

# From research to markets: barriers to technology deployment

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# Introduction

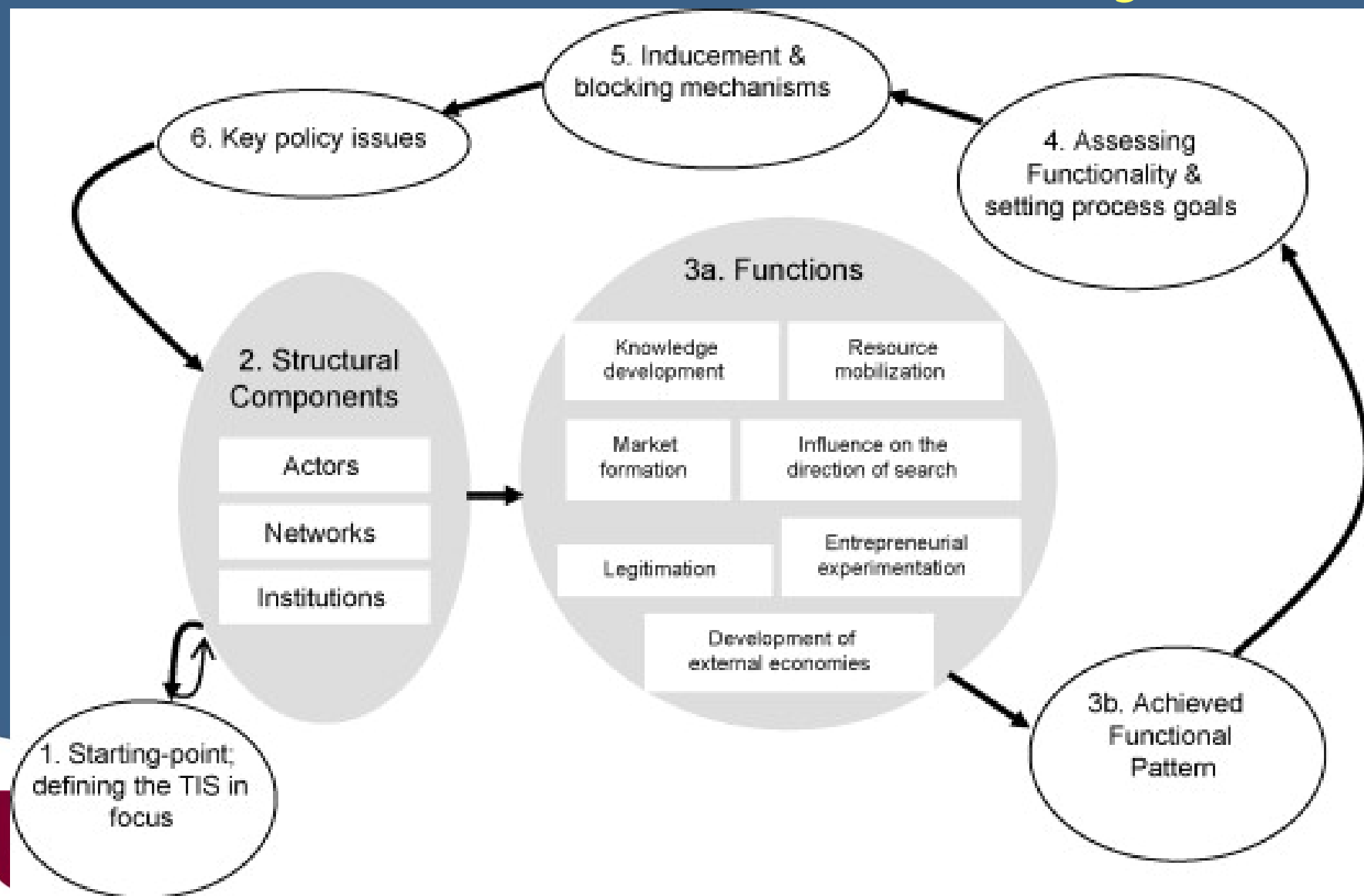


- Road: UA
- Rail: ULyon
- Inland navigation: TUDelft
- Maritime: UGenova
- Intermodal: UAegean + LCA
- Electromobility: TIS, ISI
- Alternative motor fuels: CLEPA
- Intelligent transport systems: EMEC
- Intermodality: UNIZA
- Maritime and inland waterways: UA
- Rail: BME
- Aeronautics: ISI

