



# Ports as intermediary transition workers

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Trondheim, November 13th 2024



*Transition work refers to all forms of deliberate and purposeful activities aiming to progress sustainability transitions*

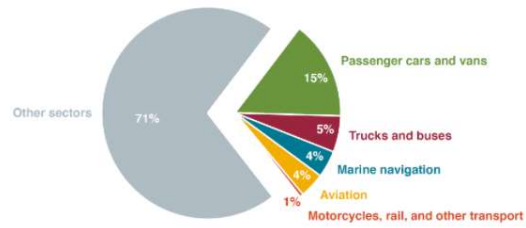
Bjerkan 2022

# Outputs

- The importance of ports in sustainability transitions
- The concept of intermediation
- Insights into decarbonisation efforts of Norwegian ports



Greenhouse gas emissions in the EU  
2018 total: 3.8 Gt CO<sub>2</sub>e

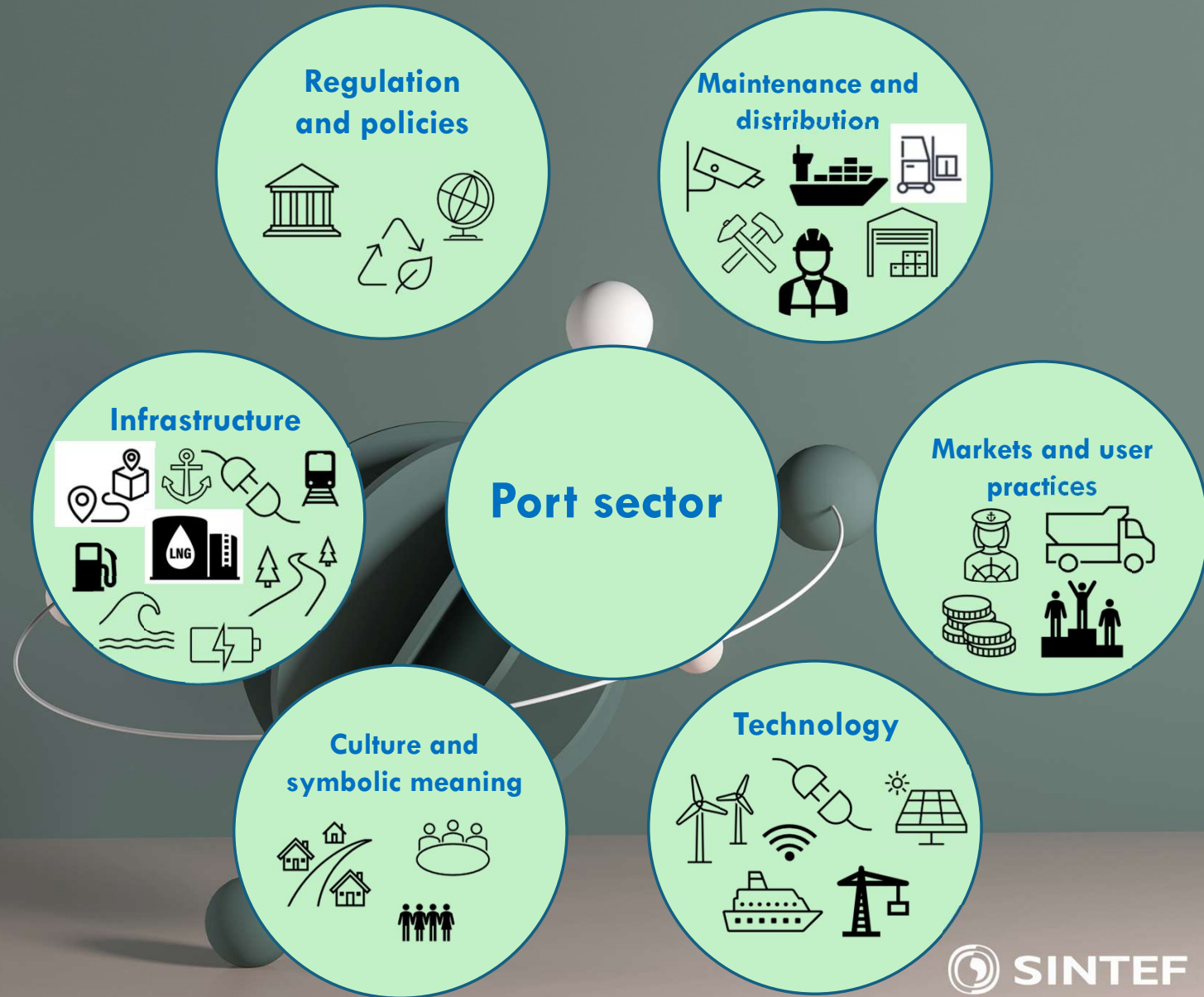


Share of EU-27 economy-wide greenhouse gas emissions in 2018 by transport subsector, including domestic and international components. Land use, land-use change, and forestry are included in the other sectors category.

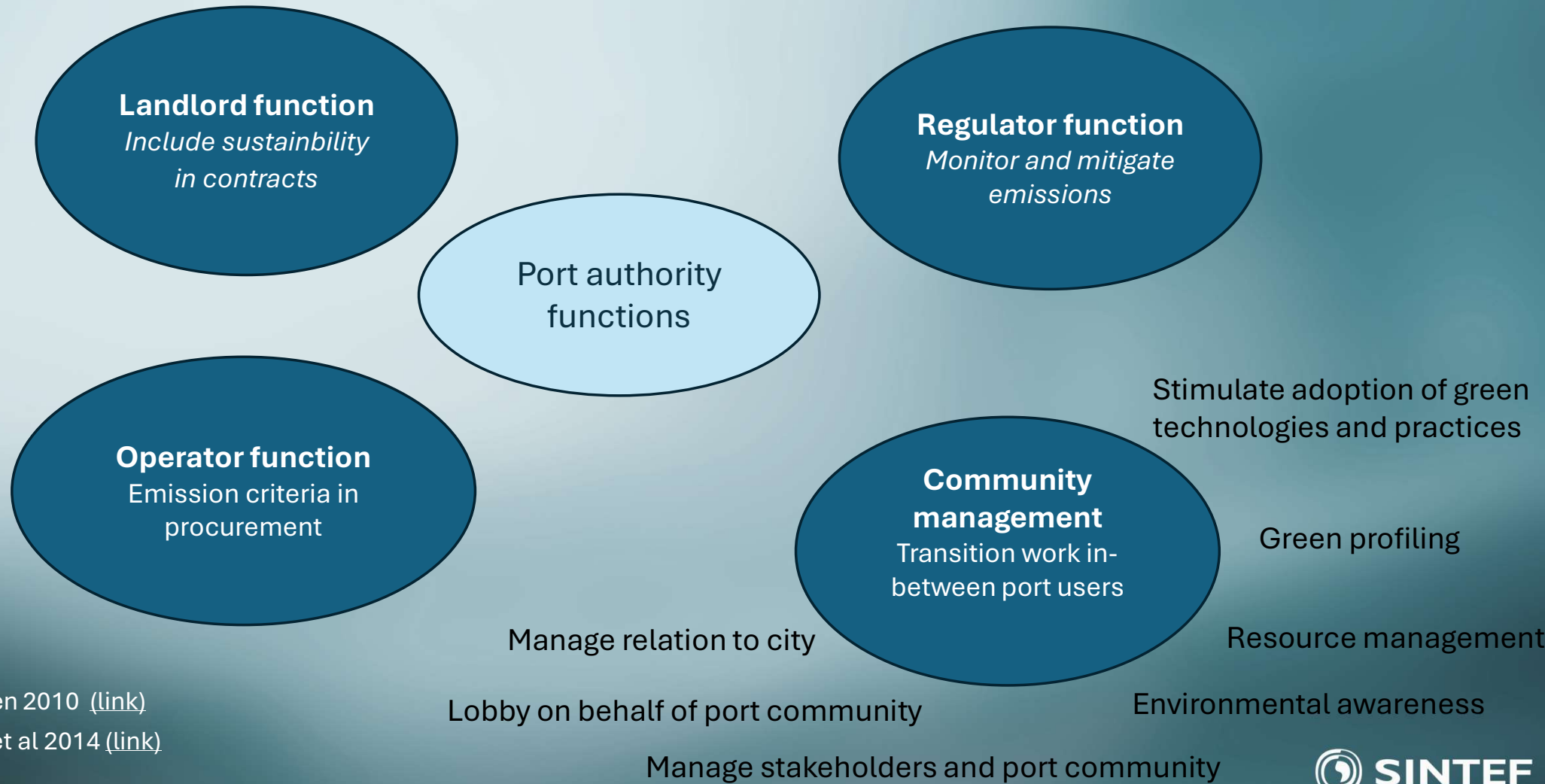
# Why study ports?



