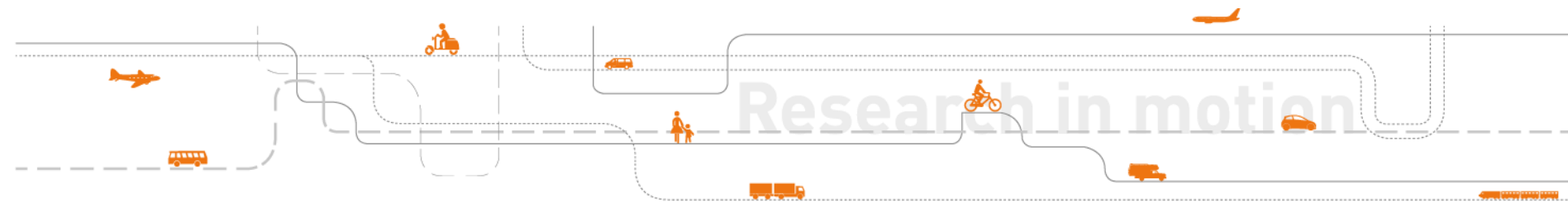# Maritime safety culture and safety behaviours in Greece and Norway: comparing professional seafarers and private leisure boat users

Kristine Størkersen ++
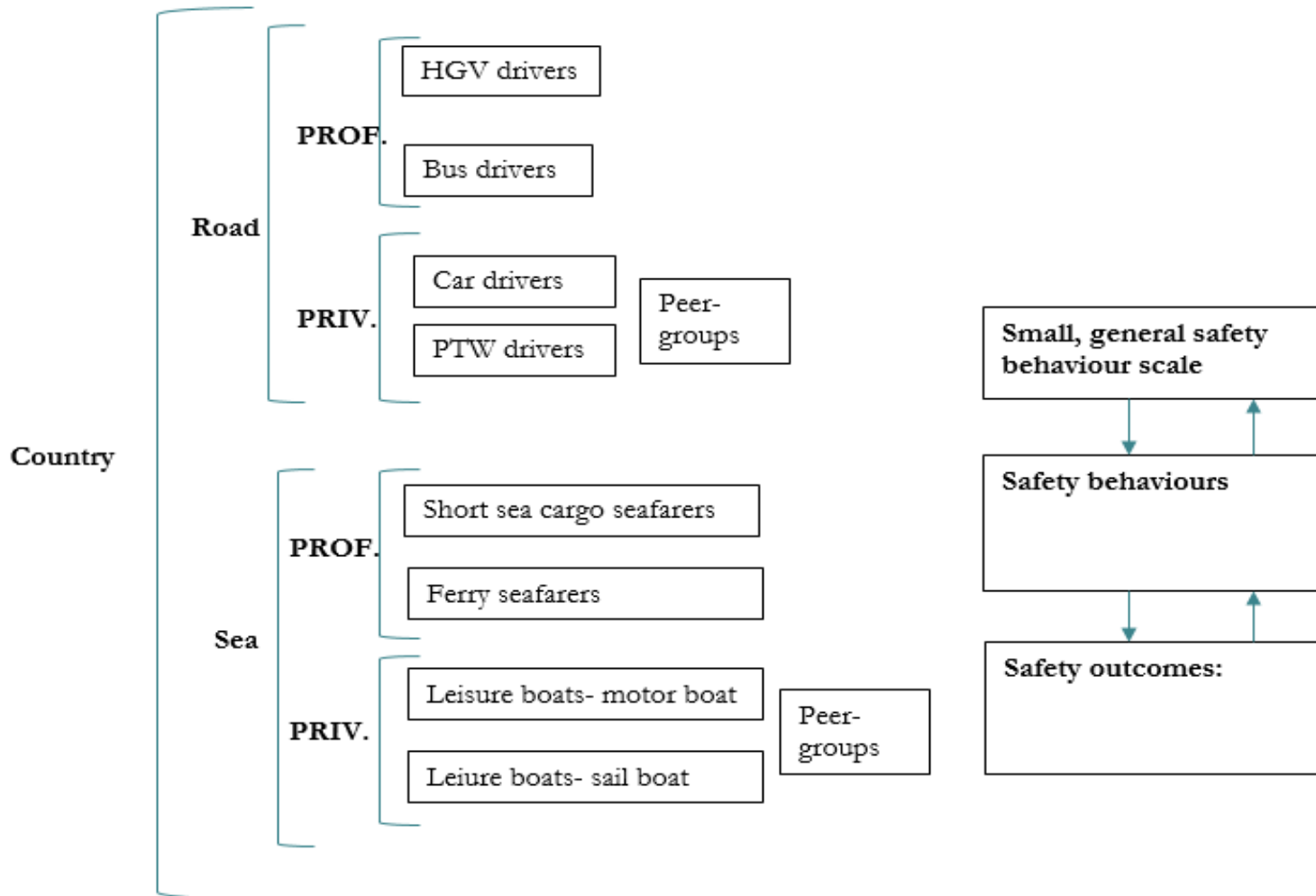
ESREL 2018 Trondheim

