



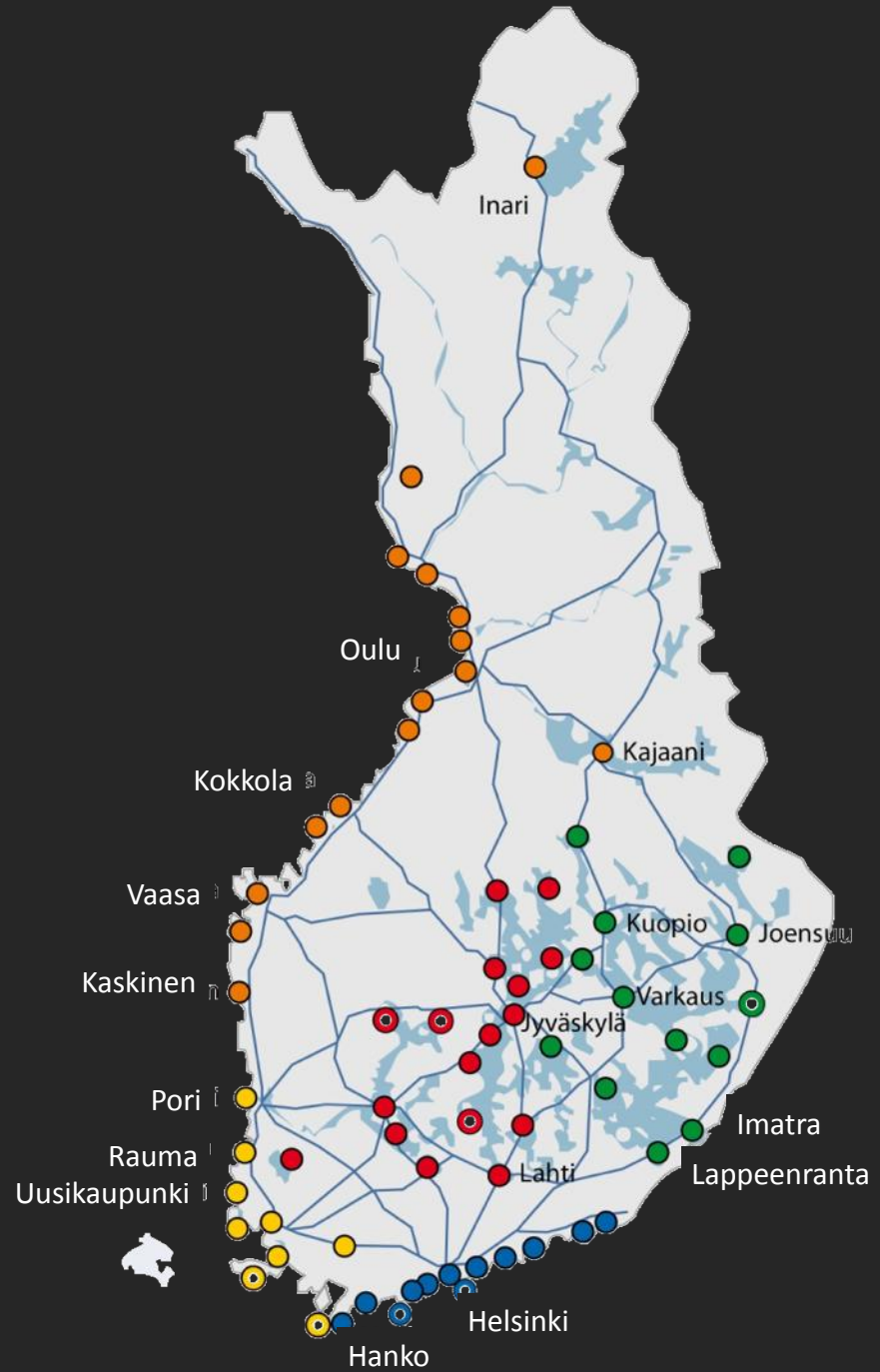
MERPELASTUSSEURA  
SJÖRÄDDNINGSSÄLLSKAPET

# THE FINNISH LIFEBOAT INSTITUTION SHOCK EXPOSURE SURVEY

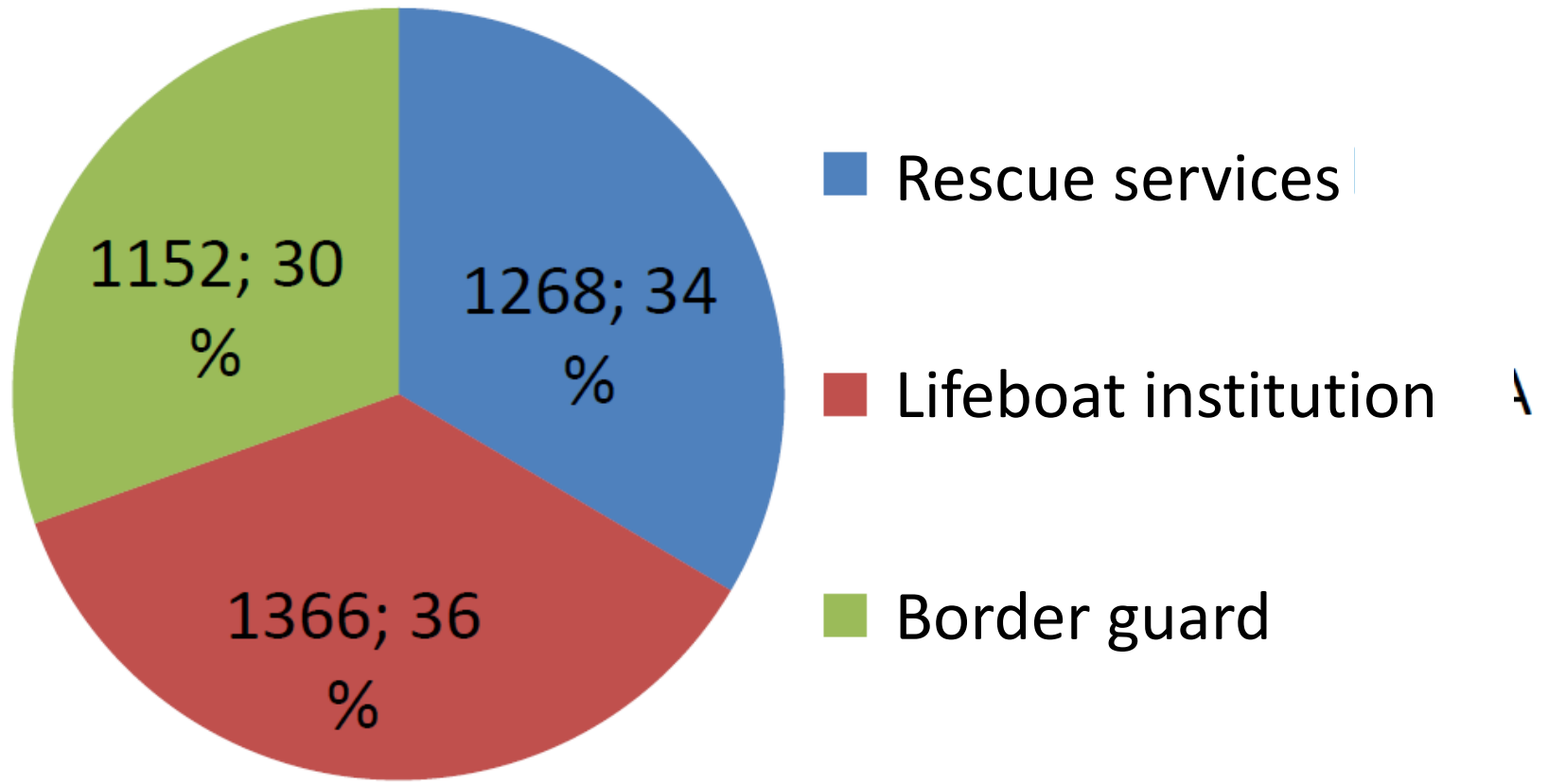
High Speed Boat Operations Forum 2016

M.D. Jaakko Pitkämä





# THREE ACTIVE PLAYERS





Approx 150 boats in all

Common hull length 6-12m, max 24m

Common speed 30-35 kn, max 47 kn

**Medium fleet speed 1995 16,4 kn**

**Medium fleet speed 2005 23,7 kn**

**Medium fleet speed 2015 25,6 kn**





# Shock Exposure Survey 2015 – persons involved



## Jan Koskenmäki

1st

Project Manager at HKL - HST - Helsinki City Transport  
Finland | Transportation/Trucking/Railroad

