


# MODELLING THE DIMENSIONS OF CONTAINER VESSEL DEPLOYMENT STRATEGIES



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Hamburg, Kühne Logistics University

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## **MSc. Luisa Spaggiari**

- Research fellow, Universidad de los Andes, Kühne Chair in Logistics

# OUTLINE

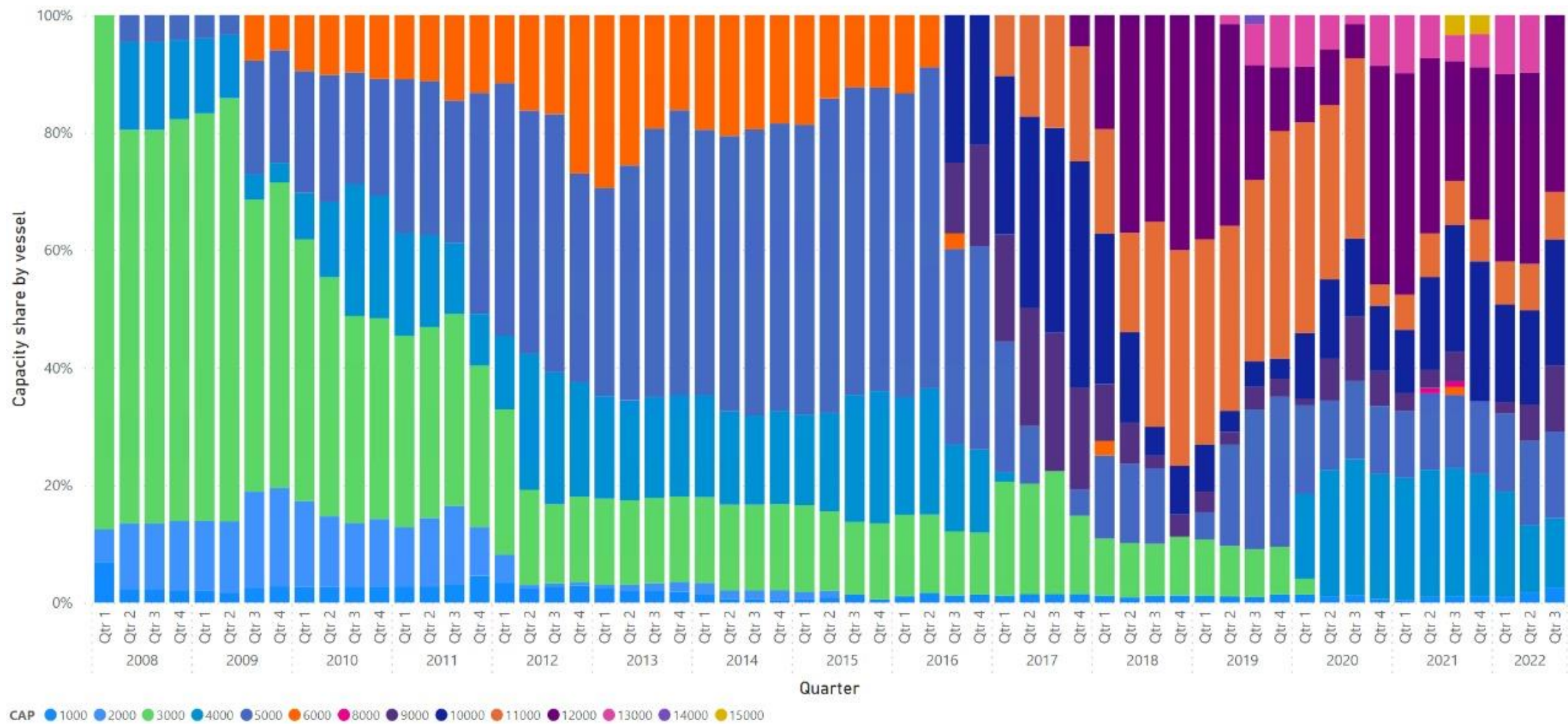
## 1. WHAT WE KNOW

## 2. WHAT WE ARE LOOKING FOR. THE BIG QUESTIONS



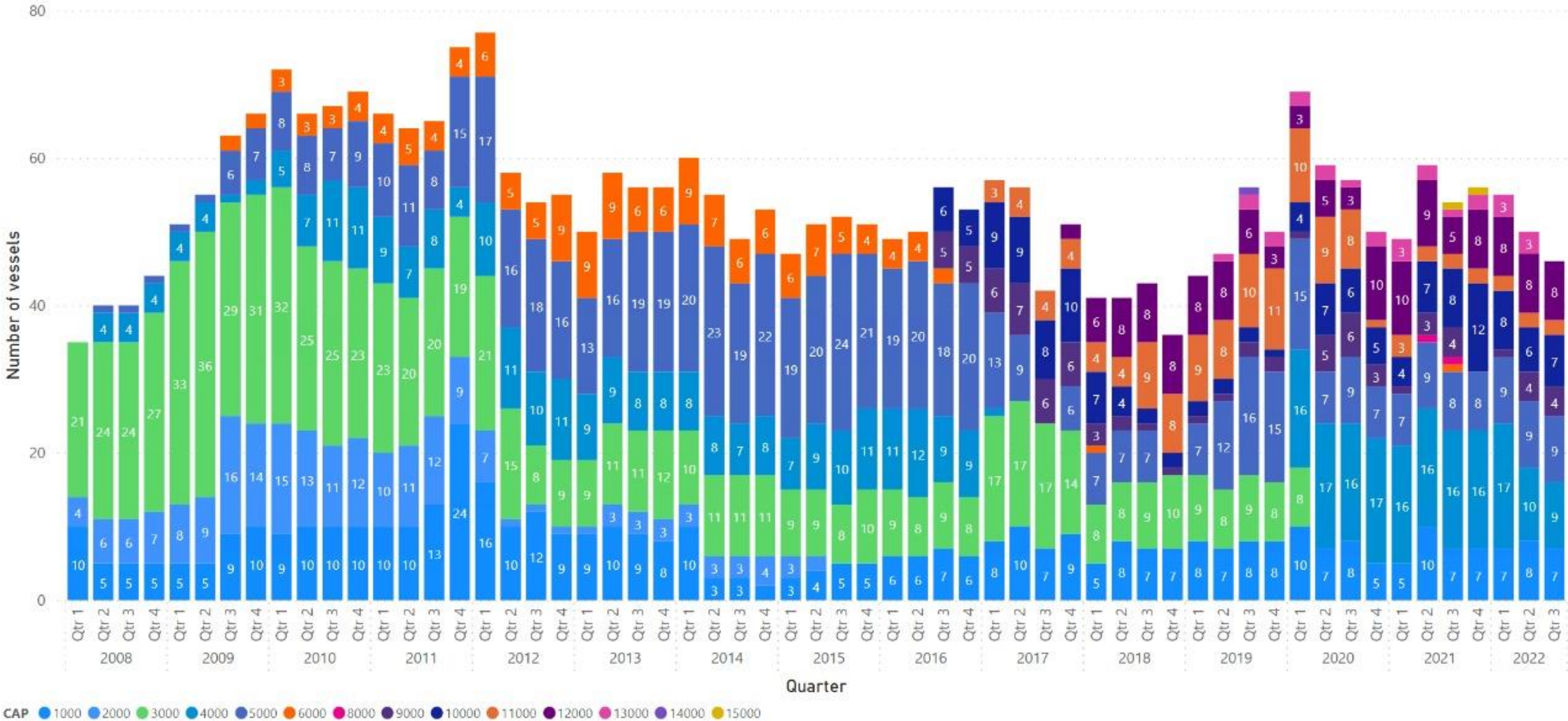
# ROUTE: WCSA TO NORTH EUROPE

## TEU CAPACITY SHARE



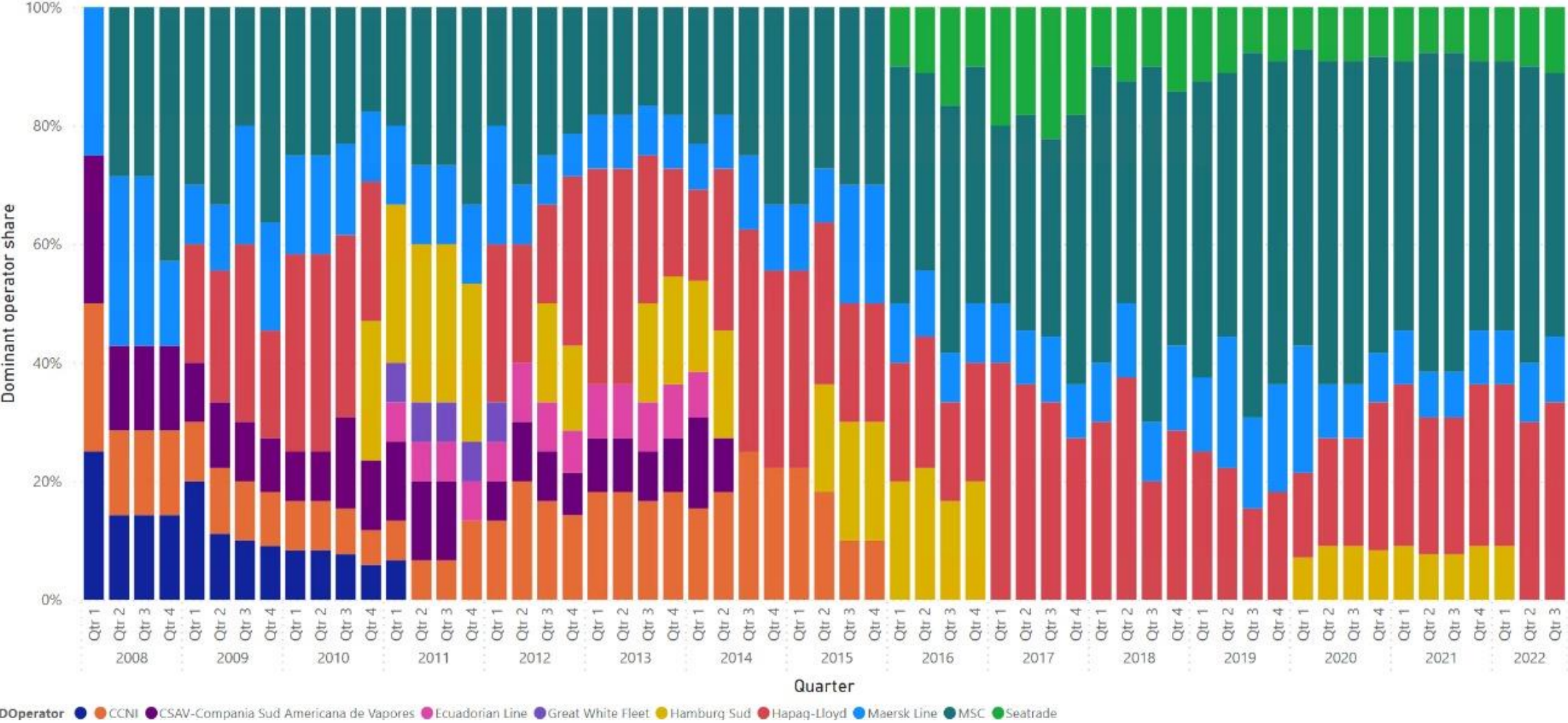
# ROUTE: WCSA TO NORTH EUROPE

## NUMBER OF VESSELS



# ROUTE: WCSA TO NORTH EUROPE

