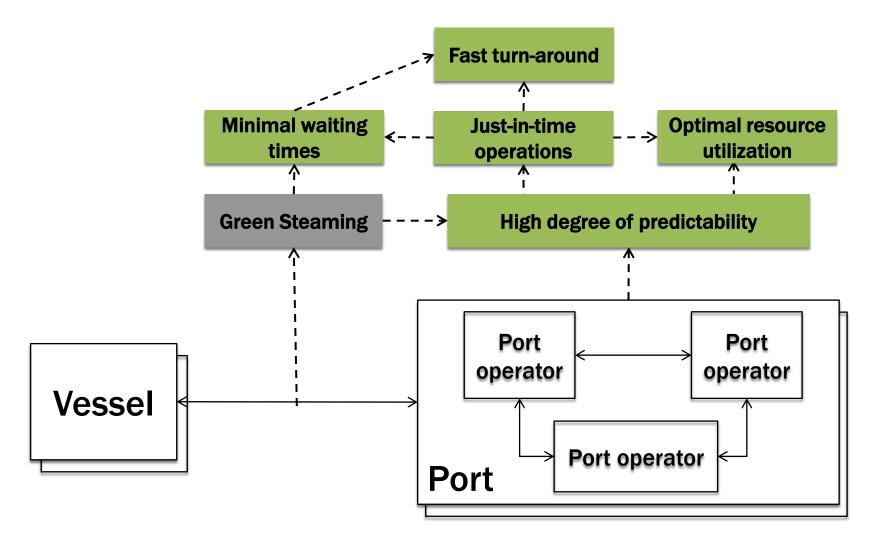


Source: STM Validation Project 2018

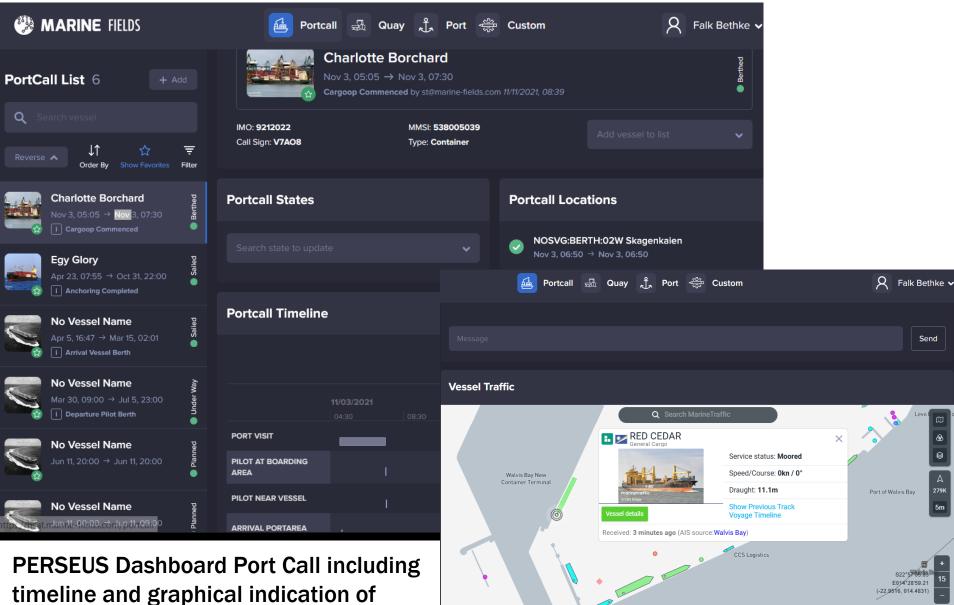


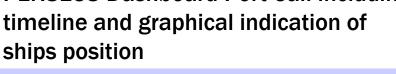


DESIRED PORTCOM EFFECTS



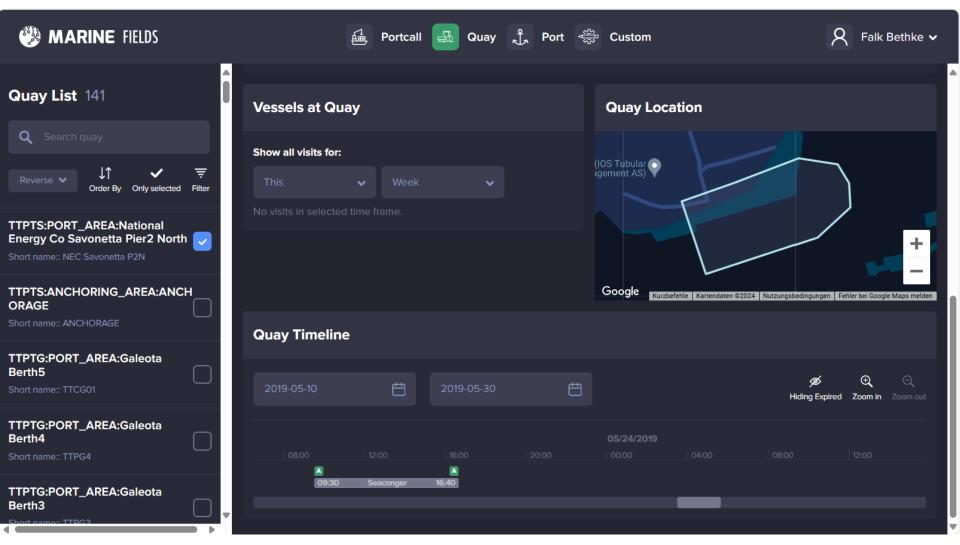












PERSEUS Menu for berth details inclusive berth utilization planed, targeted and actual





GHG REDUCTION

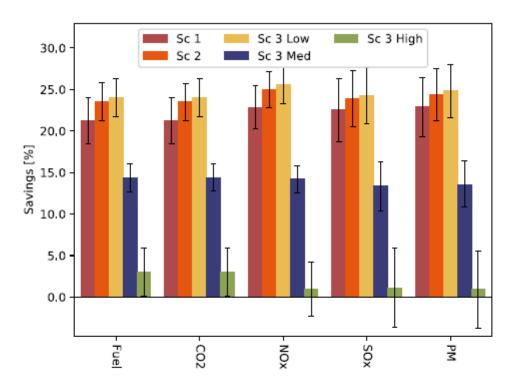


Figure 67. Overview of the savings in fuel consumption and emissions in each scenario for CS2

Source: STM Validation Project final report



GHG REDUCTION

Monetary Savings in ports	Pessimistic scenario	Moderate Scenario	Optimistic Scenario
Amount of Fuel saving in Ports	7,081,873 €	18,038,119 €	31,733,425 €
Amount of CO ₂ saving in Ports	1,034,171 €	2,634,120 €	4,634,056 €
Amount of NO _x saving in Ports	3,699,138 €	9,422,013 €	16,575,605 €
Amount of SO _x saving in Ports	428,813 €	1,092,221 €	1,921,482 €
Amount of PM _x saving in Ports	113,224 €	288,391 €	507,349 €
Amount of GHG saving in Ports	5,275,346 €	13,436,745 €	23,638,492 €

Table 8. Monetary savings in ports estimation

Monetary Savings (€) in Navigation	Scenario 1	Scenario 2	Scenario 3 Low	Scenario 3 Med	Scenario 3 High
Amount of Fuel (MGO) saving in Navigation	669,921,549€	943,443,891€	1,212,719,733€	553,702,303€	-21,505,761€
Amount of CO ₂ saving in Navigation	97,829,149€	137,771,823€	177,094,378€	80,857,565€	-3,140,502€
Amount of NO _X saving in Navigation	349,926,143€	492,797,526€	633,450,797€	289,220,300€	-11,233,297€
Amount of SO _x saving in Navigation	40,564,238€	57,126,215€	73,431,064€	33,527,078€	-1,302,189€
Amount of PM _X saving in Navigation	10,710,603€	15,083,636€	19,388,777€	8,852,507€	-343,831€
Amount of GHG saving in Navigation	499,030,134€	702,779,201€	903,365,015€	412,457,451€	-16,019,820€