Previous WinWinD Oy, Finn-Marlin Ltd., Bella-Veneet Oy  
Education a Kymenlaakso University of Applied Sciences

Send a message

223  
connections

**Master of engineering 2015**

**Contacted FLI with survey plans**

**Master thesis "Wave impulses at high speed craft"**

Previously worked in pleasureboat industry

Acknowledgement of crew shock exposure



## Jaakko Pitkäljärvi

M.D., Managing Director at Pitkäljärvi Capital Ltd.  
Tampere Area, Finland | Hospital & Health Care

Current Suomen Terveystalo Oy, Pitkäljärvi Media Ltd., Pitkäljärvi  
Capital Ltd.

Previous Finnish Lifeboat Institution, Finnish Criminal Sanctions  
Agency

Education Finnish Institute of Occupational Health

View profile as

442  
connections

**Advised medical viewpoints in survey**

M.D., works in occupational health unit

22 years background within lifeboat service

20 years as a powerboat/workboat journalist

HSBO 2006, 2008, 2012, 2014, 2016



# Basic parameters

Participants' personal background data

Boat background data

Results

Lessons learnt



## Basic parameters

- Aim was find out impact exposure experiences among lifeboat volunteers
- Injuries and user viewpoints recorded for the first time at any scale within FLI
- Questionnaire sent to 587 coxswains operating planing lifeboats
- 45 questions in all
- 113 person (19%) filled full questionnaire – "reasonable" result to make conclusions
- 99,1% male, 0,9% female



