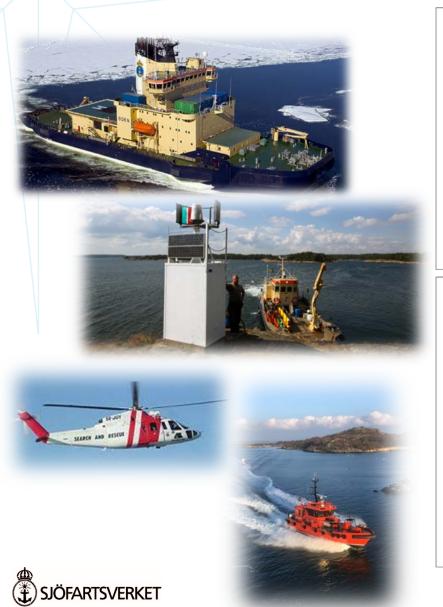
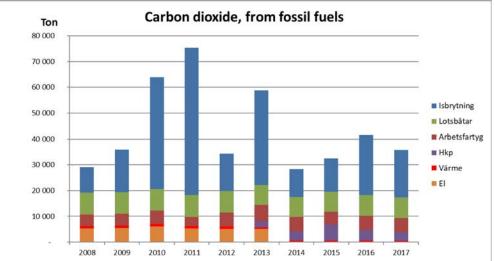
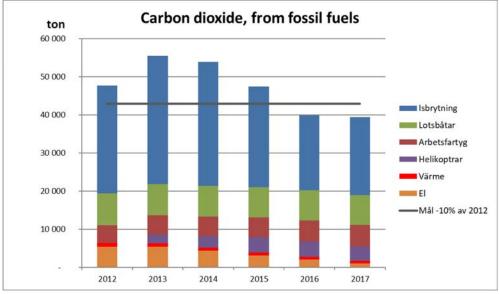




SMA Carbon dioxide (fossil orgins) 2008 -- 2017

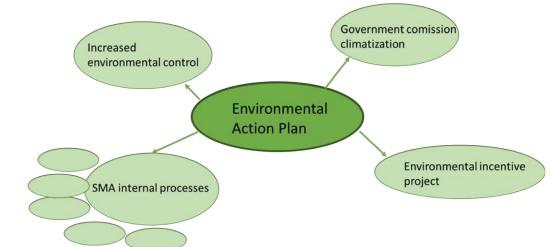






SMA "EAP"

Transformation phase







Business Area, Transport and Fairway services

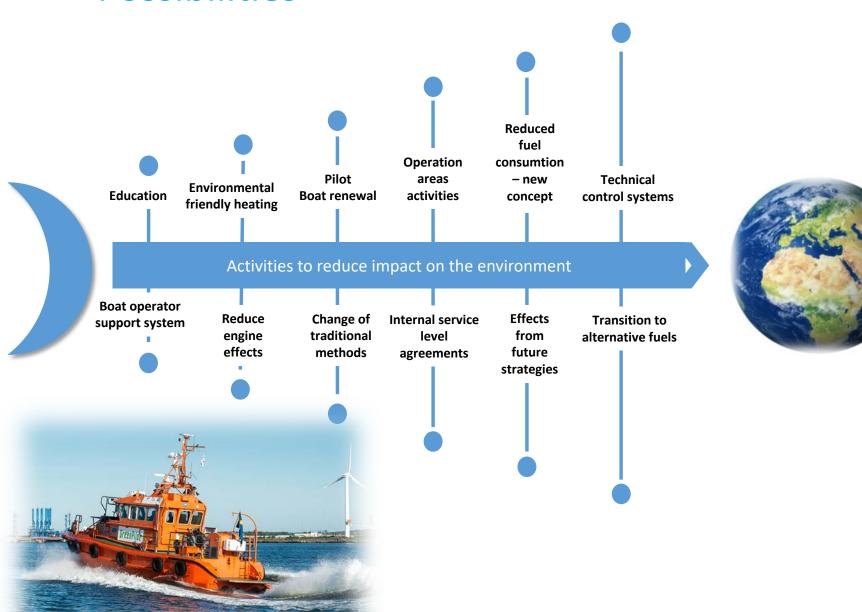
- 7 Operation areas
- 23 Pilot stations
- 1 Business area manager
- 7 Operation managers
- Approx. 175 Pilot Boat operators
- 73 (+/-) Pilot Boats
- Pilot transports
- Maintenance and operations, Pilotboats
- Maintenance, facilities and assets
- Commercial services (eg. transports)
- Maintenance, Fairways
- Search and rescue







Possibilities



Vision

- Sustainable Pilot boat operations
 - Change of methods
 - Change of culture
 - Transition to alternative fuels
- Sustainable with the help of technology
 - Pilot boat revenue
 - Technical surveillance systems
 - Real time boat operator support
 - Technical control systems
 - Pilotage in the future?
- Initial objectives
 - Reduced fuel consumption -15%
 - Less breakdowns -30%
 - Less CO2 emissions -15%



