Public version

BeCA 2015 Safety Culture Survey

De-identified consolidated results

Belgian Cockpit Association

The voice of pilots in Belgium

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I. Introduction

I.1. Background & Objectives

The Belgian Cockpit Association (BeCA) is the only recognised professional association representing airline pilots in Belgium. It is self-funded and politically independent. BeCA works in close cooperation with other Belgian stakeholders and provides them with expertise on matters linked to the pilot profession and aviation safety. Our association represents some 600 pilots and is actively involved at European and international levels through its membership and participation in the work of the European Cockpit Association (ECA) and the International Federation of Air Line Pilots' Associations (IFALPA).

In view of the new regulation EU 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation - applicable as from 15 November 2015, given the adoption of an occurrence list by the Commission - BeCA conducted a safety survey, with the sole objective of benchmarking the level of Safety Culture within Belgium-based operators and not apportioning blame.

This survey consisted of 50 questions covering 7 topics:

- Safety Commitment
- Just Culture
- Safety Management System (SMS)
- Reporting
- Fatigue
- Flight Data Monitoring (FDM)
- and a risk study - conducted by City University (London)

The target audience were all professional Belgium-based airline pilots. The questionnaire used Google Forms and was processed anonymously, except for some basic identification such as function, company and years of experience. The survey ran from 15 February to 31 March 2015 and 416 responses were received. A few airlines expressed some concerns, but BeCA re-assured them, as our sole objective is the sharing of safety information with the aim of improving aviation safety.

Thereafter, the available data was analysed and our conclusions published on the BeCA website.

I.2. Data Analysis

The structure of the analysis is identical to the survey layout. The title is the question as it appeared on the online form. All guidance material available at the time of the survey has been copied and formatted in italic.

Likert-type scales are used for some questions: 1 corresponds to "No" or "Strongly disagree" and 5 to "Yes" or "Strongly agree". Colour scales are based on the totality of data received, so that the overall minimum score is dark red and the overall max score is dark green. An example is given below.

	Airline A	Airline B	Airline C	Airline D	Airline E	Unknown	**Total**
My company is genuinely concerned about safety.	3,9	3,3	3,9	3,5	4,0	3,3	**3,6**

<u>Note:</u> Be advised that for a few questions a high score does not necessarily correspond to a good safety performance. (e.g. "I do not like losing time filing safety reports because nothing will change anyway").

<u>Remarks:</u>

- All brand names have been removed in this document version.
- Experience is divided in non-uniform classes to capture more detail in the lower experience region.

- All records in the "I rather don't tell..." category were filtered, only those related to "a Belgium-based operator" were retained and added to a new category: "Unknown Belgium-based operator".
- EAT/DHL operates German airplanes, but as a group of 90 pilots based in Brussels. The survey was also sent to 31 pilots based in Leipzig who inherited from the Belgian roster system after their based transfer from Brussels to Leipzig. Most of these pilots hold Belgian licences and live in Belgium. This is why data from EAT/DHL was retained.
- Although Ryanair has two bases in Belgium (Charleroi and Zaventem), responses from pilots were discarded because most of them don't have Belgian contracts (#5).
- Replies from other non-Belgium-based operators were excluded.
- Questions under chapter 3.8 are part of an academic research conducted by Mr. Cengiz Turkoglu (Senior Lecturer in Air Transport Engineering at City University, London). At the time of publication, no final conclusions were available. Therefore only quantitative results are published in this report.
- Qualitative data as obtained by questions 3.9.1 and 3.9.2 have been summarised to get an idea of the main issues mentioned. Some quotes have been included when necessary.

I.3. Confidentiality

This version is the public version.

The sole aim of this survey is to be a safety management tool. None of the data and conclusions contained in this report should be used to assign blame to companies or individuals. No attempt shall be made to disclose the identity of any survey participant. Non-adherence to this principle could lead to a breach in confidentiality, making future safety surveys impossible. BeCA will file legal proceedings if they should become aware of any breach in this protocol.

II. Survey Results

II.1. Population

- When closing the survey, 416 replies were received from all Belgian AOC holders.
- There is a comparable partition between Captains and First Officers except for EAT/DHL where there is a 70/30 ratio.
- Experience is asymmetrically distributed. 38% of the pilots have less than 10 years of experience. About 24% have more than 20 years of experience. When reading the graph, keep in mind this category is divided in non-uniform classes (5-year time span below 10-year experience, 10-year span above) to capture details.
- 6% of the respondents chose not to disclose the name of their employer.
- About 1/5 of the pilots have additional duties such as: TRI/TRE (8%), Ground Instructor (5%) or additional office duties (3%).

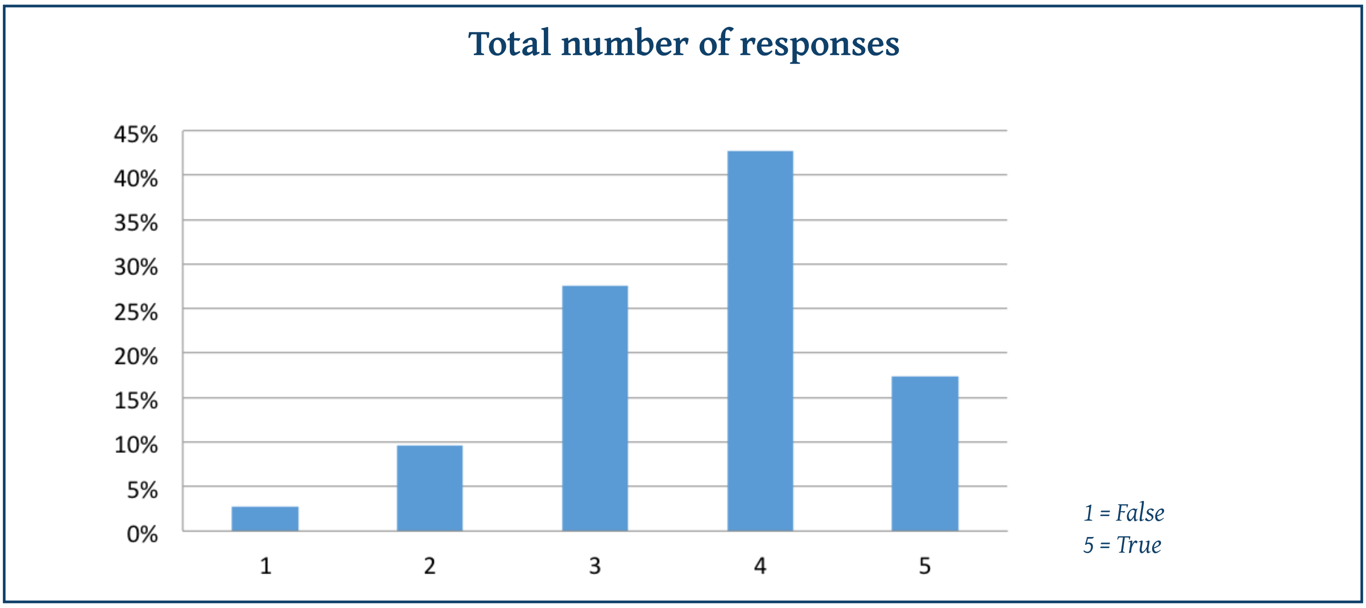
Number of replies split per pilots function & rate per airline in relation to total number of pilots

	CPT	F/O	Replies	Total number of Belgium-based pilots	Rate
Brussels Airlines	77	63	140	480	29%
TNT Airways	67	59	126	257	49%
Thomas Cook Airlines	14	21	35	60	58%
EAT/DHL	22	9	31	120	26%
I rather don't tell	22	9	31	N/A	N/A
Jetairfly	17	13	30	?	?
Other	4	6	10	N/A	N/A
VLM/Cityjet	3	5	8	?	?
Ryanair	3	2	5	?	?
Total	**229**	**187**	**416**		