## DOMINANT OPERATOR SHARE

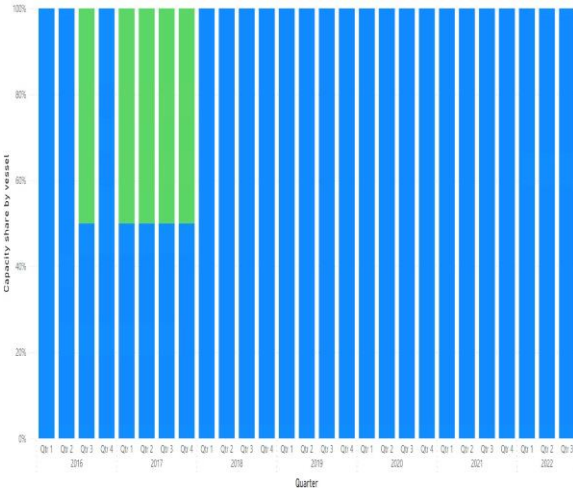




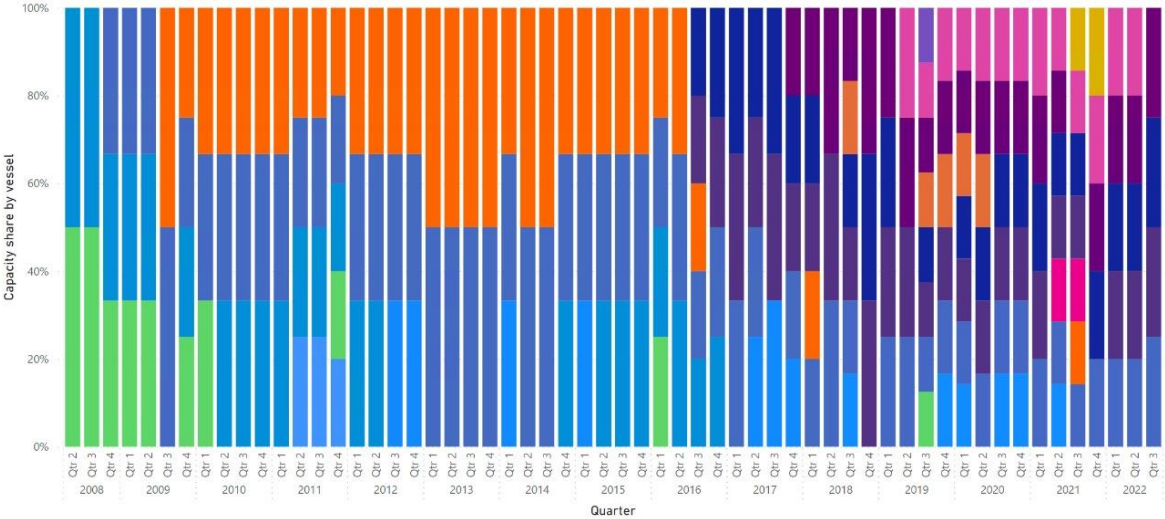
# ROUTE: WCSA TO NORTH EUROPE

## DOMINANT OPERATOR SHARE BY VESSEL SIZE

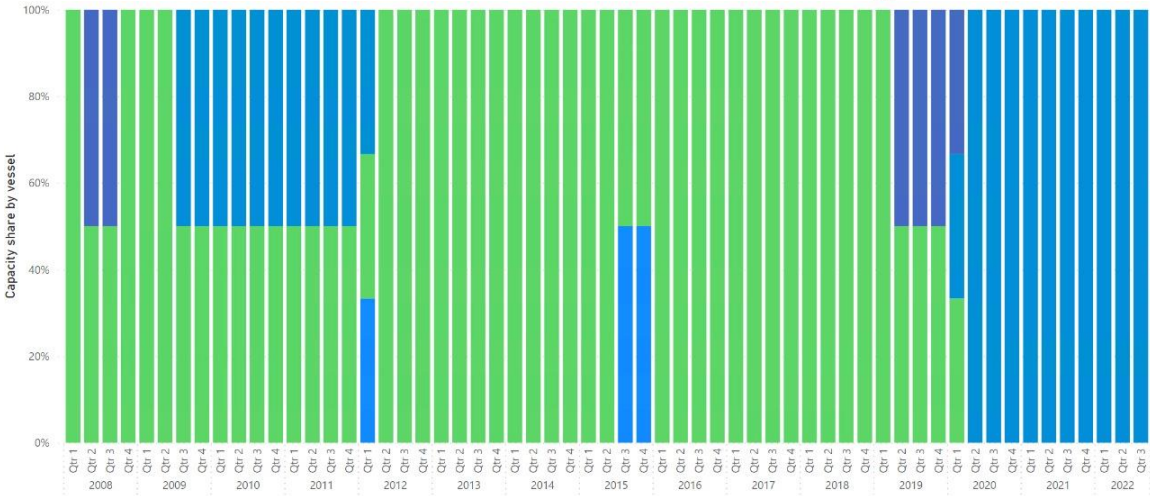
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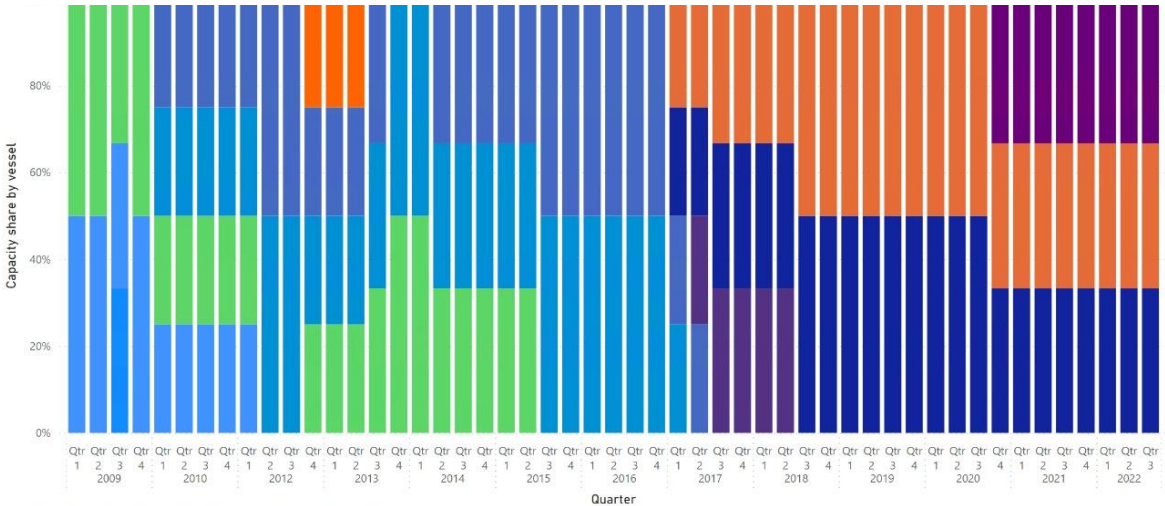
MSC



