

“FUME EVENT REPORTING AMONG GERMAN AIRLINE CREWS- KNOWLEDGE AND DEMAND”

*FLYING IS A DISCIPLINE
SAFETY IS AN ATTITUDE*

~ P-CoC e.V.

Agenda

1. Definition of the Situation
2. Study Design
3. Results with key messages
4. Summary and Recommendations

Definition of the situation

Problem: Defining Fume Events

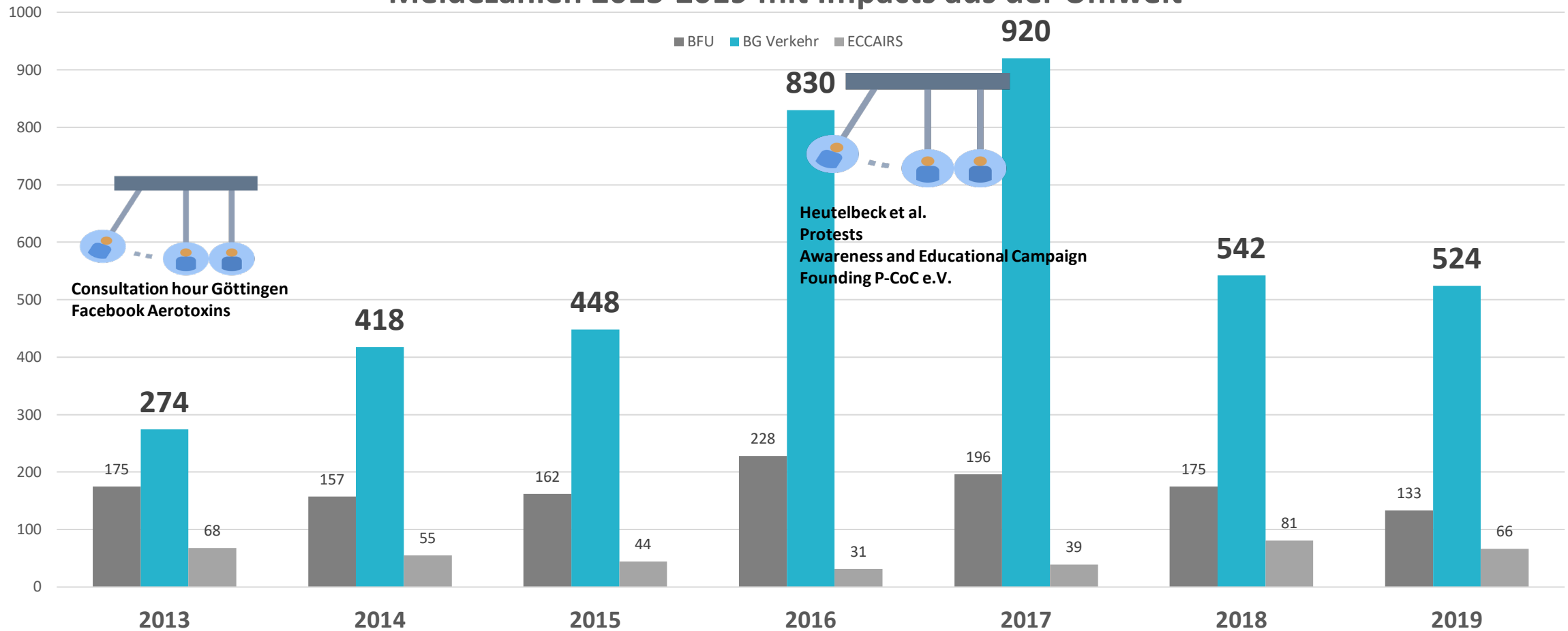
No unique (legal) definition

Derived Definition:

*Accidental bleed air contamination of the aircraft cabin
with or without odor and
with short-term or longer-lasting health effects on
individuals*

