

MONITORING ENVIRONMENTAL IMPACTS OF OFFSHORE WIND FARMS IN THE BELGIAN PART OF THE NORTH SEA

SETTING THE SCENE

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Presented by Marisa Di Marcantonio



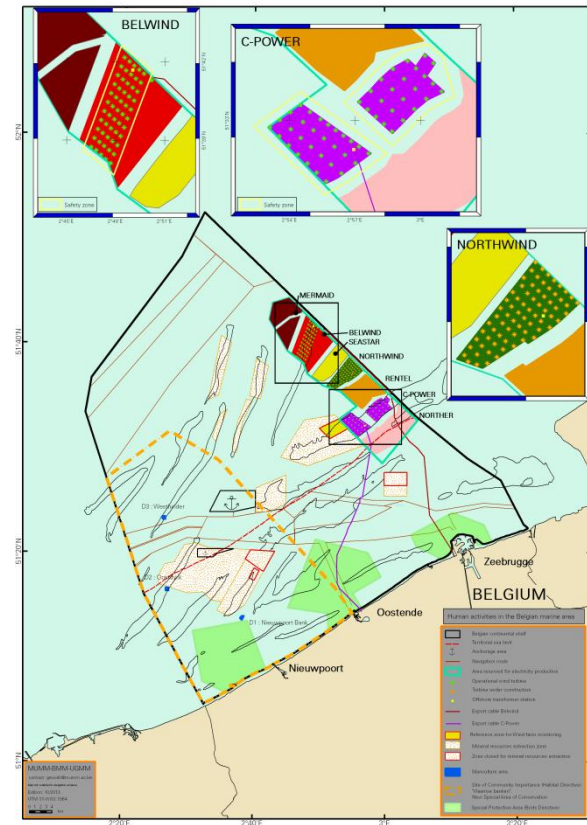
LEARNING FROM THE PAST TO OPTIMISE
FUTURE MONITORING

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OFFSHORE WIND ENERGY DEVELOPMENT IN THE BELGIAN PART OF THE NORTH SEA

- 1 zone = 238 km²
- legal aspects: MUMM advising
- domain concessions granted: 7 (8)
- environmental permits granted: 5
- environmental permits ongoing: 1
- cable permits granted: 5
- cable permits ongoing: 1

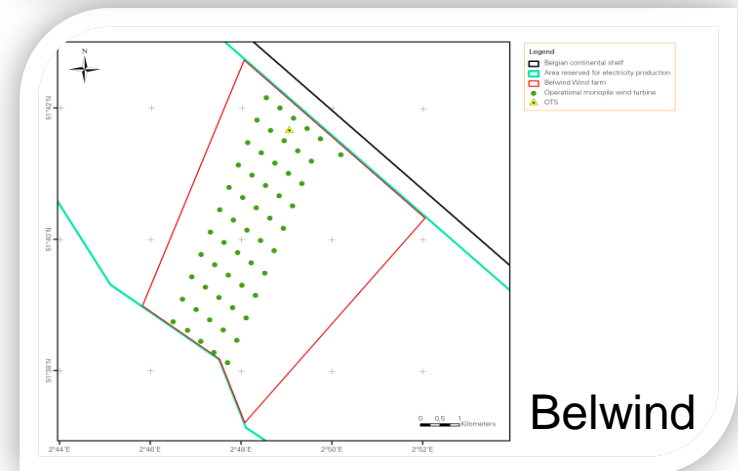
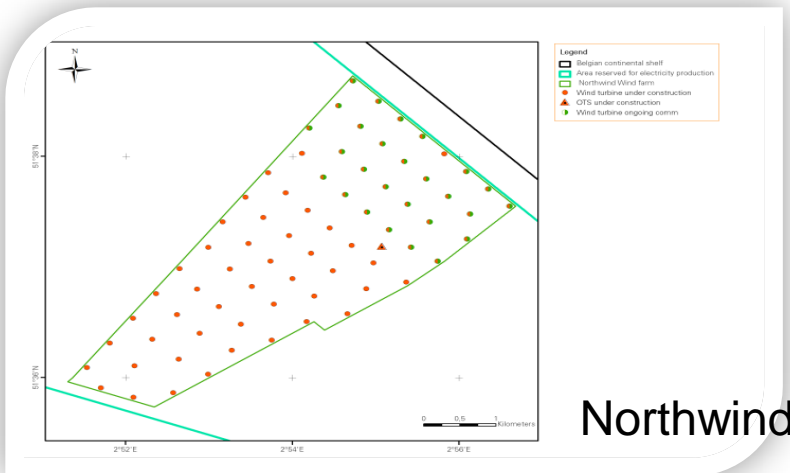
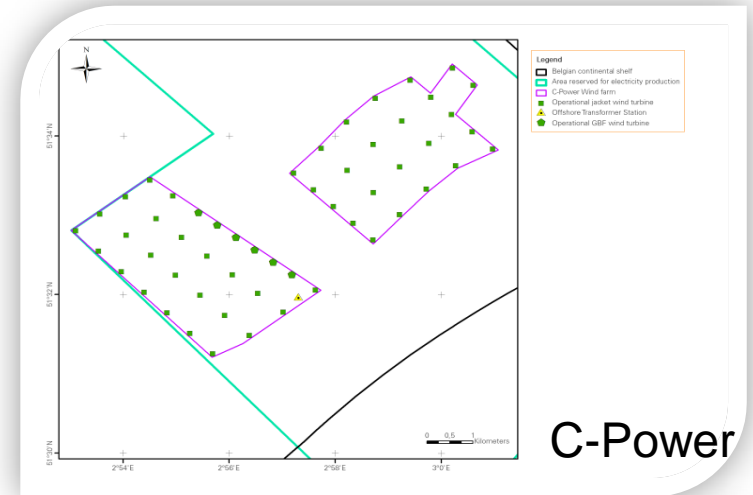