II.2. Safety Commitment

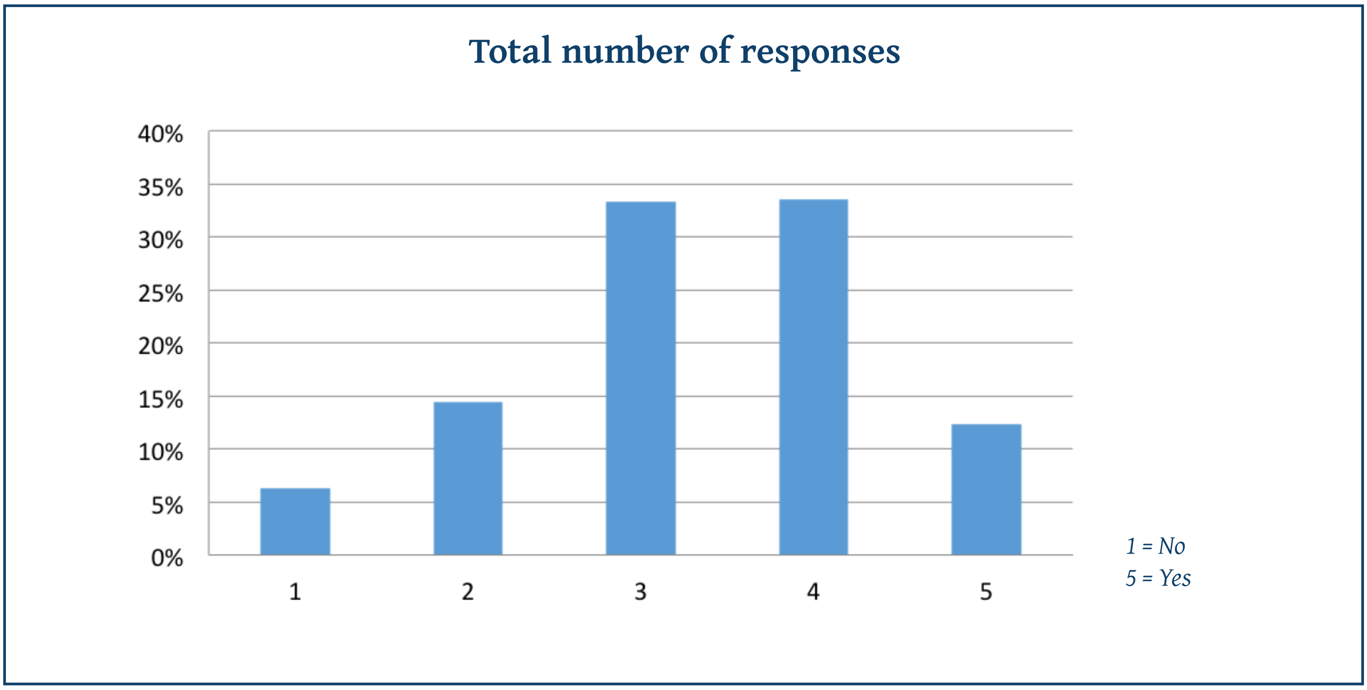
II.2.1. My company is genuinely concerned about safety

The management takes action with respect to unsafe operations or activities.



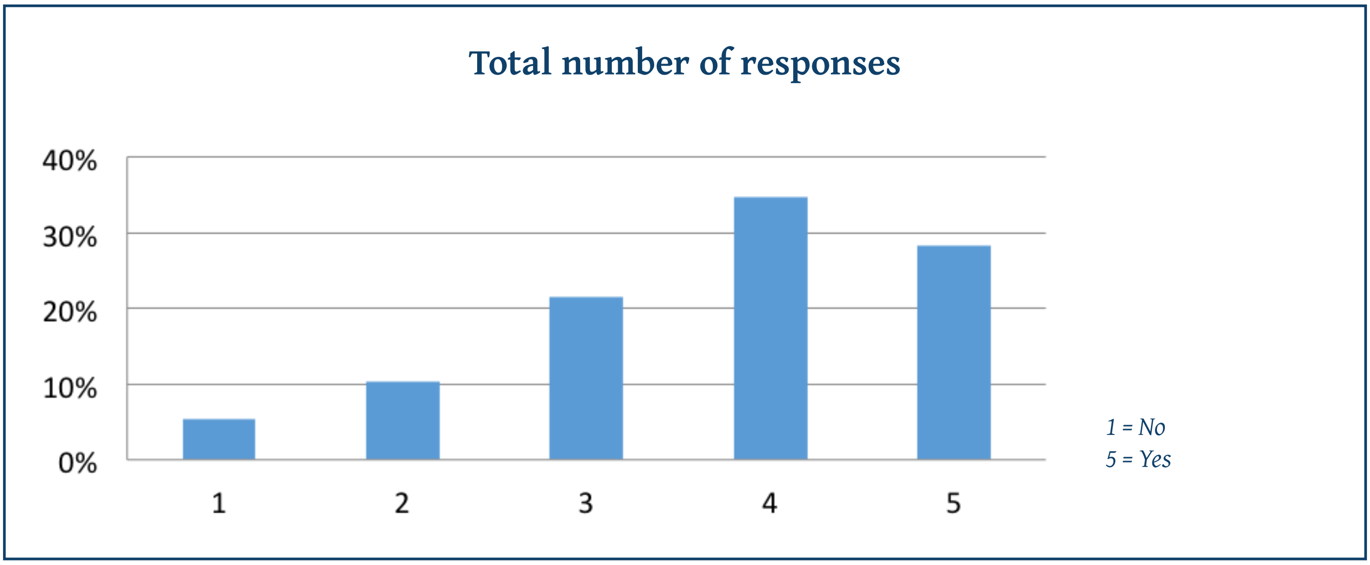
II.2.2. My accountable manager is committed to safety

The Accountable Manager provides adequate resources to facilitate safety management. Decisions are made to resolve safety issues. There is an investment of money and effort to improve safety.

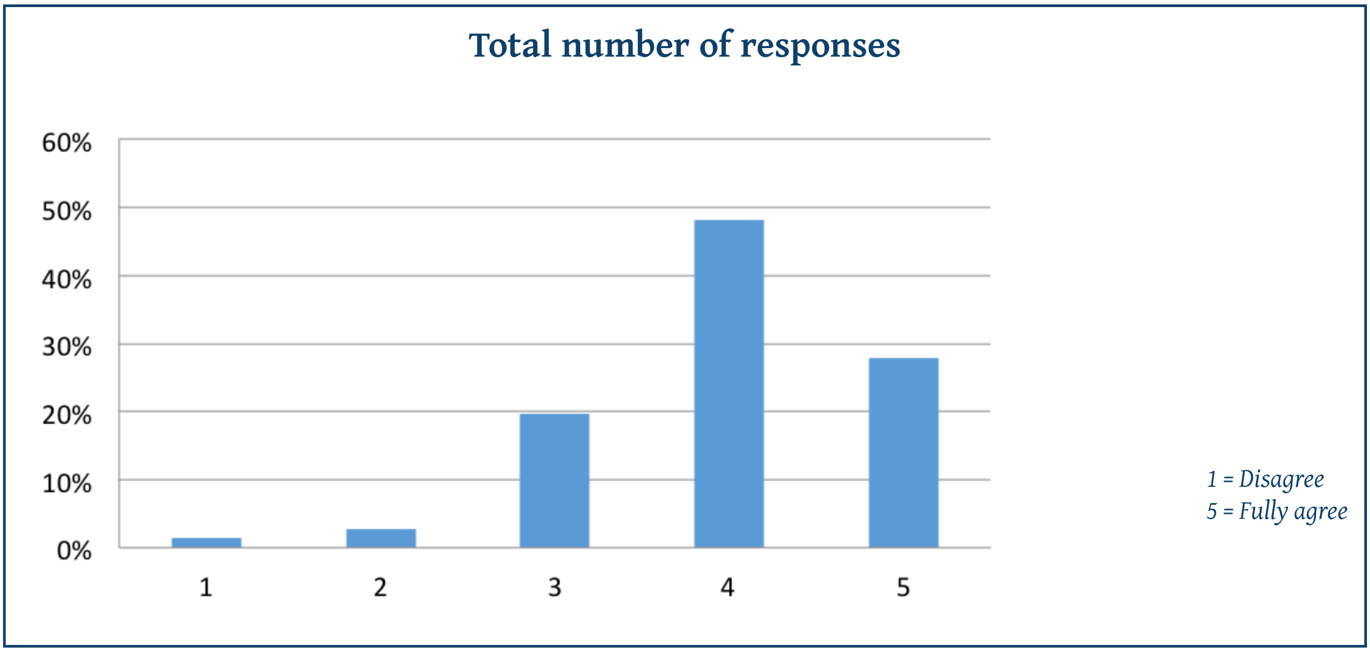


II.2.3. The safety department is committed to safety

My safety department improves safety actively and efficiently. The Safety Manager and his team motivate employees to actively participate in safety management by reporting all events and pro-actively seek improvements.