Maersk

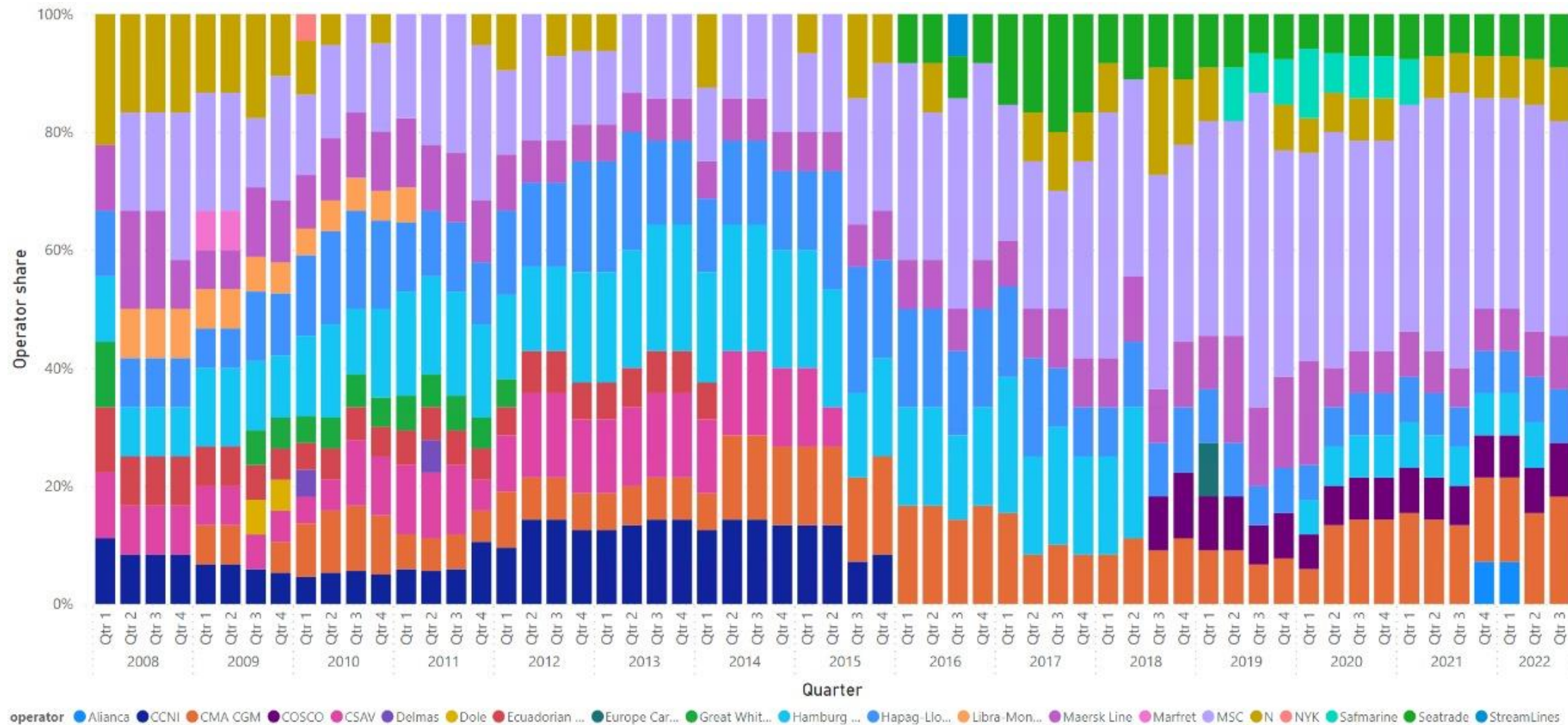


Hapag - Lloyd

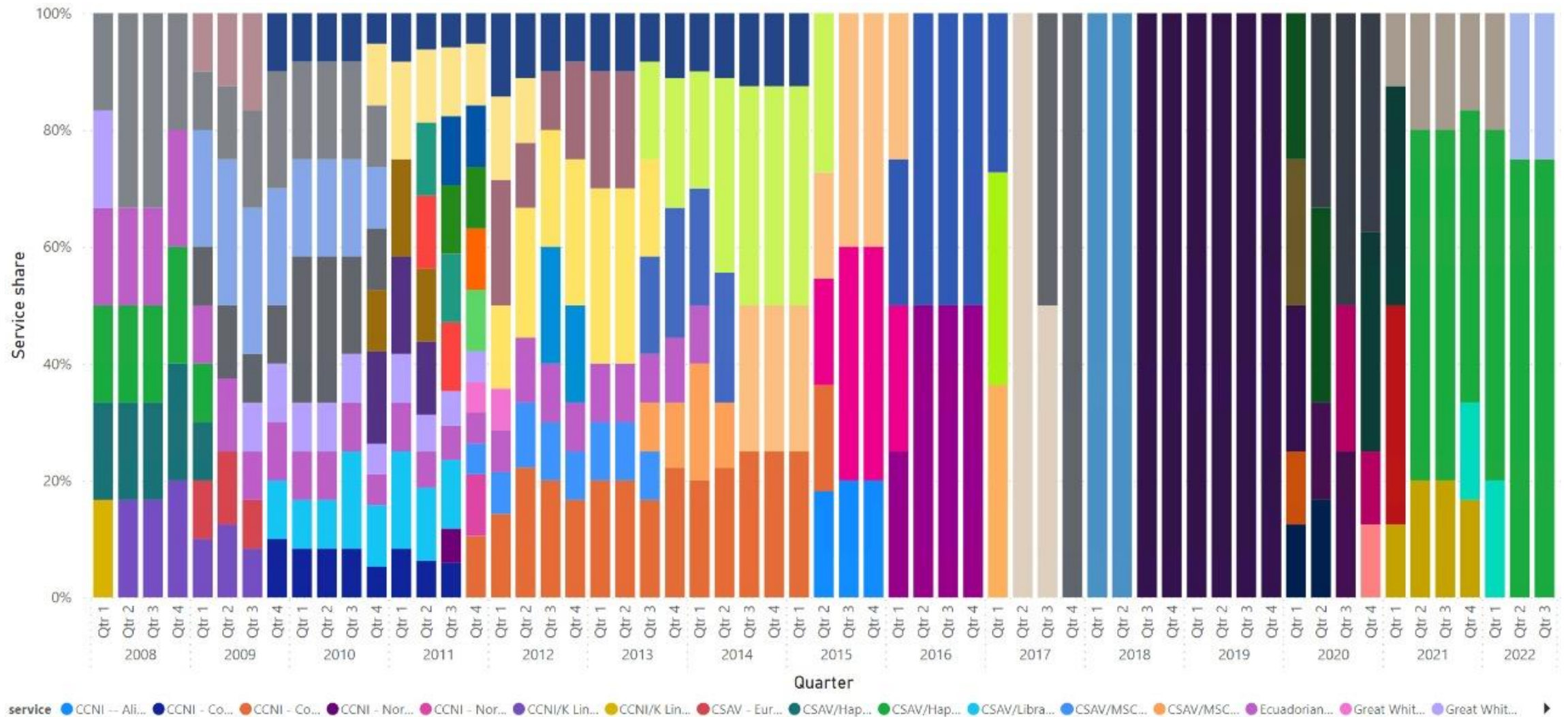


# ROUTE: WCSA TO NORTH EUROPE

## OPERATOR SHARE BY VESSEL



## ROUTE: WCSA TO NORTH EUROPE SERVICE SHARE



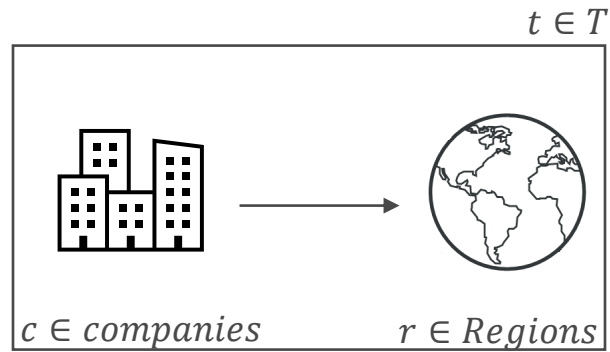




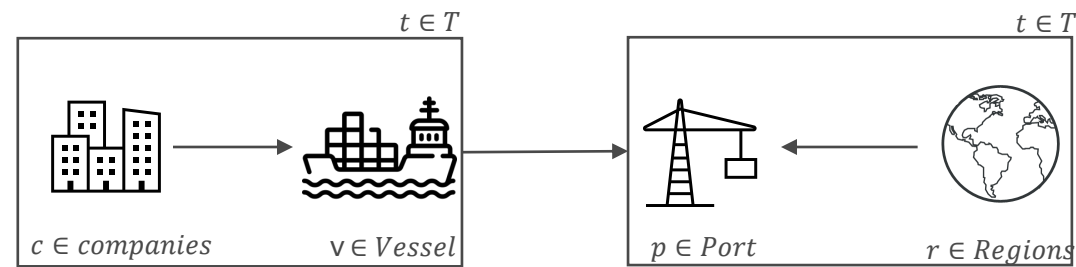
## 2. WHAT WE ARE LOOKING FOR

## 2.1 THE BIG QUESTION

What are the deployment strategies of companies in the world?

