

Unmanned cargo ships and merchant shipping – legislative and safety issues

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NMA





NMAs role

- Keep the Norwegian fleet safe
- Help the Norwegian maritime cluster to sustain a strong international competitor
- Lead the Norwegian work in international maritime fora
 - IMO



Movie

Project group for autonomous shipping

- Keep track on and follow up projects in Norway
- Build up competence
- Develop rules and regulation
- Cooperation with other nations
- Cooperation with class societies and other national institutions



MV YARA BIRKELAND

Verdens første autonome skip i drift skal erstatte 40.000 vogntogturer i året



Project group for new types of fuel - Battery and hydrogen



Foto: Leif Kåre Havås

Challenges with autonomy

- The rules are made for manned ships
- Most challenging for passenger ships
- IMO Circ 1455
 - Process for evaluating new technology
- Technically not that challenging
- Trade area 1 and 2
 - Short sea
- International standards like COLREG, MARPOL, STCW



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Challenges with autonomy

- A danger of making rules too early
- What is actually «new technology»?
 - And when becomes new technology commercial?
- Need for detailed description of operation, due to:
 - Safe states -> example how important is the communication if the ship is autonomous?
 - Critical equipment
- Every concept has their own thoughts of how to do it:
 - Remote
 - Remote some parts of operation
 - Autonomous some parts of operation
 - Manned / inmanned
- Close following of projects from NMA – not the same as less safety