Research in motion

Safe Culture project information:

- Funded by the Norwegian Research Council's Transport 2025 programme. (2016-2018)

- Cooperation: TØI, NTUA, Global Link, NTNU, SINTEF.

- TØI: Nævestad, Phillips, Bjørnskau, Storesund Hesjevoll.

- NTUA: George Yannis, Alexandra Laiou

- NTNU: Kristine Størkersen

- Sintef: Stian Antonsen

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Focus and samples in the project

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Aims and methods:

- **Aim:** examine the safety behaviours related to personal injuries and accidents among professional seafarers private leisure boat users in Norway and Greece and to study the factors influencing these behaviours.

- **Methods:**
- Surveys to professional seafarers in cargo and passenger transport in Norway and Greece.

- Surveys to private boat users in Norway and Greece.

- Regression analyses to examine factors influencing accidents and factors influencing safety behaviours.

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Background I:

- On average 15 killed and 424 injured annually on NOR/NIS vessels.

- In 2006-2015, on average 33 people died each year in recreational boating accidents in Norway.

- In Norway the number of deaths using leisure boats have more or less stayed the same since 1995.

- Why is the level of fatalities higher among private boat users than among professional seafarers and what may the former may learn from the latter?

Background II:

- Compared to the number of people who go boating in different countries, the risk of accidental death is quite high compared to that of other private transport modes.

- Despite of this, recreational boating is to a small extent being regulated and the level of enforcement is low.

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Factors influencing injuries: professional seafarers

- Nationality (Norwegian) is the strongest variable influencing respondents' work injuries

- The variable with the second strongest contribution is the Risk acceptance/violations index.

- The youngest seafarers have a higher risk of being injured on board.

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Factors influencing safety behaviours: professional seafarers

- The more demanding working conditions that the respondents experience, the more likely they are to be involved in Risk acceptance/violations.

- National safety culture specified as descriptive norms influences respondents' safety behavior.

- A positive organisational safety culture may reduce the negative contribution of demanding working conditions and safety compromising work pressure.

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Factors influencing boating incidents: private boat users

- Nationality is the variable with the strongest contribution. (Greek boat users are involved in fewer incidents, controlled for the other relevant variables.)

- Increased alcohol use increases the likelihood of boating incidents

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Factors influencing safety behaviours: private boat users

- National safety culture, specified as descriptive provides the strongest contribution to respondents' alcohol use while driving a boat.

- Boat type (motor boat with sleeping facilities) is related to alcohol use.

- Age (>56 years) and nationality (Greek) is related to less alcohol use

- Boat drivers on leisure/trips are more likely to drink alcohol while driving. (Compared with e.g. fishing, transport),

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Summing up:

- Compared to the number of people who go boating in different countries, the risk of accidental death is quite high compared to that of other private transport modes.

- Despite of this, recreational boating is to a small extent being regulated and the level of enforcement is low.

- Unsafe behaviours related to work pressure and risk taking are predict accidents among professional seafarers (i.e. risk acceptance and violations),

- Unsafe behaviours related to the leisure/holiday situation predicted leisure boat users' accident risk (i.e. alcohol use while driving a boat).

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The situation of private boat users is less regulated than that of professional seafarers:

- The ISM-code requires shipping companies to implement SMS describing safety roles, goals, procedures, monitoring, reporting, follow up etc.

- shipping companies also often work to implement a positive safety culture, including policies for seafarer behavior.

- Professional seafarers have undergone an IMO approved training in their respective home countries.

- Private boat users, on the other hand are not part of such a system of international and national regulation, involving education,

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