# Sustainability through changing socio-technical systems



# From port governance to intermediation (1)

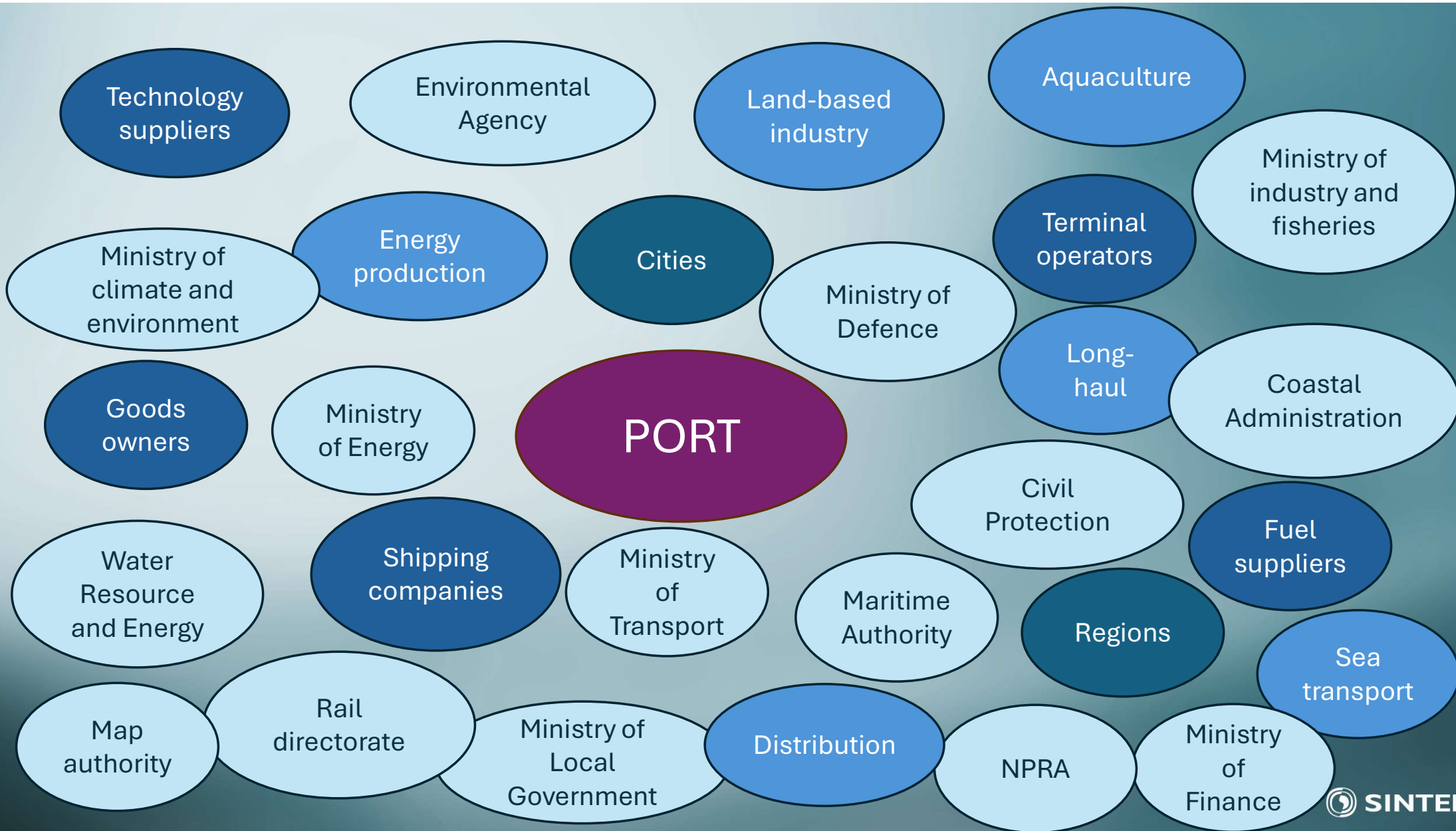


Verhoeven 2010 ([link](#))

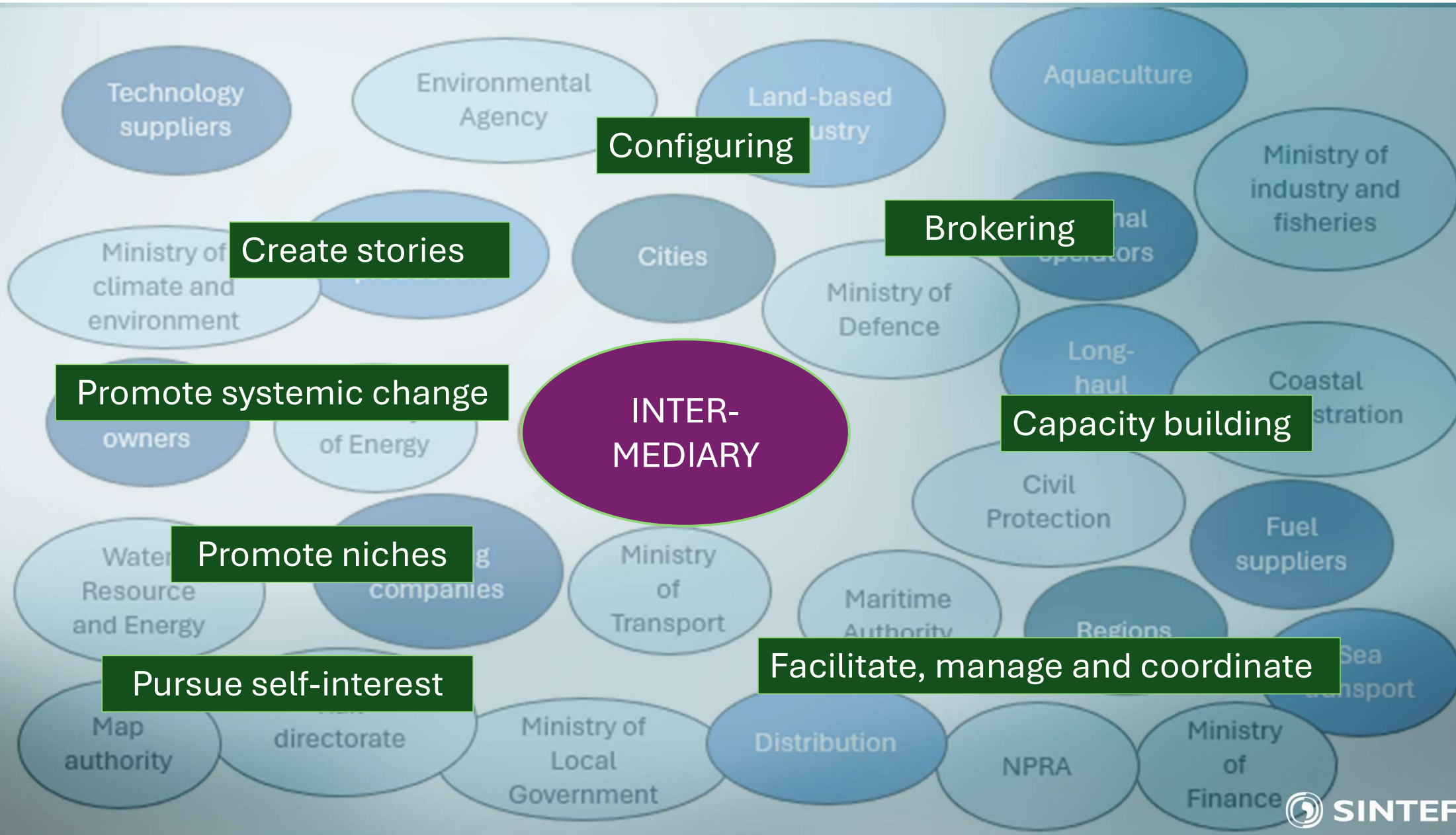
Acciaro et al 2014 ([link](#))