Basic parameters

# Participants' personal background data

Boat background data

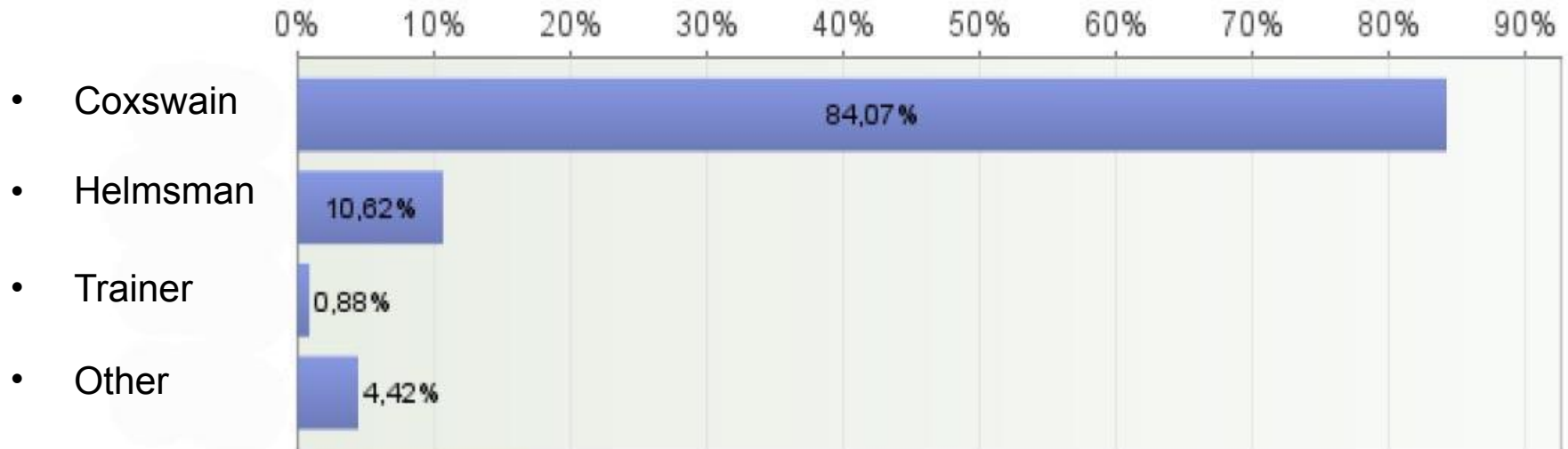
Results

Lessons learnt



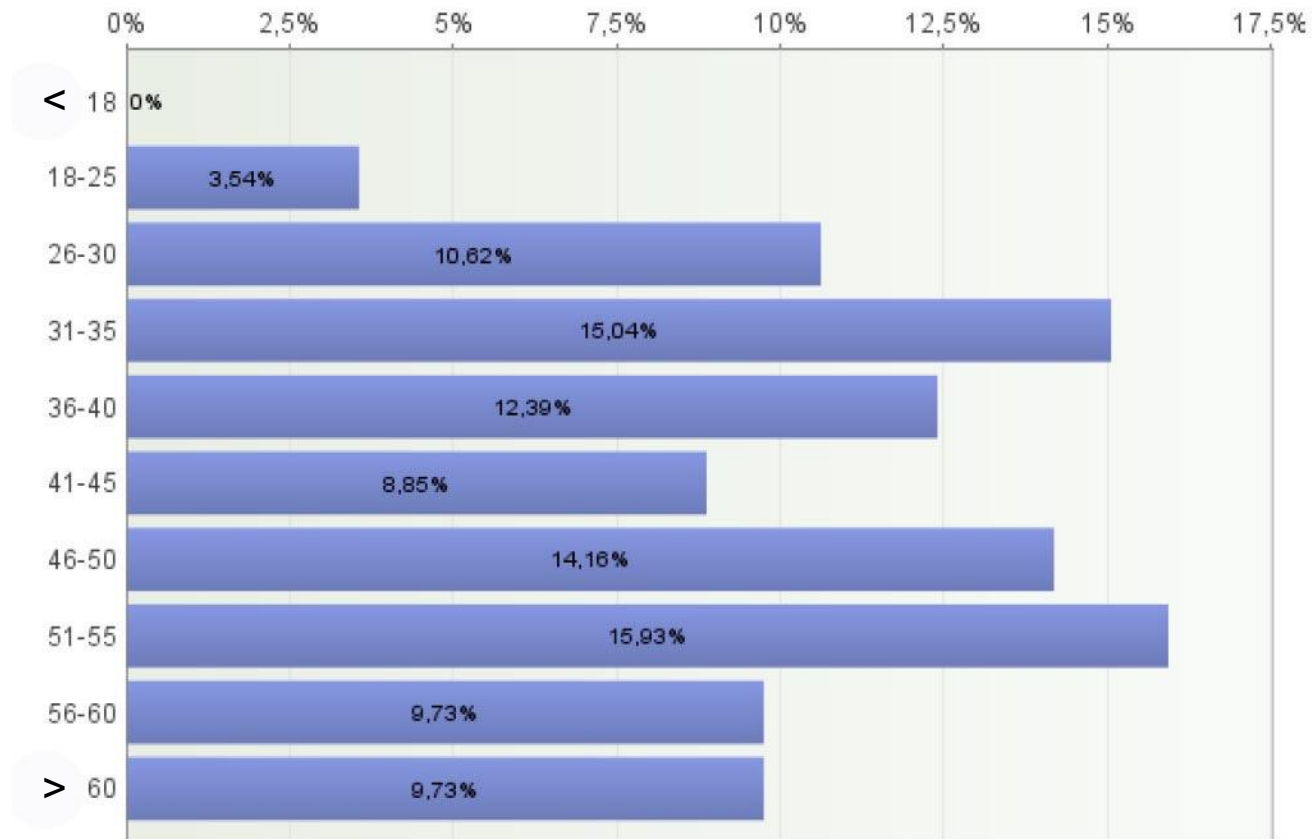


## Your position



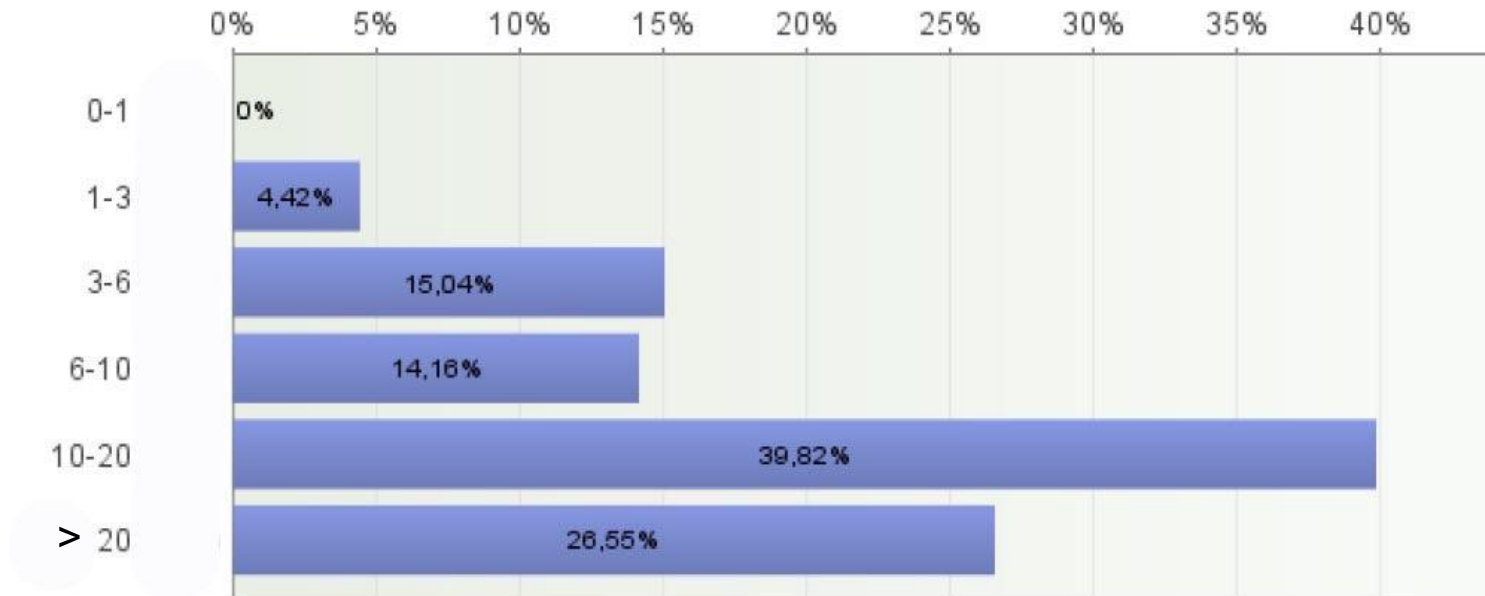


## Participant ages





## Years in lifeboat service





## Do you do aerobic exercises?

Approx 30 minutes/week

Approx 60 min/week

More than 60 min/week

Not at all





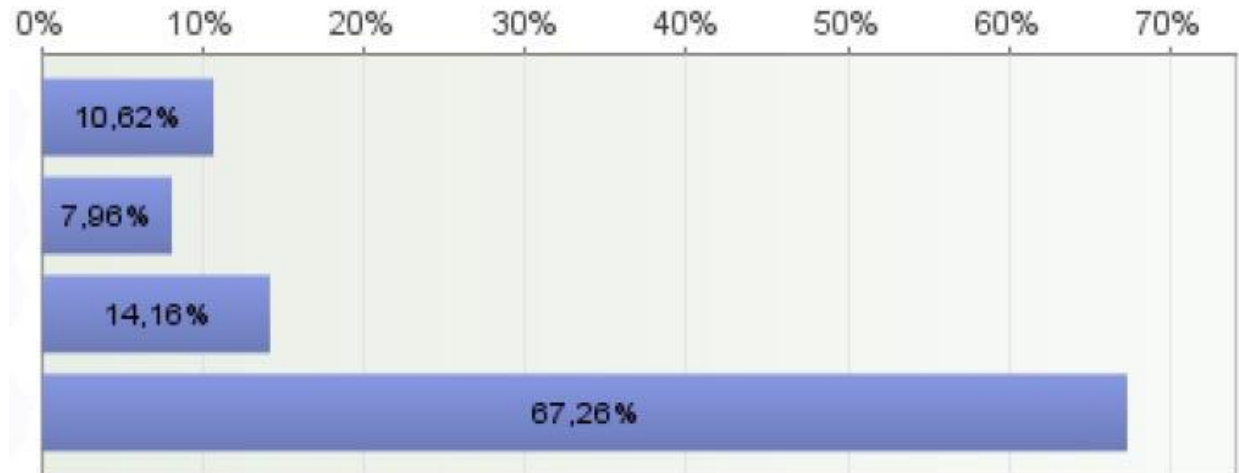
## Do you go to gym?

