



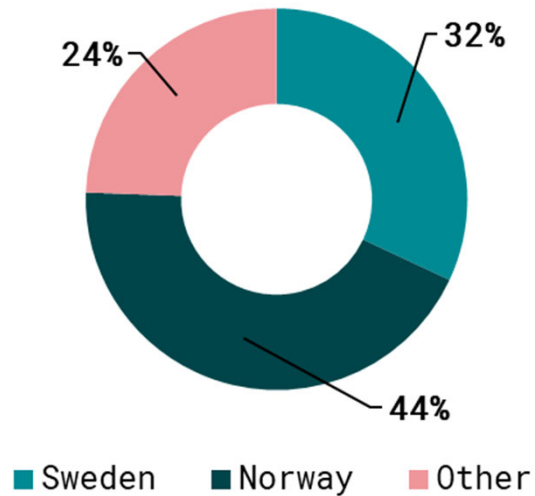
Summary of results from survey:  
Competitive skiing and fluorinated ski waxes

Lisa Skedung & Joel Svedlund

# Survey responses

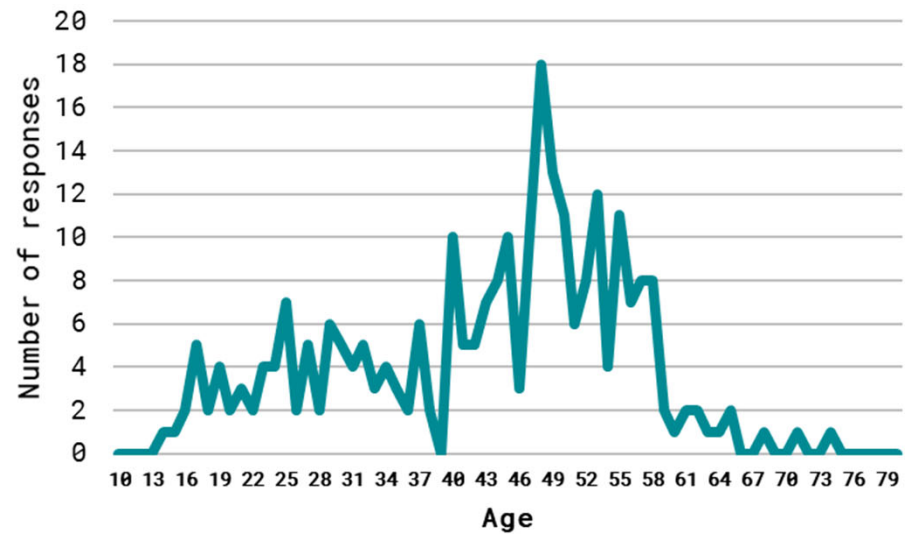
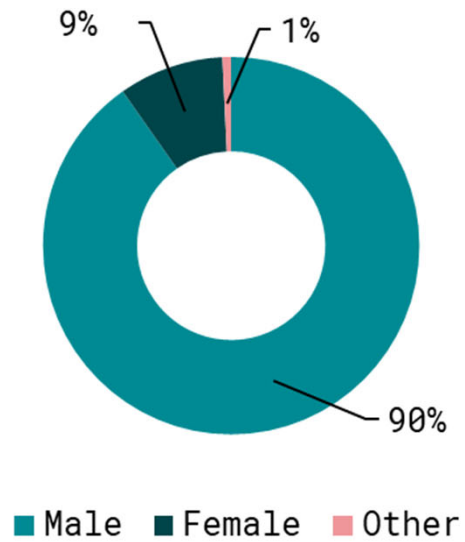
- Distribution of survey using project network
- 266 responses where 212 stayed to the last question (79% completion rate)
- Possible to extend the survey after this workshop