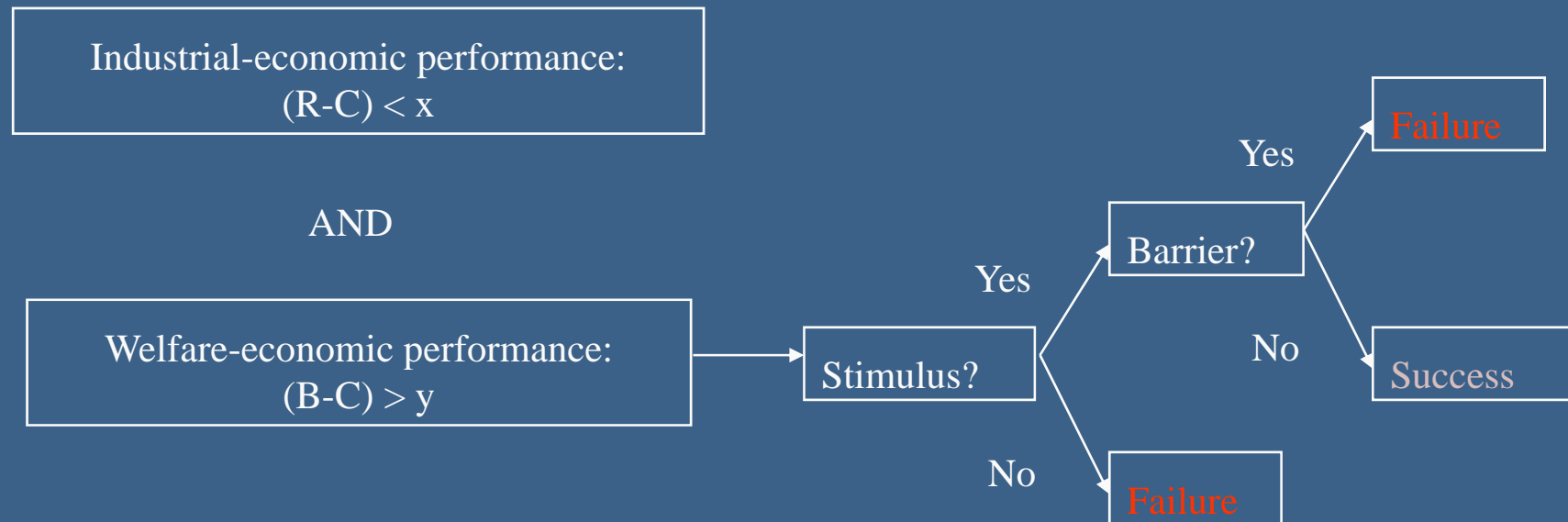
## Overall objective

- To analyse how the innovation process on transport markets evolves, with the aim of analysing how the market take-up of beneficial innovative concepts can be improved

