

Vannstrøm, krefter og deformasjon

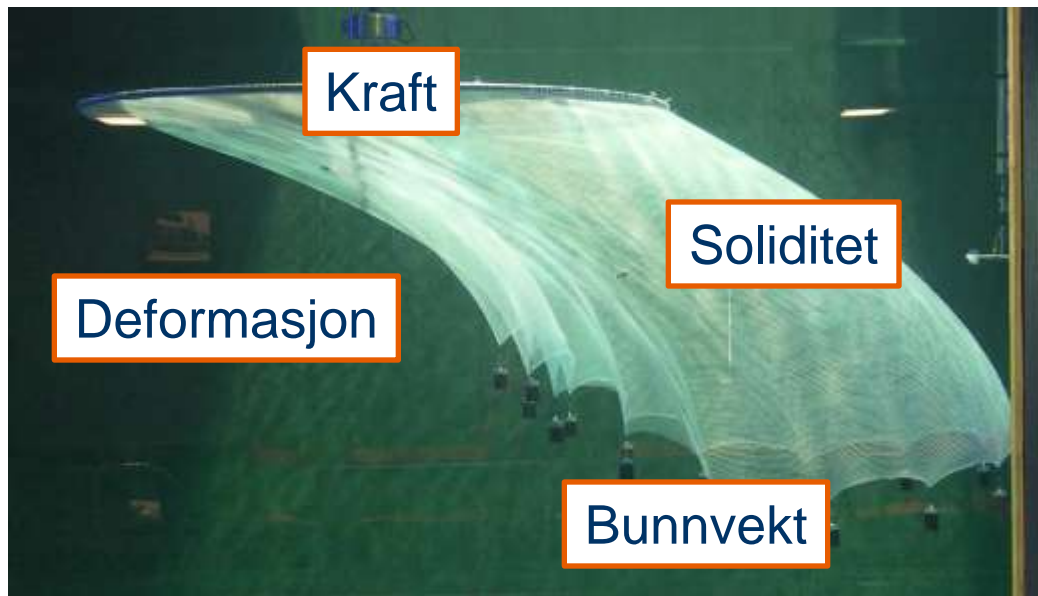
Pål Lader

SINTEF Fiskeri og havbruk

CREATE - Centre for research based innovation in aquaculture technology

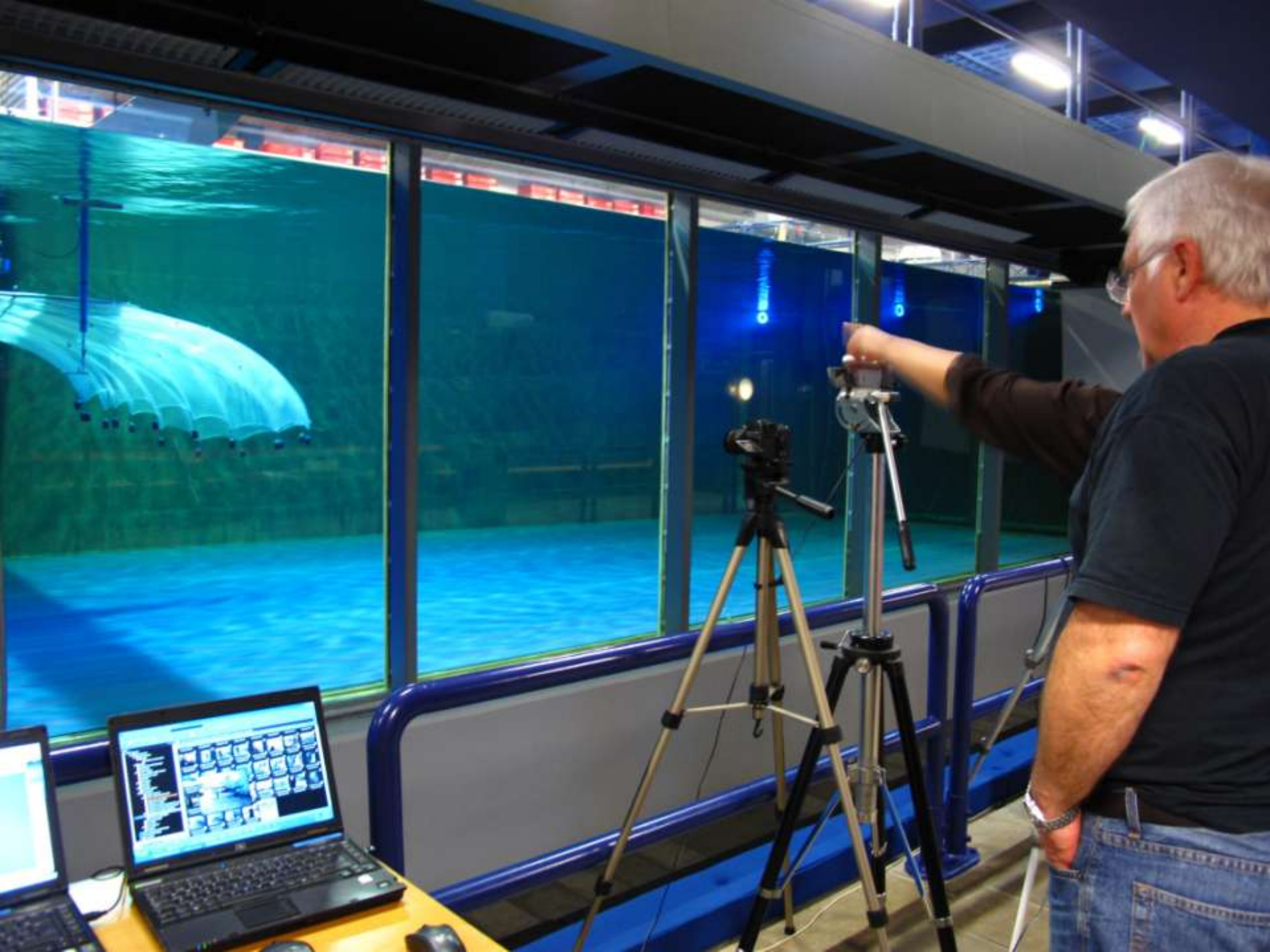
Hva jeg skal snakke om

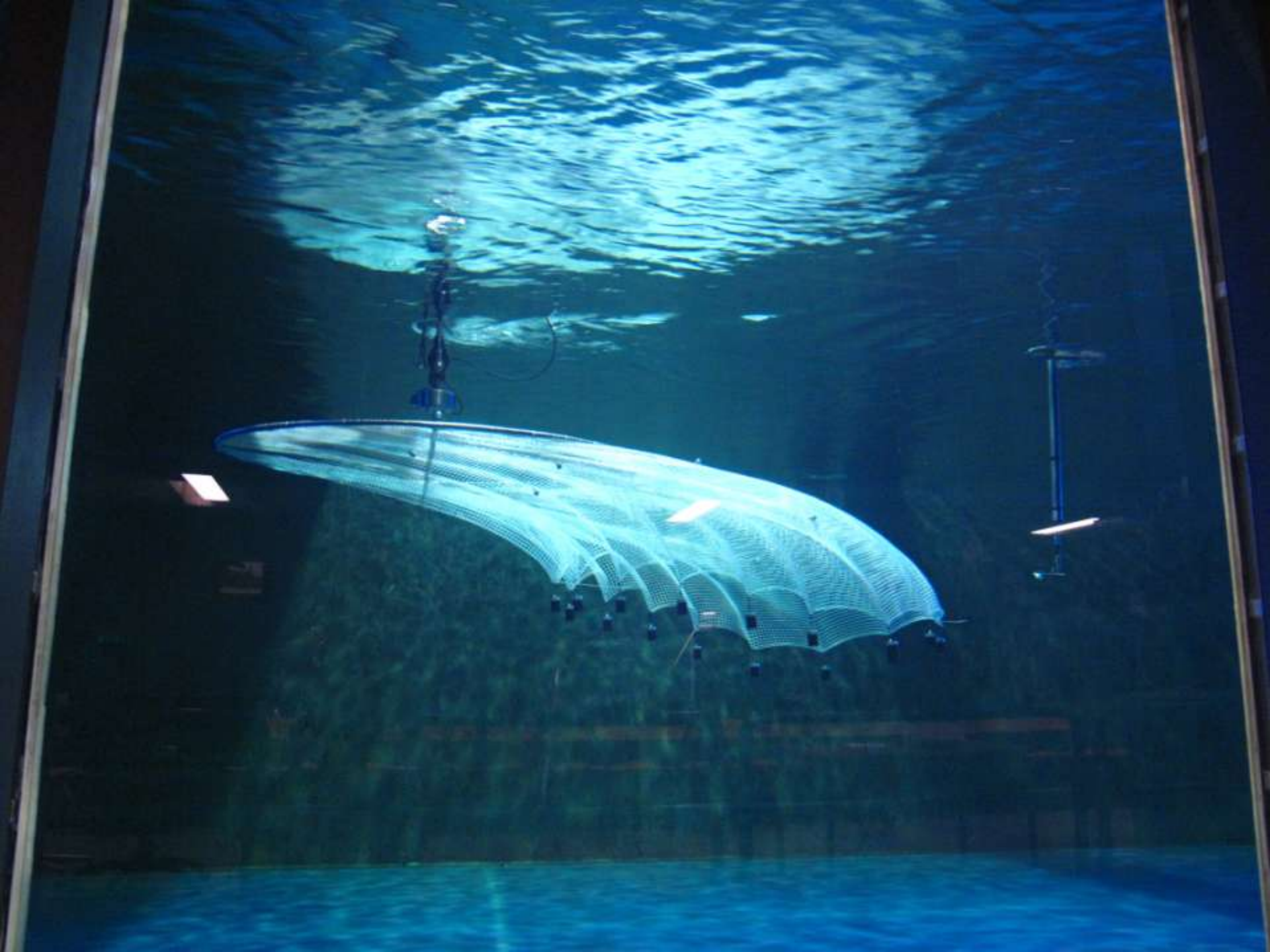
- Hva skjer med en fleksibel merd når den utsettes for strøm?

