SUSTAINABLE WATERS

OpenRisk II

Pre-Conference Questionnaire Results

Helsinki | 7.3.2024
OpenRisk II Kick-Off Conference

WATER-SMART SOCIETIES

Current Risk Management tools

- IALA toolbox

- IWRAP (accident frequencies)

- AISyRisk (Norwegian coastline)

- Methodology based on ISO 31000

- Safran

- Excel

- Probabilistic decision tools

- Self developed tools and models

- Vessel Traffic Services (VTS)

- Gulf of Finland Ship reporting system (GOFREP)

- National risk assessment

- Own risk assessment forms

- Risk assessment evaluation matrix

- HAZID (risk identification)

- IMO FSA (evaluation and ranking)

- Decision trees (acceptable level of risk)

- Monte Carlo simulations

- Tools based on physics, AI, machine learning

- Polaris

Other methods for minimizing risks

- New equipment (ships, drones, aricrafts, booms)

- Analyzing operational and situational picture

- Outsourcing (external consultants)

- Analysing trends and cross-impacts

- Scenario planning

- Collaboration and shared knowledge

What kind of new tools are needed? (1)

- Easy to use

- User friendly applications that are quick and easy

- Easy access – no commercial software

- Easy access to risk information

- Easy to interpret – visual, self-explanatory

- Ability to select actions to facilitate risk reduction

- Working with EMSA data

- Works correctly

- Accurate sea-ice and weather predictions

- Further developed maritime traffic- and ship simulations

- Offers traffic patterns, cargo- and fuel information, leakage calculations, trends

- Ability to visualise the risks for specific areas, e.g., based on VTS areas or other custom polygons

- Ability to see the previous assessment from there to facilitate learning

What kind of tools are needed? (2)

- Analysis of response efficiency

- Analysis of safety and environmental risks

- Prognosis on the longterm development

- Integrates local weather- and spill models with ship profile database

- Realistic modelling of navigation risks

- Numerical modelling of winter navigation risks

- Evaluation of risk management maturity

- Risks related to maritime safety and offshore windmill installations

- Comparable to IWRAP

- Environmental impact tools

- Data integration and analysis

- Predictive analytics

- Incident reporting and tracking

- Risk assessments of different residues

- Dynamic data- and knowledge driven tools

- Identification and quantification of accident- and spill risks in different routes and areas

- Guidelines on risk acceptance criteria

- Integrated model for both frequency and consequences

What user needs Open Risk II should address?

- Accessability, understandability and interpretability

- Optimal risk control measures

- Up-to-date causation factors

- Effects to sea-ice caused by offshore windfarms

- Cumulative risks related to offshore windfarms

- Tools for evaluating most effective oil spill response

- Collision candidates

- Access to model raw results and analysed results in the user interface

- Validity and reliability criteria for RA

- Aligning solutions according to the VTS

- Ice module

- Availability of easy, fast and essential information

- Possibility to understand and adjust inputs and assumptions

- Detailed results and their main contributors and uncertainties

- Limitations of the model

- Clear table of what is needed to reach acceptable standard of risk – good to have vs need to have

- Risks associated to sea ice and alternative routing patterns

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Thank you for all the information!

- Beyond of this big picture of needs, today we will focus on the more spesific ones

  – Fuctionalities of the tools

  – What is user friendliness?

Thank you!

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