Approx 30 min/week

Approx 60 min/week

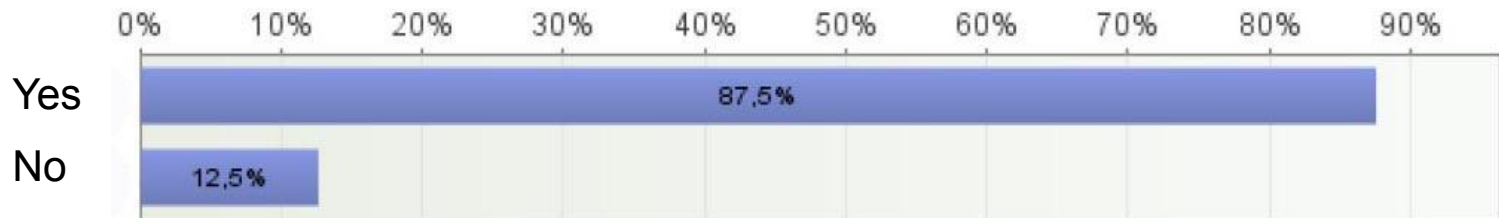
More than 60 min/week

Not at all





## Are you a skilled boat driver?





Basic parameters

Participants' personal background data

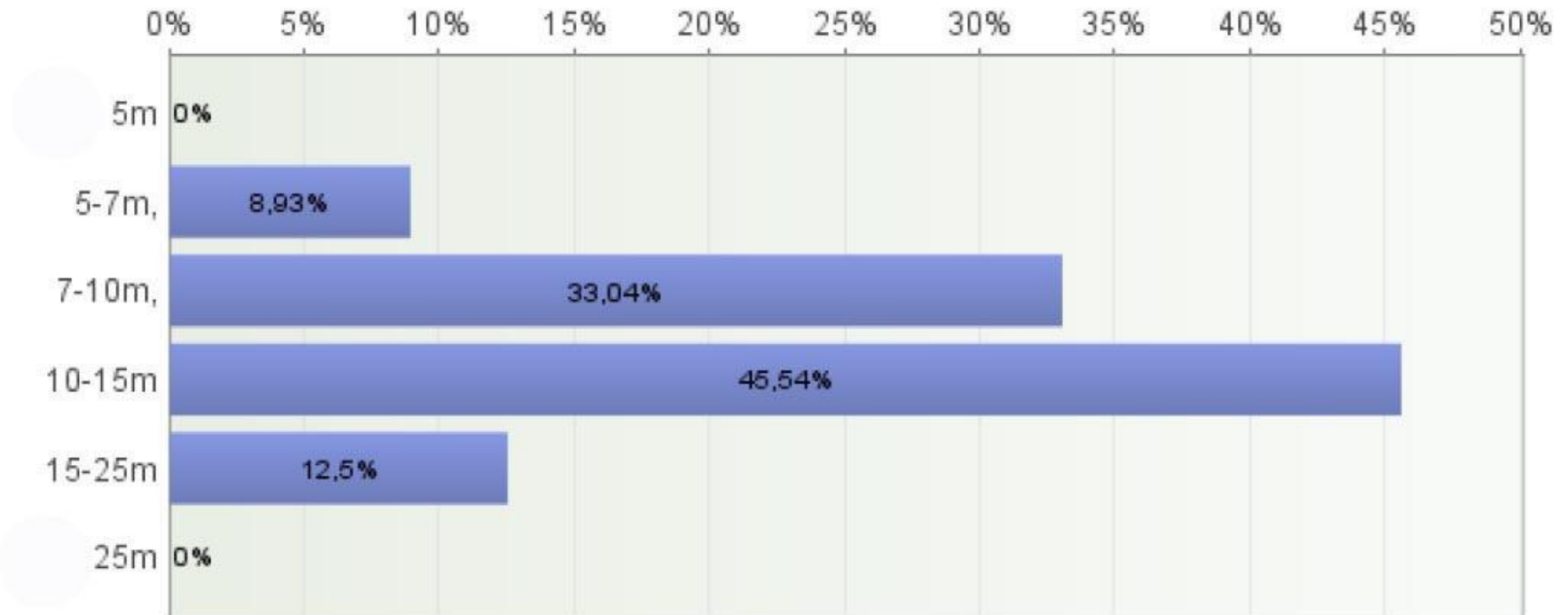
# **Boat background data**

Results

Lessons learnt



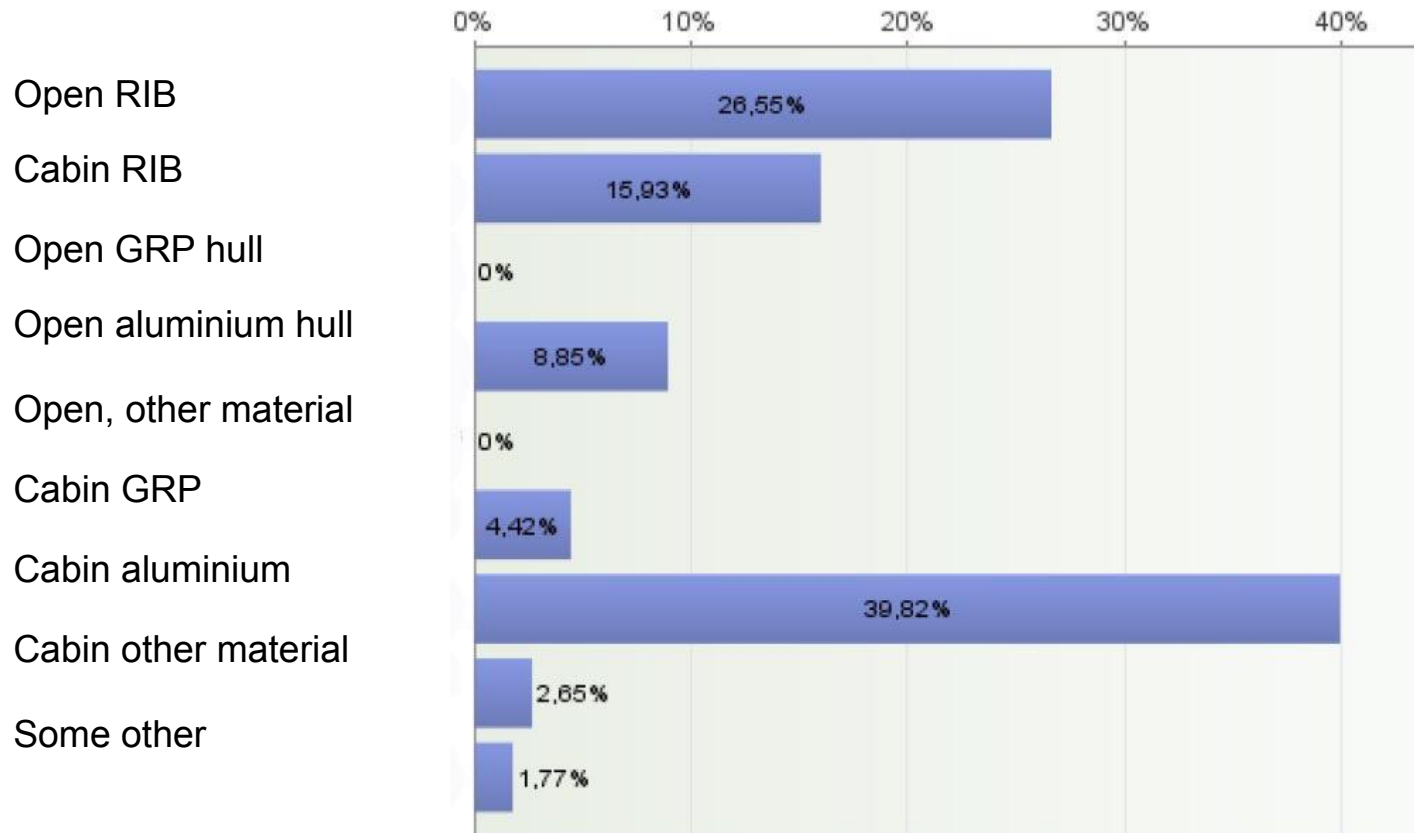
## Boat size you operate?