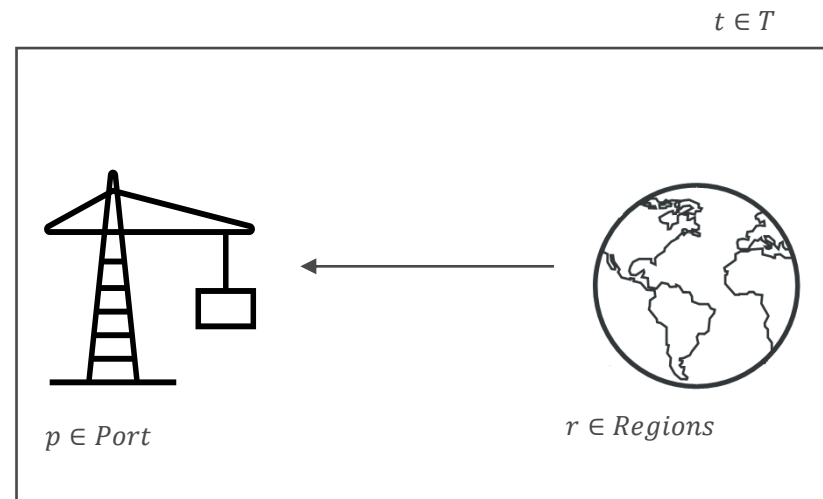


## 2.1 THE BIG QUESTION

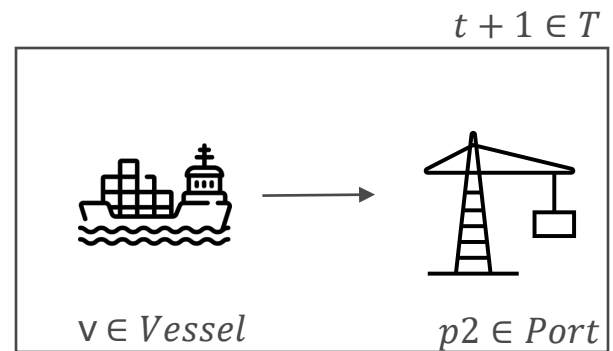
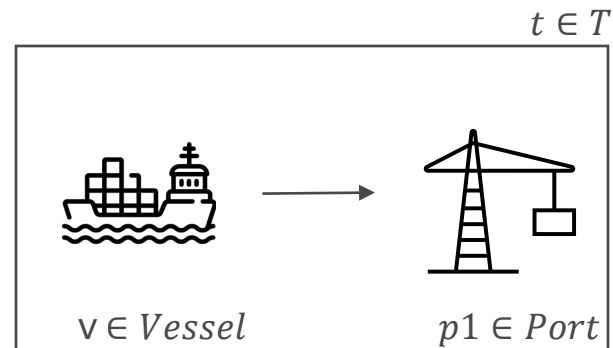