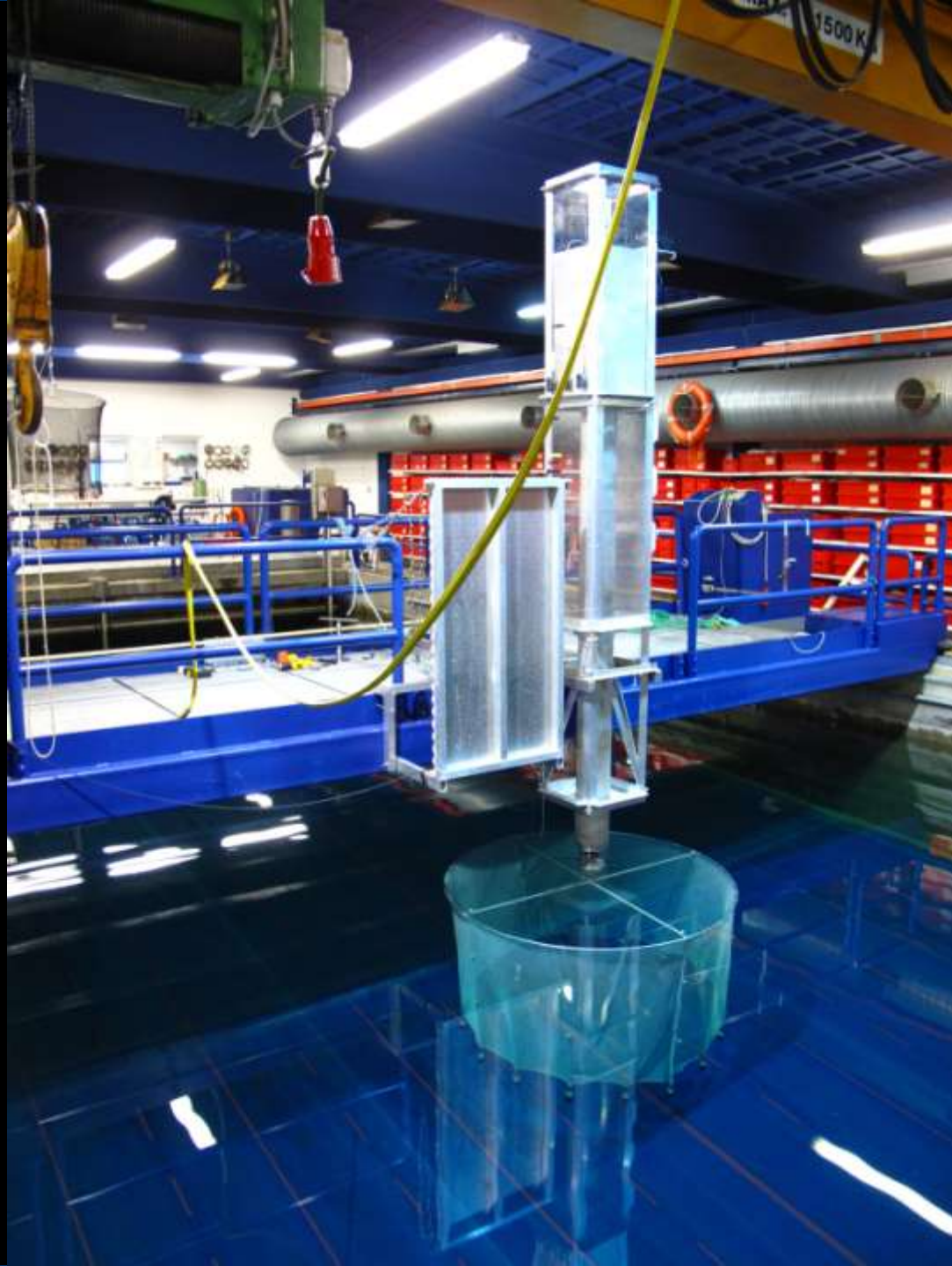


- Erfaringer fra fullskala målinger og laboratorieforsøk

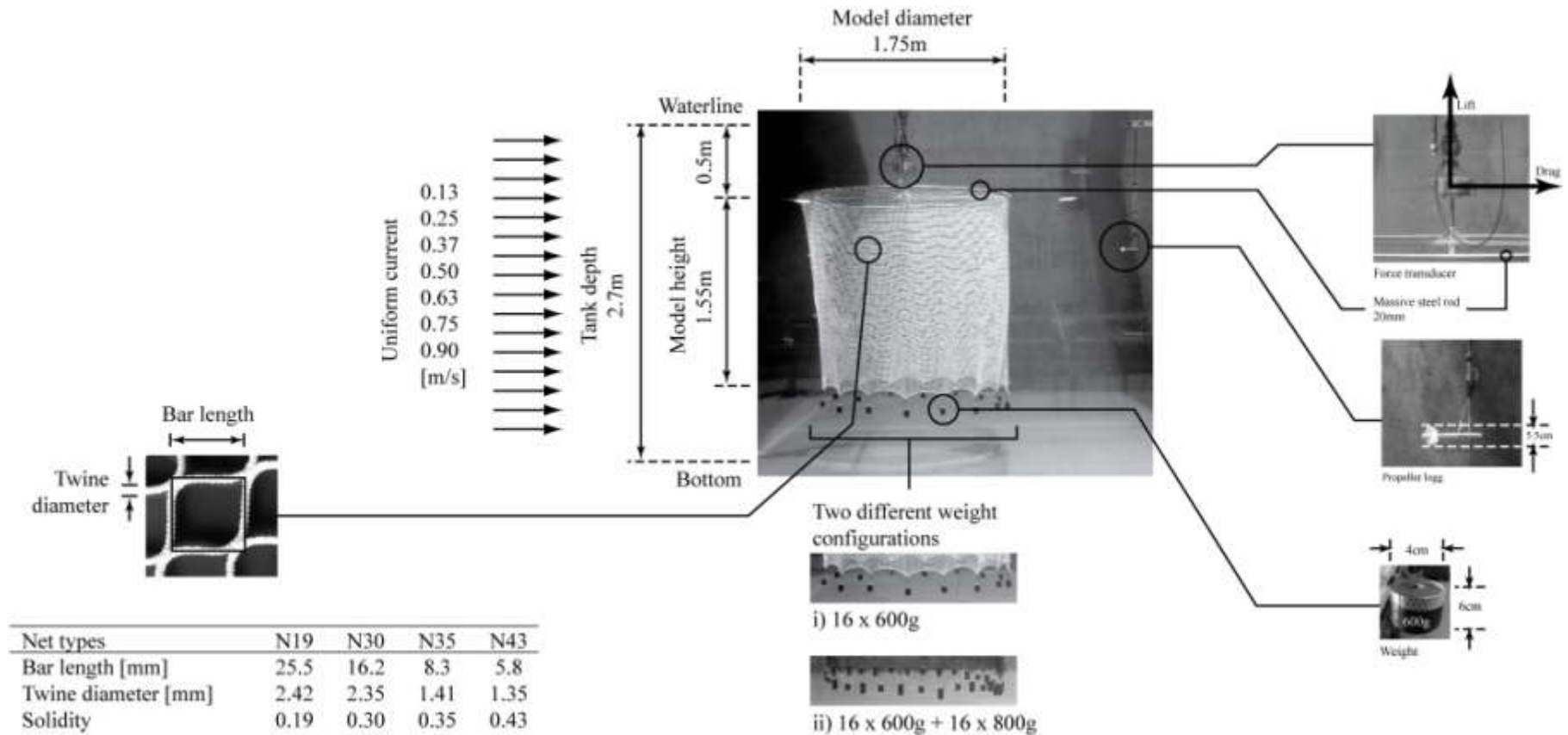


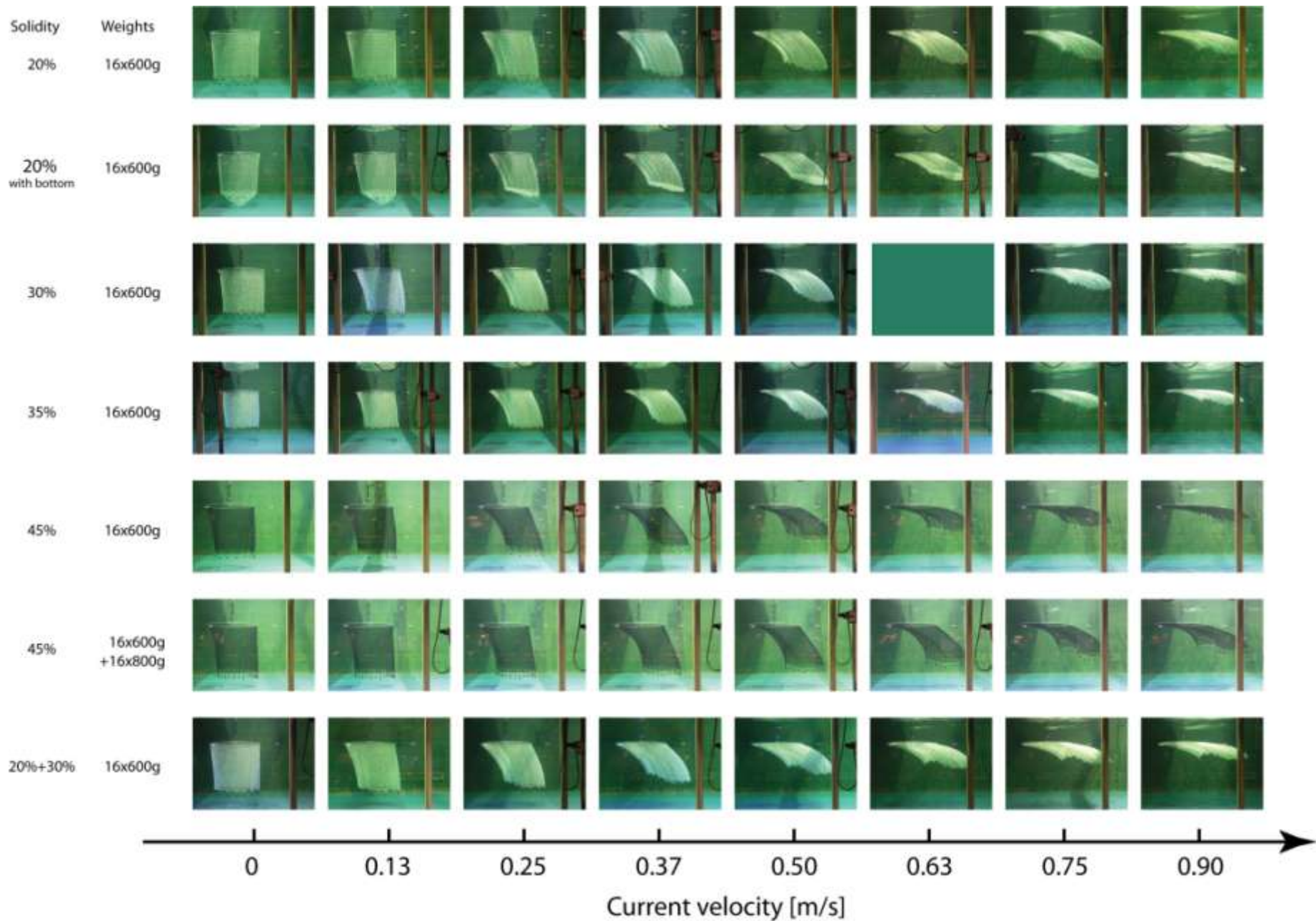