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How is construction progressing?

- Wind farms currently built:
 - Northwind (216 MW, 3 MW)
- Wind farms completed:
 - Belwind part 1 (165 MW, 3 MW)
 - C-Power (325 MW, 5-6 MW)



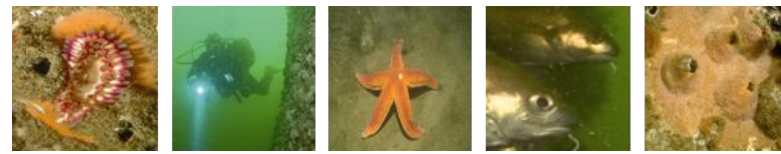
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Seascape and socio-economic study

- Focus:
 - Public's opinion on renewable energy in general
 - Public's opinion on specific projects
- 2 surveys: 2002 + 2009
- Respondents: coastal residents, second residents, coastal workers, tourists, sailors

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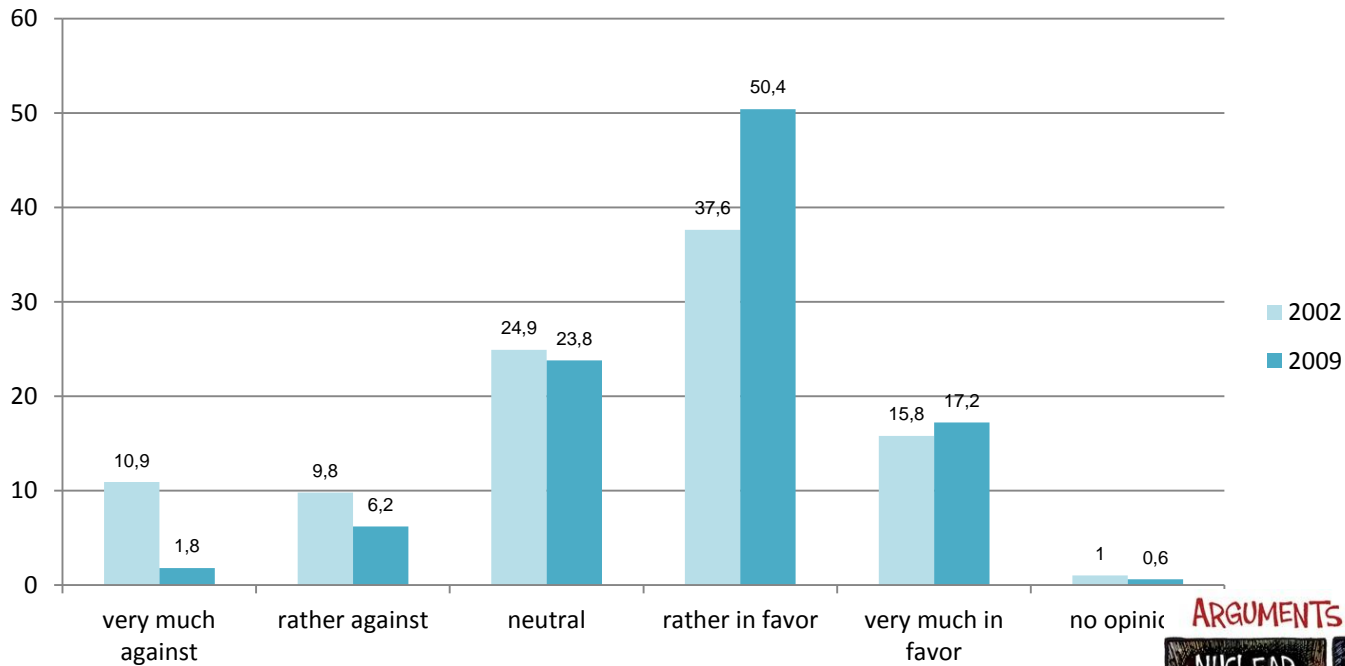
What did we ask to the public?