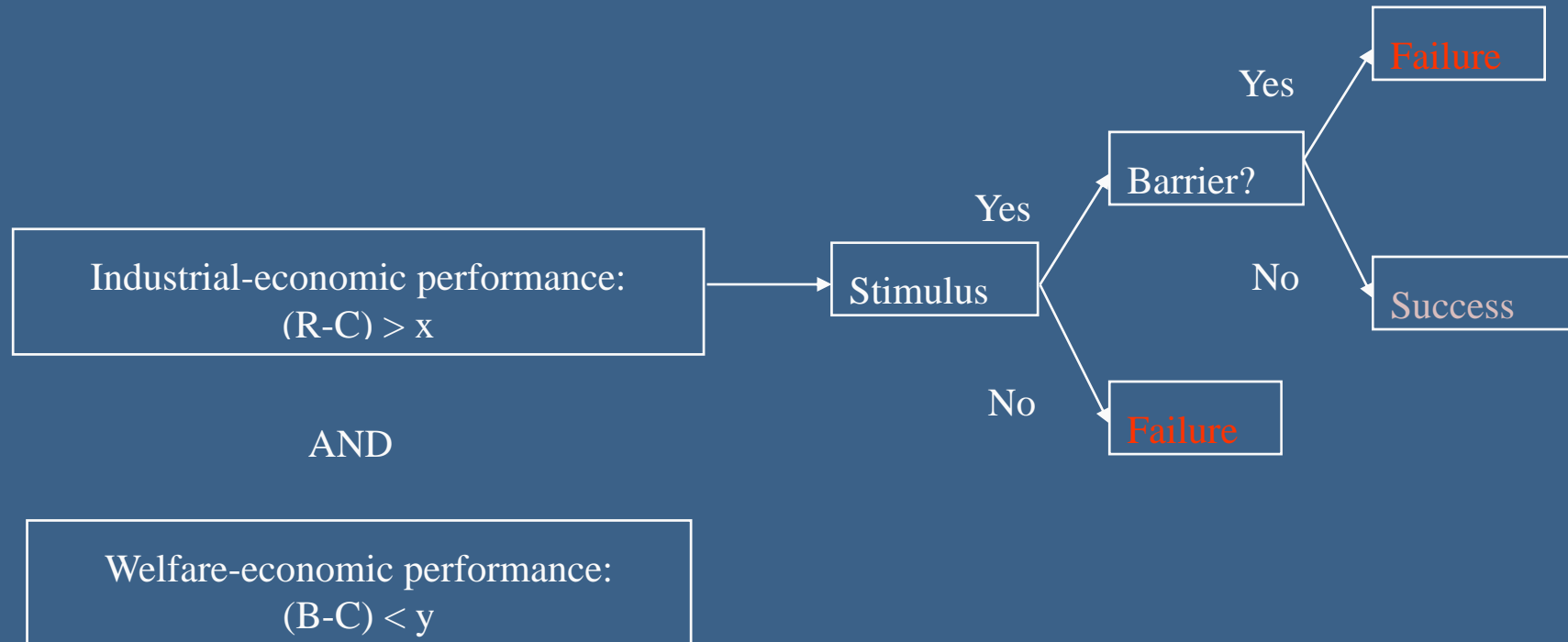
# The innovation system



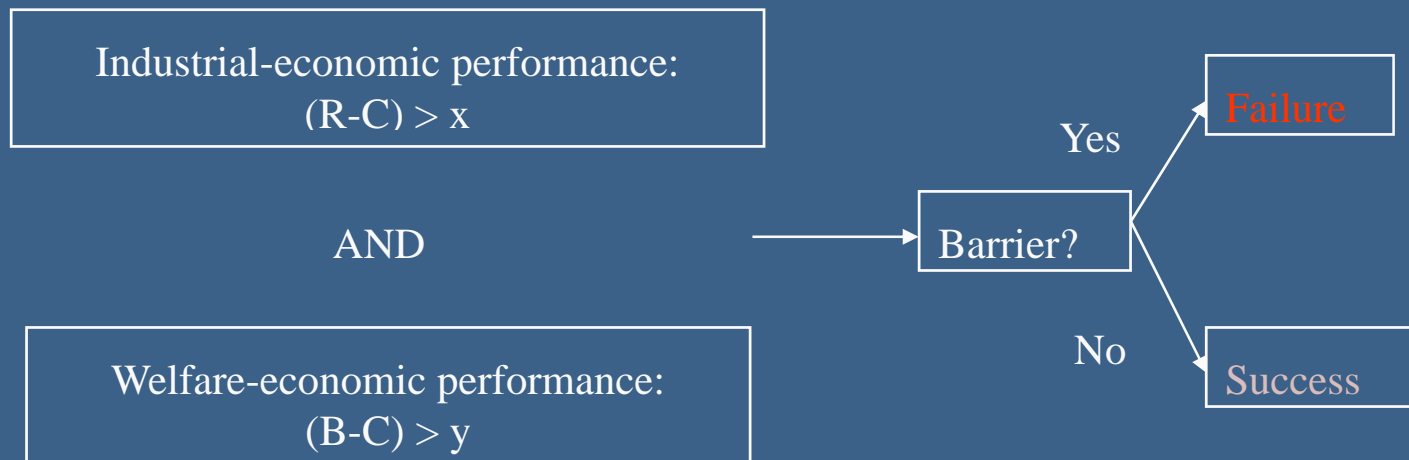
# Defining success and failure



## Defining success and failure (2)



# Defining success and failure (3)



## The steps

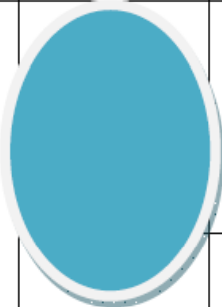

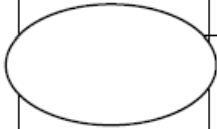
- To identify key players for innovation ("pioneer investors").
- To assess how innovation gets adopted and spreads in the market.
- To determine how innovation could be stimulated, among others through policy, in networks.
- To get a view on key determinants of successful innovative concepts.
- To formulate clear policy conclusions on how governments can and should best impact on the above issues.