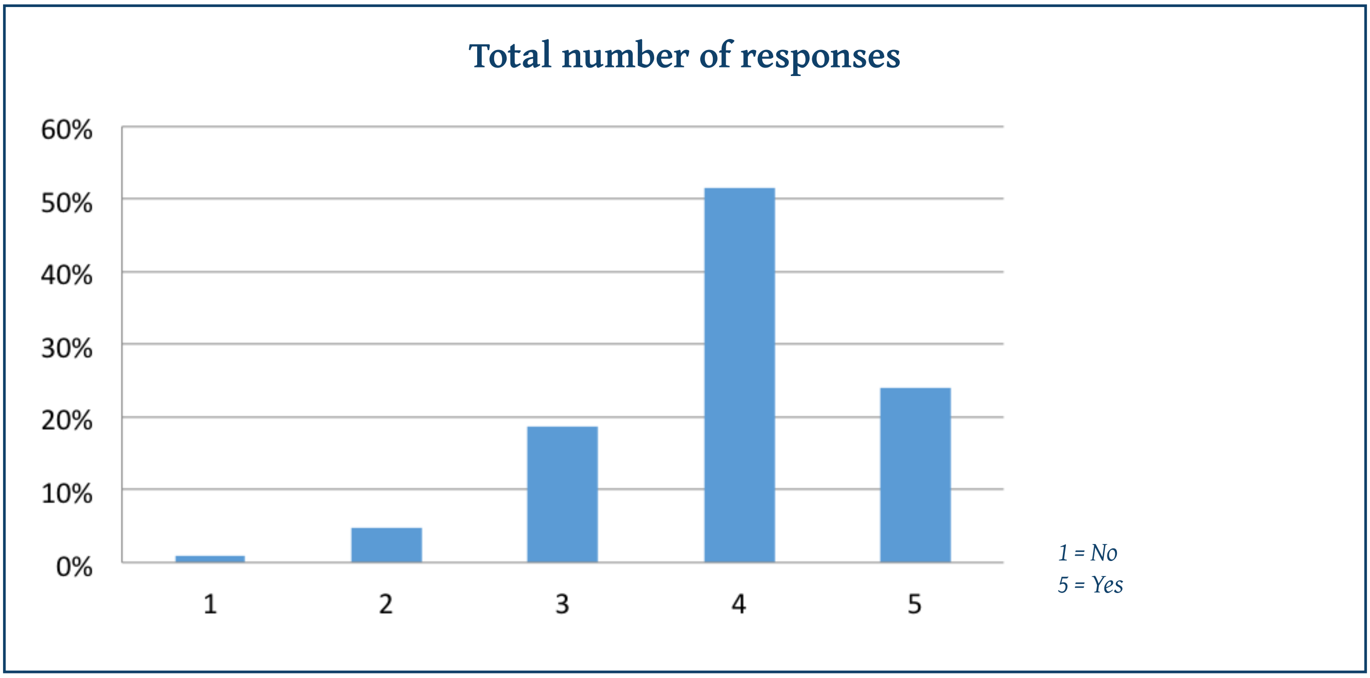


II.2.4. In my company, employees take a personal responsibility for safety

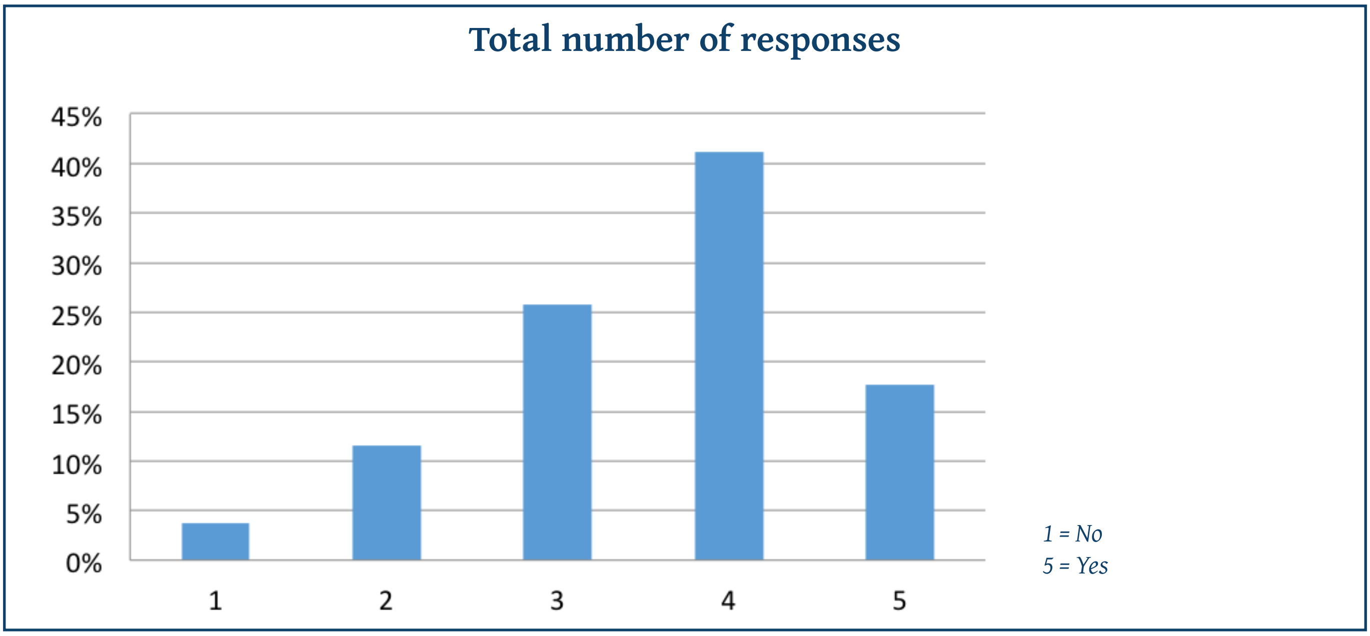


II.2.5. There is a mutual expectation among employees regarding safe behaviour

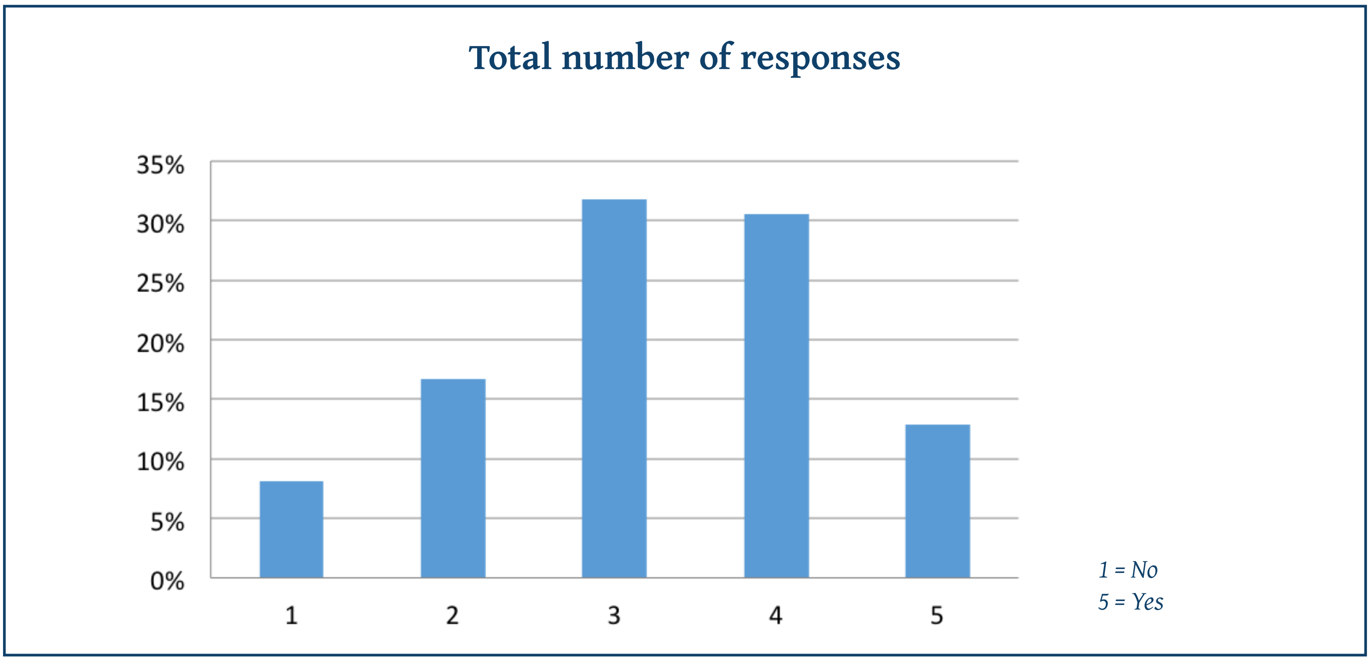
We seek our colleagues' respect by maintaining a high safety record. There is an appreciation of work done safely.



II.2.6. I am provided adequate resources (manuals, documentation, time, equipment) to accomplish my job safely



II.2.7. The safety department has enough resources (funds and decisive authority) to accomplish its safety management task

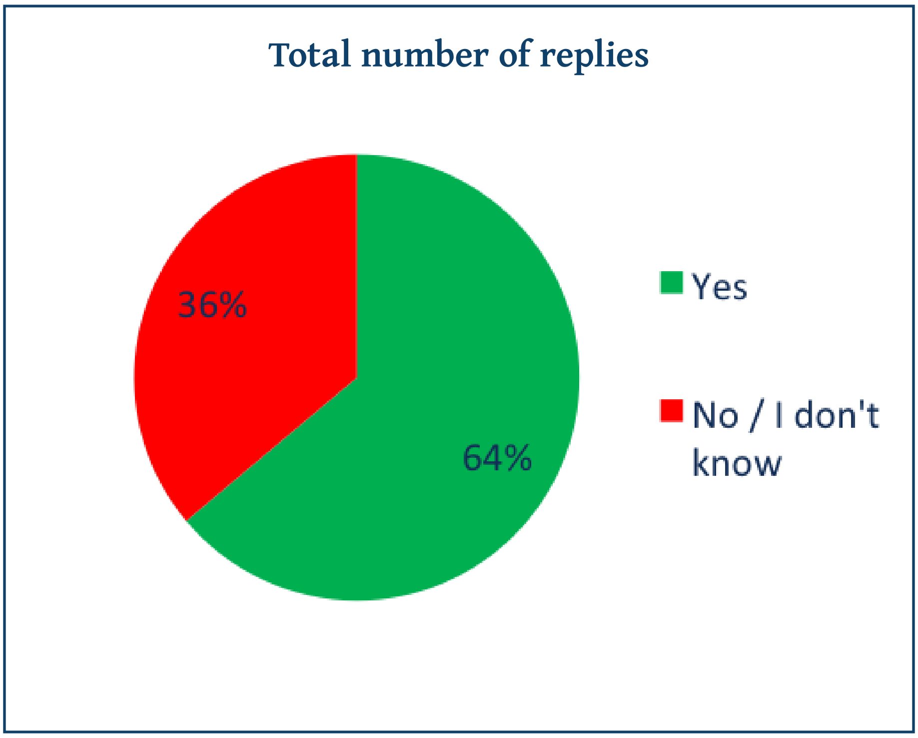