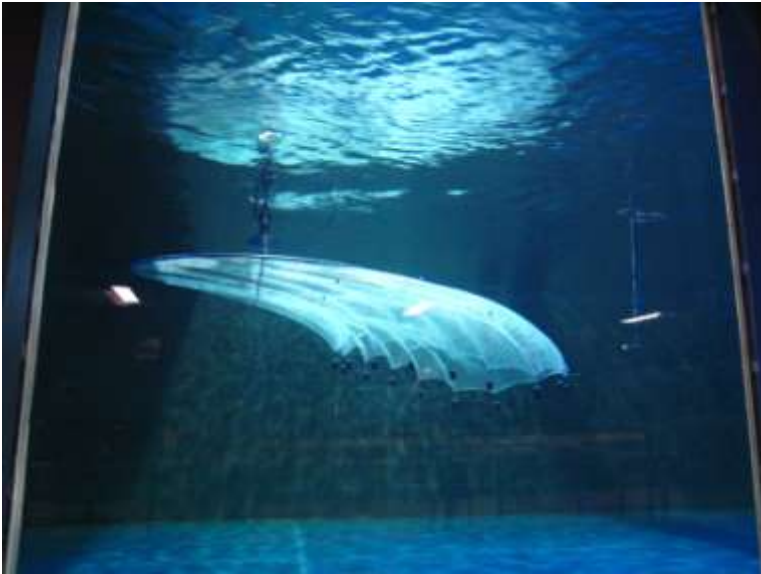
Forsøksoppsett





Havbrukskonstruksjoner

- Enkle eller komplekse?

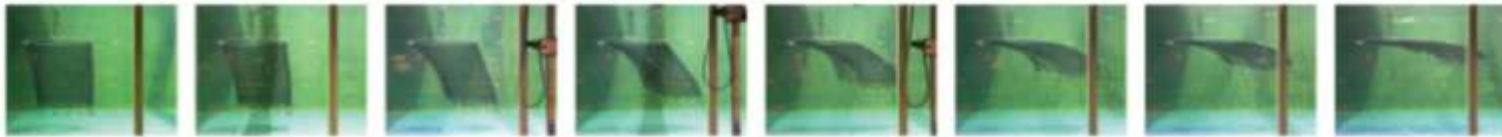


Enkel?

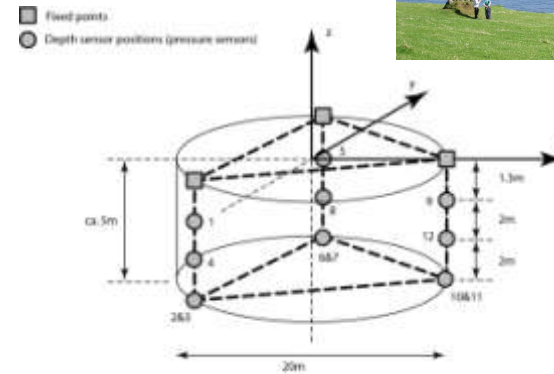