1. relationship with coast
2. social relevance of sustainable development
3. experiencing of actual wind farm
4. effects wind farms has on behavior of people
5. cumulative impact – worst case
6. socio demographic info

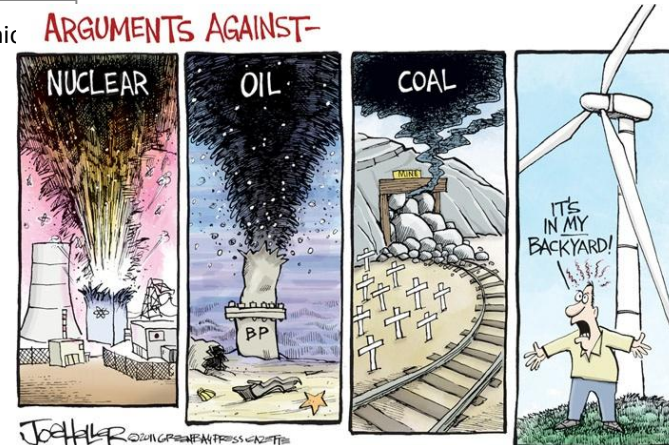
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Did public's opinion change in time ?



- It did
- 10% more positive attitude
- Other countries

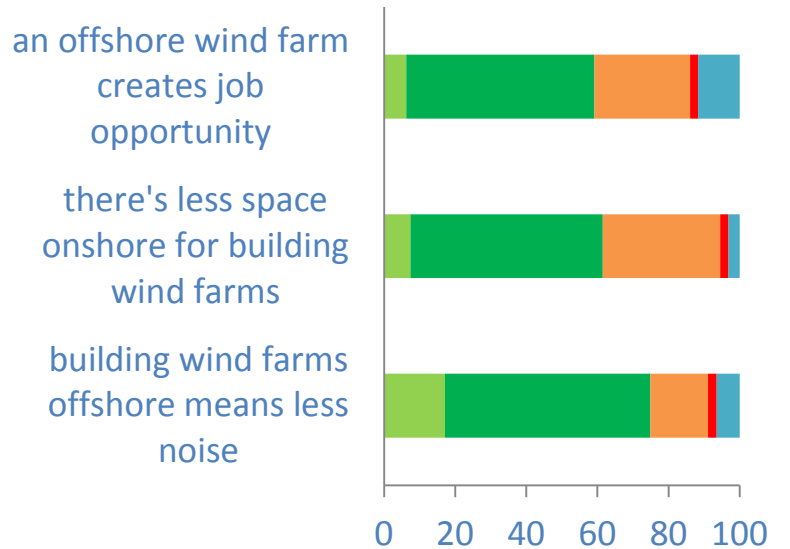


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Statements on offshore wind energy