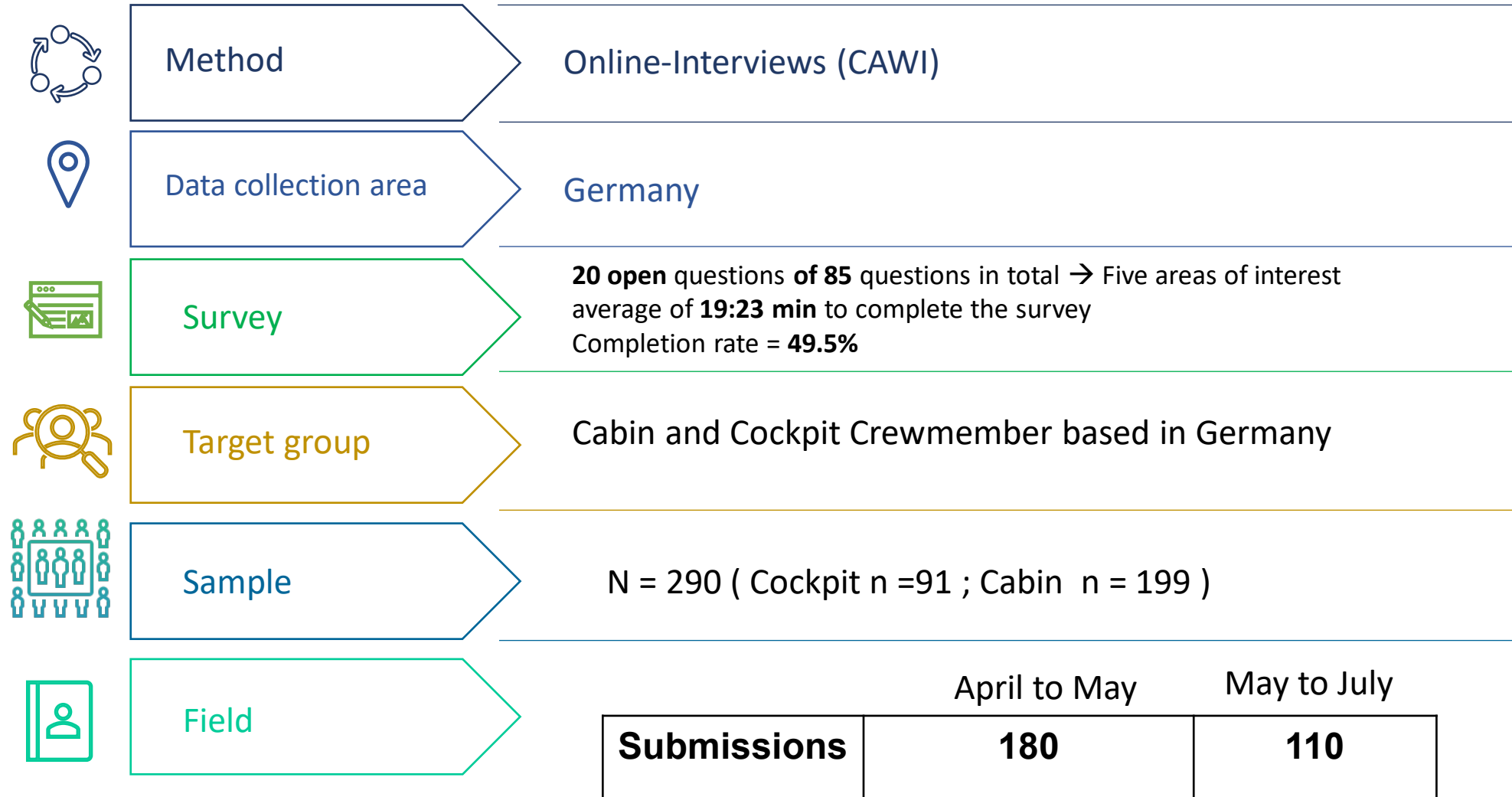
Definition of the situation

Meldezahlen 2013-2019 mit Impacts aus der Umwelt



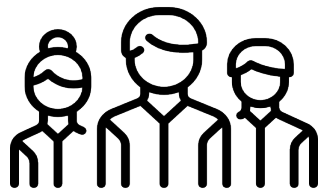
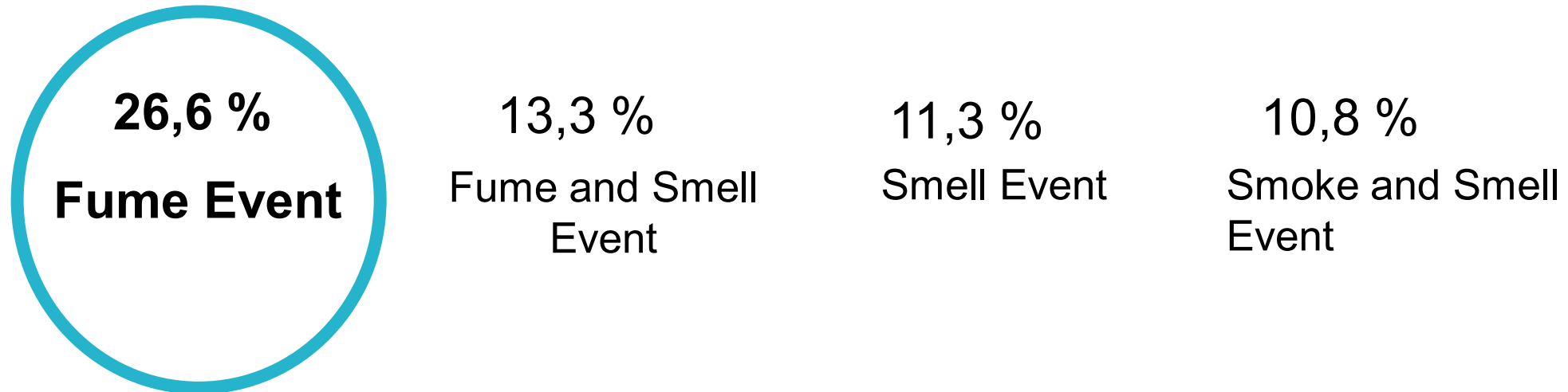
Source: Own illustration using figures from <https://www.anstageslicht.de/kabinenluft/vorfaelle-incidents/underreporting-wahrnehmungsfalle-sicherheit-flugverkehr/>

Study Profile



Results -AWARENESS

- **94 %** of crews have heard "fume event" as a term
- there is still a lot of disagreement as to which term is most appropriate to describe it

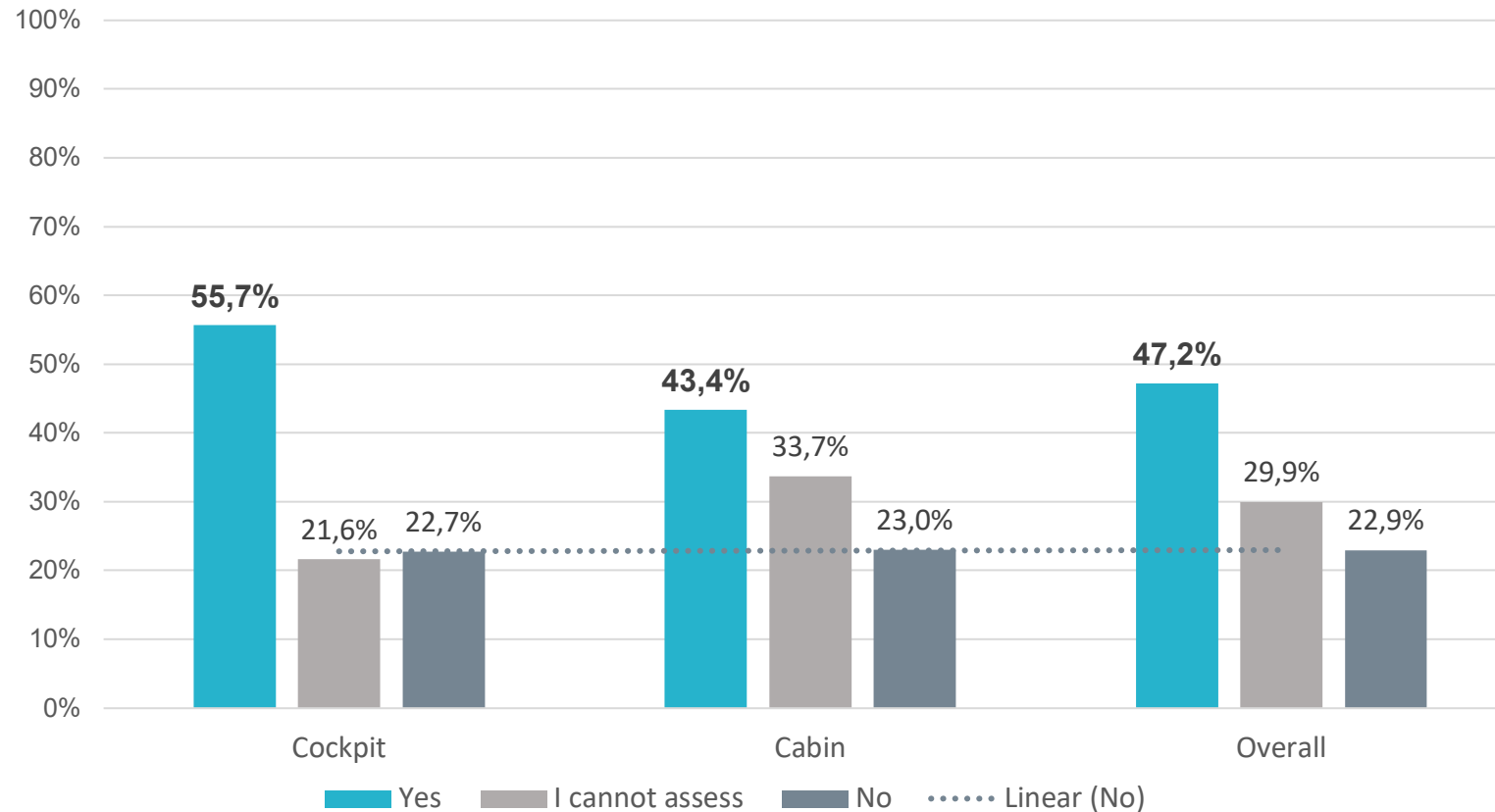


"Fume event? I don't know, it has to be something uniform in any case".

