Lessons learned from the transition towards an innovative fishing technique

The introduction of the pulse trawl technique in the Dutch flatfish fishery

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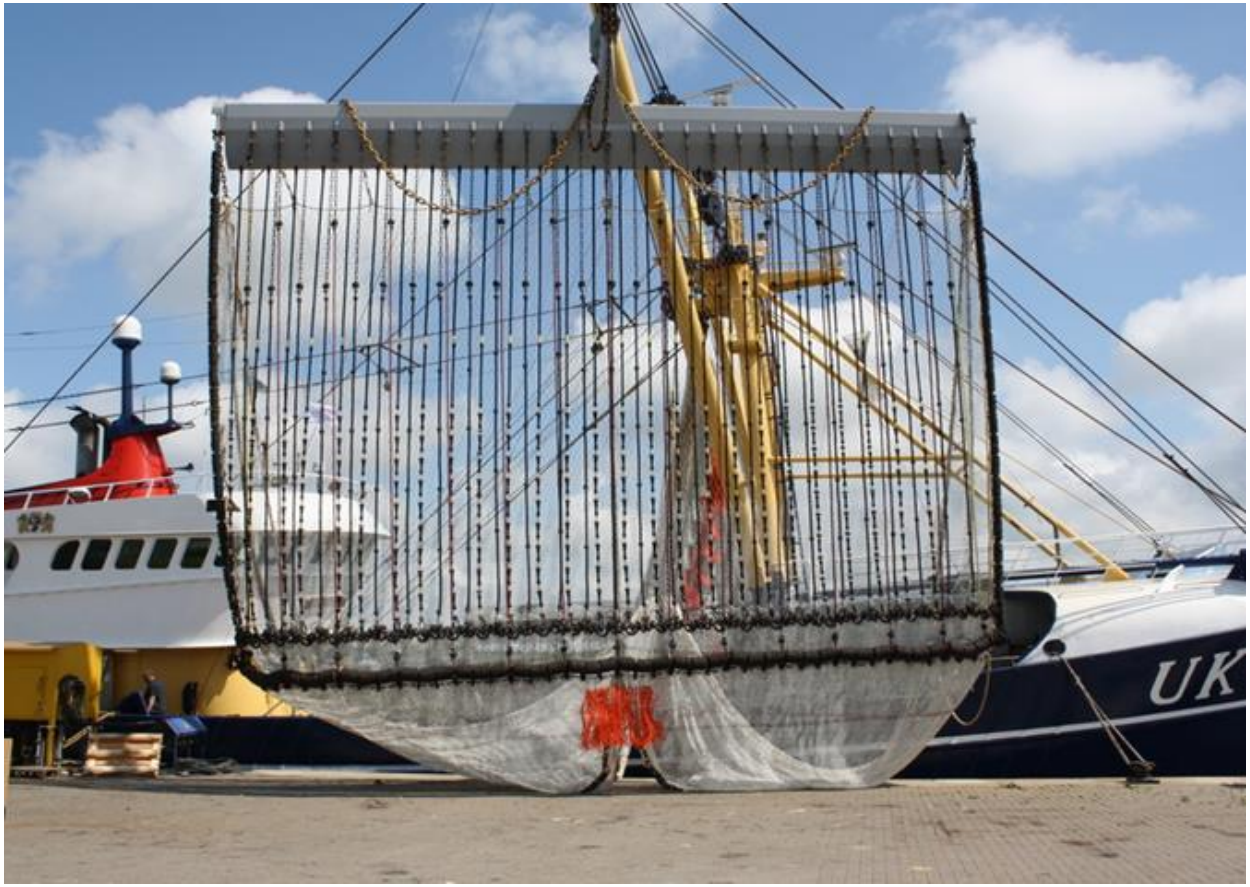
The research is timely...

- NSAC Focus Group Pulse - November 2014:

"we should learn from this case of how a new gear is introduced in the EU".