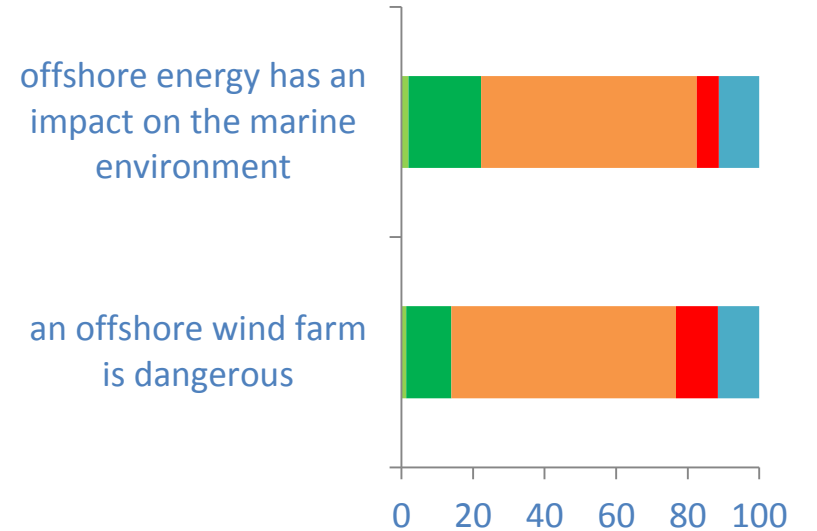
Advantages



totally agree
don't agree
no comment

agree
totally don't agree

Disadvantages



totally agree
don't agree
no comment

agree
totally don't agree

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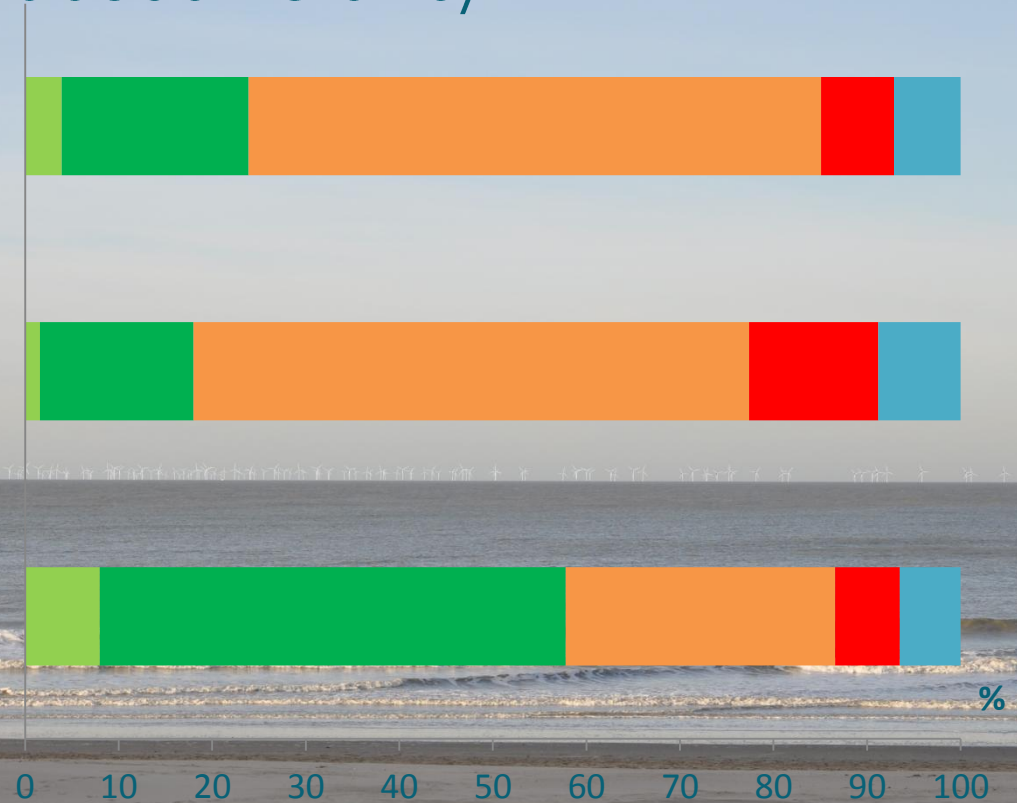


What about visibility?

an offshore wind farm deteriorates the sea perception

a visible wind farm attracts tourists

I like to see an offshore wind farm



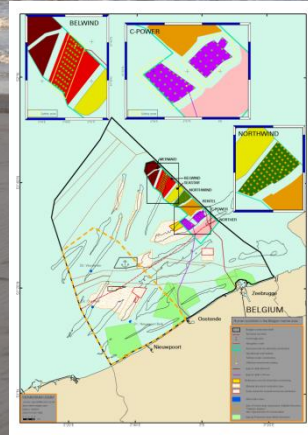
totally agree agree don't agree totally don't agree no comment

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When/how does the view on a windfarm becomes acceptable