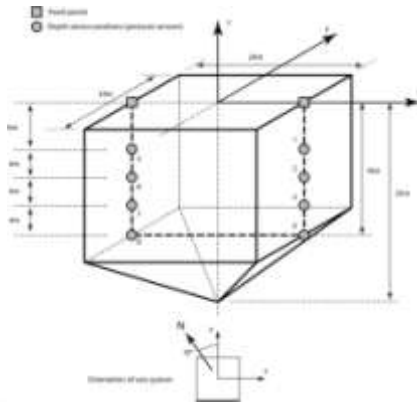


Kompleks?

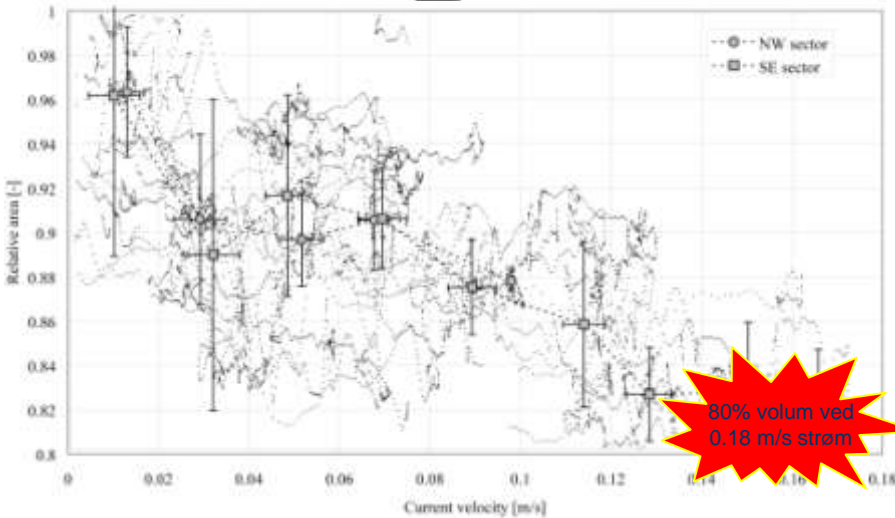
DEFORMASJON - En velsignelse og en forbannelse



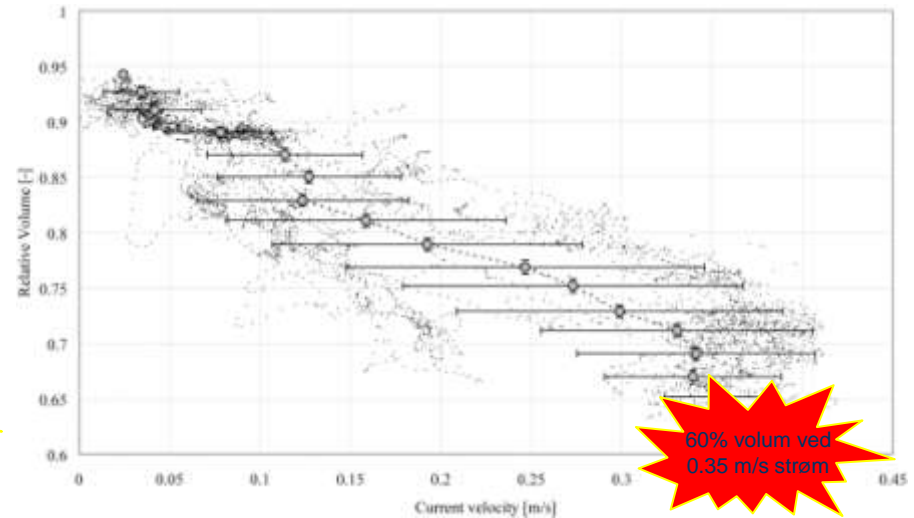
Forbandelse (Volum)