# Norway, Sweden and others...

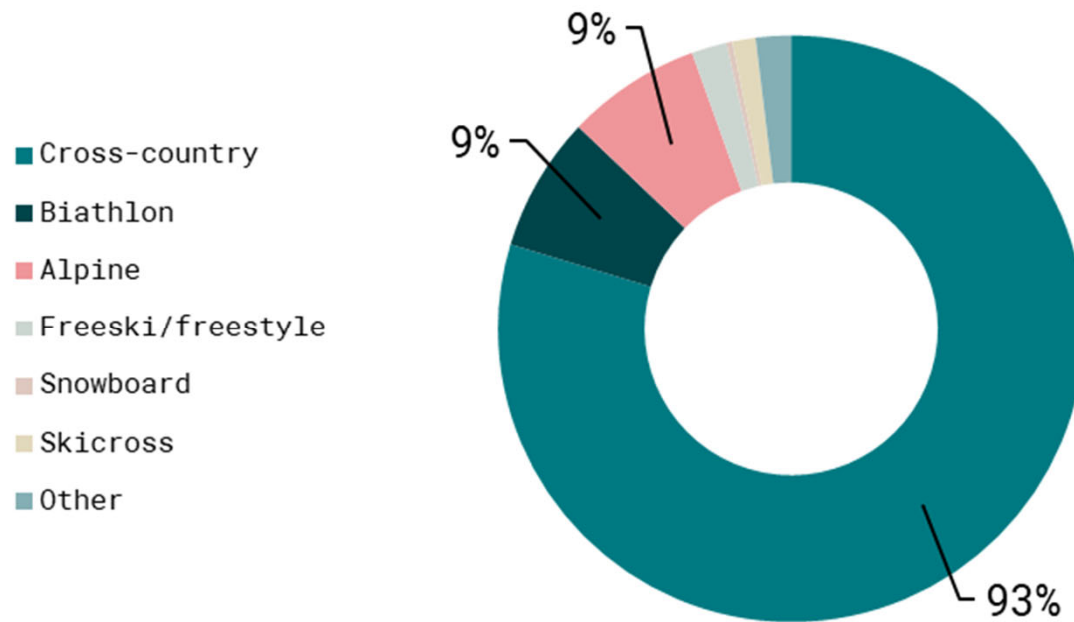


NO - Norway	43,61%	116
SE - Sweden	31,95%	85
US - United States	6,77%	18
DE - Germany	3,38%	9
AT - Austria	2,26%	6
EE - Estonia	1,88%	5
CH - Switzerland	1,50%	4
IT - Italy	1,50%	4
CZ - Czech Republic	1,13%	3
FI - Finland	0,75%	2
GB - United Kingdom	0,75%	2
LT - Lithuania	0,75%	2
LV - Latvia	0,75%	2
AZ - Azerbaijan	0,38%	1
BG - Bulgaria	0,38%	1
CA - Canada	0,38%	1
ES - Spain	0,38%	1
FR - France	0,38%	1
FX - France, Metropolitan	0,38%	1
GH - Ghana	0,38%	1
MZ - Mozambique	0,38%	1

