

# Financial arrangements for realising adaptation projects

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## About this talk

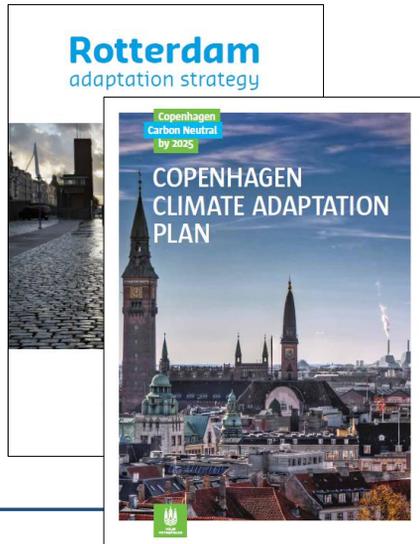
Can financial instruments with a proven track record in the energy sector contribute to the realisation of water related adaptation projects?

And if so, how?

Preliminary findings from work in progress.



## From adaptation planning to action



Many challenges to turn strategies into action:

- Political sense of urgency
- Cultural
- Institutional
- Skills & competencies
- Technical
- ...
- **FINANCIAL**

## Different perspectives on adaptation

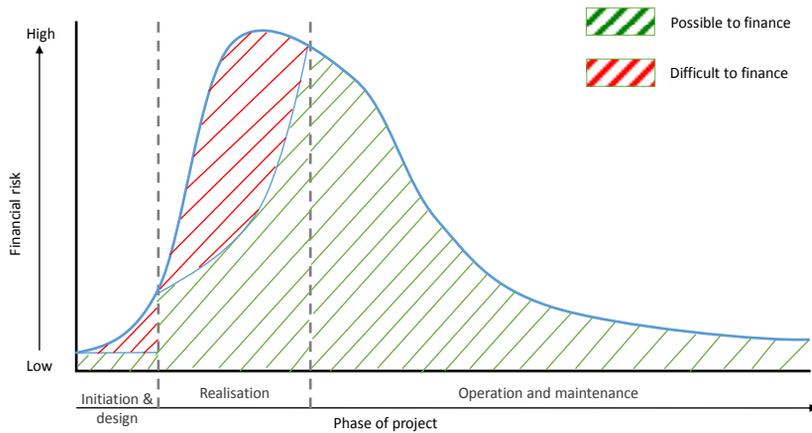
### **Adaptation from the perspective of planning/engineering:**

→ Minimise risk of damage and death

### **Adaptation from the perspective of finance**

→ Minimise risk of negative/insufficient return on investment

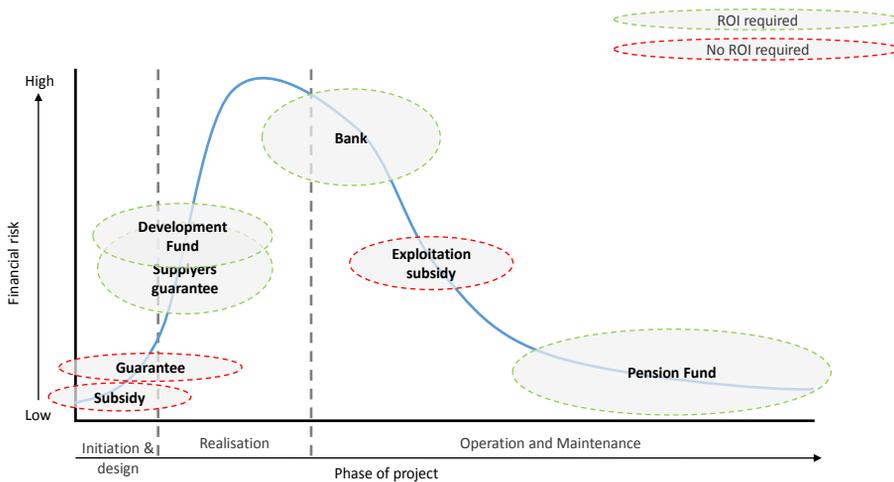
# Typical financial risks of geothermal energy projects