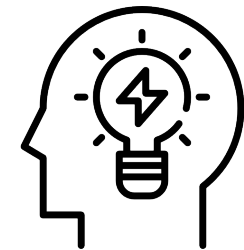
"Fume Event or Fume and Smell Event if the intoxication is also smellable."

Assessment of state of general information after Fume Events

- Half of the Crews feel well informed on Fume Events
- The majority informs themselves on their own.



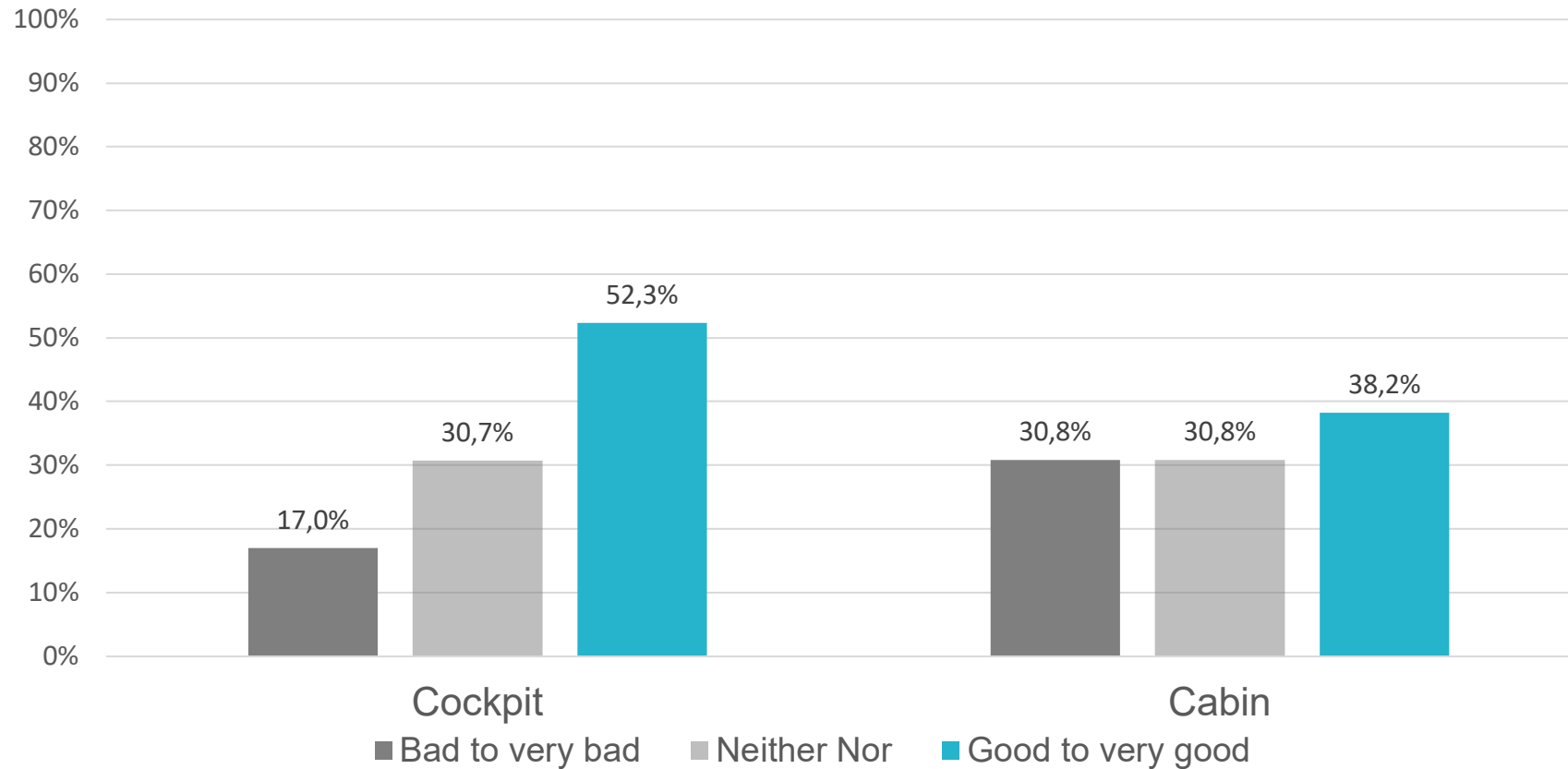
44 %



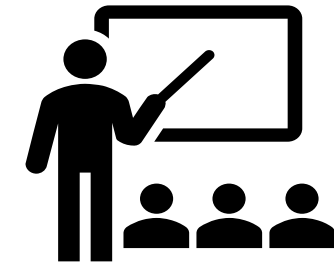
Own Research or
experience

Assessment of state information on symptoms after Fume Events

- Half of the Crews do not feel well informed on symptoms
- Crews believe the industry downplays the subject



51,6 %

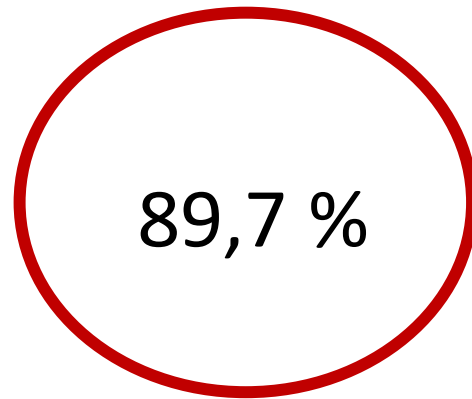


Lack of education
and Downpayment
by industry

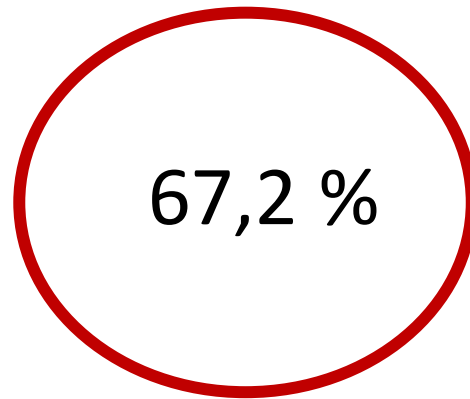
Results – ABILITY TO IDENTIFY



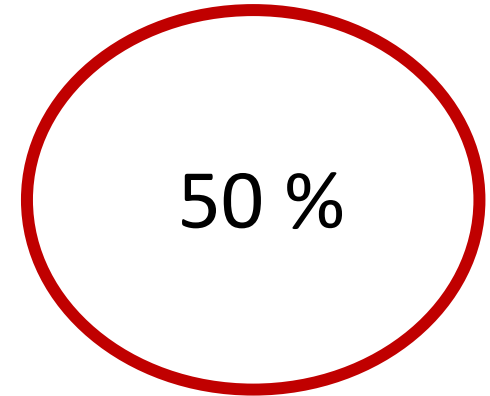
Top 3 associated Fume Event „smells“ by German Airline Crews