## From port governance to intermediation (2)

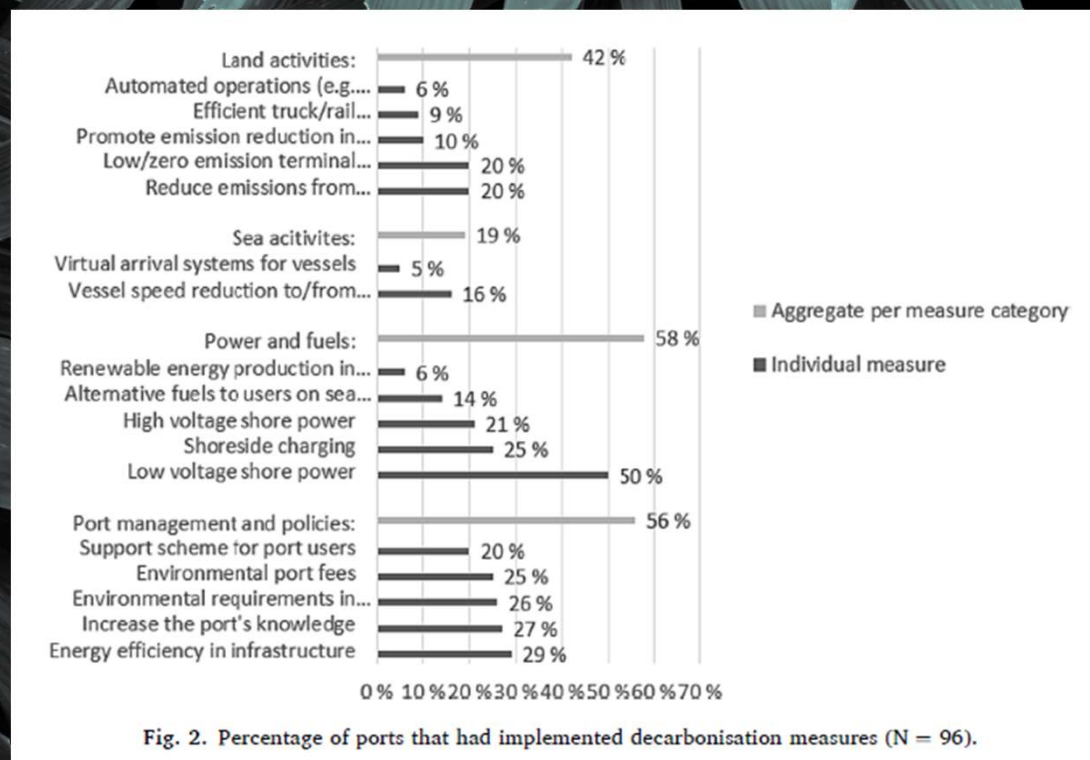
Function	Activity	%	N
Landlord	works with administration, maintenance, and development of property	82 %	94
Regulator	works to ensure safety and security for vessels and cargo	97%	96
	places requirements, rules, and fees for users in the port	94%	96
	controls/monitors activity in the port	99%	96
Operator	owns own vessels and vehicles	61%	95
	conducts physical reloading of goods and passengers	42%	95
	provides port services (pilot, towage, anchor services)	25%	95
Community manager	works politically to promote port interests in general	66%	91
	actively facilitates dialogue and collaboration between port users	86%	95
	enables users of the port to reduce their emissions	77%	92
	speaks up for specific solutions that can reduce emissions in and around the port	79%	91