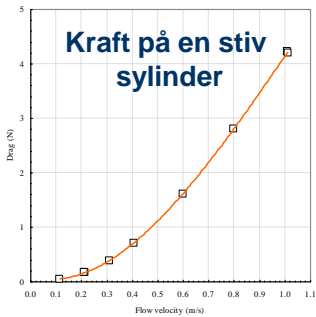
RELATIVT VOLUM



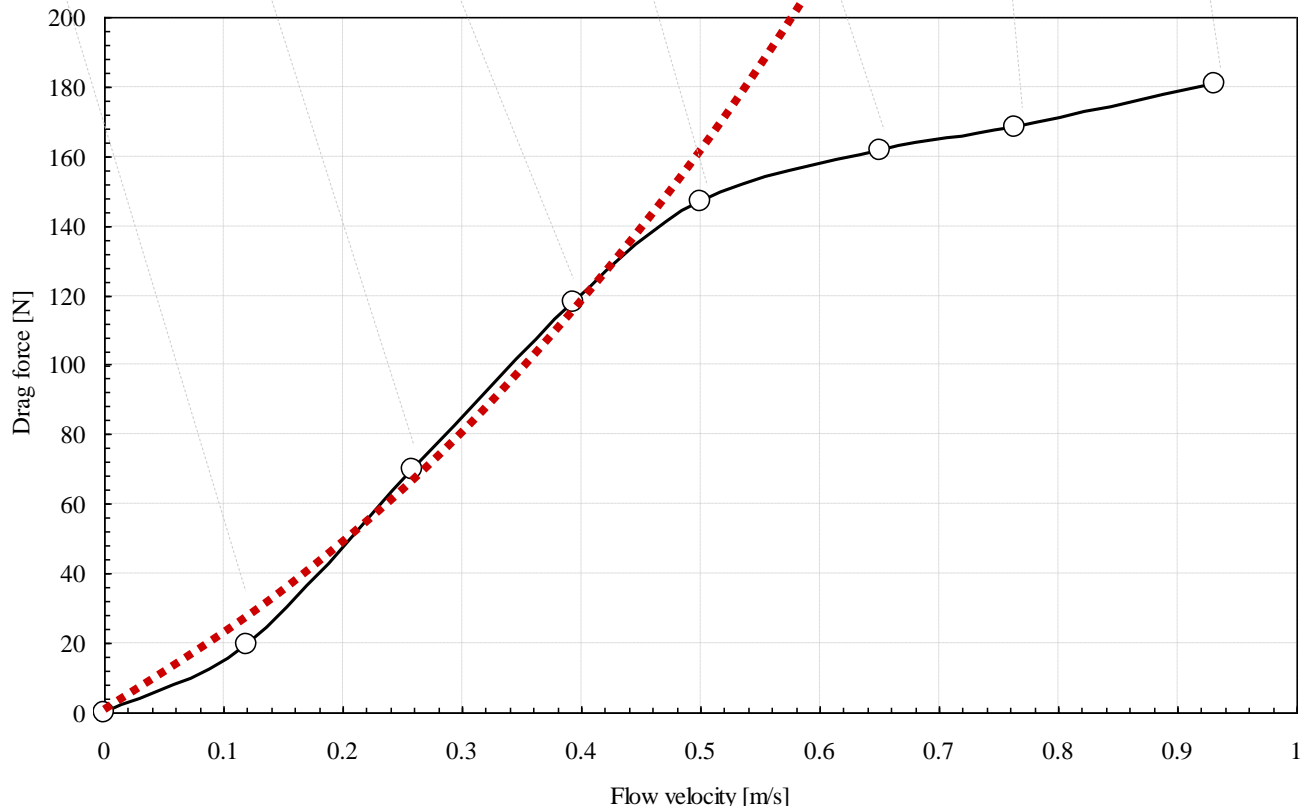
STRØMHASTIGHET



Velsignelse (Kraft)



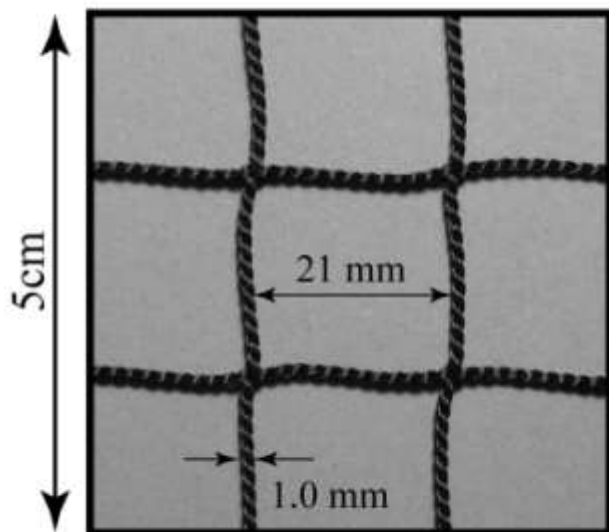
KRAFT



STRØMHASTIGHET

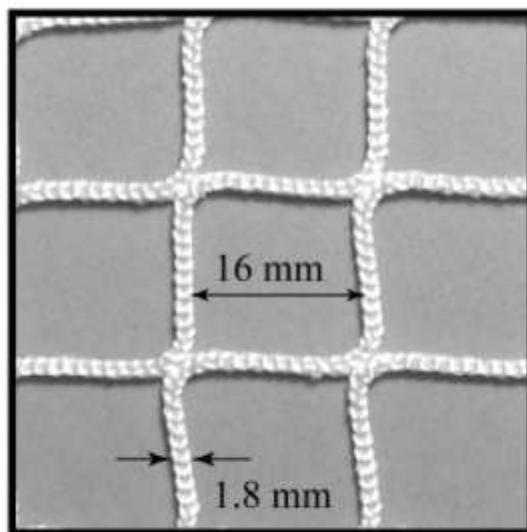
Hva skjer når vi øker soliditeten?