Dirty socks



Wet dog



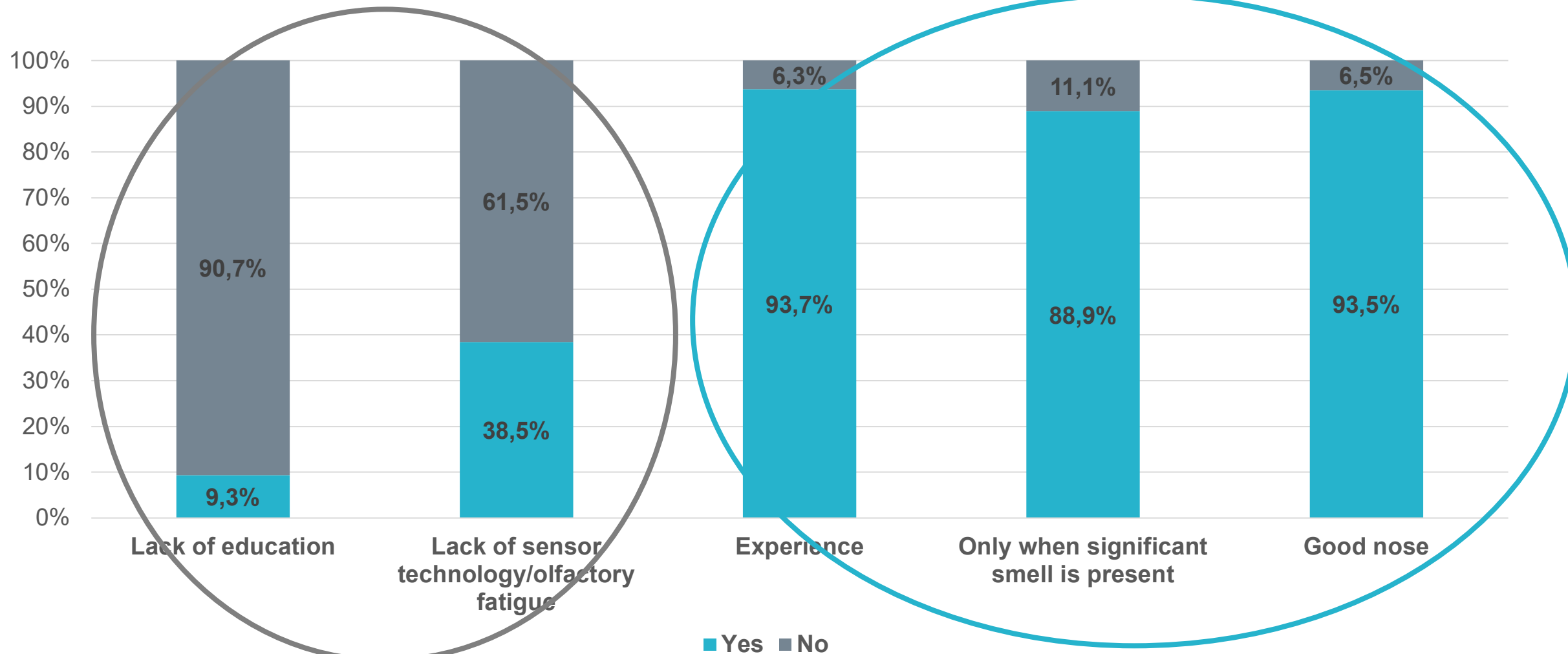
Scorched

Assessment of Ability to identify with nose only

Reasons for assessment



- Nearly half of the respondents do not feel able to detect the cause of an unusual smell in the cabin.
 - Those who lack education also lack the ability to detect Fume Events.

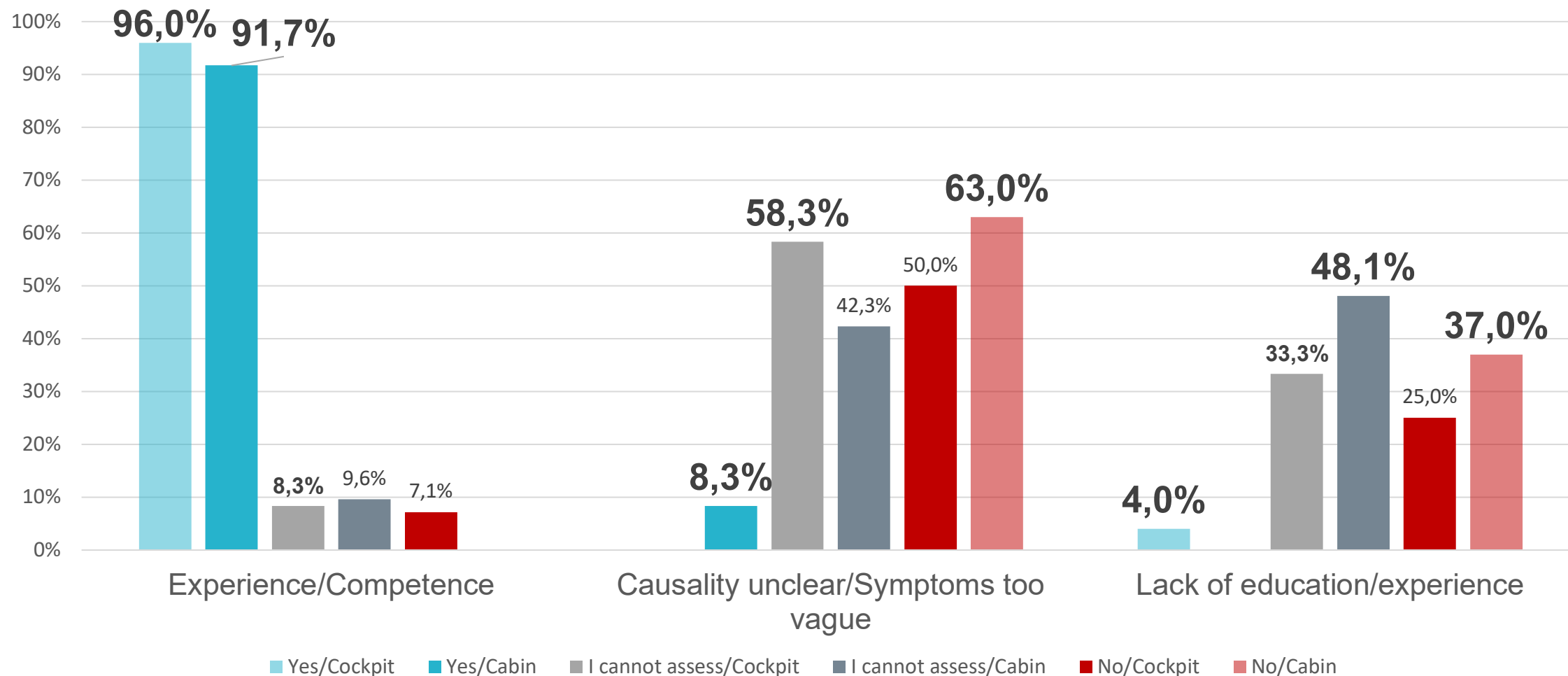


n= 199

Assessment of Ability to identify odorless Fume Events



- The more experienced or skilled Crewmembers are, the higher the probability that they will identify symptoms correlated to Fume Events
 - Highly significant correlation