II.3. Just Culture

Just Culture is the acceptance that human error is unavoidable and that there should be uninhibited reporting in order to learn from our mistakes by identifying hazards such as latent conditions (e.g. lack of clear procedures, insufficient training, inadequate oversight...). To enable honest voluntary reporting and admittance of mistakes Just Culture will not blame anyone unless in case of gross negligence or intentional violation.

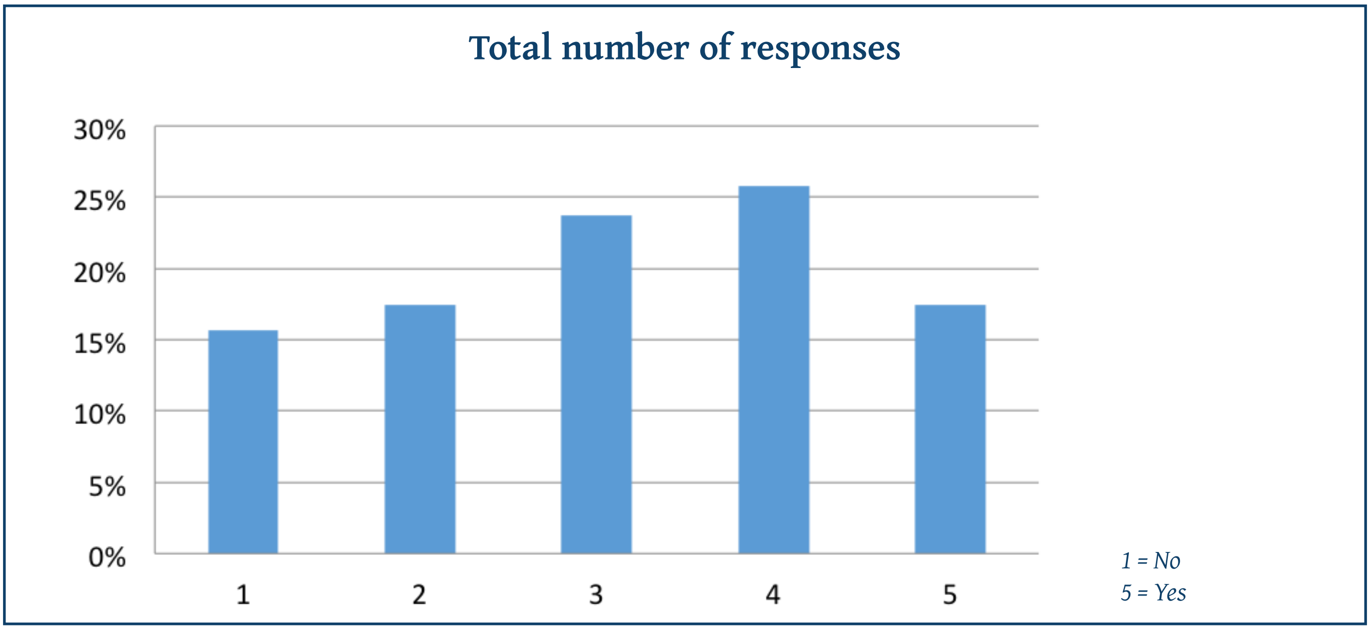
II.3.1. I know and understand my company's Safety Policy

There is a clear safety policy which is readily available in writing (e.g. poster, electronic document...) If you don't know, it's not clear.