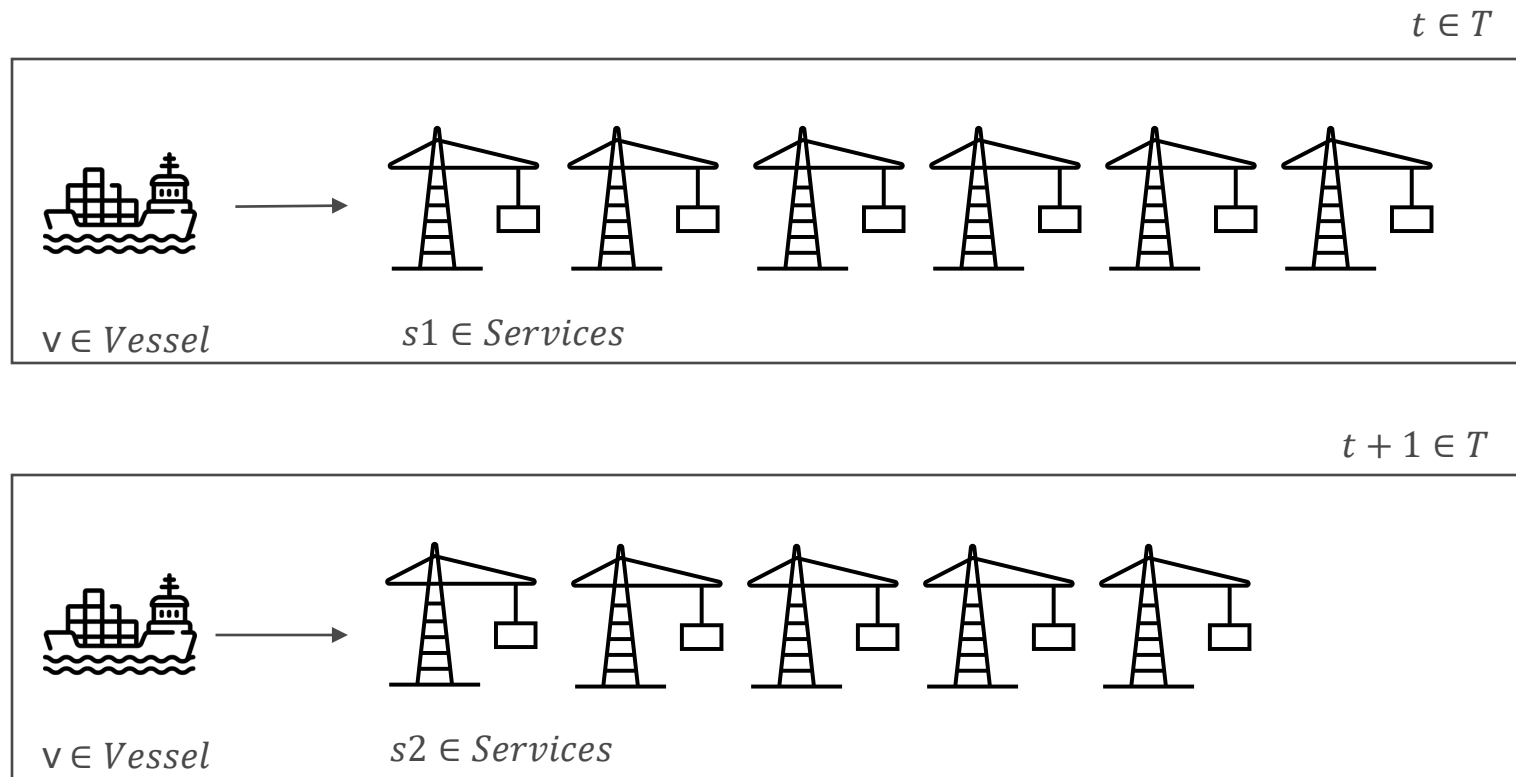
## 2.2 GEOGRAPHY STRUCTURE



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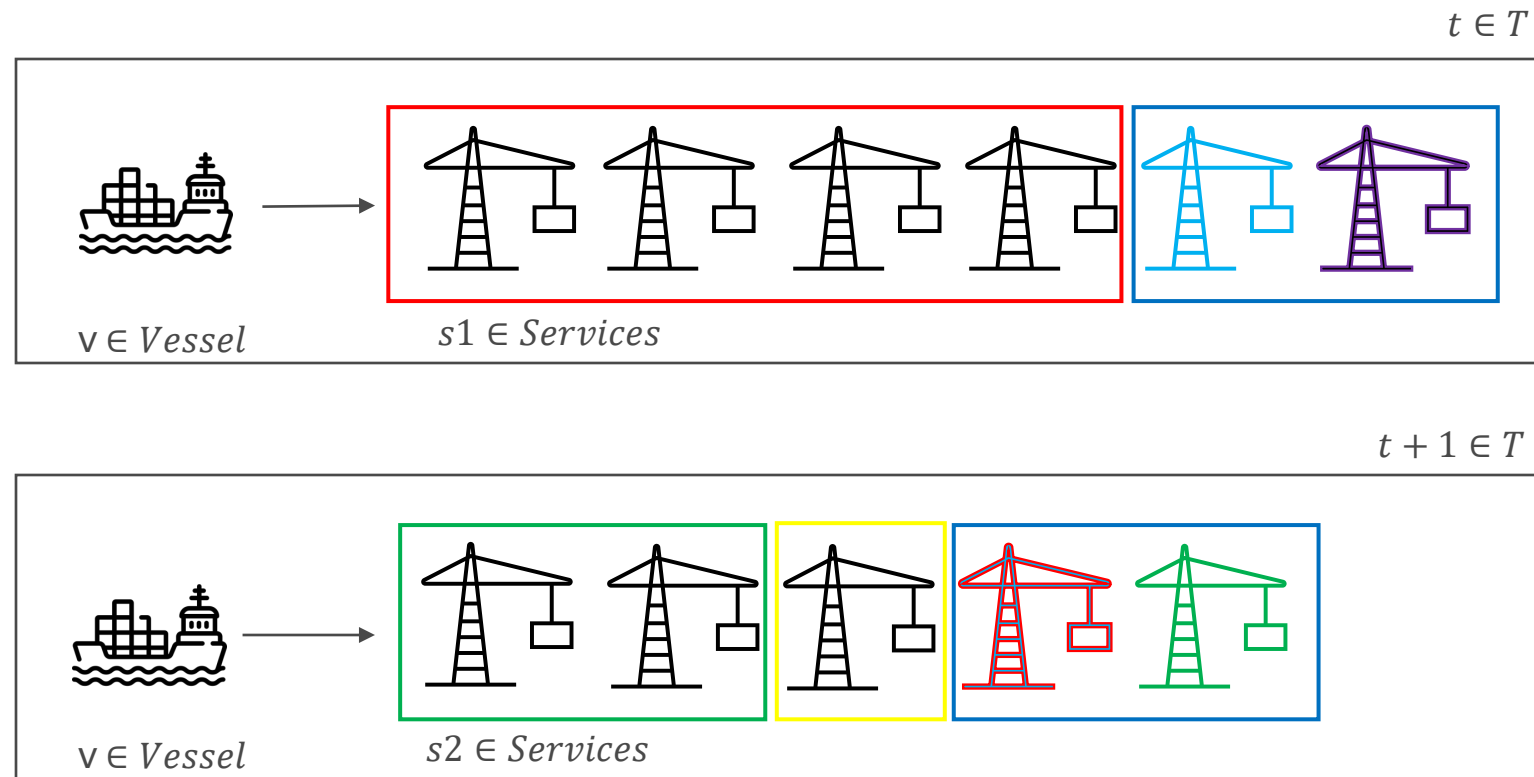


