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Fishing vessels for multipurpose applications

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Overall status of european fishing fleet

- Limited fishing opportunities – i.e. a maximum "days at sea"
 - Limited profitability for a majority of the vessels
- Major overcapacity, thus decreasing
 - Approx 83,000 vessels
 - 28% of European Fisheries Fund (EFF) has been applied for adjustments of the fleet the latest years
 - Main driver behind over fishing
- Large activity outside EU waters
 - 700 vessels catch 1 million tonnes (Fisheries Partnership Agreements – FPAs)
- Diverse technical standards on the vessels
 - Fuel- and catching efficiency vary significantly
 - Safety standards are not at a high level



Why multi purpose vessels?

- Multiple target species
 - Increase profitability for the
 - Seasonal variation of fishery
- Available time slots during seasons for other conventional missions
 - Limited fishing quotas and fish abundance
- Participate in stock assessment
 - Eco system based fish management will require more information from the sea
- Emergency situations
 - The fishing fleet may be requisited in certain emergency situations



Multiple target species

- Combination of pelagic fisheries and demersal fisheries is an opportunity.
- Multiple target species may require multiple fishing gears and catch handling processes.
- Keyword: Flexible technology



MS Meløyfjord (Norway) is harvesting both pelagic species and demersal fish.



Conventional missions

- Transport
- Service
 - offshore oil/gas
 - aquaculture
 - wind mills
 - garbage collection
- Tugs
- Keyword: Flexible technology



Multi purpose fishing vessel: DNV concept "Catchy"



Stock assessment

- Eco system based fish management will require significant data collection (sea temperature, plankton abundance, fish migration...)
- To solely depend on research vessels is unrealistic.
- The fishing fleet will have to participate in data collection (thus, data assimilation is yet not fully developed) .



Echo sounder information during fishing.



Emergency

- Power and fresh water production
- Oil spill contingency
- Tugs of disabled ships
- Search and rescue

- Keyword: Crew skills and vessel capability



NOFI oil boom tested in Alaska.



Kjell Larsen and his fishing vessel are involved in oil spill contingency plan.



Experiences

- Fishing for multiple target species has secured profitability for many vessels
- A lot of work remains in development of flexible technology
- Oil companies (in Nordic waters) are increasingly focusing on use of fishing vessels
 - Lower costs for operations
 - Skilled crew
- The probability of being close to a fishing vessel in case of emergency is quite high, and we see that such vessels are taking part in operations like oil spill prevention, search and rescue, tugs of damaged ships etc.



Conclusions

- Challenges related to low profitability in the european fishing fleet
 - Fish multiple species
 - Use vessels for other purposes than fishing
- Challenges related to stock assessment
 - Use fishing vessel for data collection
- Challenges related to emergency situations
 - Use fishing vessels which are present
- However: The EU challenges are also related to major overcapacity, and this should be solved by political measures.