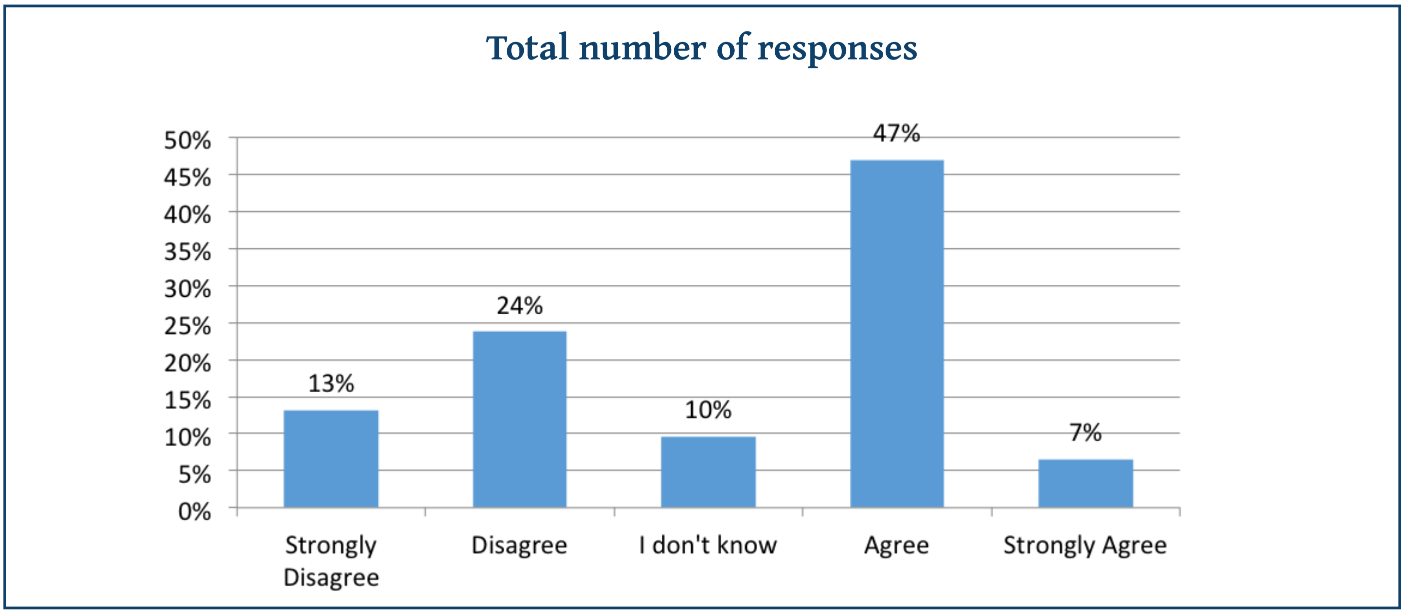
II.3.2. I understand how my company makes the distinction between a no-blame error and an intentional violation or act of gross negligence

There are clear procedures in place (e.g. flow chart, official hearing...) to follow in case of doubt. These procedures are clearly marked in OM-A or Safety Management Manual.



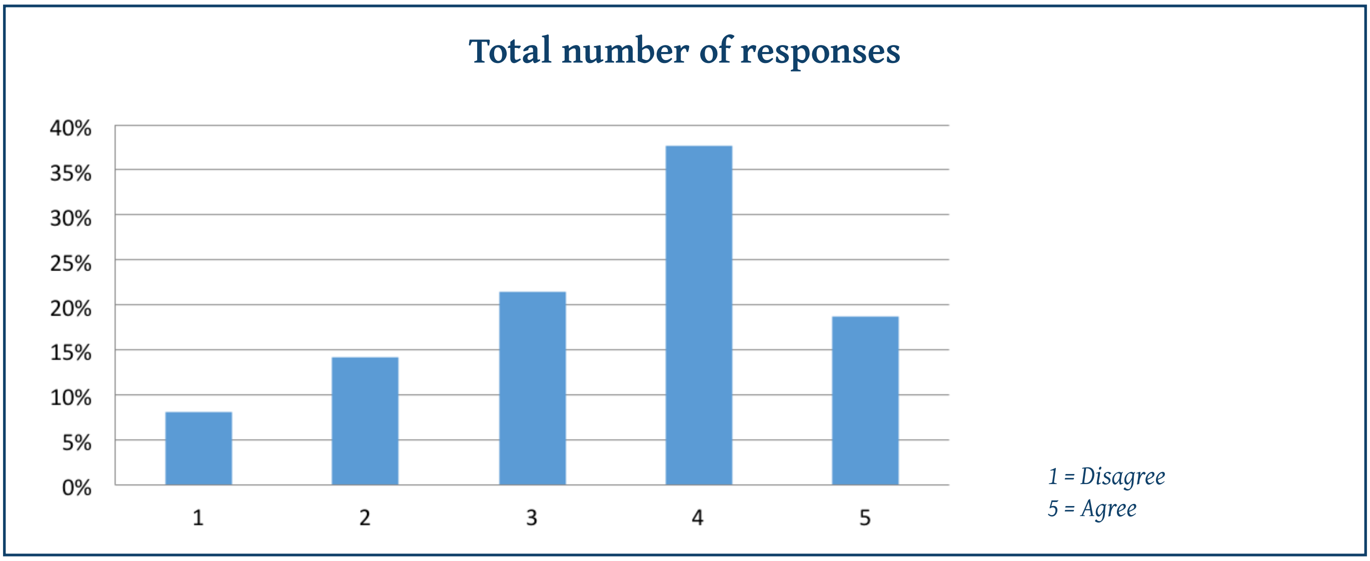
II.3.3. My company applies this Just Culture Safety Policy in real life

The company adheres to the procedures laid down in the OM-A/SMM (Safety Management Manual) when things "get tough".

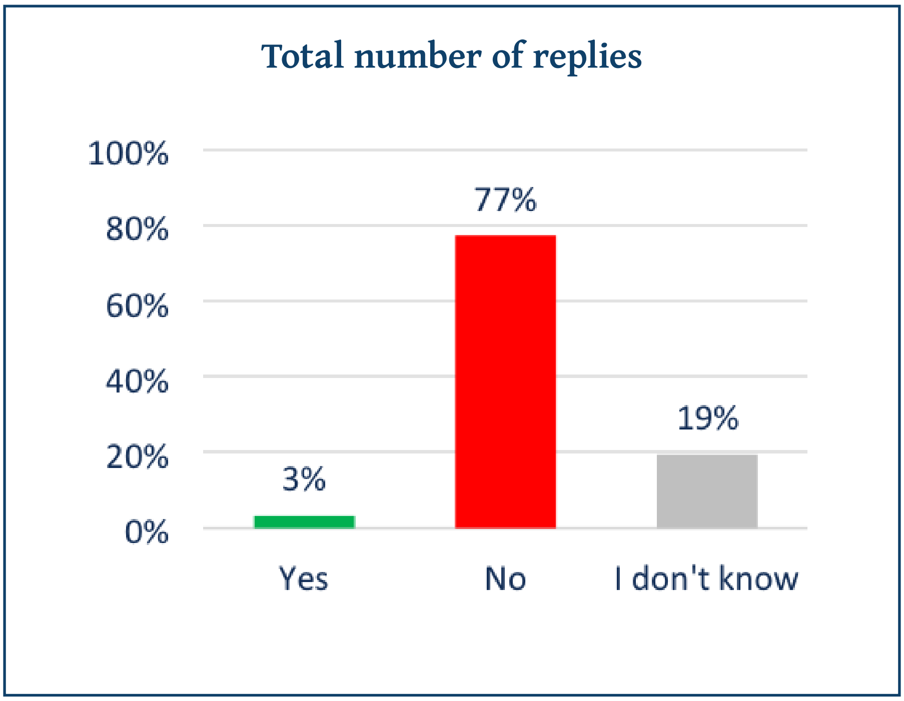


II.3.4. The FDM programme is used in a non-punitive way (according to Just Culture principles)

Flight Data Monitoring (FDM) data is never used to assign blame except in case of gross negligence or intentional violation.