# The middle-aged male in majority



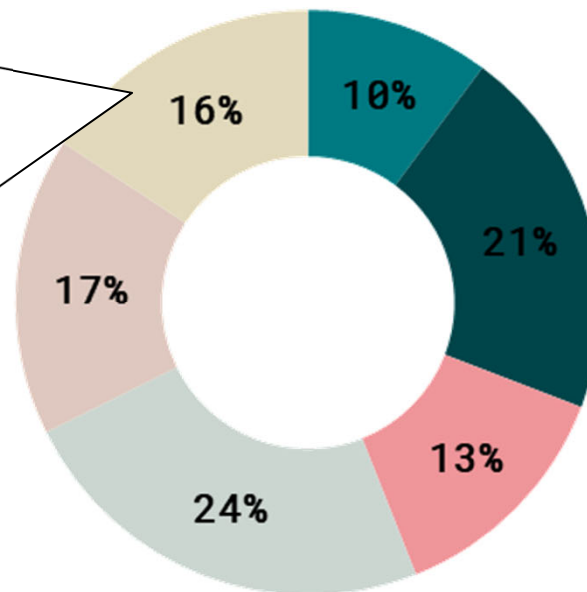
# Cross-Country in majority



# All types of roles in ski sports

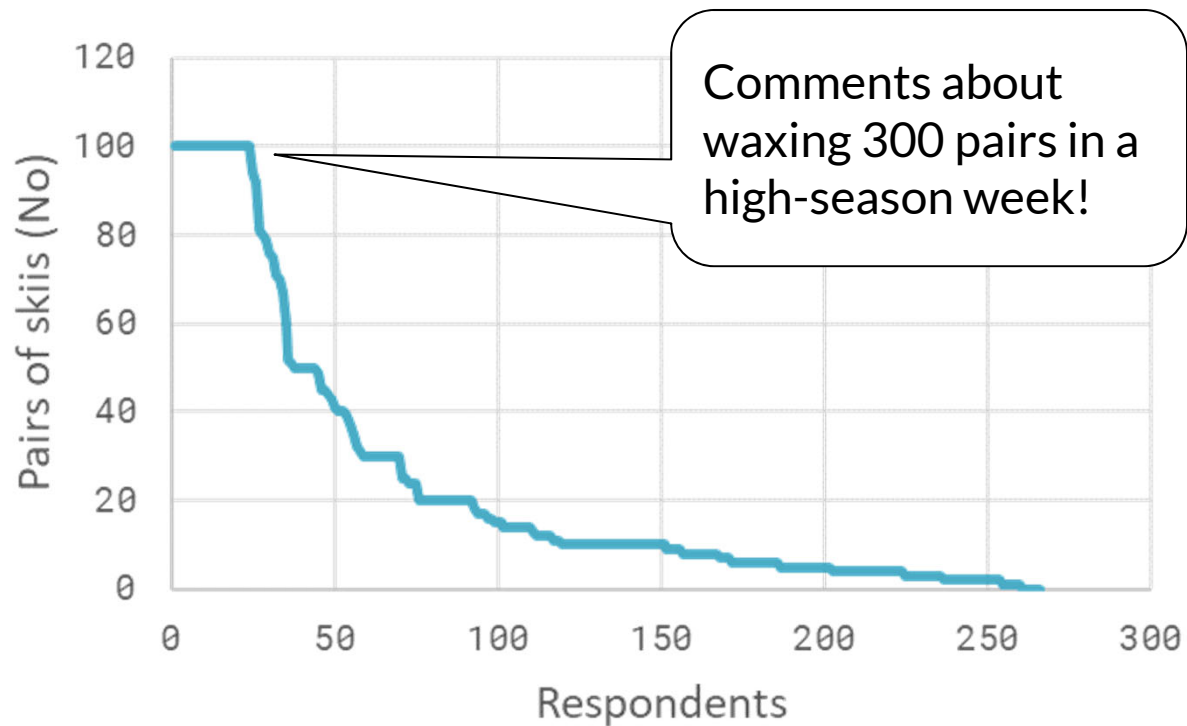
**Other:**

Coach  
Ski instructor  
Ex elite  
Parent  
Industry  
Waxer  
Non-professional Ski Technician  
Recreational racer  
Resort guide

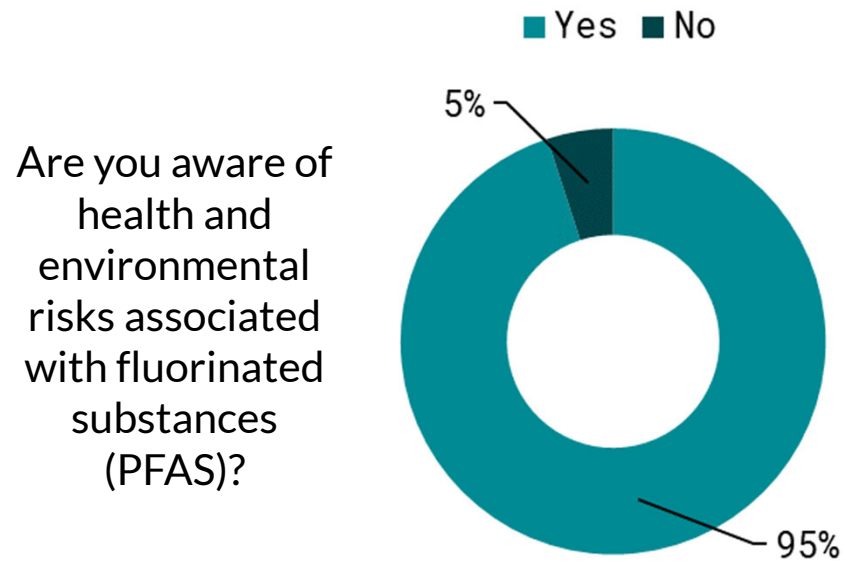


- Elite skier
- Semi-elite skier
- Professional ski technician
- Coach
- Leader/Manager
- Other