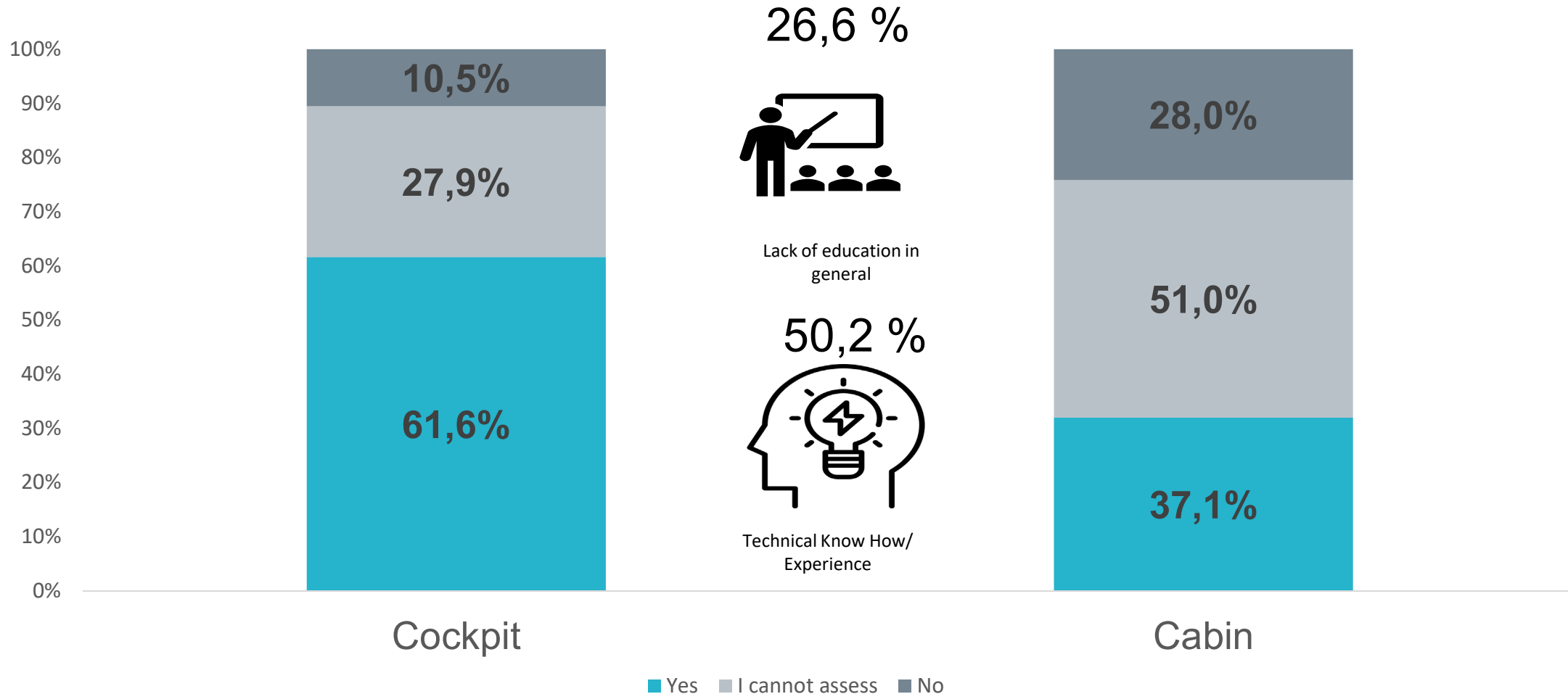
n= 172

Results- ABILITY TO DESCRIBE TO THIRD PARTIES



Maintenance:

- Highly significant difference between the professional groups!
- **Pilots are significantly more often able** to describe a Fume Event to maintenance than Flight attendants.



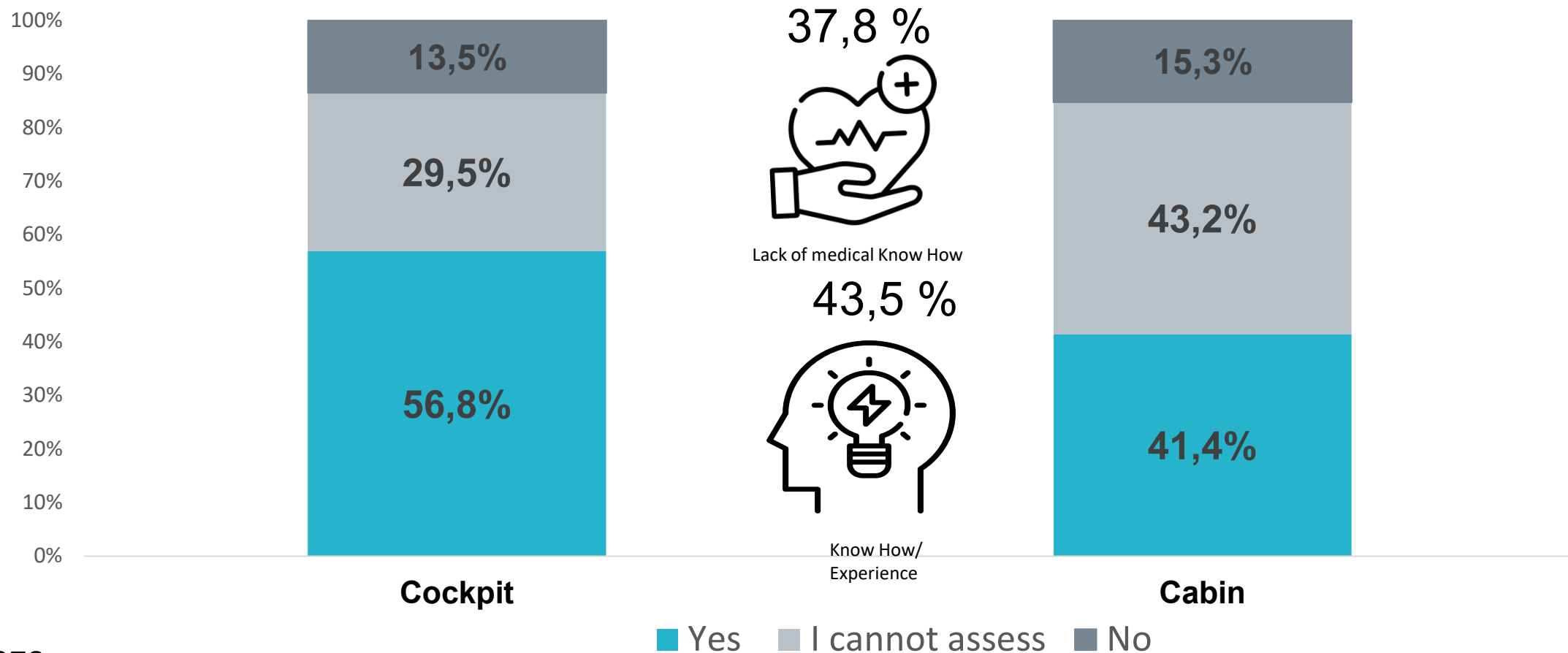
n= 280

Results- ABILITY TO DESCRIBE TO THIRD PARTIES



Medical Professionals:

- Pilots mostly feel confident in describing Fume Events to MDs
 - Huge uncertainty within Cabin Crews about the ability



n= 278

Results EDUCATION



- **64,3 % believe receiving training is very important to important!**
 - **36,8 % demand a Checklist for Fume Events.**