# Decarbonisation measures in Norwegian ports



## Implementation drivers

- Desire to create demand: kill the chicken
- Political steering and guidelines\*
- Pressure from users and surroundings
- Pressure from owner\*

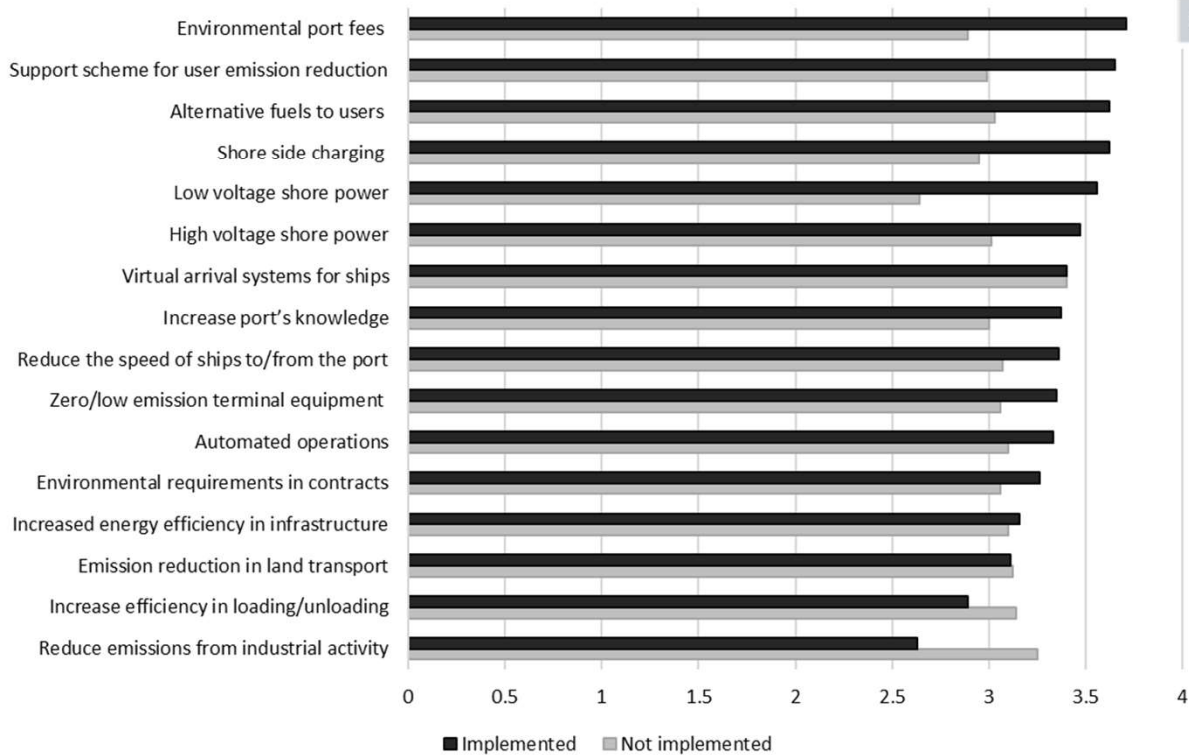
## Implementation barriers

- Lack of economic resources, time and personnel
- Low technological competence
- Low technological maturity

\* Among public ports

# Intermediation in port decarbonisation

Level of intermediation in ports with/without measure implementation



works politically to promote port interests in general

actively facilitates dialogue and collaboration between port users

enables users of the port to reduce their emissions

speaks up for specific solutions that can reduce emissions in and around the port

Prominent in

- Ports with complex operations
- Publicly owned ports
- Ports with support *and* pressure from surroundings
- Implementation of new measures with high complexity

Bjerkan, Hansen & Steen (2021) Towards sustainability in the port sector: the role of intermediation in transition work ([link](#))



Intermediation matters – relations are key!



# Technology for a better society

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