## A couple of really serious waxers...



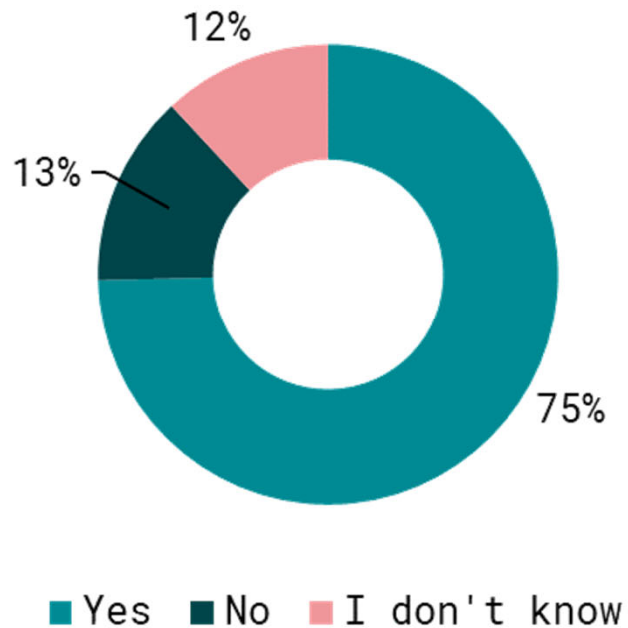
# 95% are aware of PFAS risks





## 75% think that PFAS in skiing is a concern

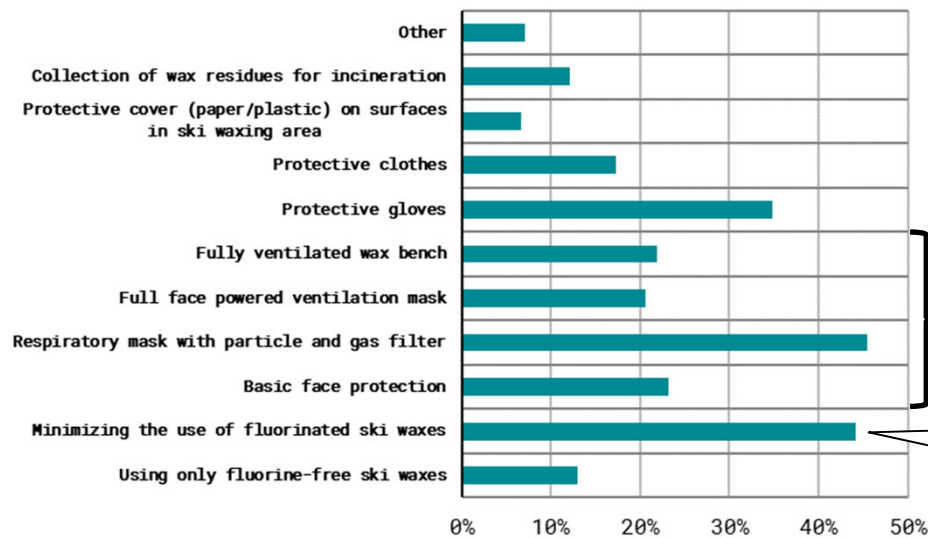
Do you think use of these substances in fluorinated ski waxes is a concern?