Table 10. Monetary savings in Navigation estimation

Source: STM Validation Project final report





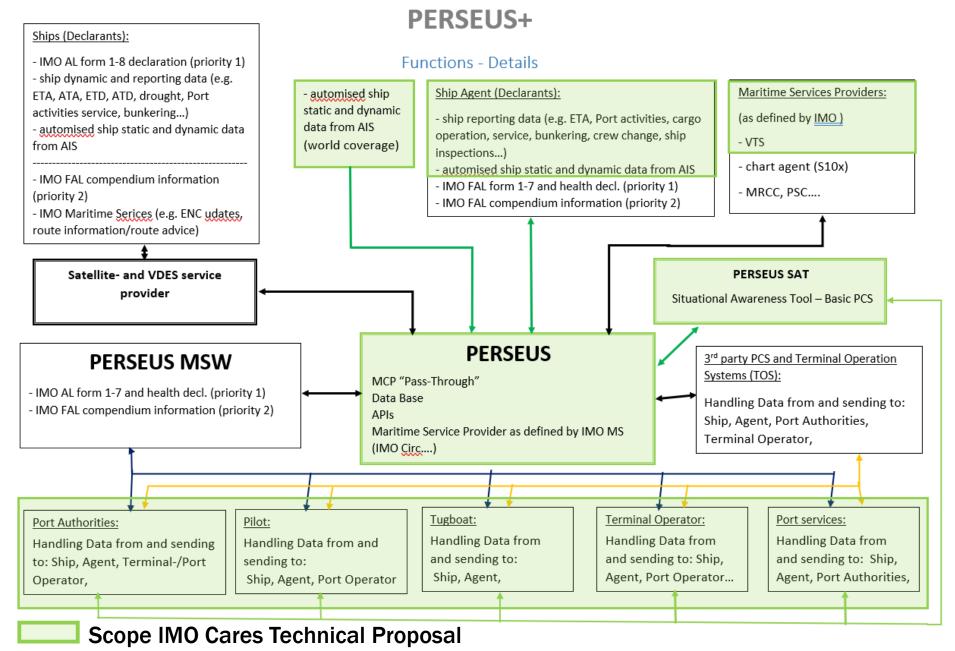
MESSURABLE KPI

Scope	NAMPORT tCO2e (tonnes of Carbon)								
	2018/2019	2019/2020	2020/2021	2021/2022	2022/23	2023/24			
Scope 1	5,714	5,262	3,912	4,340	4,687	5,250			
Scope 2	5,561	5,705	4,657	4,616	4,079	3,601			
Scope 3	6,878	7,382	7,271	7,652	7,089	8,851			
Scope 1 & 2	11,275	10,967	8,569	8,956	8,766	8,209			
Total Carbon Emissions	18,154	18,349	15,840	16,608	15,855	17,060			
Total TEUs	144,109	142,957	154,207	166,545	160,368	171,151			
CO2 Emissions per TEU= Total Number of TEUs Handled/ Total CO2 Emissions	126 kgCO₂e/ TEU	128 kgCO₂e/ TEU	102 kgCO₂e/ TEU	99 kgCO₂e/ TEU	98 kgCO₂e/ TEU	99.7 kgCO₂e/ TEU			

KPI for emission reduction

KPI for efficiency improvement

	Apr 21	Mai 21	Jun 21	Jul 21	Aug 21	Sep 21	Okt 21	Nov 21	Dez 21	Jan 22	Feb 22	Mrz 22
Monthly Progressive Average	2,95	2,64	2,47	2,35	2,63	2,76	2,87	2,94	2,95	2,95	2,98	2,99
Monthly Index Score	2,95	2,33	2,13	1,97	3,76	3,39	3,58	3,43	3,04	2,96	3,26	3,13
	Apr 22	Mai 22	Jun 22	Jul 22	Aug 22	Sep 22	Okt 22	Nov 22	Dez 22	Jan 23	Feb 23	Mrz 23
Monthly Progressive Average	3,30	3,28	3,15	3,19	3,20	3,25	3,28	3,29	3,29	3,32	3,35	3,36
Monthly Index Score	3,30	3,26	2,89	3,31	3,26	3,49	3,46	3,34	3,28	3,59	3,62	3,57
	Apr 23	Mai 23	Jun 23	Jul 23	Aug 23	Sep 23	Okt 23	Nov 23	Dez 23	Jan 24	Feb 24	Mrz 24
Monthly Progressive Average	3,88	3,62	3,40	3,35	3,39	3,37	3,40	3,42	3,44	3,41	3,46	3,49
Monthly Index Score	3,88	3,36	2,96	3,21	3,56	3,23	3,58	3,58	3,57	3,20	3,91	3,80







THANK YOU!

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