

# Governance of adaptation



**Who governs climate adaptation?**

**Exploring the scope for public and private responsibilities**



Heleen Mees, Peter Driessen & Hens Runhaar

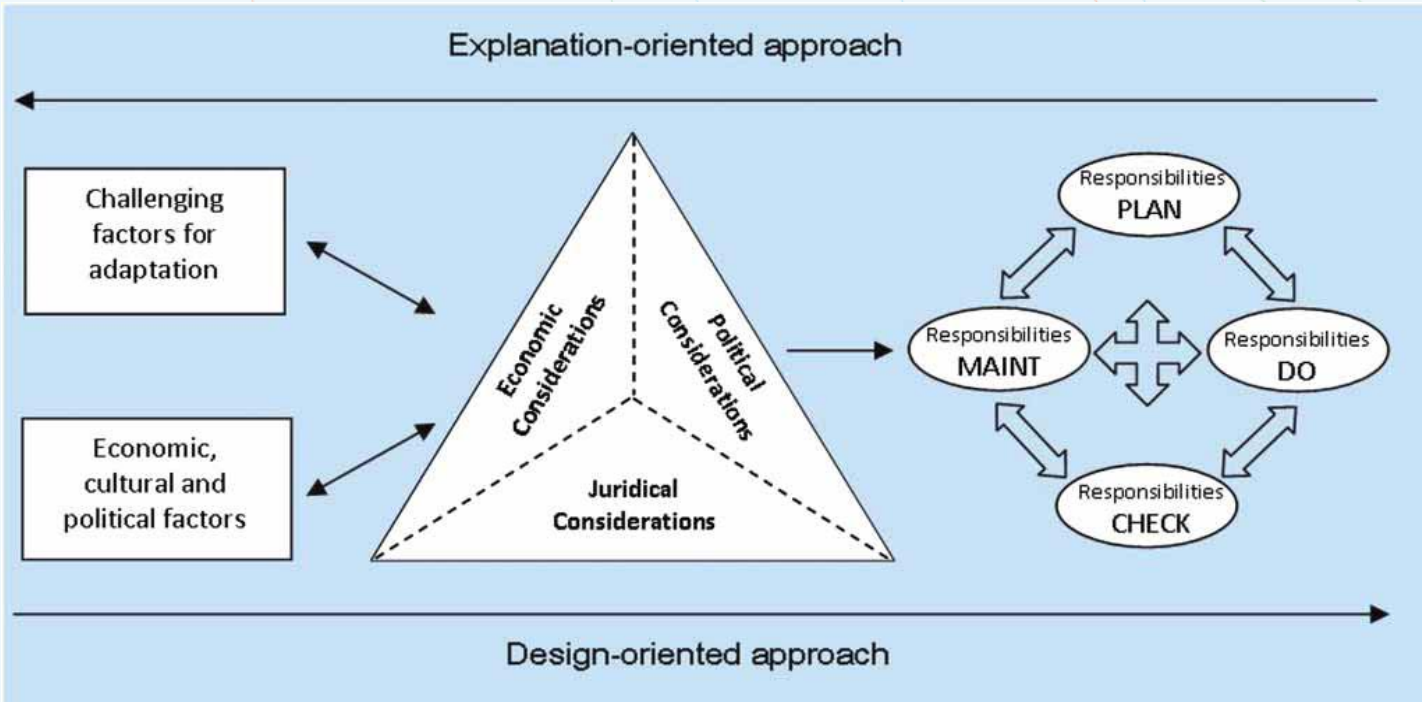


# Typology of governance arrangements



Dimension	Hierarchical governance	Interactive governance	Market governance
Actor base	Predominantly public responsibilities	Shared responsibilities among public and private actors	Predominantly private responsibilities
Steering strategy	Predominantly hierarchical	Steering through policy networks	Predominantly through market steering
Policy instruments	All instruments (legal, economic and communicative), with preference for regulations	Mostly communicative instruments and negotiated agreements	Mostly economic and voluntary instruments
Considerations	Predominantly Securing adaptation action (as specification of effectiveness), Fairness and Rule of law	Predominantly Legitimacy, Accountability	Predominantly Efficiency

# Conceptual Framework



Source: Mees et al. 2012 in Journal of Environmental Policy & Planning

analysis of how existing governance arrangements have come into existence the way they are

