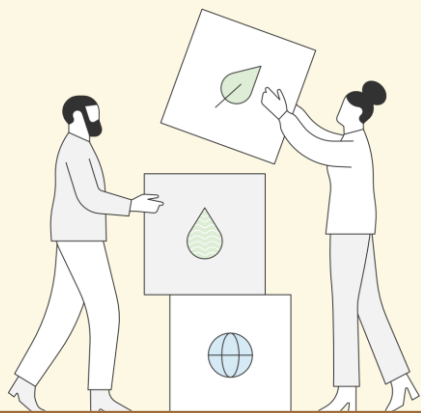


Workstream 2: Alternative fuels – Data collection template

Collect data points for relevant fuel projects: location, capacity and expected production volumes, among others

Estimate the **cost of origin** for selected alternative fuels if possible



Tab. 2.1: Overview of relevant fuel projects

	Fuel project 1	Fuel project 2	Fuel project 3	Fuel project 4	Fuel project 5	Fuel project 6
Company name						
Site (location)						
State (region)						
Fuel type						
Capacity (KT/year)						
Renewable source (e.g., sun, wind, hydro)						
Status (in operation, final investment decision (FID), sanction, Feasibility study (F/S), idea)						
Energy performance certificate (EPC)						
Renewable supply (e.e., underway, in place)						
Financing (e.g., underway, in place)						
Groundwork (e.g., underway, completed)						
Construction (e.g., underway, completed)						
Commencement target year/ forecast						
Production volume in 2025 (KT)						
Production volume in 2030 (KT)						
Production volume in 2035 (KT)						
Production volume in 2040 (KT)						
Production volume in 2050 (KT)						
Offtake agreements						

Tab. 2.2: Fuel Cost of origin

Cost in USD / GJ and USD / t

Fuel type	Unit	Existing	2025	2030	2035	2040	2045
	in USD / GJ						
	in USD / t						
	in USD / GJ						
	in USD / t						
	in USD / GJ						
	in USD / t						

Workstream 3: Port, storage, and bunkering infrastructure – Data collection template

Data related to port, storage, and bunkering infrastructure is collected and is divided into 6 areas:

- **Port-specific restrictions** (such as water depth or number of cranes)
- **Port-specific trade – Imports** (split into refrigerated, bulk, liquid cargo, etc.)
- **Port-specific trade - Exports** (split into refrigerated, bulk, liquid cargo, etc.)
- **Current infrastructure** (overview of bunkering and truck, barge, pipe infrastructure at port)
- **Future infrastructure – Bunkering** (by fuel and year)
- **Future infrastructure – Call** (by fuel and year)
- **Future infrastructure – Cargo**

Tab. 3.1: Port Specific Restrictions

Port [Name]	Ownership [type]	Location [UTM X]	Location [UTM Y]	Water depth [m]	Congestion degree	Max. Ships per day	Max. Storage capacity	Number of cranes

Tab. 3.2: Port-specific trade - Imports

Port [Name]	General cargo				
	Tonnage per port (in	Port share of cargo t)	Value (FOB) per port	Port share of cargo t)	Tonnage per p
Total	-	-	-	-	

Tab. 3.3: Port-specific trade - Exports

Port [Name]	General cargo				
	Tonnage per port (in	Port share of cargo t)	Value (FOB) per port	Port share of cargo t)	Tonnage per p
Total	-	-	-	-	

Tab. 3.4: Current infrastructure - Overview of bunkering and infrastructure options available per port

Port [Name]	Operator [Name]	Fuel type [yes; no]		Infrastructure	
		Alternative Fuel 1	Alternative Fuel 2	Truck	Barge

Tab 3.5: Future infrastructure - Bunkering

Alternative Fuel 1

Port and Fuel type	2023	2025	2030	2040	2050
Port 1 - Alternative Fuel 1					
Port 2 - Alternative Fuel 1					
Port 3 - Alternative Fuel 1					
Port 4 - Alternative Fuel 1					
Port 5 - Alternative Fuel 1					

Alternative Fuel 2

Port and Fuel type	2023	2025	2030	2040	2050
Port 1 - Alternative Fuel 2					
Port 2 - Alternative Fuel 2					
Port 3 - Alternative Fuel 2					
Port 4 - Alternative Fuel 2					
Port 5 - Alternative Fuel 2					