Annual recurrent training

22.2 %

77.8 %

Fume Event Procedure

82.9 %

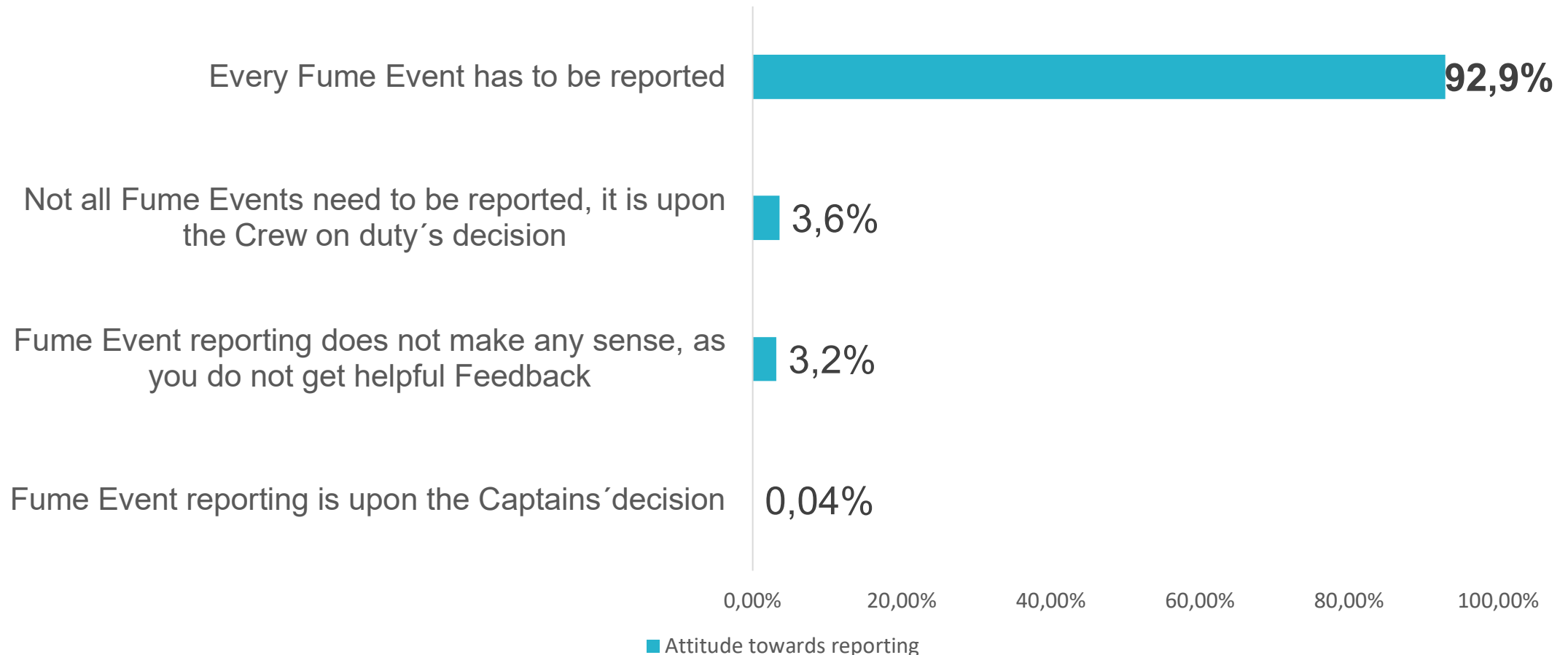
17.1 %

Results REPORTING



➤ Overall positive attitude towards reporting Fume Events

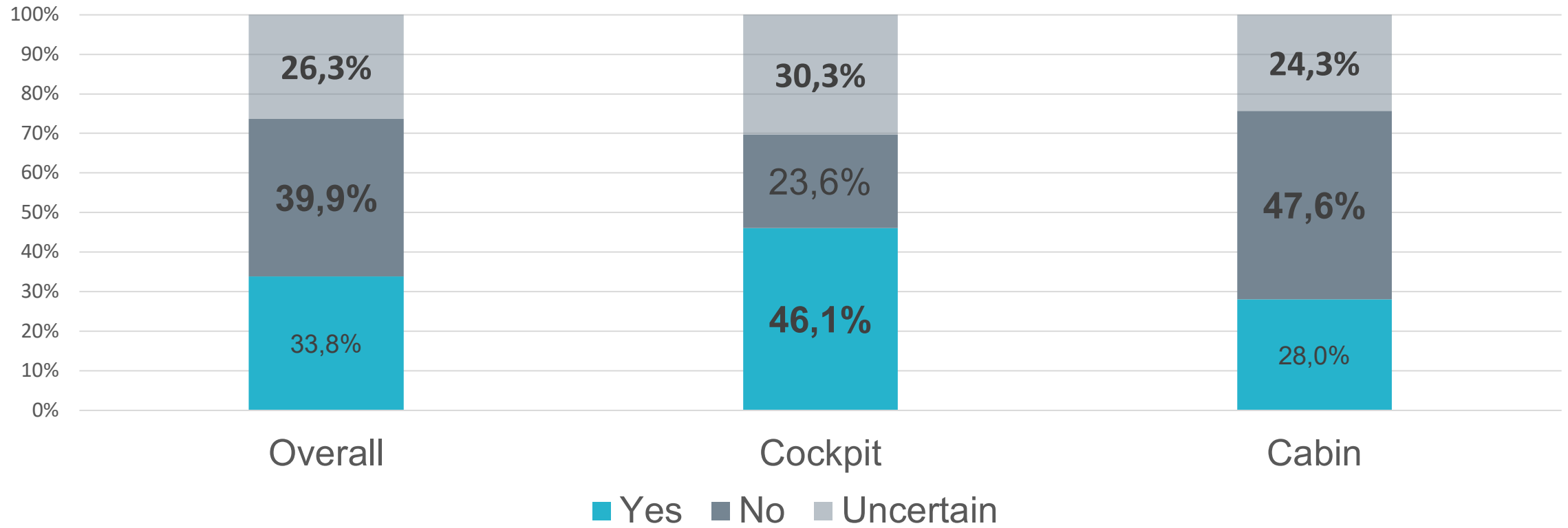
Attitude towards reporting



N= 281

Knowledge: Mandatory reporting acc. to EU 996/2010

- Significant difference between Cockpit and Cabin Crews concerning knowledge.
 - Consistent and correct Fume Event reporting is not guaranteed!