II.3.5. In my company, people are rewarded for (exceptional) good safety performance

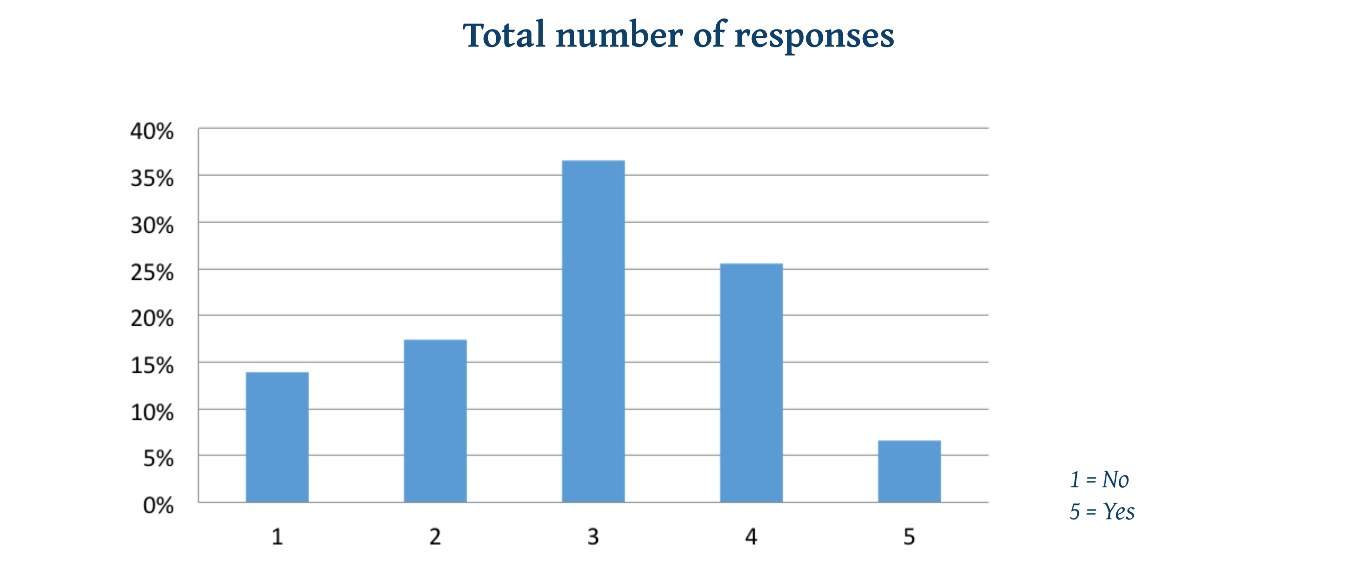


II.4. SMS

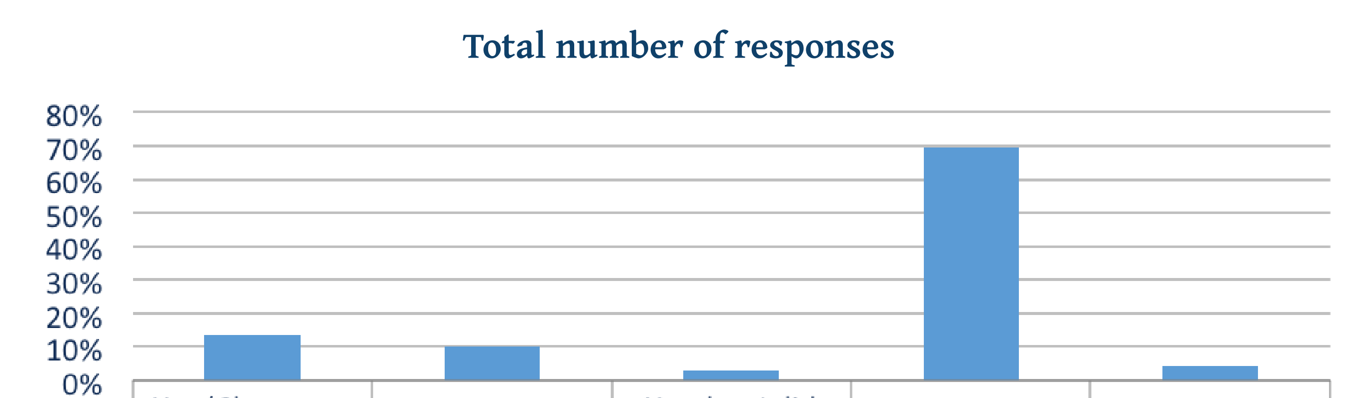
A Safety Management System (SMS) is a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures. SMS has become a requirement in EASA-OPS (effective since the end of October 2014).

II.4.1. My company has a comprehensive safety management system (SMS)

I understand the goals of our company SMS and can explain it in basic terms.