Tab 3.6: Future infrastructure - Call

Alternative Fuel 1

Port and Fuel type	2023	2025	2030	2040	2050
Port 1 - Alternative Fuel 1					
Port 2 - Alternative Fuel 1					
Port 3 - Alternative Fuel 1					
Port 4 - Alternative Fuel 1					
Port 5 - Alternative Fuel 1					

Alternative Fuel 2

Port and Fuel type	2023	2025	2030	2040	2050
Port 1 - Alternative Fuel 2					
Port 2 - Alternative Fuel 2					
Port 3 - Alternative Fuel 2					
Port 4 - Alternative Fuel 2					
Port 5 - Alternative Fuel 2					

Workstream 4: Trade routes, vessels, cargo and services – Data collection template

Trade routes, vessel, cargo, and services-related data collection is divided into 7 areas:

- Overall assessment of import/export into region, independent of mode of transportation
- Vessel analysis (emissions and fuel consumption)
- Vessel-specific trade – Imports (e.g., volume, value, origin, etc.)
- Vessel-specific trade – Exports (e.g., volume, value, origin, etc.)
- Vessel-specific services – Domestic services (e.g., number of passengers, destination, etc.)
- Vessel-specific services – International services (e.g., number of passengers, destination, etc.)

Tab. 4.1: Vessel analysis - Emissions and fuel consumption

Summary of fuel consumption and CO2 emissions (TtW) for defined region fleet during a defined time phase

	Vessel segment 1	Vessel segment 2	Vessel segment 3	Vessel segment 4	Vessel segment 5
Ships (#)					
Voyages (#)					
Emission factor (#)	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Fuel Main (kT/yr)					
Fuel Aux (kT/yr)					
Total fuel (kT/yr)					
CO2 emissions (kT/yr)					

Tab. 4.2: Vessel-specific trade - Imports

Product	Volume (in t)	Share of total tonnage (in %)	Value (FOB in US \$)	Share of total value (in %)	FOB / tonnage
Product 1		#DIV/0!		#DIV/0!	#DIV/0!
Product 2		#DIV/0!		#DIV/0!	#DIV/0!
		#DIV/0!		#DIV/0!	#DIV/0!
		#DIV/0!		#DIV/0!	#DIV/0!
		#DIV/0!		#DIV/0!	#DIV/0!
		#DIV/0!		#DIV/0!	#DIV/0!
Total		#DIV/0!		#DIV/0!	#DIV/0!

Tab. 4.3: Vessel-specific trade - Exports

Product	Service	Number of passengers / cars / units	Share of total number (in %)	Where to (main country)	Vessel segment	Growth
Product 1	Service 1		#DIV/0!			
Product 2	Service 2		#DIV/0!			
	Service 3		#DIV/0!			
			#DIV/0!			
			#DIV/0!			
Total			#DIV/0!			

Tab. 4.4: Vessel specific ser

Service
Service 1
Service 2
Service 3

Tab. 4.5: Vessel specific service - International services

Service	Number of passengers / cars / units	Share of total number (in %)	Where to (main country)	Vessel segment	Growth
Service 1		#DIV/0!			
Service 2		#DIV/0!			
Service 3		#DIV/0!			
		#DIV/0!			
		#DIV/0!			
Total		#DIV/0!			

Tab 4.6: Green premium - Incremental cost of green for a unit of cargo

Additional cost of transport in green corridors

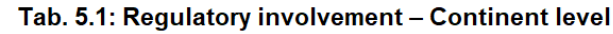
Product / Service	Transport Cost LSFO (in US \$)	Transport Cost alternative fuel 1 (in US \$)	Incremental cost of green in %	Transport Cost alternative fuel 2 (in US \$)	Incremental cost of green in %	Tr
Product 1						
Product 2						
Product 3						
Product 4						
Product 5						
Product 6						
Product 7						
Product 8						
Product 9						
Product 10						

Tab. 4.7: Green premium - Incremental cost of green for a service

Additional cost of services in green corridors

Product / Service	Transport Cost LSFO in (US \$)	Transport Cost alternative fuel 1 (in US \$)	Incremental cost of green in %	Transport Cost alternative fuel 2 (in US \$)	Incremental cost of green in %	Tr
Service 1						
Service 2						
Service 3						
Service 4						
Service 5						
Service 6						
Service 7						
Service 8						
Service 9						
Service 10						

Refer to the *Regulatory assessment* guideline to identify on which level the data needs to be collected



Tab. 5.2: Regulatory involvement – Country level

Tab. 5.3: Regulatory involvement – Region level

Tab. 5.4: Regulatory involvement – Port levelPage 28