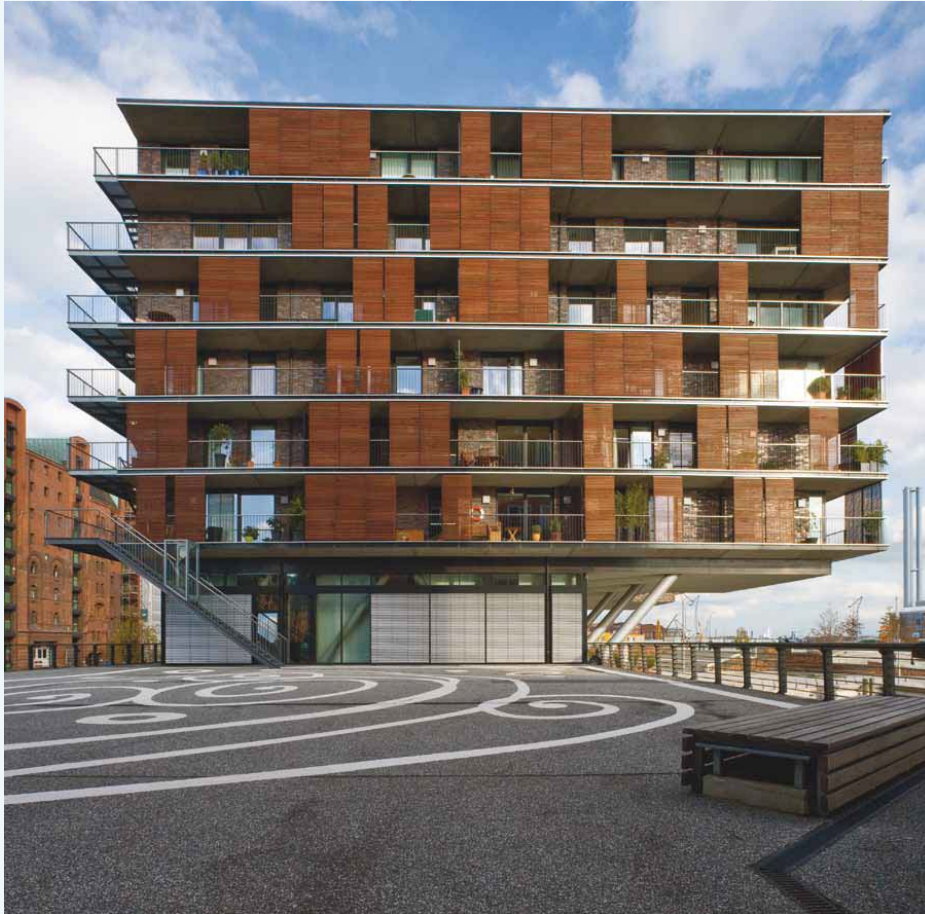
# Adaptive Flood Risk Management



- From flood prevention to flood mitigation and flood recovery
- Novel flood risk measures and novel governance arrangements
- Diversity of public and private actors
- Legitimacy of governance arrangements beyond the state



# Research questions



*Which governance arrangements exist for Adaptive Flood Risk Management (AFRM)?*

*How is legitimacy attained for these governance arrangements?  
(in terms of input, throughput, output)*



# Research method

- Comparative case study research of 2 cities
- Similarities:
  - Western democratic cities
  - Front runners in AFRM
  - Similar adaptation issues
  - Empowered local authority
- Content analysis of policy documents & semi-structured interviews with public and private stakeholders