Goal: understanding the innovation trajectory of the pulse gear in the NL



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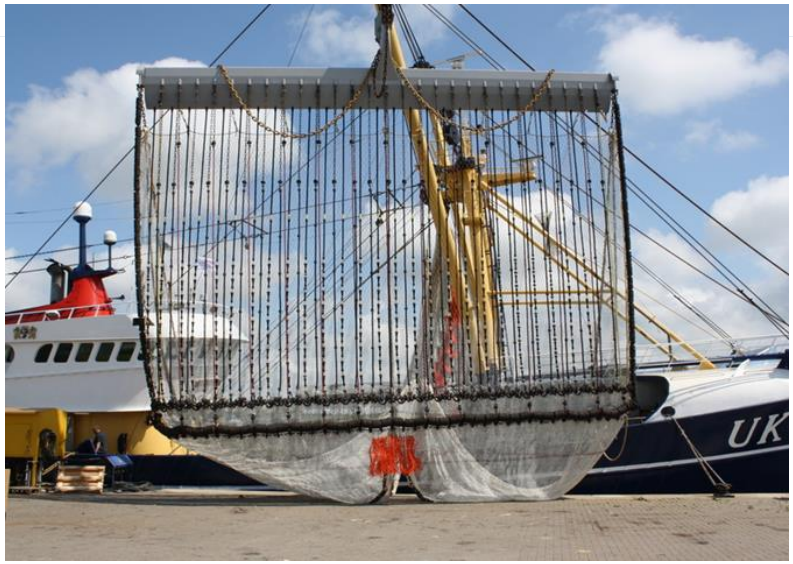
Background: pulse contentious gear



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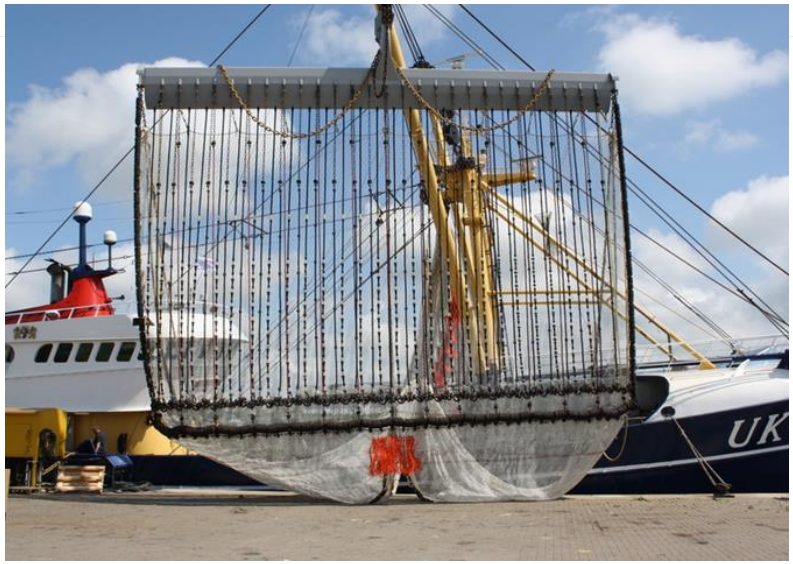

Polarisation

BANNED!

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About the research

- Limitations:
  - Flatfish (sole)
  - No interviews with latest group of users
  - Dutch perspective (also on developments at EU level)
- Sensitive topic: research done by master student (*not* by IMARES)

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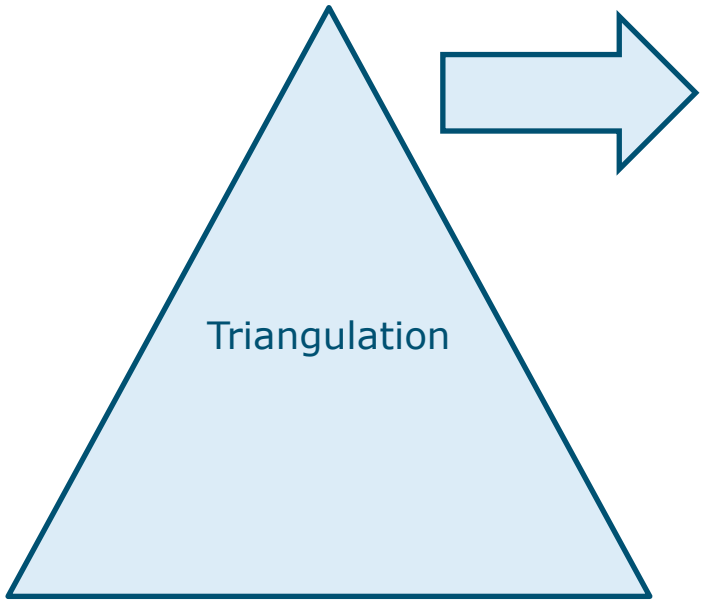
Research questions (simplified)

1. Why and how was the pulse developed?
2. Why and how was it accepted?
3. How did the actors at different levels interact?