Net Case 3



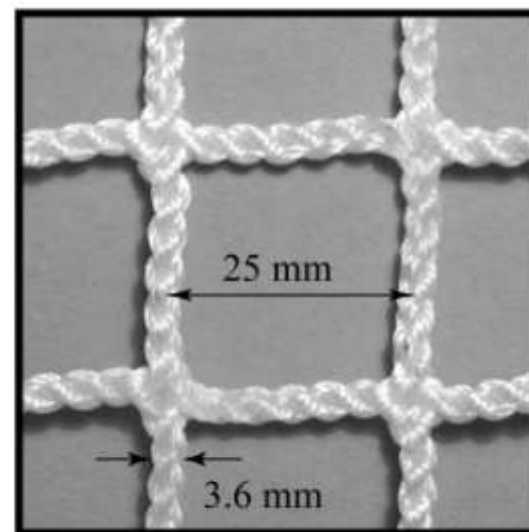
Solidity = 0.095

Net Case 1



Solidity = 0.220

Net Case 2



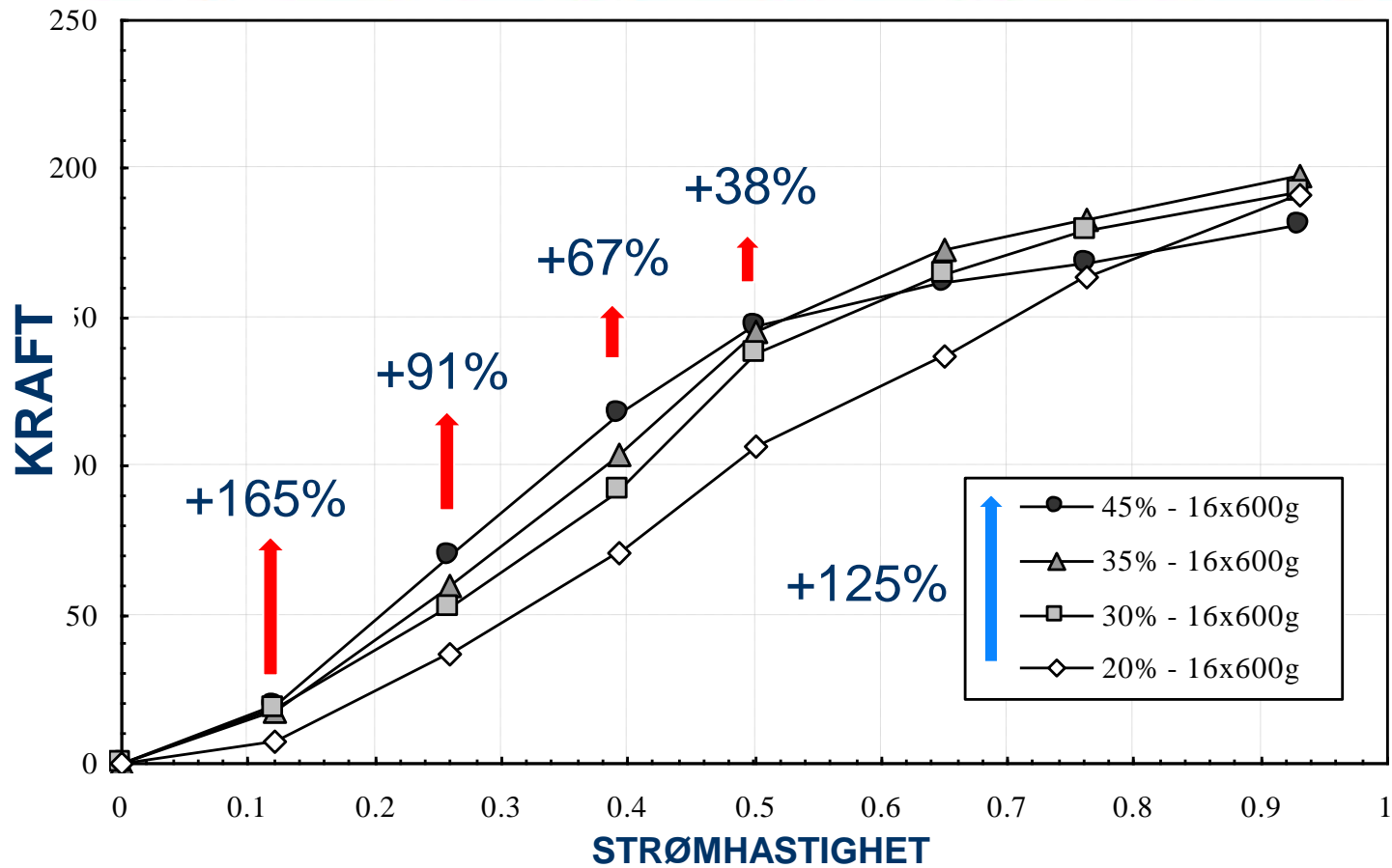
Solidity = 0.288

Hva skjer når vi øker soliditeten?

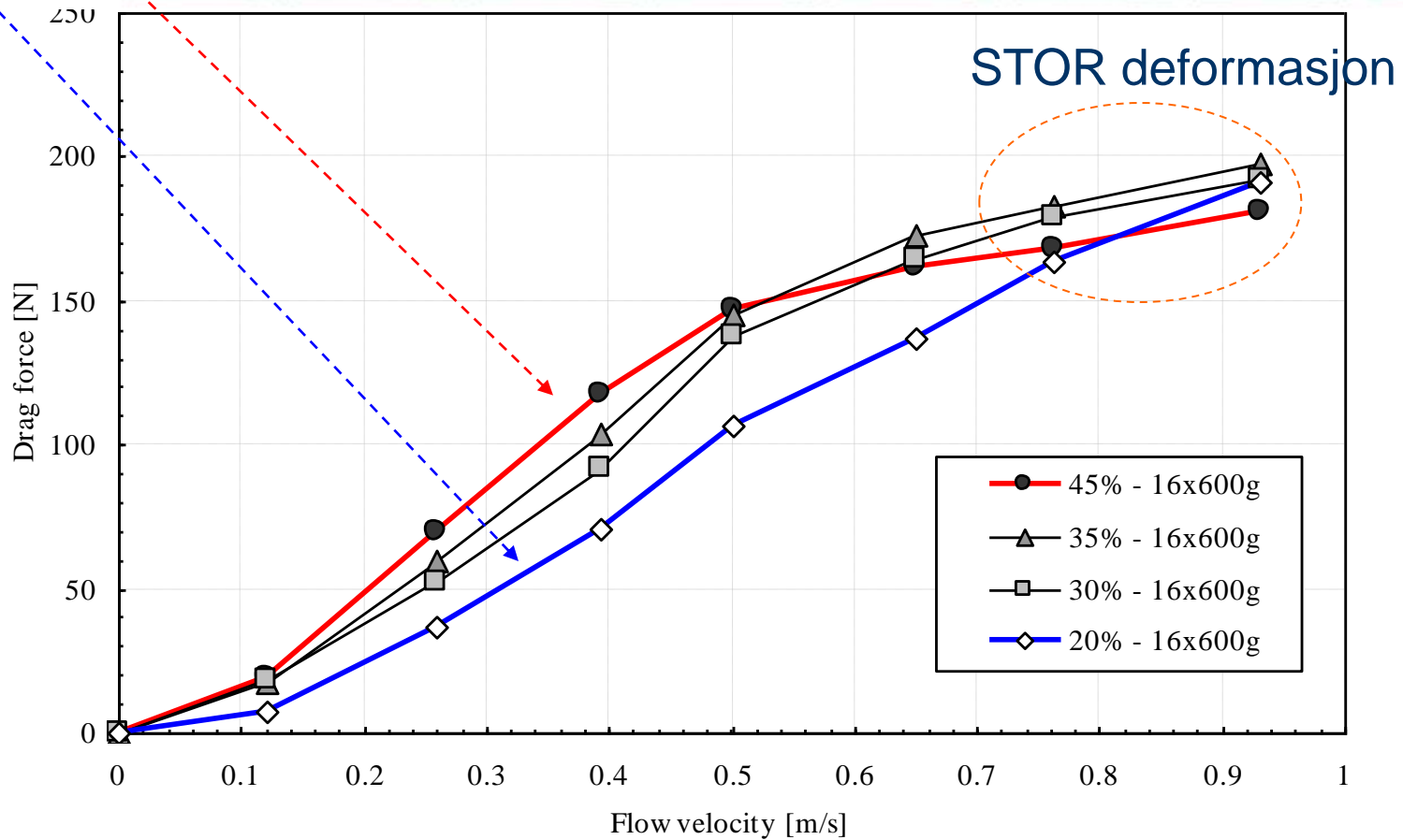
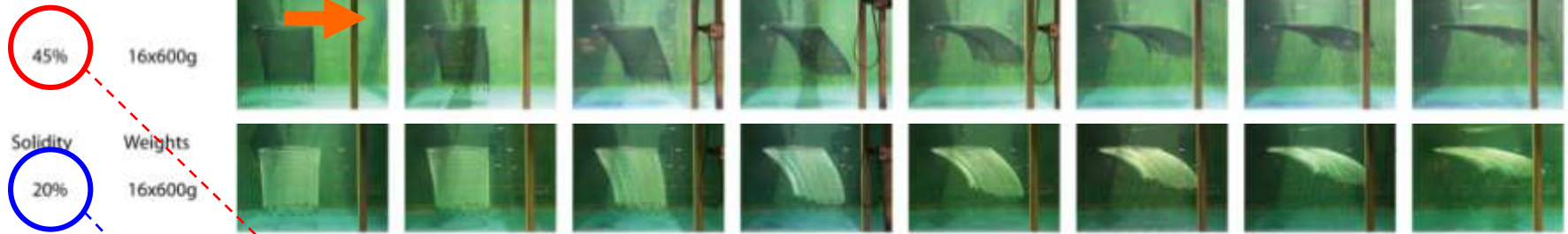
Arealet øker...