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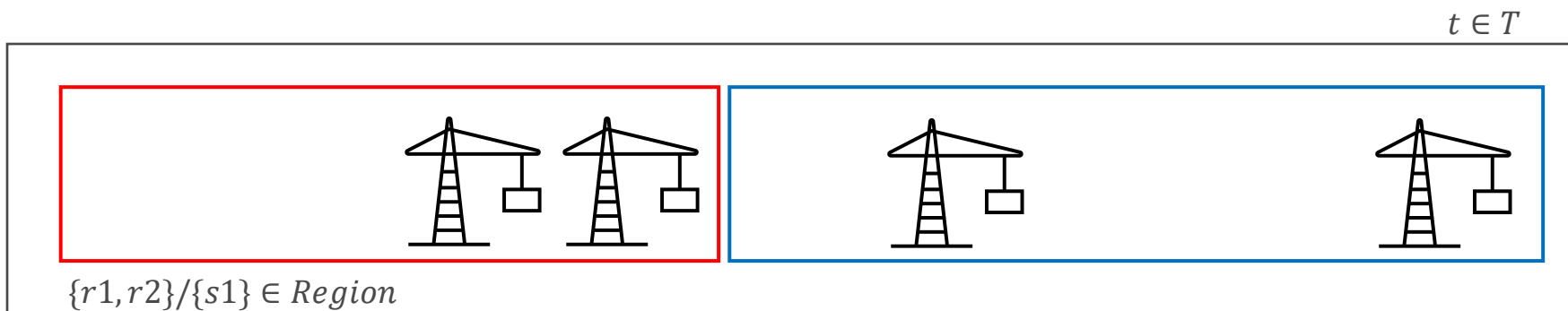
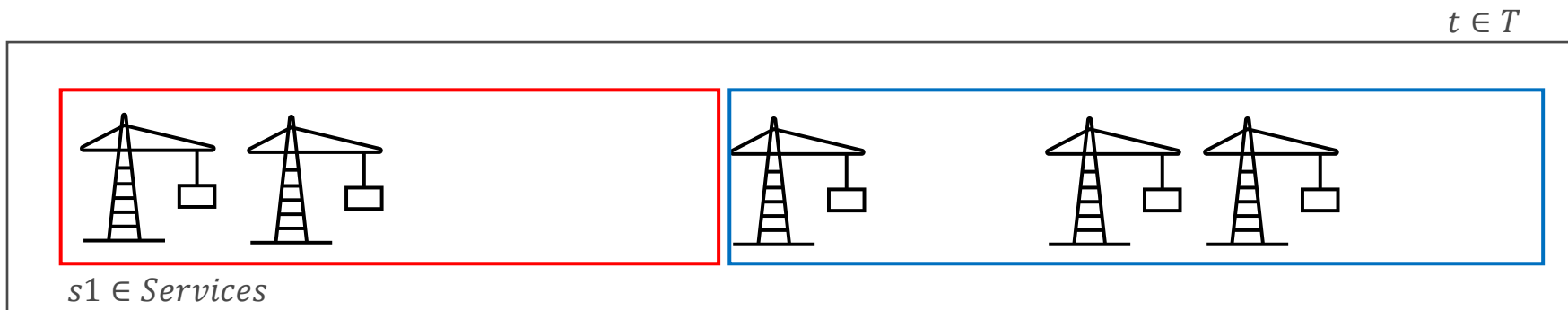
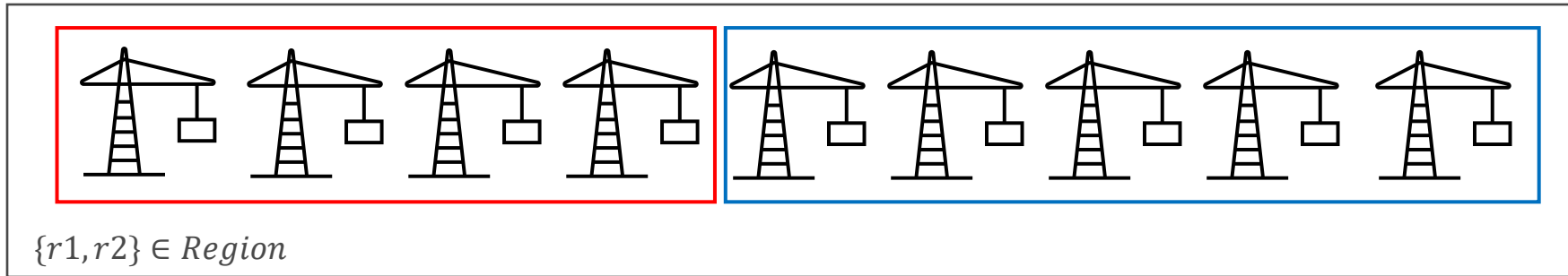




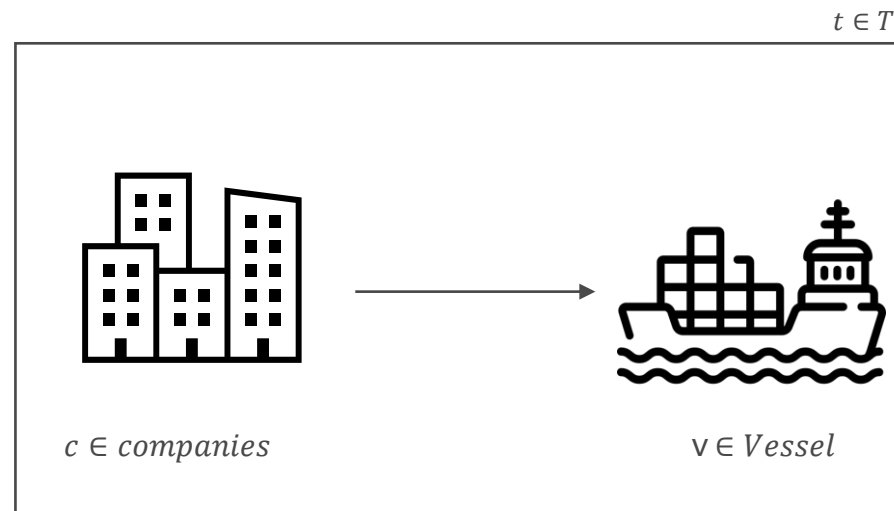
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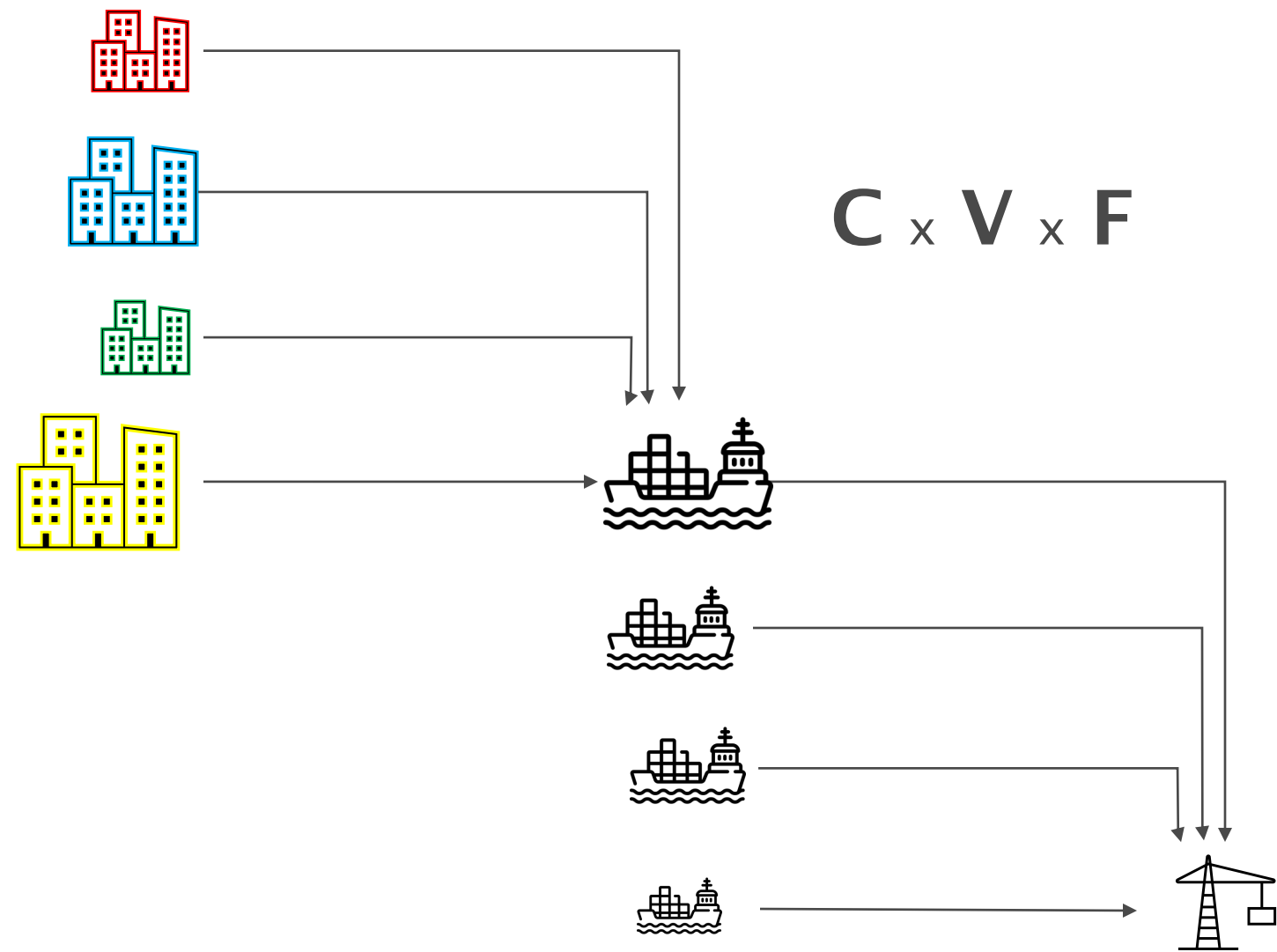