Methods

interviews



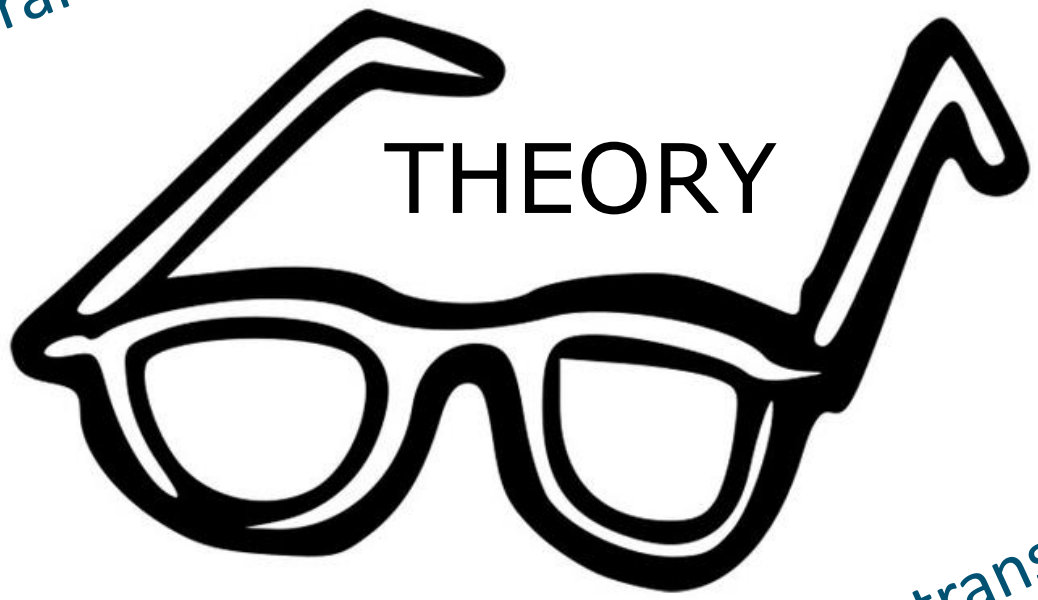
Respondents	Nr
Fishermen & representatives	5
Ministry	4
Technology companies	2
Research	4
NGO	1