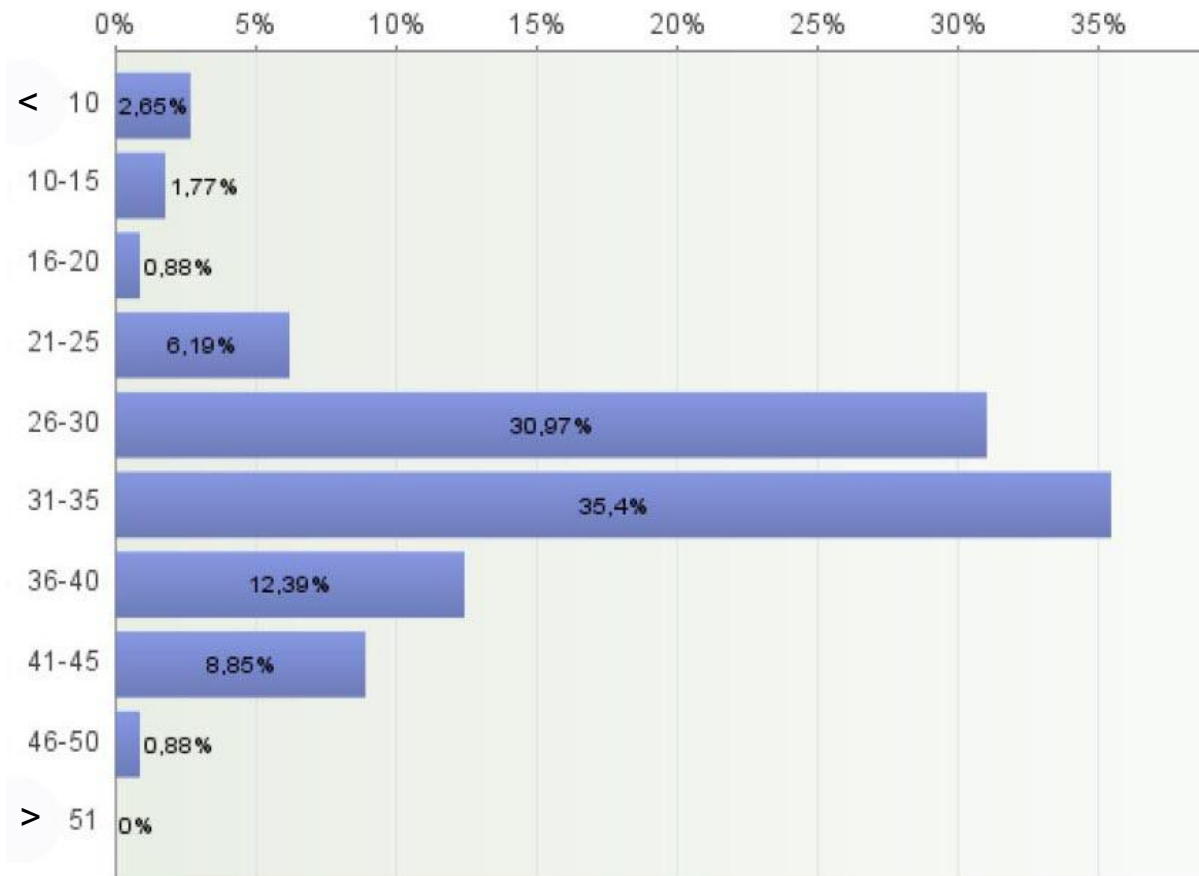


## Boat type you operate



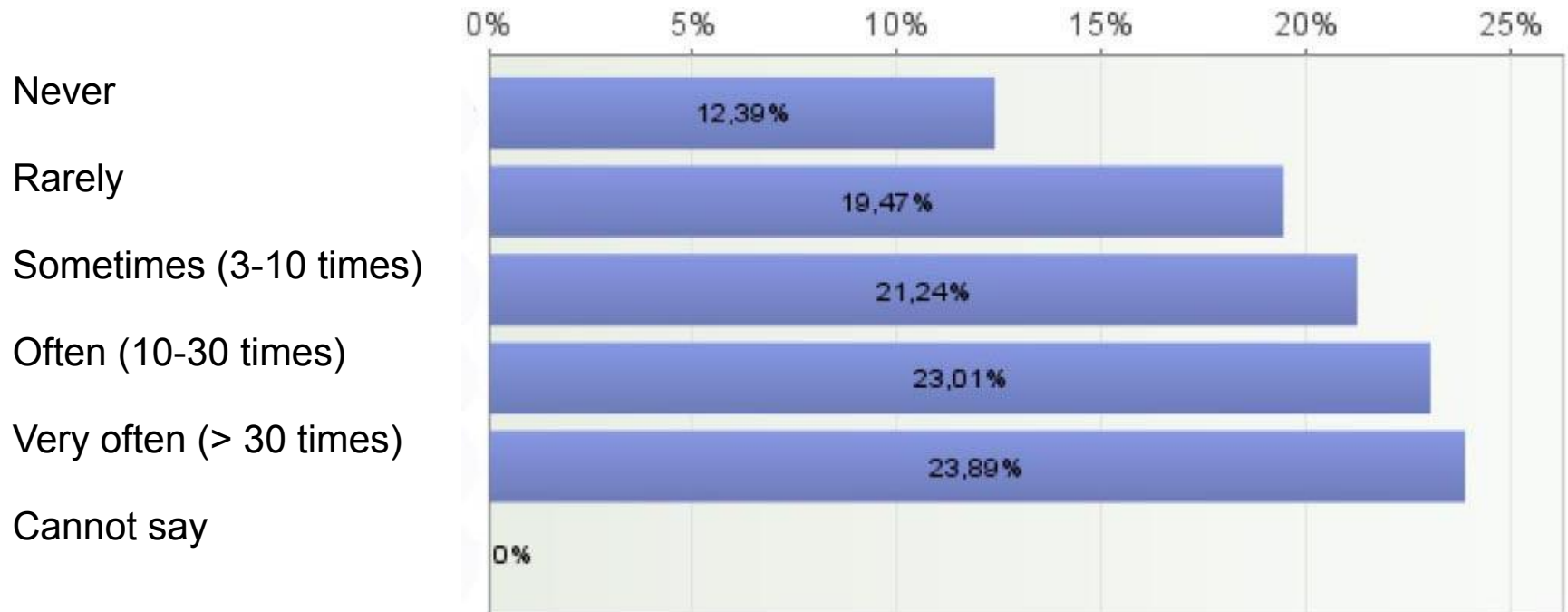


## Maximum speed of the boat you operate?





## How often your boat airwalks?





## Any suspension protection equipment in your boat?

Absolutely nothing

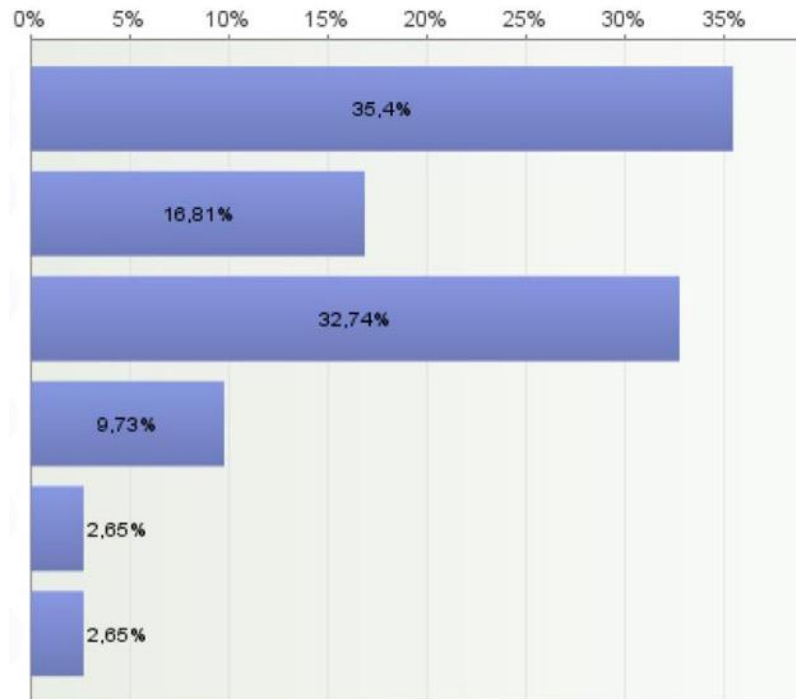
Suspension seats for cox/navigator

Suspension seat for whole crew  
excluding passengers

Suspension seats for crew + pass

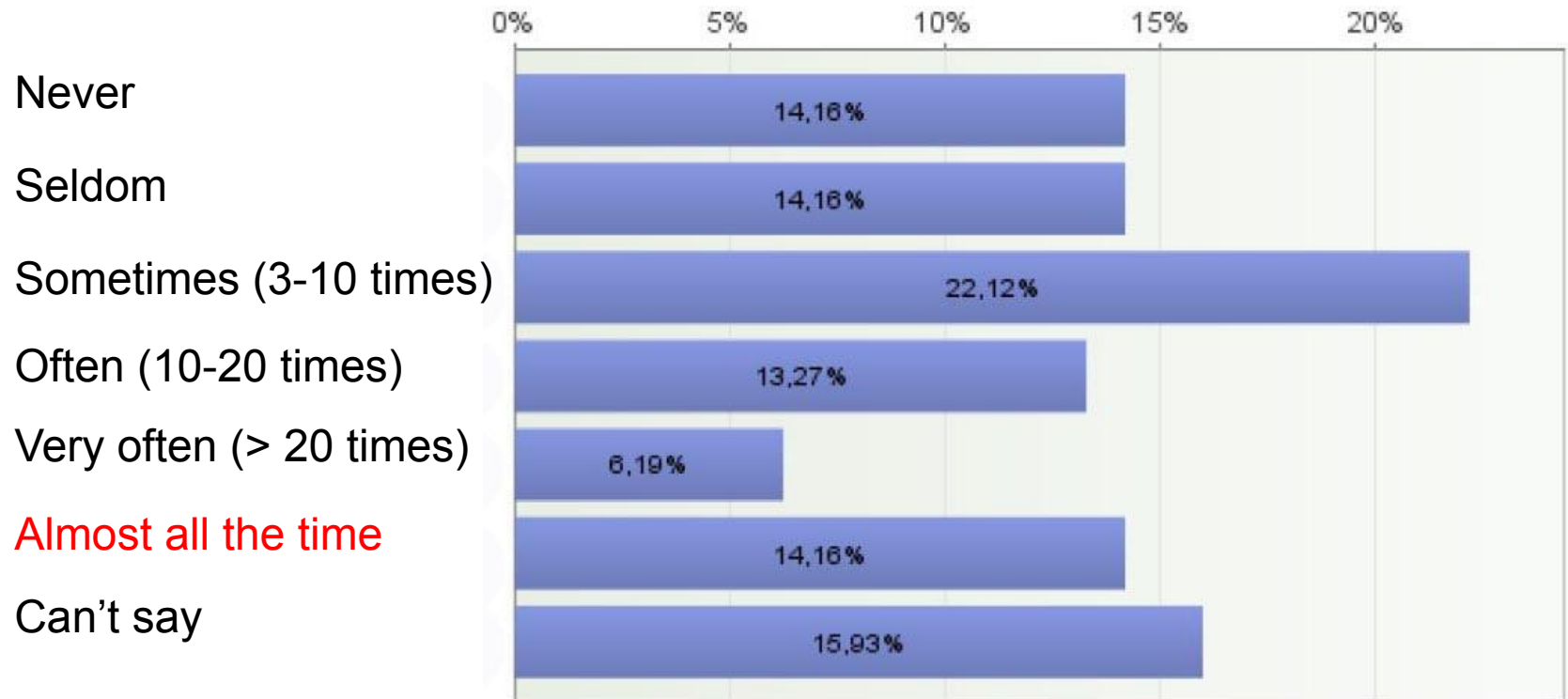
Some other measures done

Don't know





## How often your seat bottoms?



**Only 14% report expected level of crew safety**  
**Bottoming should happen never!