# Main concerns with fluorinated ski waxes



# Ways to protect environment and health during ski waxing



78% use some kind of airways protection

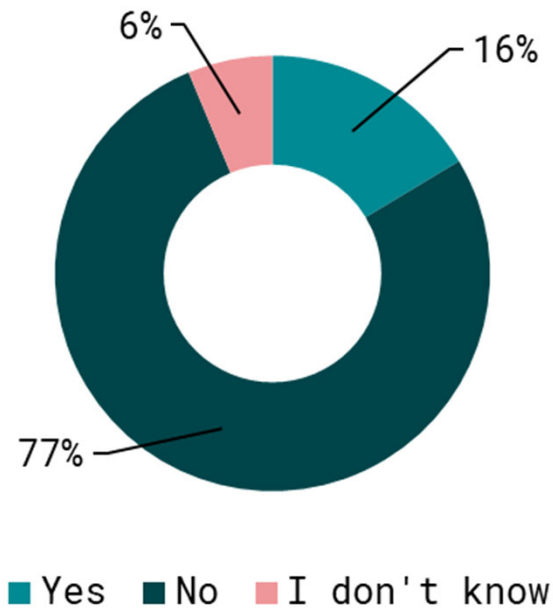
44% try to minimize PFAS use

*Multiple actions could be chosen*



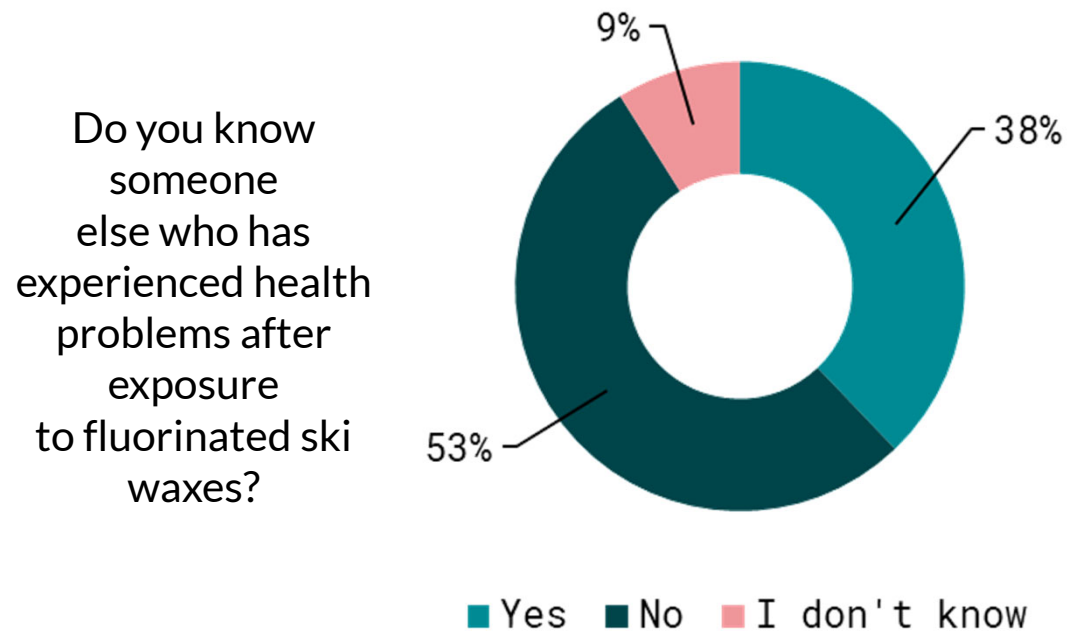
## 16% have experienced health problems from ski waxes

Have you ever experienced any health problems after being exposed to fluorinated ski waxes, e.g. "fluorine fever", a flu-like condition with fever, dyspnea and aching?