	Road	Maritime	Rail	IWW	Intermodal
<b>Success</b>	Case 5: EU International road transport market liberalization: Cabotage	Case 1: Reefer containerization	Case 3: ERTMS	New Case: Information Technology in the inland navigation industry	New Case: Freight Villages
	Case 12: ITS: Variable speed limits in Sweden	Case 5: Port state control	Case 5: Trans-Siberian railway freight	New Case: Container transport in the inland navigation industry	Case 6: Integrated ICT
<b>Not-Yet-Successful or Failure Cases</b>	Case 4: Eurovignette Directive	Case 9: Green ports (focused on cold ironing)	Case 1: The MODALOHR	Case 2: Air lubrication of ships in the inland navigation industry	Case 7: Internalization of external costs
	Case 7: Three loaded trips limit in ECMT multilateral road transport permit system	Case 10: Indented berth	Case 7: Betuwe Line	New Case: Utilization of the available capacity on small inland waterways	Case 11: EILU - European Intermodal Loading Unit
<b>Intermediate Case</b>	Case 6: Introduction of LHVs (Long and Heavy Vehicles)	Case 2: Mega containerships	Case 10: Eurotunnel Shuttle	Case 12: Y-shaped hull, Scheldehuid	New Case: Short Sea Shipping
	Case 11: ITS: Intelligent Truck Parking		Case 4: European freight revitalization plan		





# Variable speed limit

## Initiation

Actors	Road Sector	Shippers/ Forwarders	Third parties; Lobbyists; Consultants; Manufacturers	Knowledge Institutes EU RTD Funding. Standards Bodies
<b>Institutional Environment</b>				
<b>Infrastructure conditions</b> <i>Roads, Ports, Ships</i>				
<b>Institutional conditions</b> Hard Rules: <i>Laws, regulations</i> Soft Rules: <i>social and economic values,</i>				
<b>Interaction conditions</b> <i>Weak network problems</i> <i>Strong network problems</i>				
<b>Capabilities</b>				

# Variable speed limit

## Development

Actors	Road Sector	Shippers/Forwarders	Third parties Lobbyists; Consultants; Manufacturers	Knowledge Institutes EU RTD Funding. Standards Bodies
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# Variable speed limit

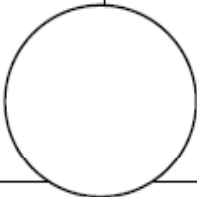
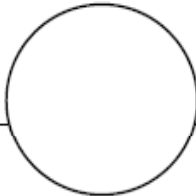
## Implementation


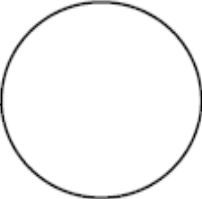
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<i>Strong network problems</i>				
<b>Capabilities</b>				



# Indented berth

## Initiation

Actors	Maritime Sector: Ports and Terminal Operators	Shipping Companies / Container Operators	Third parties Lobbyists; Consultants; Shipbuilders	Knowledge Institutes EU RTD Funding, Standards Bodies
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Infrastructure conditions <i>Roads, Ports, Ships</i>				
Institutional conditions Hard Rules: <i>Laws, regulations</i> Soft Rules: <i>social and economic values,</i>				
				
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Capabilities				

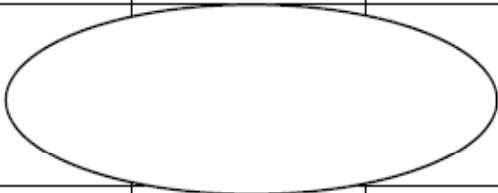
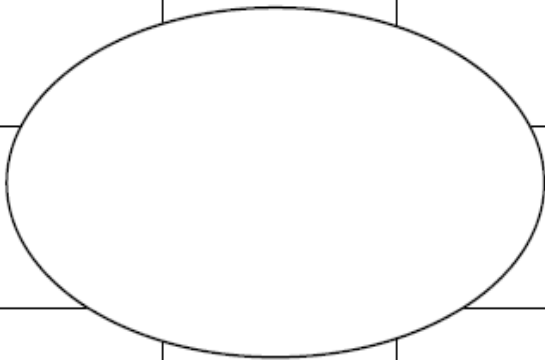
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# Indented berth

## Development





# Indented berth

## Implementation

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Capabilities				

# Betuwe line







## Initiation

	Dutch Ministry of Transport	Port of Rotterdam	European Commission	Operators	Citizens
Infrastructure					
Hard Institutions					
Soft Institutions					
Networks					
Capacities					








# Betuwe line

## Development

	Keyrail	Port of Rotterdam	European Commission	Operators	Citizens
Infrastructure					
Hard Institutions					
Soft Institutions					
Networks					
Capacities					

# Betuwe line

## Implementa- tion

	Keyrail	Port of Rotterdam	European Commission	Operators	Citizens
Infrastructure					
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Capacities					

## More information

- <http://www.innosutra.eu>
- <http://www.market-up.org>
- <http://www.ua.ac.be/tpr>