literature

observed meetings

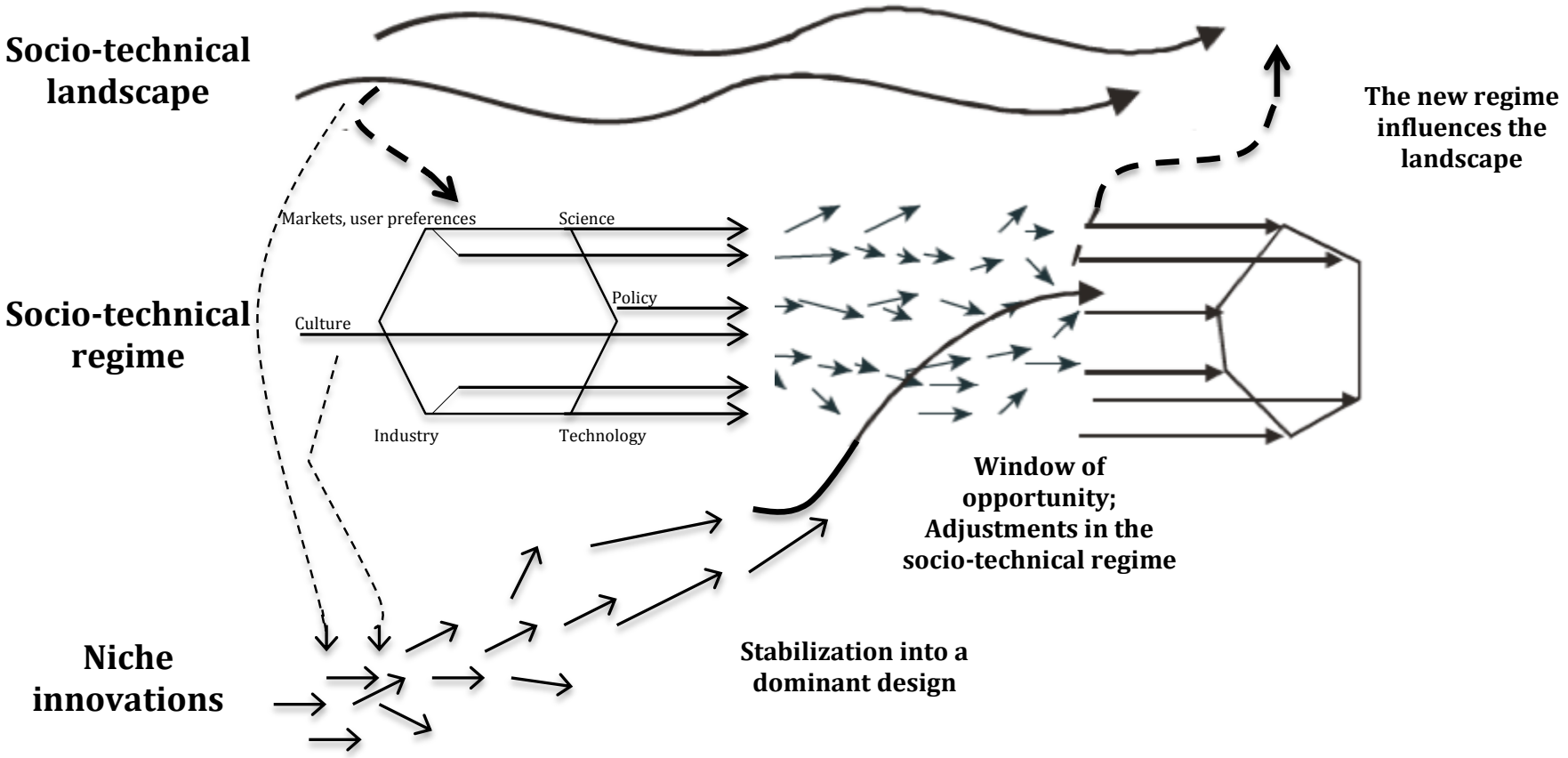
Theory on transitions

What factors are important to realise a transition?



How do transitions work?

Multi-level perspective on transitions (Geels 2011)



Results: main periods in the transition

- Before 1988: research with use of electricity in fishing
- 1988: ban on electric fishing

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1. Developing a pulse system (1992-2004)
2. Pilot project on a commercial vessel (2004-2007)
3. Study Group Pulse & SumWing (2007-2010)
4. Step from innovation to implemented fishing technique (2010)
5. Expanding nr. of exp. licenses 21-42 cutters (2010-2011)
6. Expanding nr. of exp. licenses 42-84 cutters (2011-2014)

Key fact(or)s

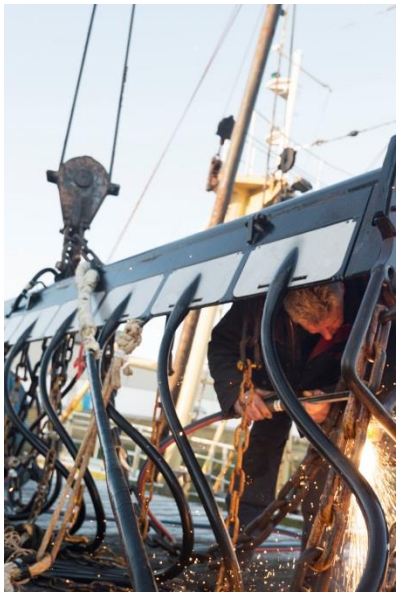
- 2004: tests on a commercial vessel
- 2005: steering group pulse [linking with EU – ICES]
- 2006: 5% derogation EU
- 2007: fishing sector withdraws support to the pilot project
- 2007 - 2010: FIP (EMF) & Study groups [oil price]
- 2010: 5 pioneer vessels test
- 2010: order for 4 vessels by a leading fishing company
- 2011-2014: drive for expansion

Lessons learned

- Transition process is influenced by many factors at niche level (gear development), regime level (providing subsidies, changing rules) and landscape level (oil price & need for sustainable fisheries)
- Competition has heavily influenced the transition pathway
    - As push (solving techn problems) and as pull back (control)
- There are *two* transition trajectories: NL & EU
- Strong technological push character

About technological push

- Different societal views on technology and society:
  - instrument to reach a goal (technological fix)
  - Technology leads to plunder of resources & externalises costs
- Another approach: technology is always related with society -> **understand that relation!**



Avoid technological push because:

- Technology is socially constructed
  - Don’t focus on realising a technological transition but also on social practices, relationships, organisation
  - All social groups involved have an influence, as well as political decisions, institutions, cultural preferences, user behaviour etc!!

- This asks for an overal vision – long term perspective on the use of the technology!

Thanks for your attention

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Photo's slide 1,2,6,15,16: Hugo Schuitemaker