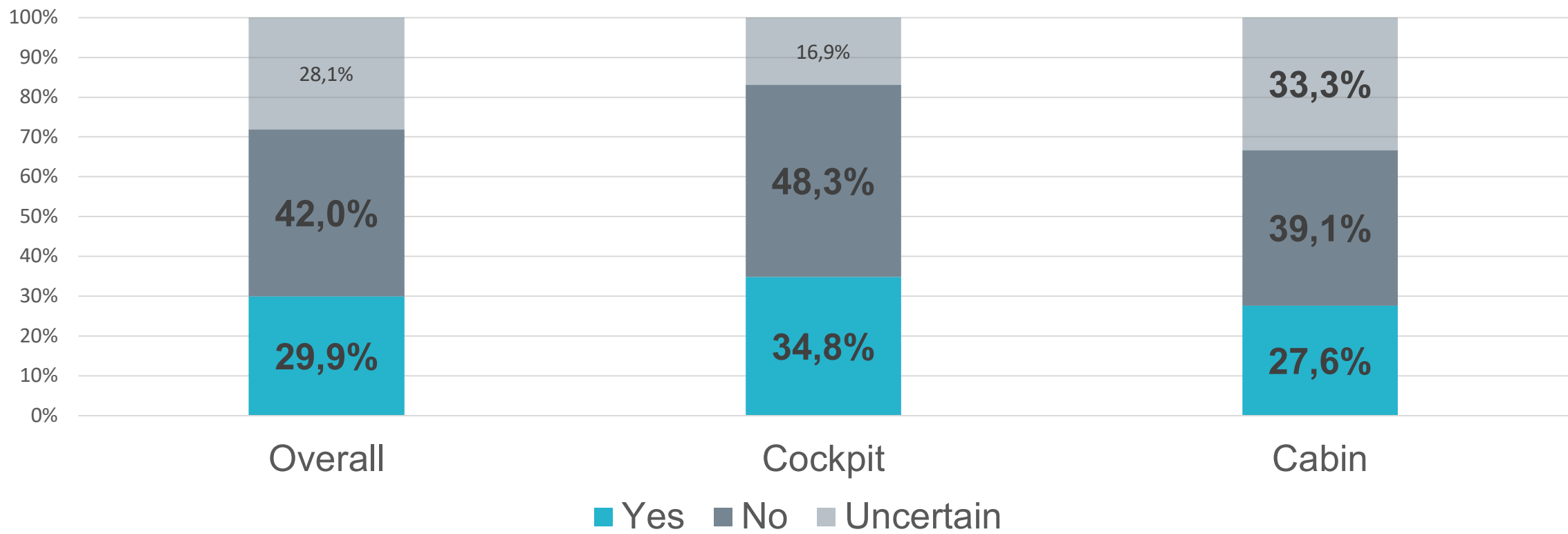


N= 278/89/189

Knowledge: BG Verkehr Standard procedure after Fume Event



- **Most Crews do not know or are uncertain about the procedure**
- **Systematic investigation is not guaranteed**

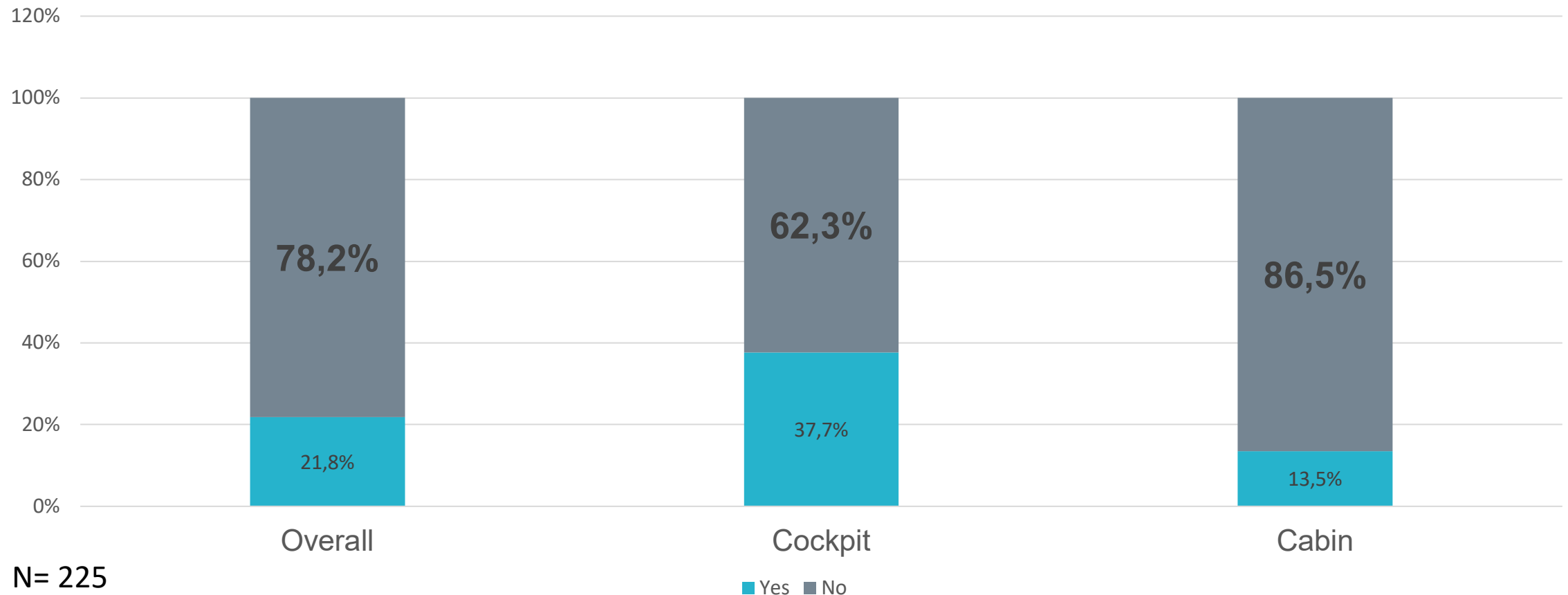


N= 281/89/189

Do you feel like your Airline offers userfriendly access to legal reporting?

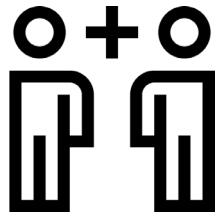


- There is no userfriendly access to legal reporting
- TOP Reason for unfriendly access to reporting system : **Intention (41,6 %)**