...og dermed øker kraften

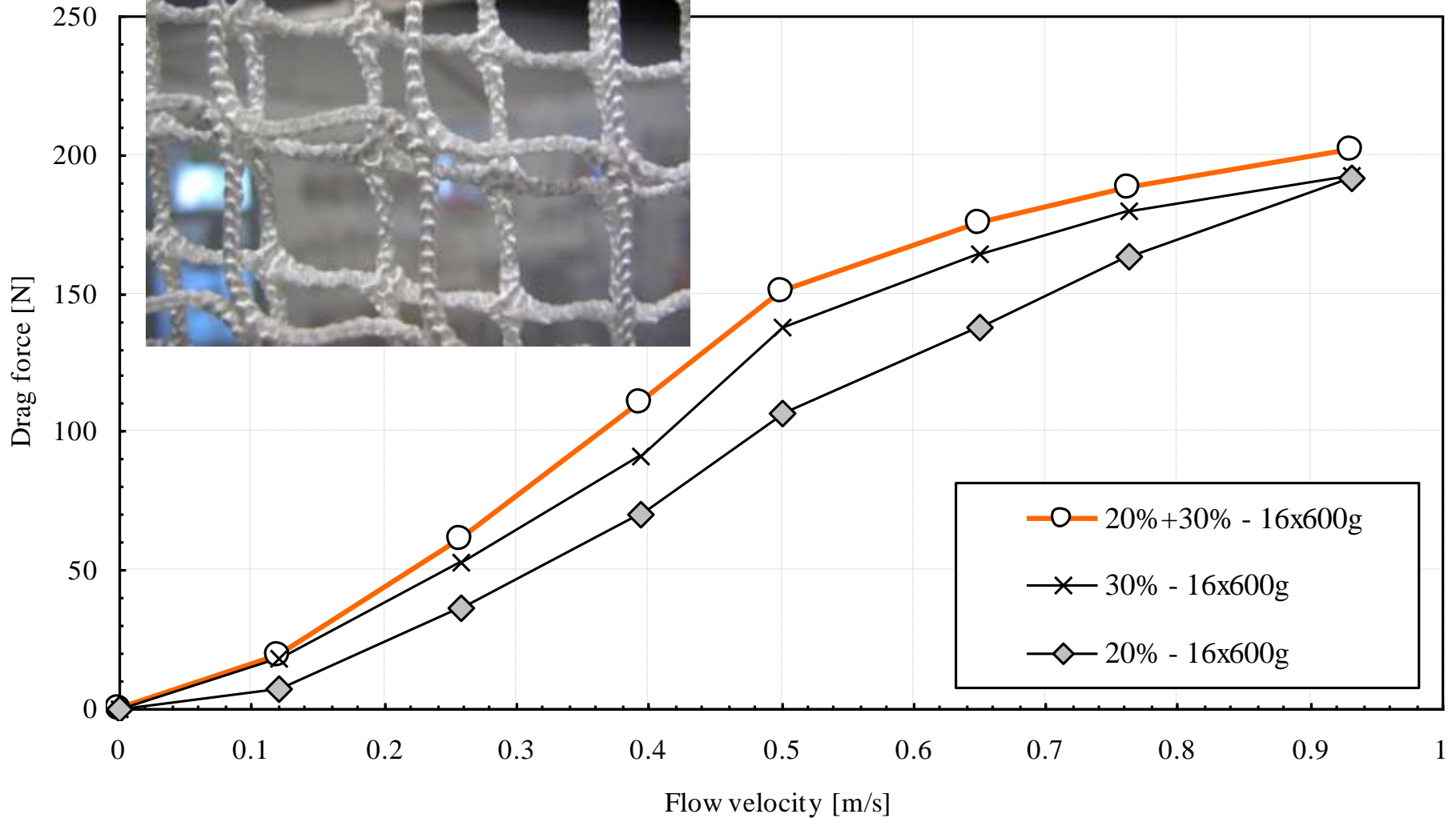
Soliditetens innvirkning



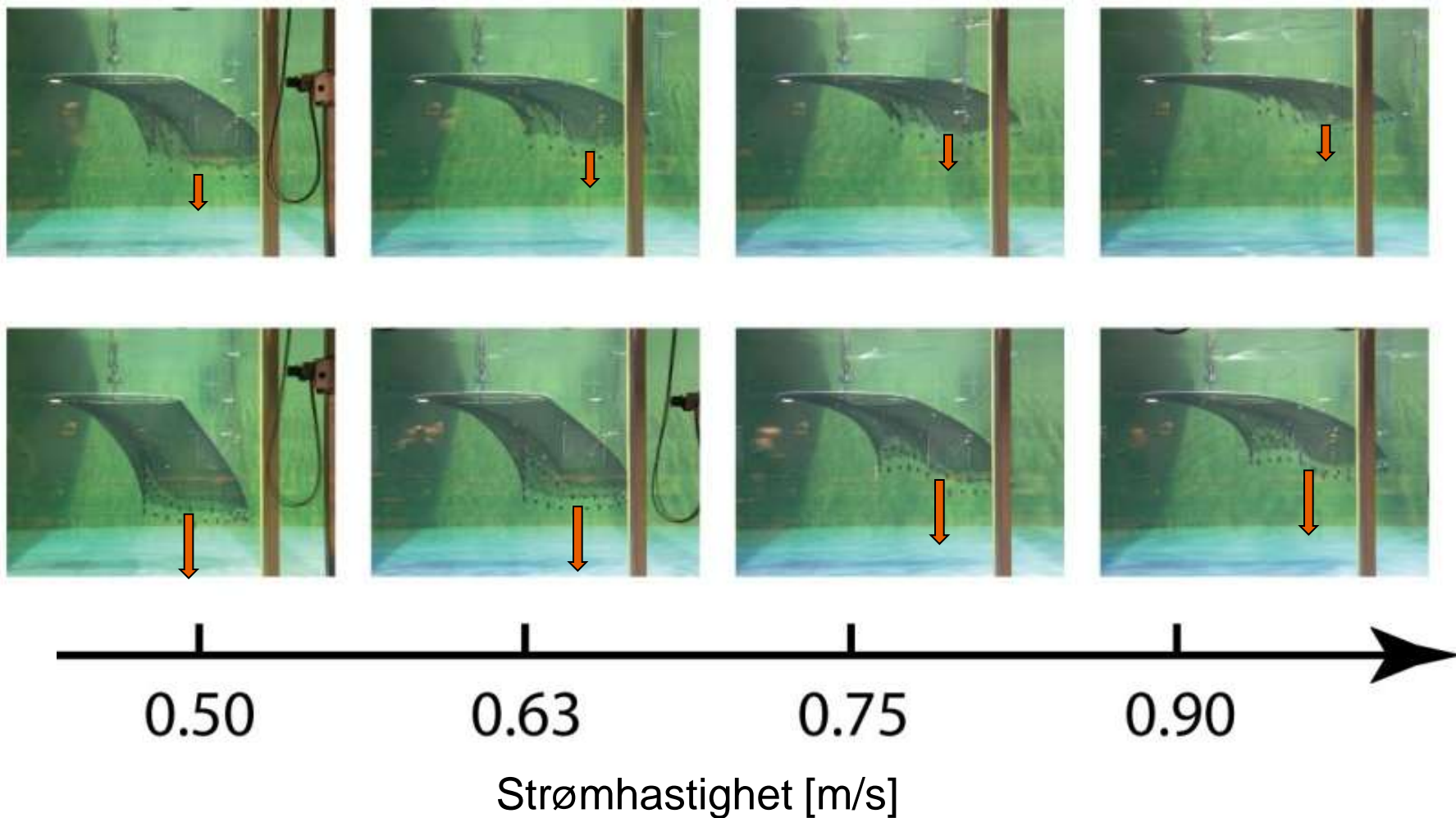
Soliditetens innvirkning



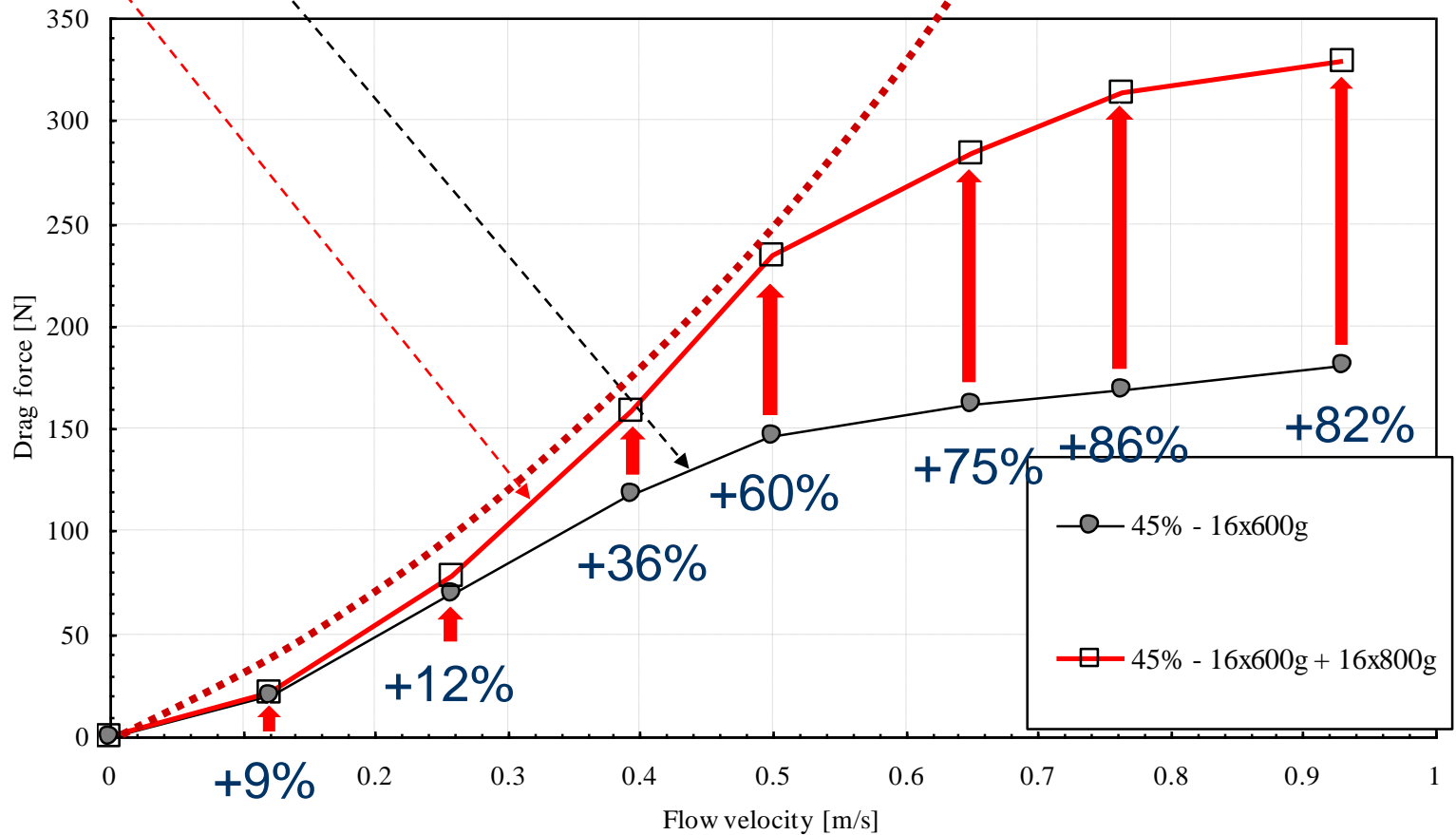