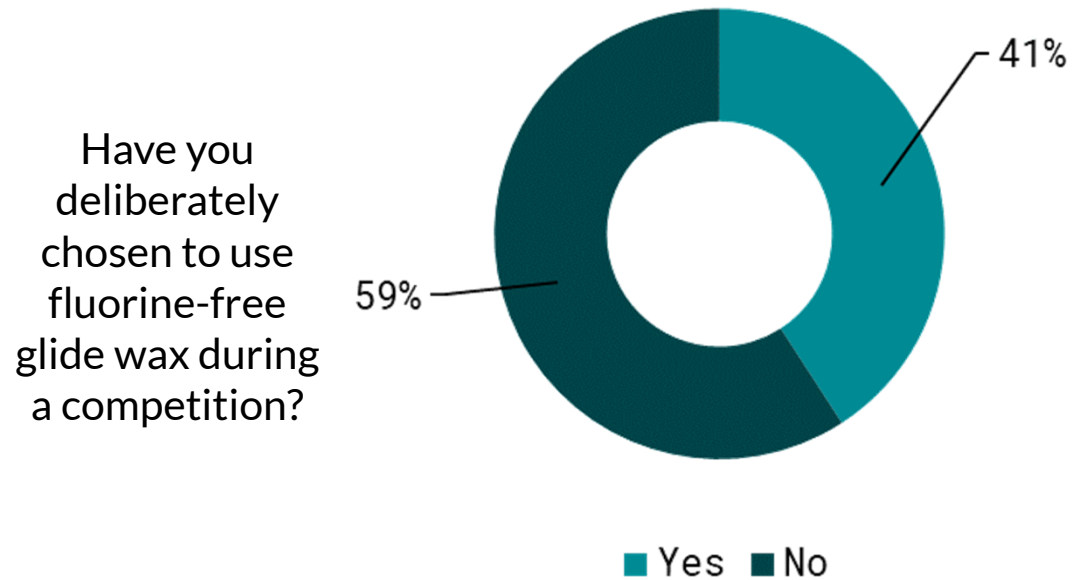


35% of them more than 10 times

# 38% know someone who has had health problems from ski waxes



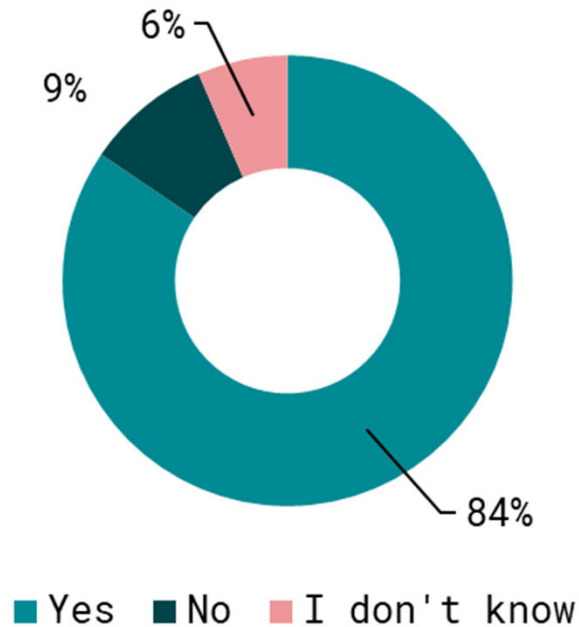
# 41% have chosen fluorine-free competition glide



# Glide impressions from PFAS-free

*Small difference*  
*big difference*  
**Moisture dependent**  
*No difference*  
*shorter lasting*  
*Placebo*  
**Temperature**  
*More work*  
*Good enough*  
*needs equal regulation*  
*Floor better*

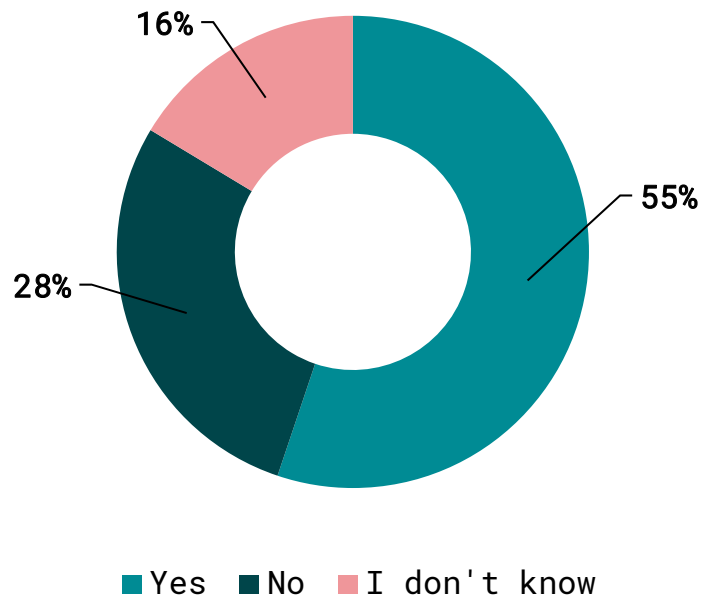
# 84% would consider fluorine-free if competitors played by the same rules



Would you consider using only fluorine-free ski wax in competitions, if your competitors played by the same rules?