Results -EXPERIENCE

➤ 76,4 % have experienced 1 to 3 Fume Events in their career

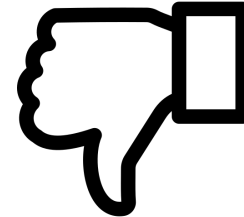


Know somebody

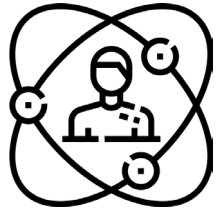
81,3 %



9,2 %



9,5 %



Experienced Fume Event

52,1 %

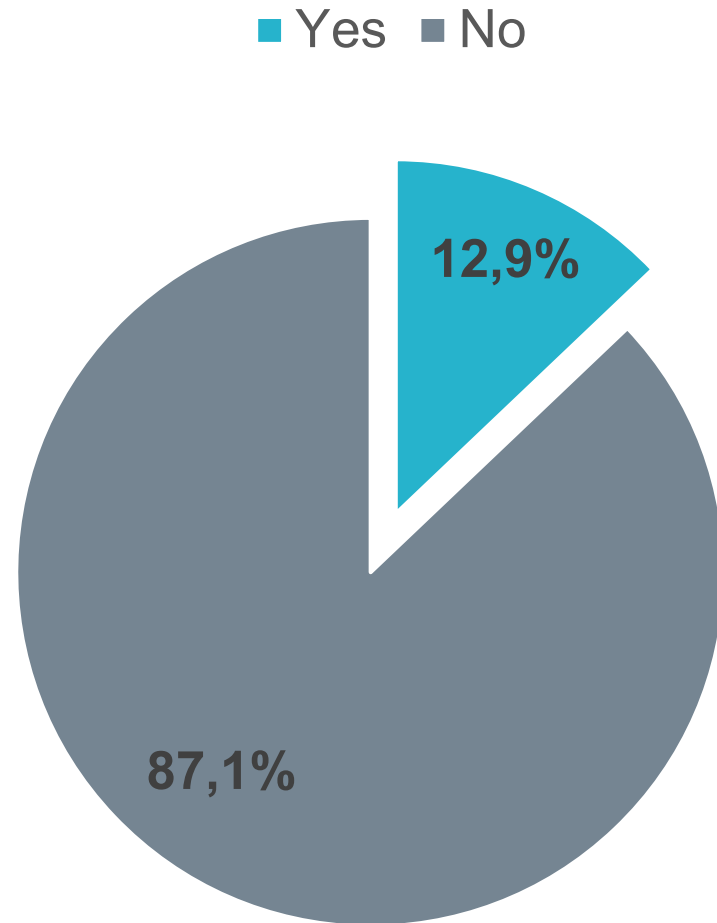
22,7 %

25,2 %

N= 284/282/ 132

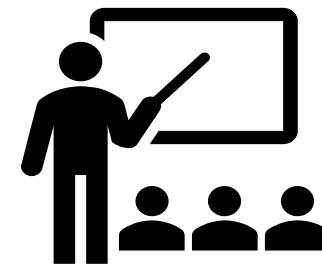
Results Transparency

Do you feel that you have received sufficient information from your employer for the case of a fume event? What is the reason for your assessment?



Avoidance and non-transparent communication by employer

66,4 %

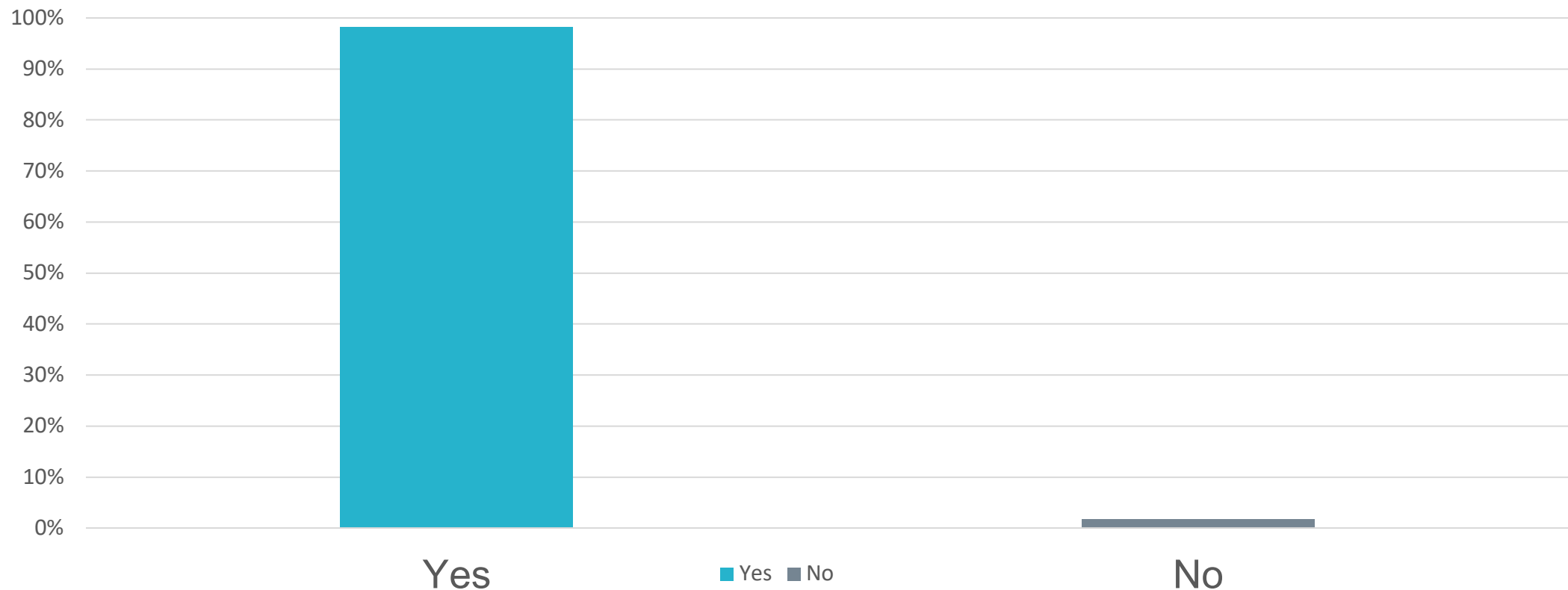


Lack of education/Quality of information

N= 248/152

Would you like to see a more open approach to the topic of fume events overall?

98,2 % of the Crews demand a transparent approach on Fume Events!



N= 279

Summary of key findings

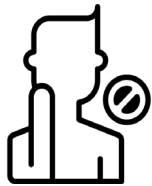


Reporting Knowledge of German Airline Crews is poor

1. Communication Problems 2. Detection Problems



Independent research

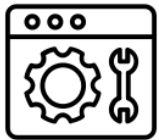


No symptoms



Nose as only sensor on board

4. Transparency Problems



Maintenance



MDs

3. Reporting Problems



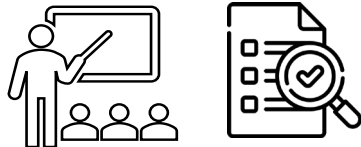
–vector–
Knowledge Gap



No userfriendly reporting system



Avoidance and non-transparent communication



Training and Checklist

Recommendations



- **uniform, easy to understand and international term**
 - **FUME EVENT IS THE MOST POPULAR TERM**

➤ **INITIAL AND ANNUALLY RECURRING TRAINING**

according to ICAO Cir. 344

- **specific Fume Event Procedure**
- **real-time (online) bleed-air monitoring solutions**



- **“One Click” off- and online reporting smartphone application**
- **systematic investigation policy beyond EU 996/2010 of all possible bleed-air contamination events including a Medical Protocol**
- **uniform and international Training Standard for medical professionals**

Recommendations

98,2 % of the Crews demand a transparent approach on Fume Events!

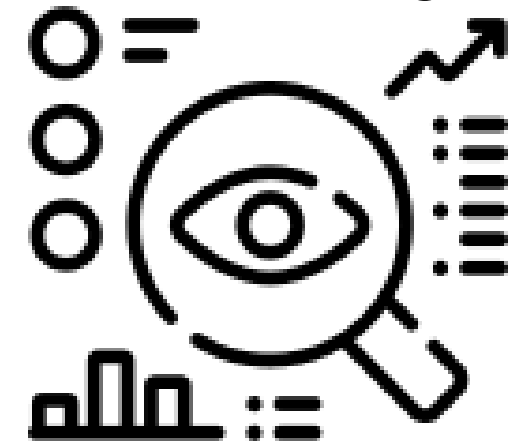
Build bridges



Involvement
Think tank



Independent
Monitoring



CONTACT US FOR FURTHER INFORMATION OR ASSISTANCE

