The Maritime Industry

* Current situation and accidents
  + Which information available [information]
    - Bridge design, equipment and stakeholders (crew/traffic controllers/pilots)
    - Means of communication and related protocols/education vs in practice
* Future of shipping
  + Different phases of autonomous
  + Possible use cases autonomous
  + Changes in communication (VDES)
  + Combining unmanned and manned vessels

Research

* Which step will be part of this research
  + Describing why specific step
  + Main questions
    - Maritime [intro-MT]
    - Computer science [intro-CS]
  + Methodology
* Abstract model to determine intention resulting in situational awareness
  + What is situational awareness
* Scenario’s with corresponding strategies
  + Acceptable distance or well-clear including closest point of approach calculation
  + Hazards
  + COLREGs criteria [filters]
  + Related shared mental model/onthologie in scenario
    - Thought process
    - Differences between different ships (equipment/flagstate/origin of crew)

Simulation

* Requirements for simulation
  + Probability scale or index polygons
  + User story full application
  + User story objects [development-excel]
* Building simulation and verification
  + Classes and model (viewer-controller-objects
  + Methods
  + Estimating characteristics
  + Manoeuvring capability [manoeuvring]
  + Routeplanning
* Implementation of scenario’s

Validation

* Validating strategies with scenarios
* Validation communications and clear intentions with seafarers
  + Risk of information overlead
  + Desired input
* Optimization of communication
  + Safe motion parameters