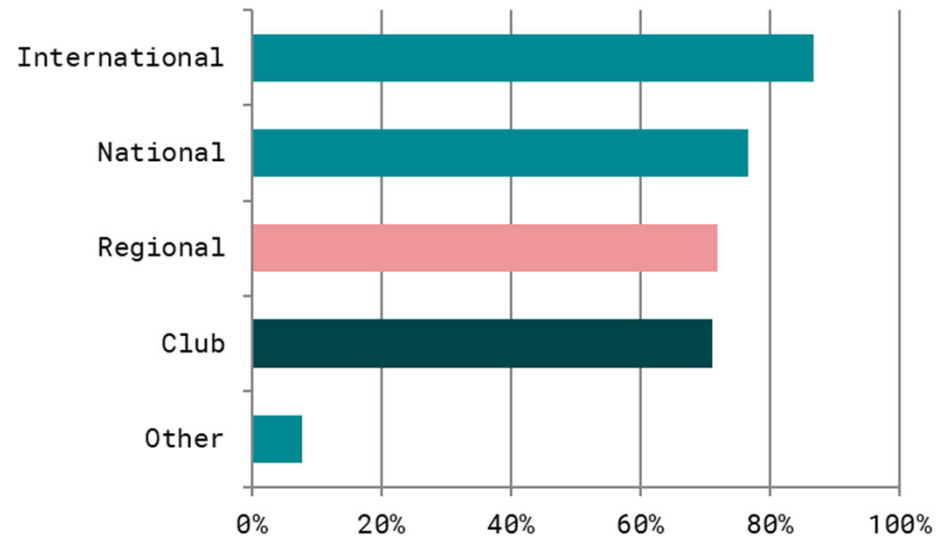
# 55% Would like a general regulation of fluorinated ski waxes in competitions



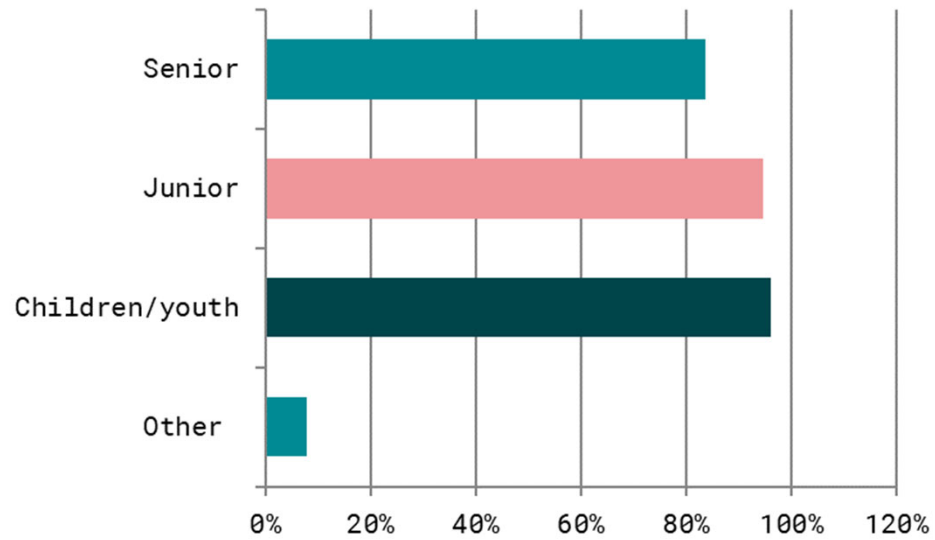
Would you like to see a general regulation/ban of fluorinated ski waxes in competitive skiing?

# All levels of competitions are relevant for regulations

On which levels would you like to see a general regulation/ban of fluorinated ski waxes in competitive skiing? You can select more than one answer.