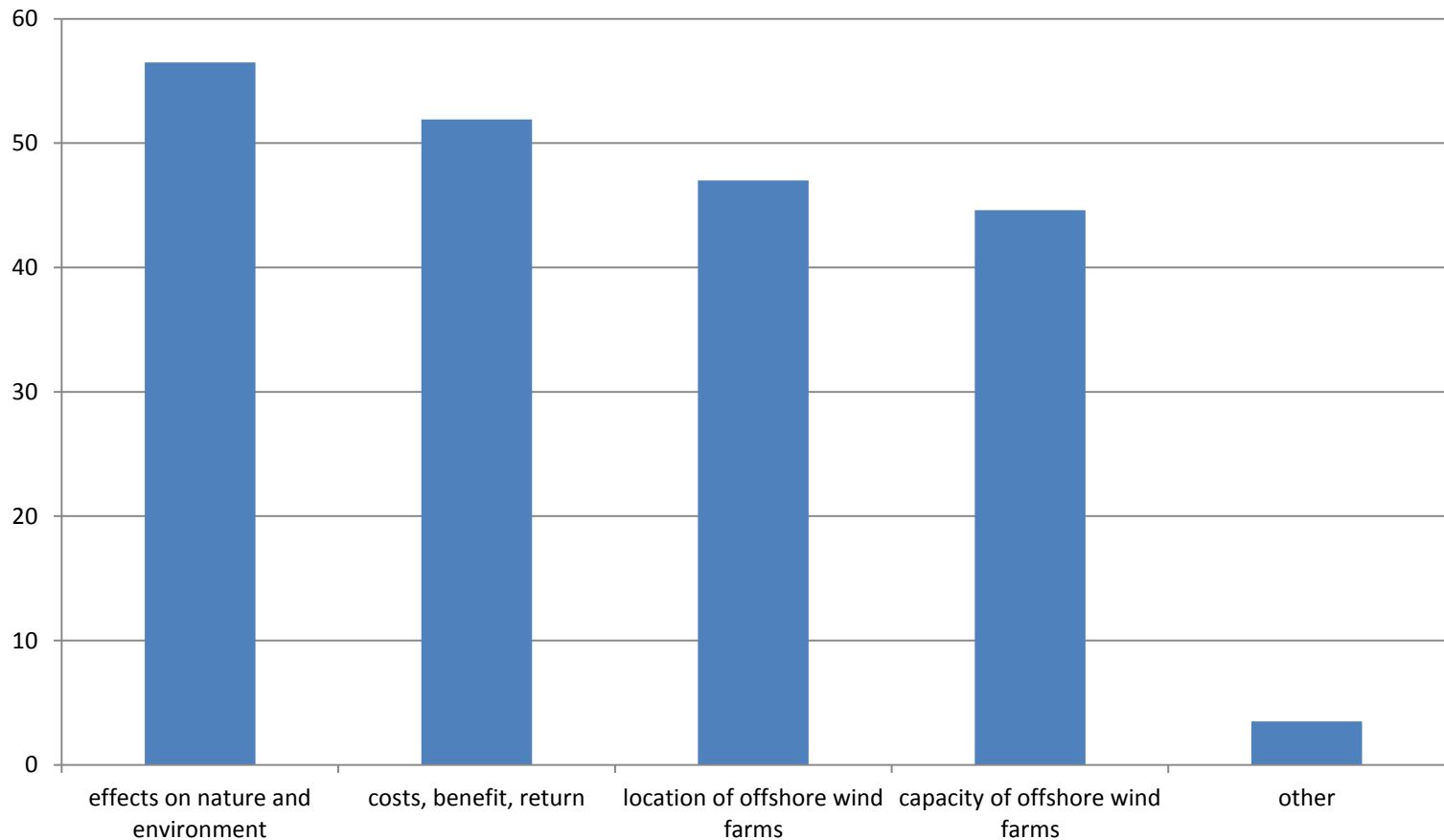
- Simulation of entire zone fully occupied
- 62 % thinks distance is acceptable, 20 % not acceptable
- Acceptable if:
 - 84 %: wind farm less visible
 - 69 %: another orientation/set up
 - 56 %: provide them with cheap energy
 - 53 %: if there's no harm to nature
 - 43 %: provide economic growth and employment
 - 23 %: people can buy shares
 - 20 %: visit park



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What do people want to be informed on?



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What about future monitoring?

- New study in the near future
- Focus on changes in public's opinion
- Impact of the works on local lives (visual and work)
- Rising electricity bill link

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Conclusion

Implementation extended monitoring program



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Thank you for listening!

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