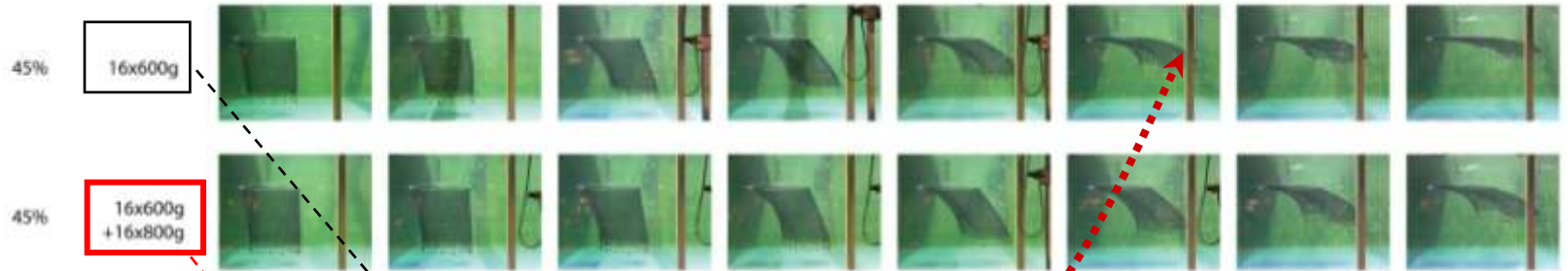
Effekten av dobbelt nett



Hva skjer når vi øker bunnvekten?



Effekt av økt bunnvekt



Oppsummering

- Alt henger sammen med alt