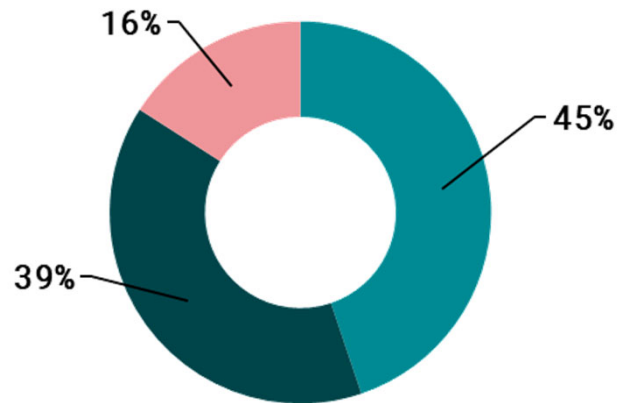


# All athlete groups are relevant for regulations



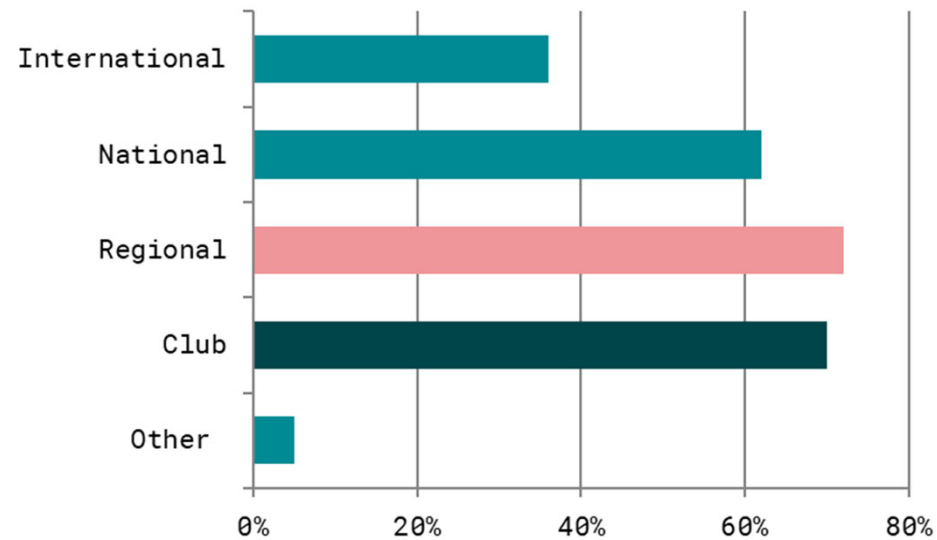
# Voluntary bans by clubs and competition organisers may be a first step forward...

Could voluntary regulations/bans by clubs and competition organisers at specific competitions be a first step forward?

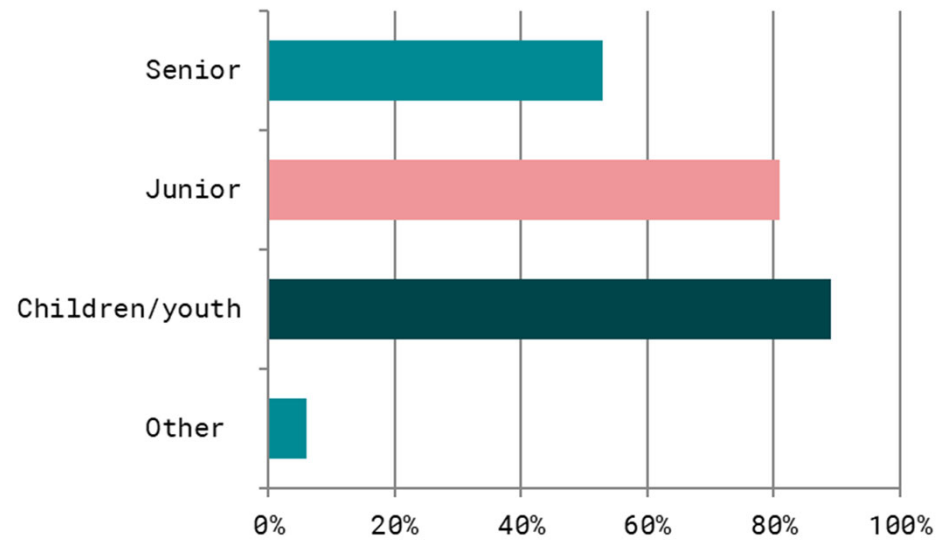


■ Yes ■ No ■ I don't know

# First steps are better taken on national or lower levels



# Young skiers are favoured for first steps



# Measures and actions for successful enforcement?



# Ski associations and Industry should lead the way





**Knowledge gap:  
55% do not know of other uses for  
PFAS.**