**



**Basic parameters**

**Participants' personal background data**

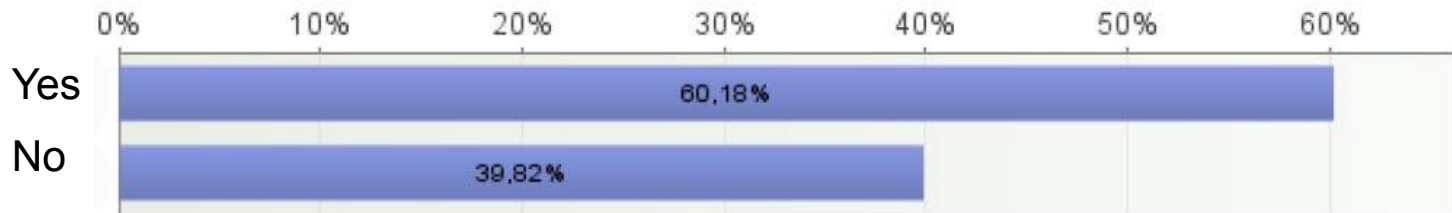
**Boat background data**

# **Results**

**Lessons learnt**

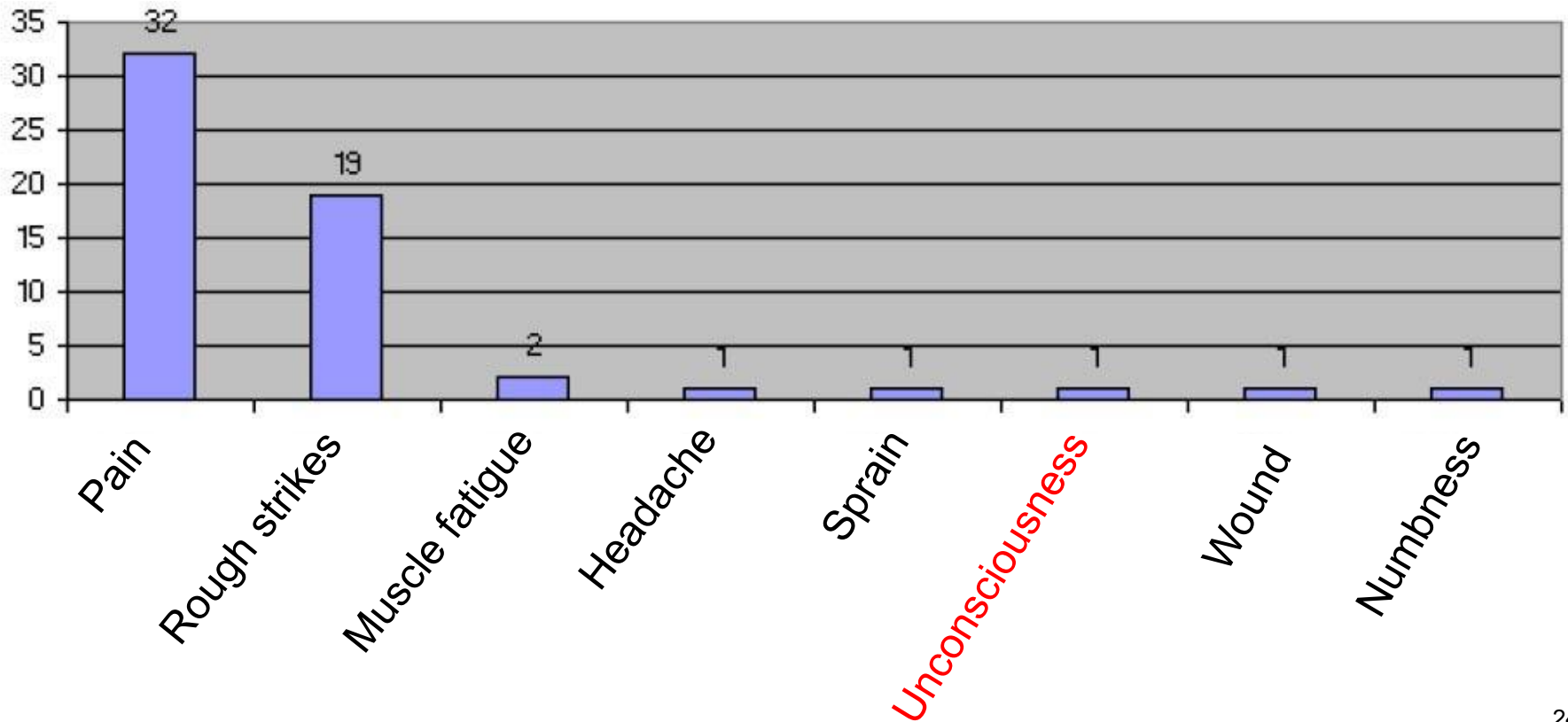


## Have you gotten injuries due slamming?





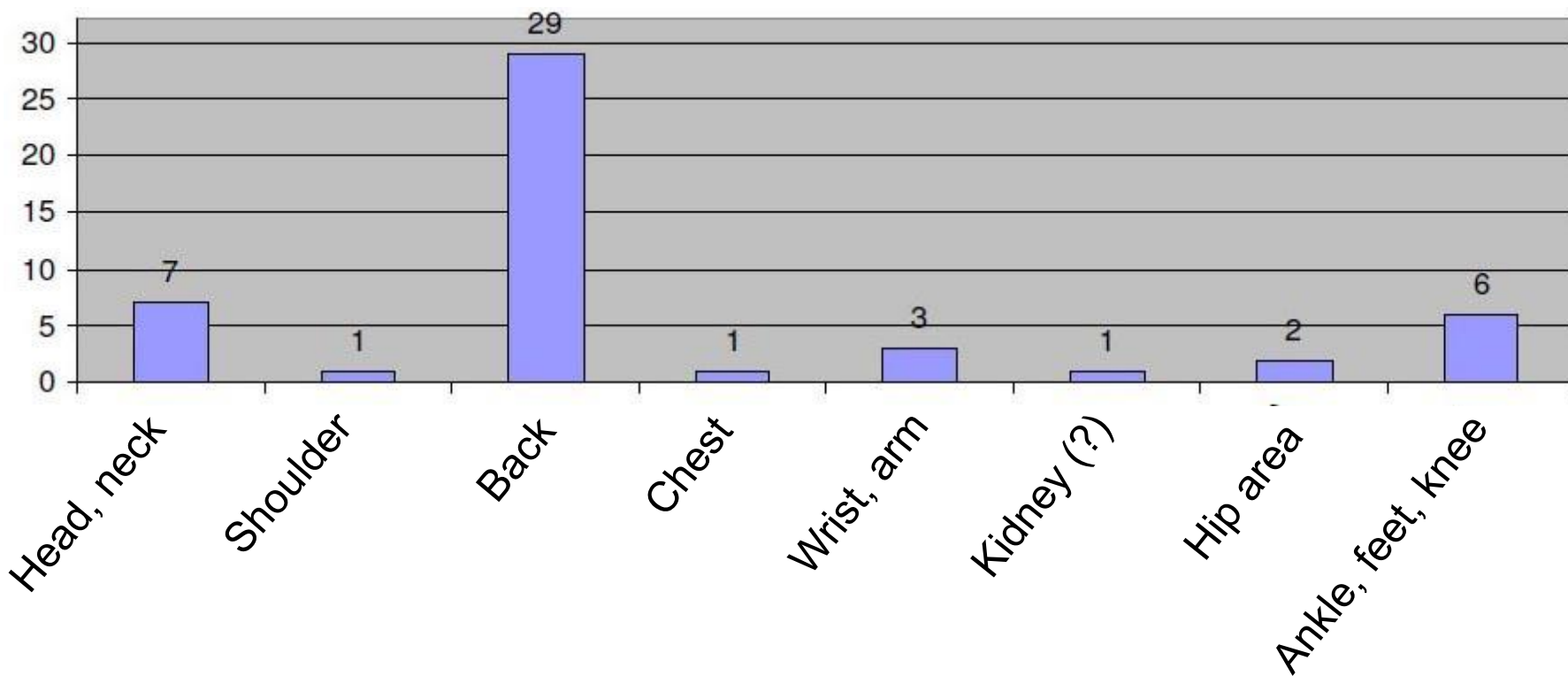
## Injury type







## Injury focus



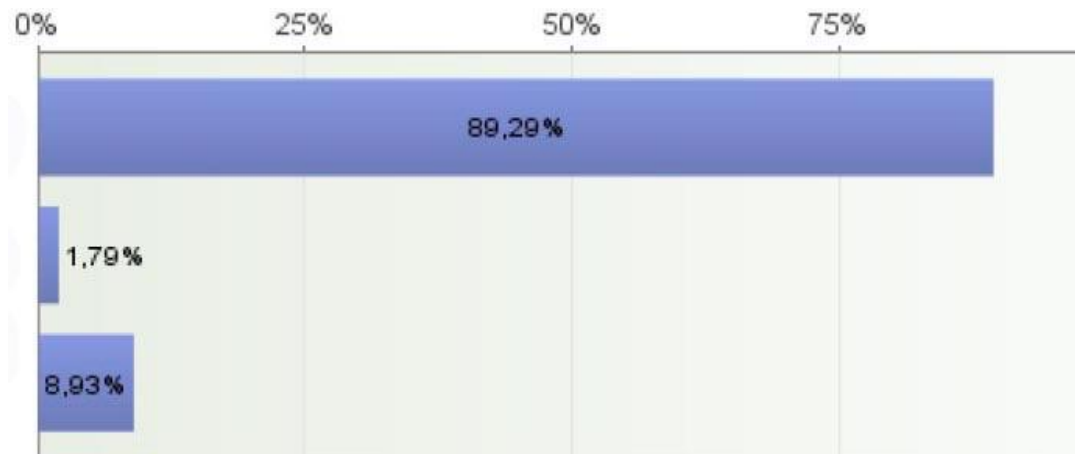


## Have crew injuries interfered with your rescue call accomplishment?

No

Yes, we had to cancel  
the call and disembark  
an injured crewmember

Yes, we had to slow down



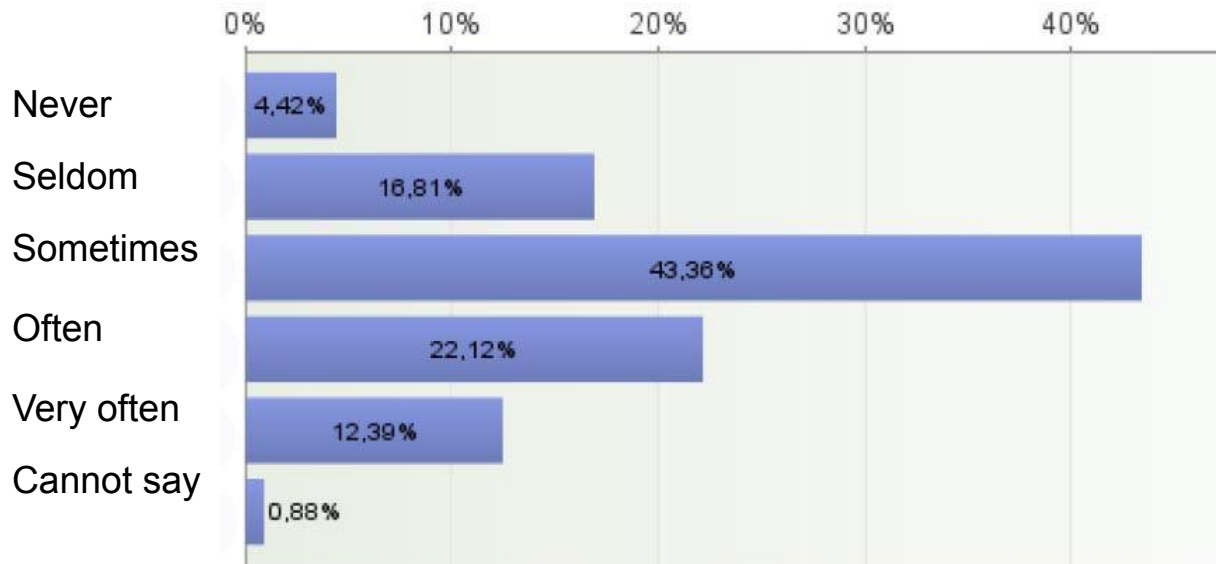