Besselink et al, 2014



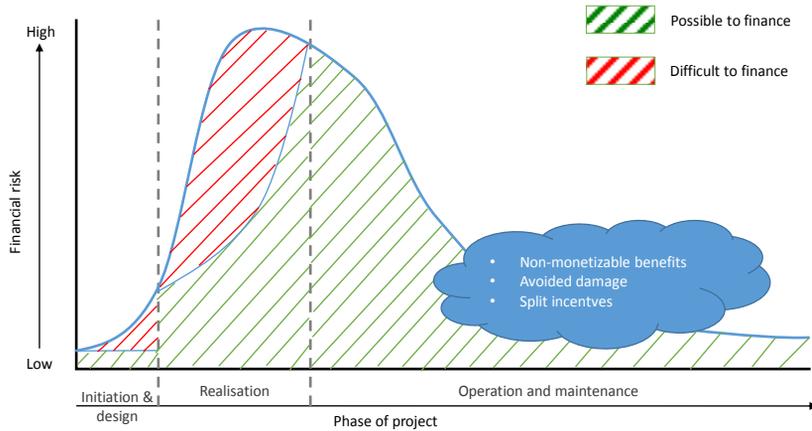
# Financiers for geothermal energy projects



Besselink et al, 2014



# Water projects are fundamentally different



Besselink et al, 2014



## Financial instruments – some examples

### GRANT SCHEMES



Green roof programme

### FEED-IN SCHEMES



Polder roof Amsterdam

### SERVICE CONTRACTING



Rooftop Energy

### REVOLVING FUNDS



Amsterdams Klimaat & Energiefonds

Why?	Stimulating private investment through co-funding	Compensation for unused capacity (upfront/continuous)	Private investor taking over service provision	Venture capital for private investments
Requires e.g.	Proven technology Proven business case Willingness to invest Availability of public funds	Quantifiable benefits Co-funding capacity (upfront compensation) Long-term commitment (continuous compensation)	Idem as feed-in schemes + Ability of service provider to attract finance and manage risks during exploitation	Non-bankable projects Innovative technologies Entrepreneurship Approx 8% annual return on investment



## Zomerhofkwartier (ZoHo), Rotterdam



## Water plaza



- Temporary storage of excess runoff.
- Multifunctional public space.
- Funded by city's drainage / public space budgets.
- Measures that are needed to disconnect water plaza from sewage system require additional funding sources.

## Streetscape greening



- Removal of paved areas to create green space and infiltrate stormwater
- City's budgets for public space and urban drainage combined
- Uncompensated contributions from local companies and community
- Maintenance covered by building owner (SERVICE CONTRACT)

## Polder roof



de URBANISTEN, 2014

Combination of public and private funds needed to make project feasible. For example:

- Compensation for energy savings
- Rent: branding of office building
- Compensation for water storage capacity (FEED-IN)
- Exploitation of roof (SERVICE CONTRACTING)
- Green roof subsidy (GRANT)

## Some preliminary conclusions

- Cities are diverse.
- Adaptation projects are diverse.
- Financing challenges are diverse.

→ Customise the use of financial instruments to their context.

Energy sector is ahead, but water is catching up. Learn from each other to avoid similar mistakes.

## Next steps

### Research activities:

- Systematically analyse barriers for financing adaptation, financial risks of water projects, effectiveness of financial instruments.
- Focus on processes of 'mainstreaming adaptation' in which various investment agendas are linked.
- Refine and test findings in case studies in cases in NL, UK, Germany, Belgium, Norway, Australia.

### Output:

- Policy recommendations for financing adaptation (EU Interreg CAMINO)
- Handbook for policy makers, planners and project managers for financing water sensitive cities (CRC for Water Sensitive Cities).

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