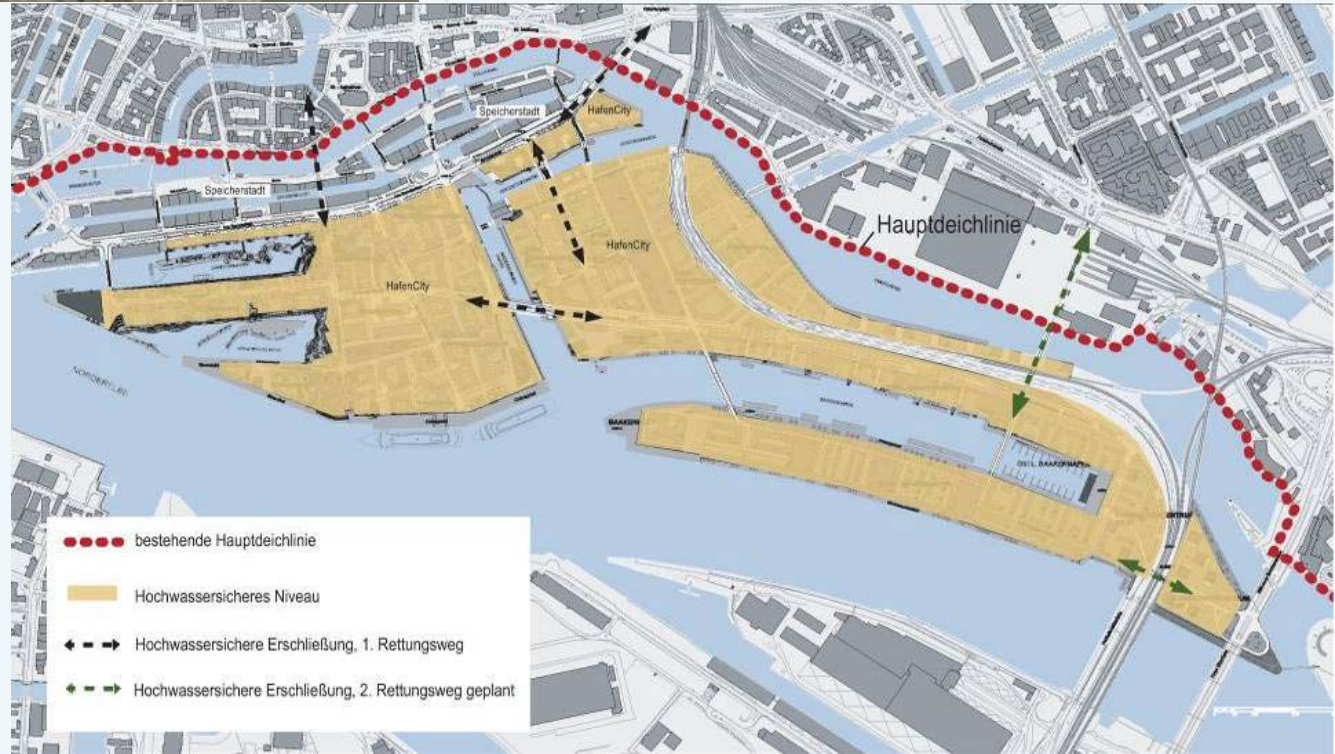
# Case studies



**Rotterdam:**  
Heijplaat  
(results still under construction)



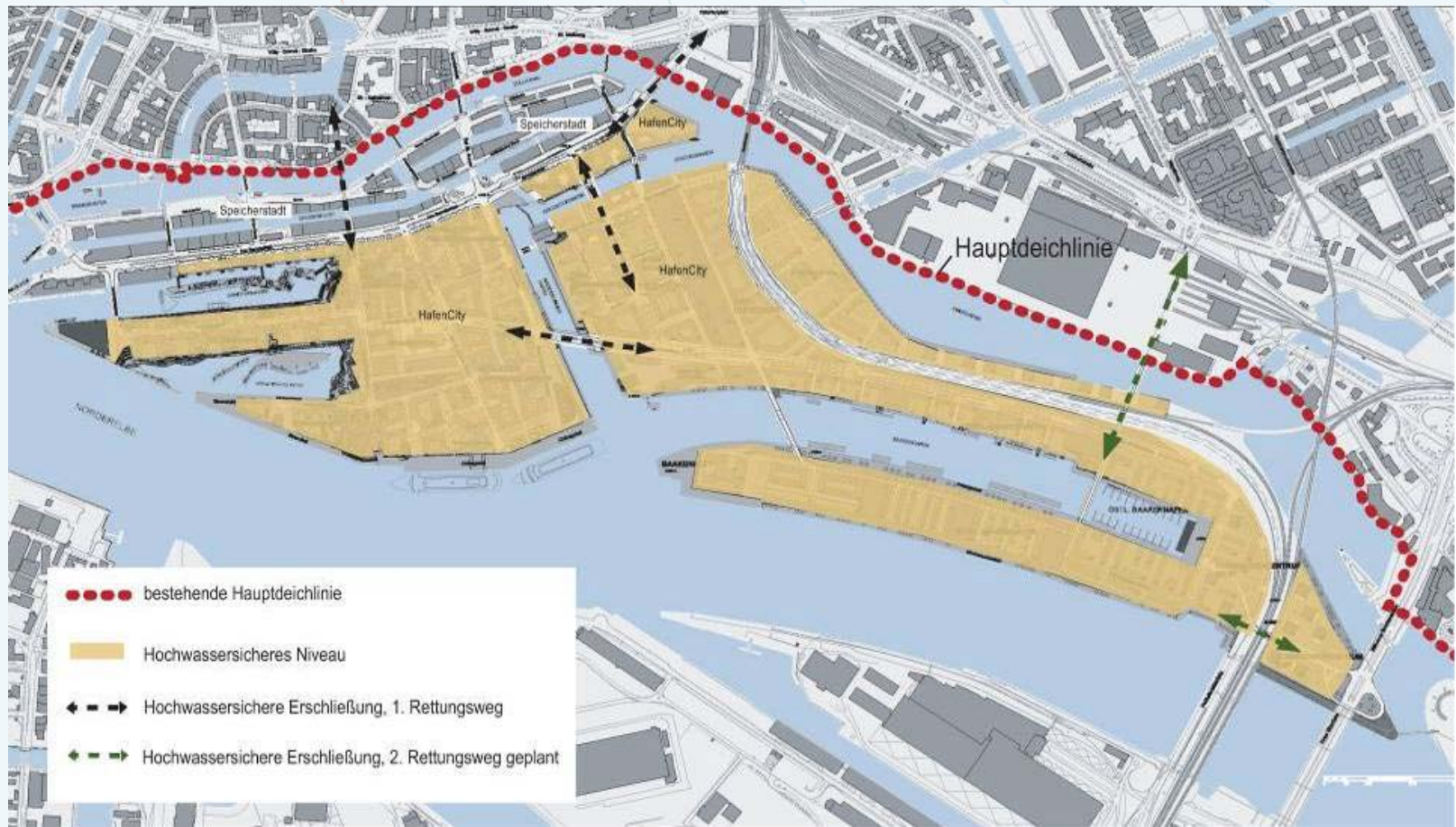
**Hamburg:**  
HafenCity  
(focus of this presentation)



# AFRM for HafenCity - Hamburg



- Mounds (elevated building heights)
- Adaptive building
- Civic Communities for flood preparation & evacuation routes





# Hierarchical arrangement



- Public responsibility dominates throughout the process: local authorities decide on the AFRM strategy and policy, check the extent of conformation to the regulations, and are responsible for flood risk communication
- Hierarchical steering
- Legal instruments (Special law for HafenCity) + Communication instruments
- Predominant considerations:
  - Securing adaptation action
  - Rule of law
  - Efficiency



*Example of mounds*

# Market arrangement



- Private responsibility is manifest in the implementation stage: implementation and financing of adaptation measures
- Self-governance through market steering and private partnerships
- Efficiency is the key consideration behind the delegated private responsibilities



*Example of adaptive building (flood door)*

# Interactive arrangement



- Lack of true public-private responsibilities
- No forming of interactive public-private networks
- Direct engagement of the private sector by local authorities is rather limited



*Example of elevated evacuation route*

# Legitimacy



## Input:

- Limited representation of private stakeholders
- Investors are better represented than residents
- Indirect representation through Senate & Parliament

## Throughput:

- Limited participation in decision-making by the private sector
- Investors are heavily engaged in the implementation stage
- Deliberation processes on occasional basis

## Output:

- High consent with the AFRM arrangement among all stakeholders
- Formal consent of Senate and Parliament (committee UD)

# Conclusion & discussion



- Predominant hierarchical arrangement, which appears to be in line with the modest levels of input & throughput legitimacy
- Legitimacy is attained by:
  - high output legitimacy: ratification by elected politicians, societal support
  - accountability: responsibilities are clear and well-know in advance
- Alternative arrangements: more interactive arrangement might increase input & throughput legitimacy, but lead to trade-offs in output legitimacy and effectiveness (securing adaptation action)





# Questions?

[h.i.p.mees@uu.nl](mailto:h.i.p.mees@uu.nl)