# Have you visited doctor due impact injuries?



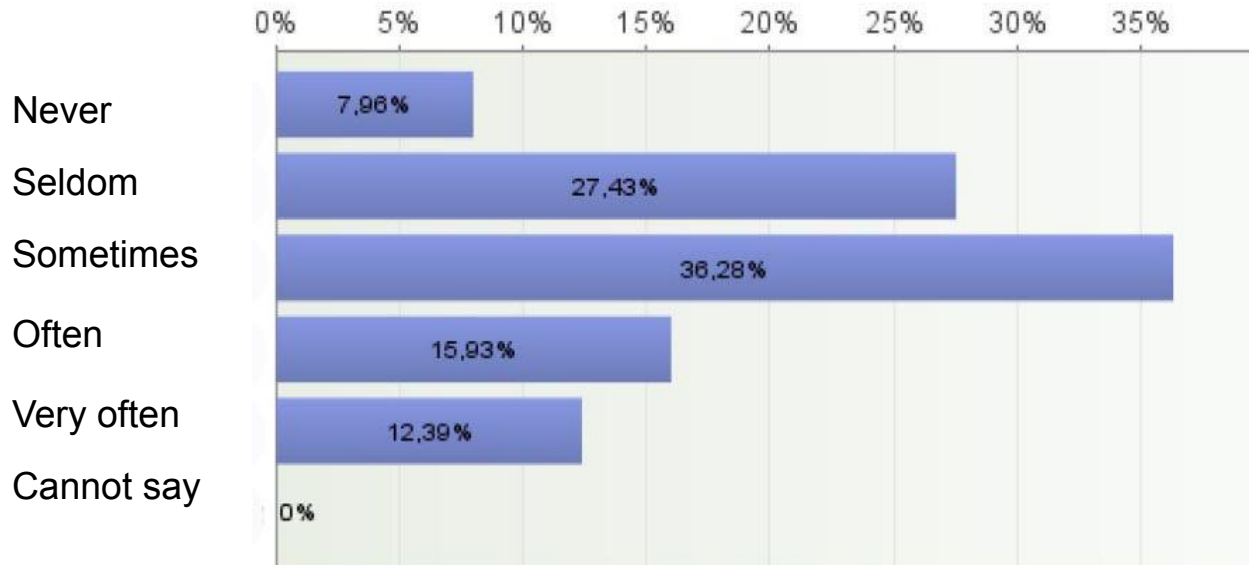


## ”My driving gets more physical due impacts”



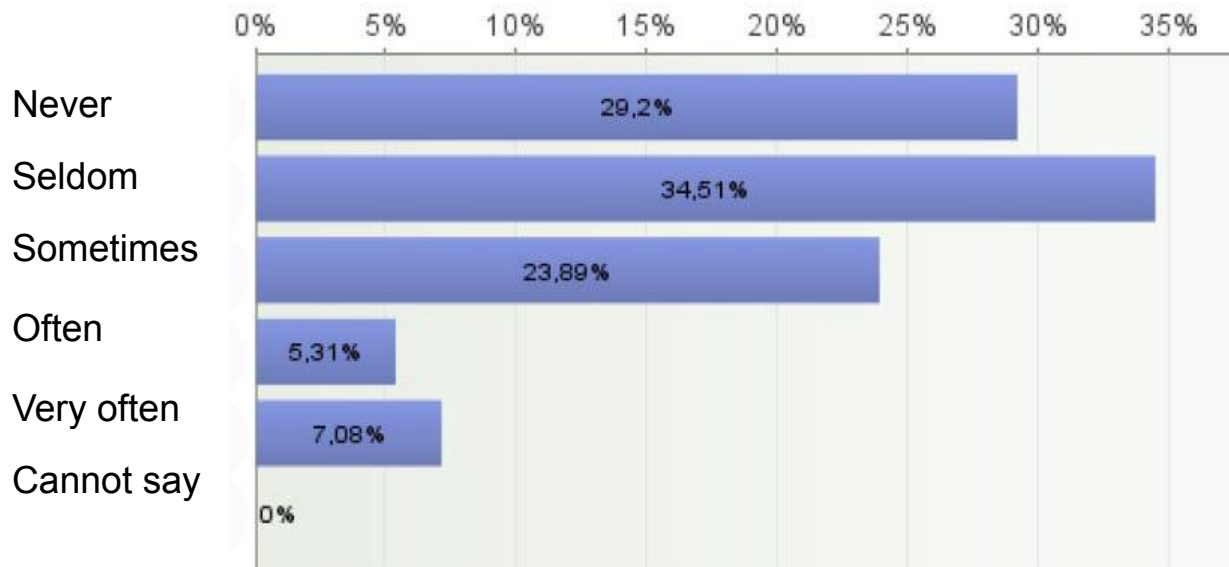


## ”My psyche gets loaded due impacts”





## Have you been worried about your health due impacts?



12% worried often or very often – and they are still volunteers



**And, after all this....**



## Still think you need 10-20 knots more speed?

Absolutely no

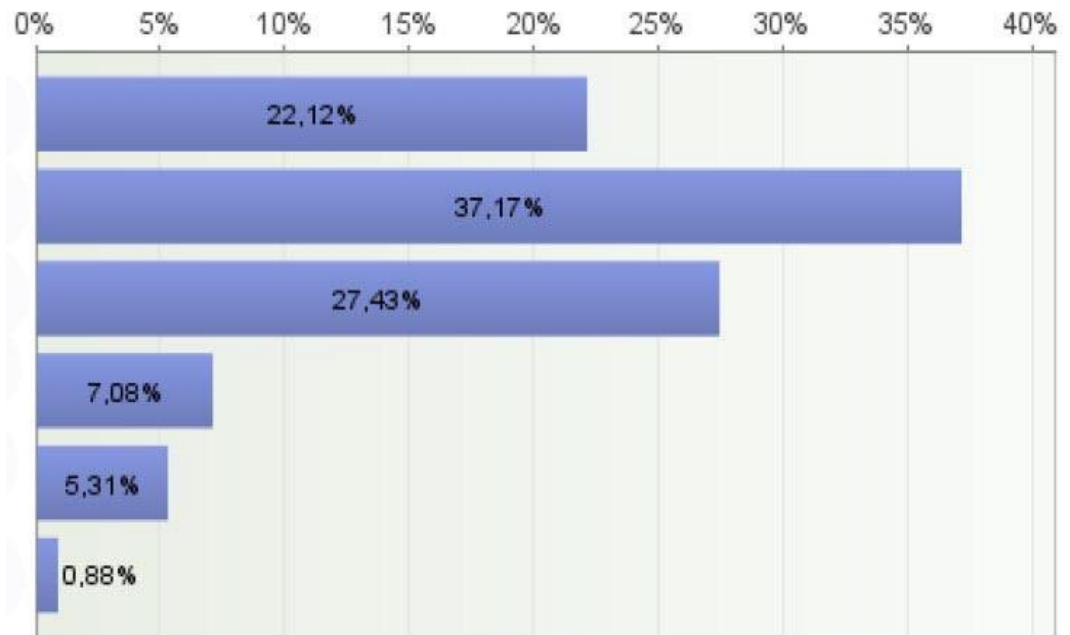
Perhaps

Yes, that's clearly a good idea

More speed is very much needed

We *absolutely* need more speed

Don't know



”Can you see a need for a lifeboat with >50 kn cruising speed in our fleet?”

- 26% considered this at least good or very good idea





Basic parameters

Participants' personal background data

Boat background data

Results

## **Lessons learnt**



## Lessons learnt

- Funding allocation to replace fixed seats in Class II lifeboats has now been done
- Tests with suspension seats will be carried out during this season
- Seat retrofits to follow after version selection





MERPELASTUSSEURA  
SJÖRÄDDNINGSSÄLLSKAPET

# THANK YOU!

The Finnish Lifeboat Institution  
M.D, Jaakko Pitkäljärvi  
jaakko@pitkajarvi.net  
Download PDF: [www.pitkajarvi.net/hsbo2016](http://www.pitkajarvi.net/hsbo2016)