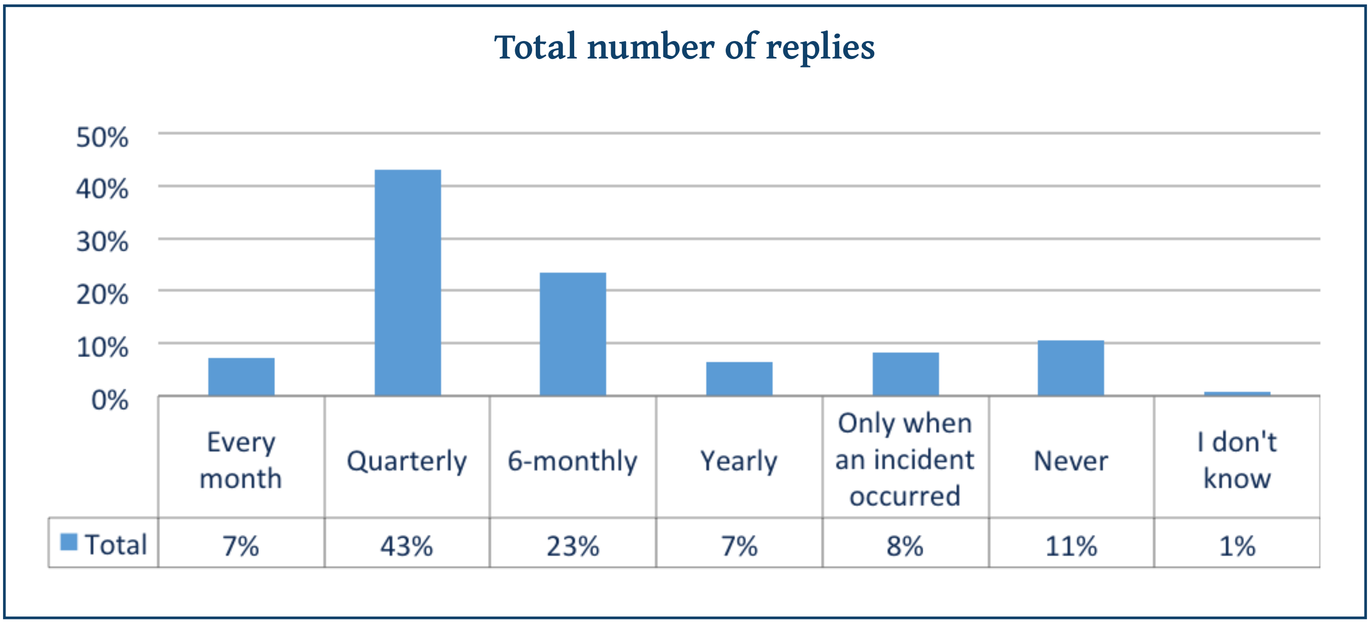


II.4.2. My company organised an SMS training

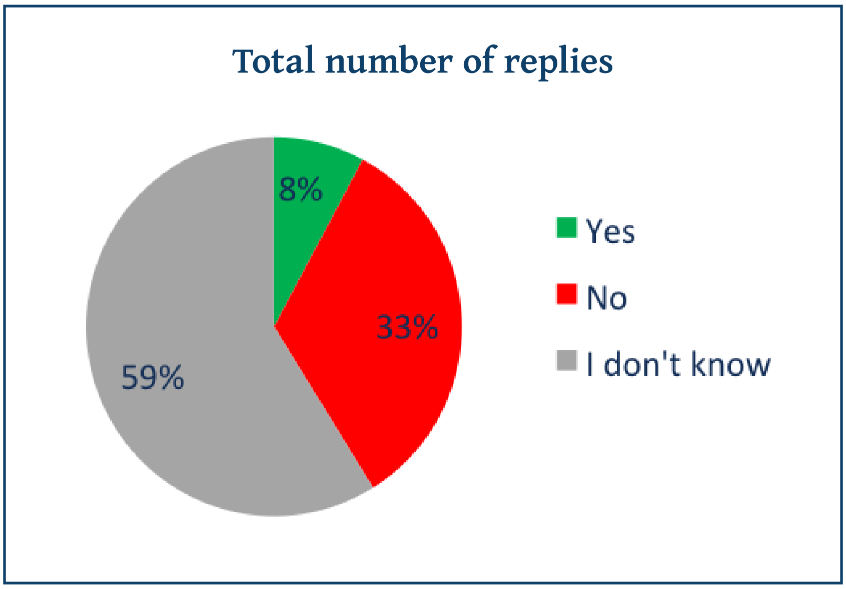


	Yes (Classroom Training)	Yes (CBT)	Yes, but I did not participate	No	I don't know
Total	13%	10%	3%	69%	4%

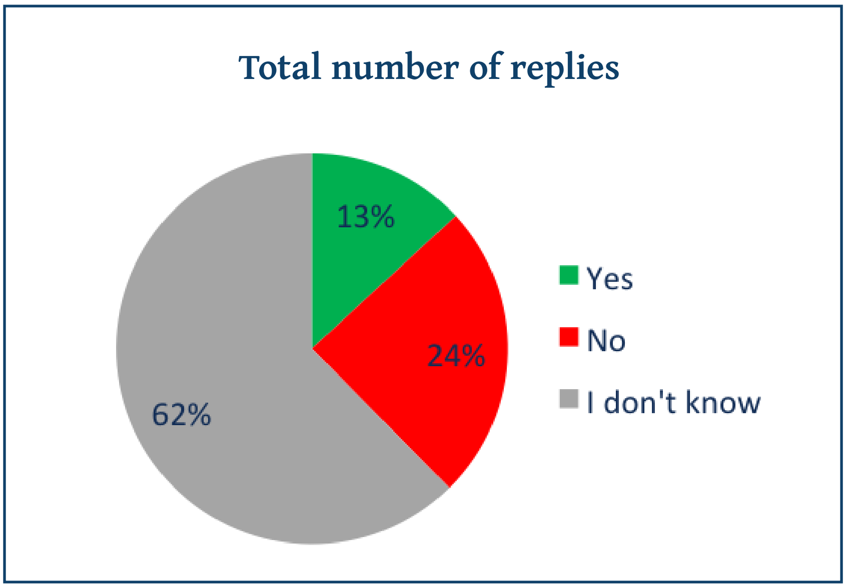
II.4.3. I receive a Safety News (Safety Digest, ASR bulletin...) covering the most important occurrences/incidents



II.4.4. My company organises one or more Safety Action Group (SAG) meetings per year

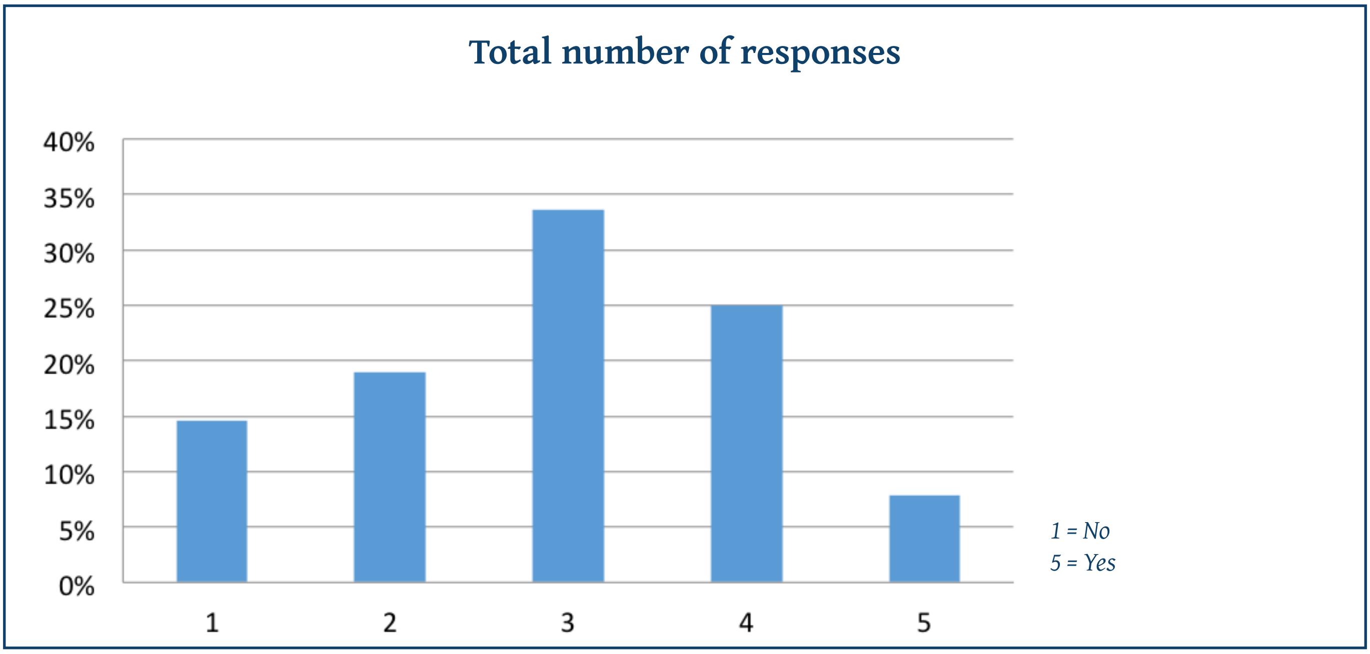


II.4.5. There is adequate pilot representation in the Safety Action Group (SAG)



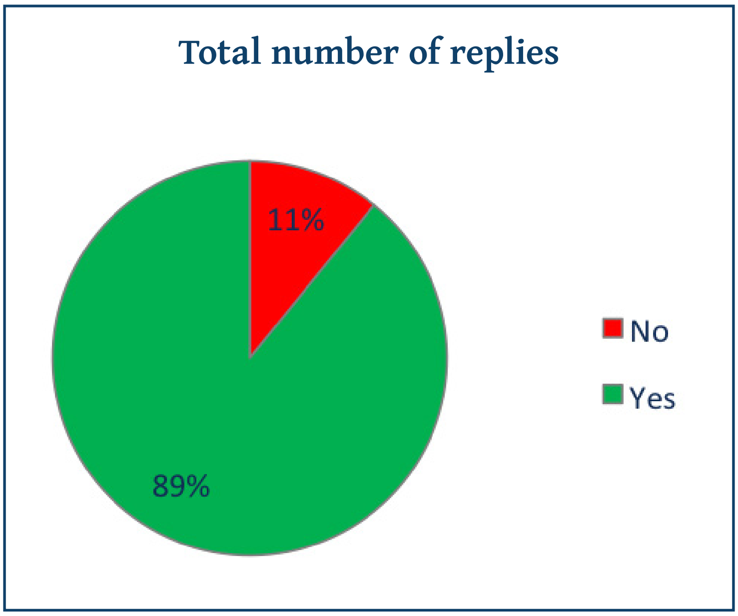
II.4.6. I feel well informed about safety issues (and mitigating measures) within my company

Safety statistics (not FDM) and incidents are published internally and/or are discussed during re-current training to find lessons learned.