## 2.3 BUSINESS STRUCTURE

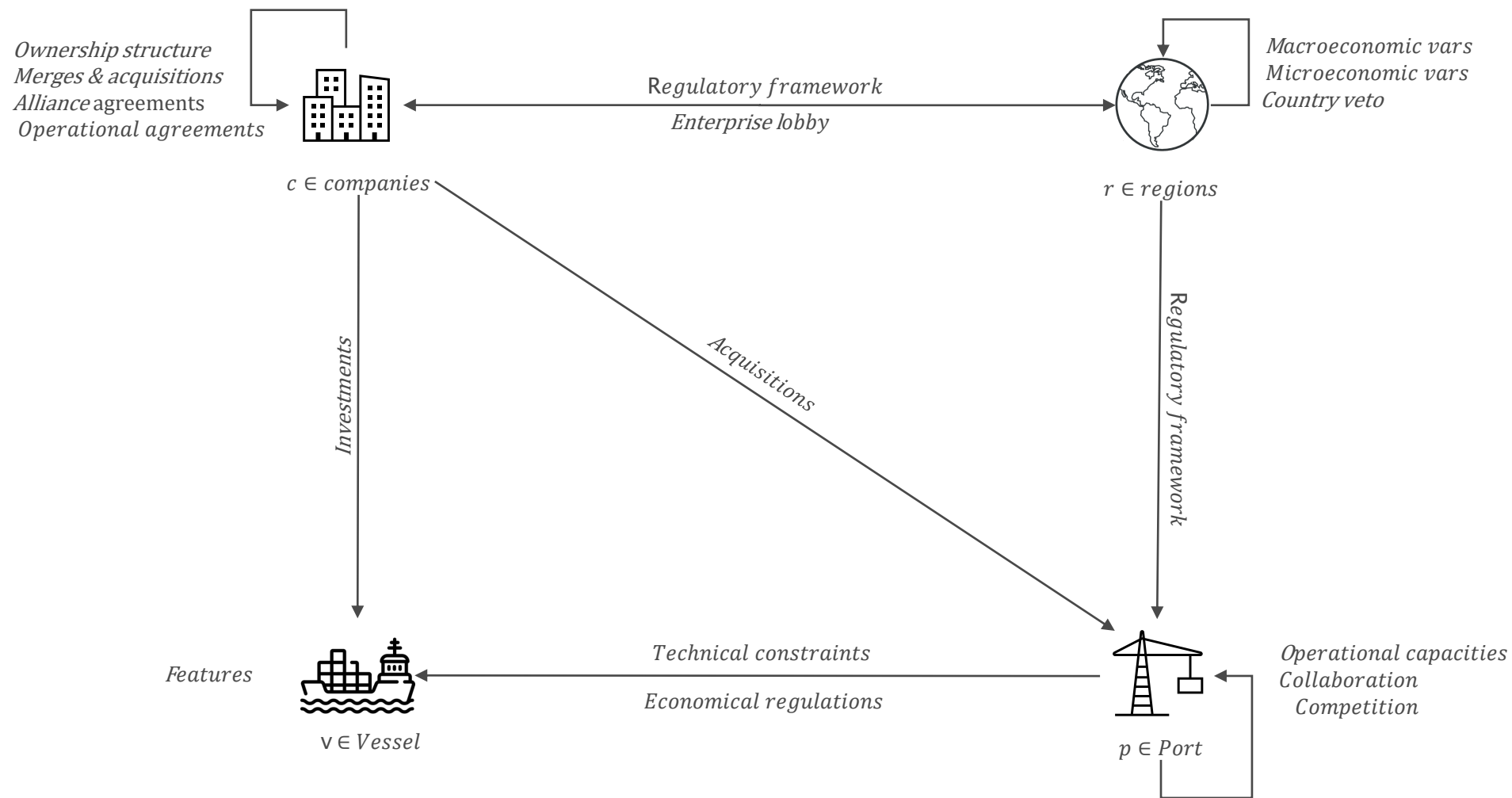




# 2.3 BUSINESS STRUCTURE



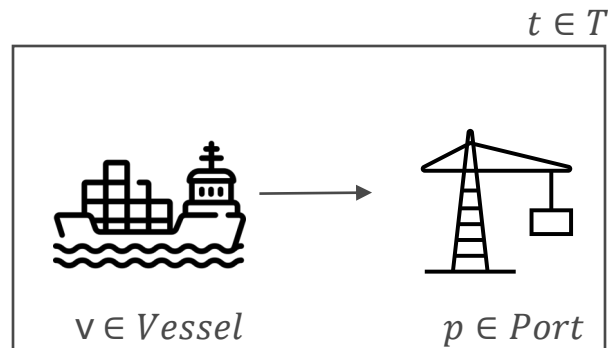
# 2.4 IDENTIFIED INPUTS



## 2.5 OUTPUT DEFINITION

$P_t^{vp} \rightarrow$  Deployment probability of Vessel  $v$  at Port  $p$  in period  $t$ .

$$P_t^{vp} = F(X_C, X_R, X_V, X_P, \varepsilon)$$



# EMERGING QUESTIONS

- BUSINESS EVOLUTION INSIGHTS
  - MARKETS
  - COMPANIES
  - PORTS
  - VESSELS
- MARKET WORLD SHARES (CONCENTRATION POWER)
- COLLABORATION & COMPETITION STRUCTURES
  - COMPANIES
  - PORTS
- WORLD CONTAINER FLOW ESTIMATION (INCLUDING 4 DEGREE TRANSHIPMENTS)



**CSGL**

Hapag-Lloyd Center for  
Shipping and Global  
Logistics

# Questions?

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