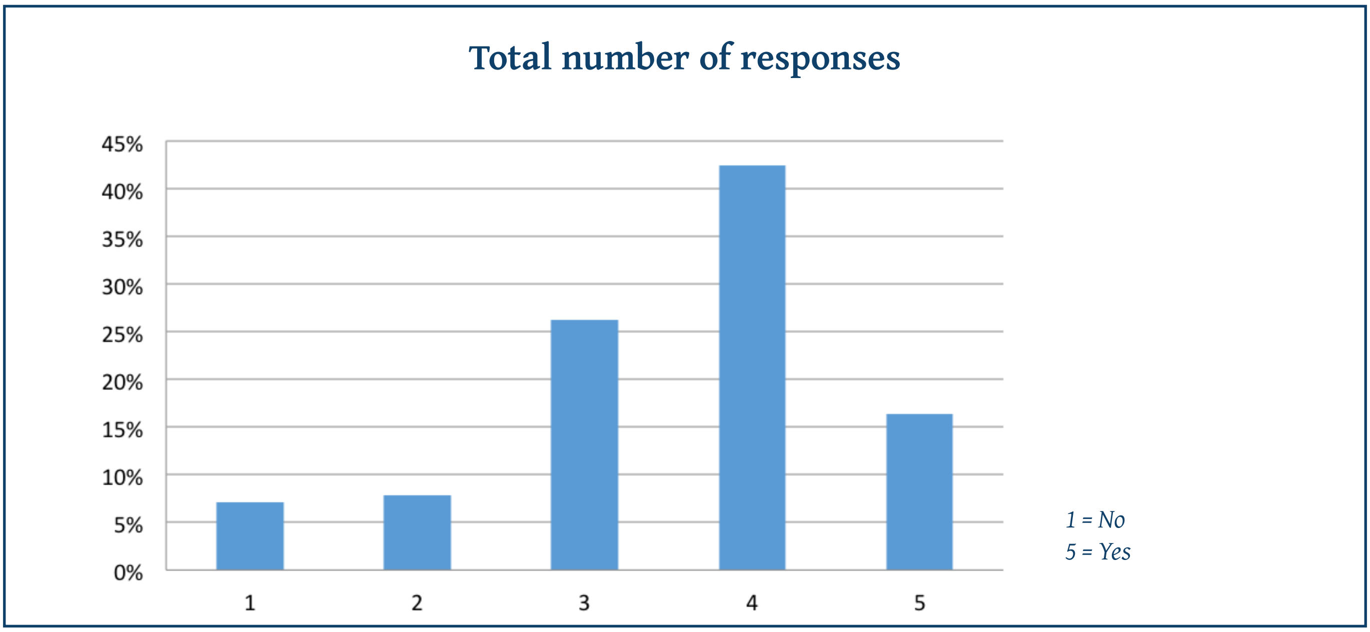


II.5. Reporting

II.5.1. I know how to report and have good access to a usable reporting method

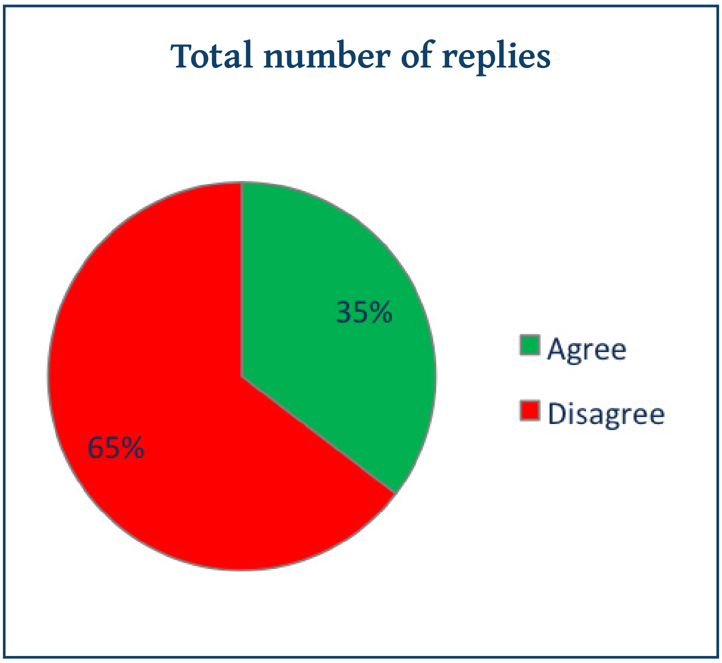


II.5.2. The forms (paper or electronic reports) to be used when reporting safety events are well designed and easy to access/use

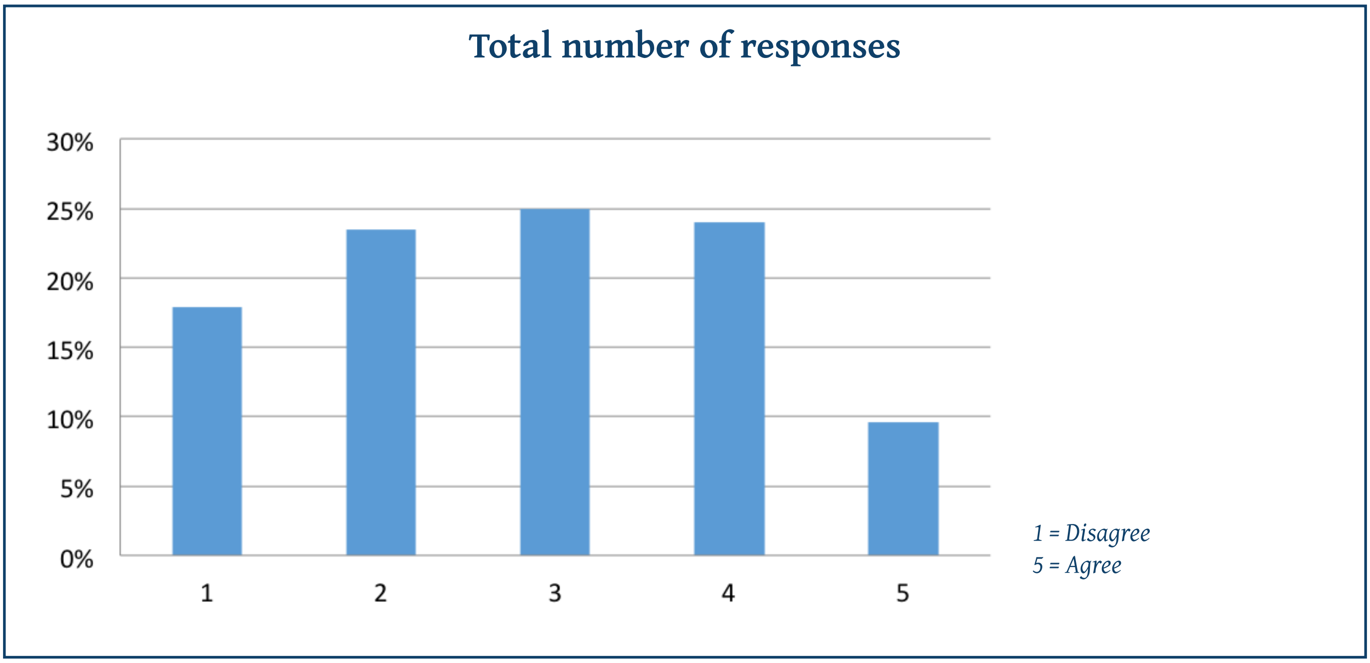


II.5.3. I do not like to report events because I feel this can have negative consequences on my career/job security

I do not like filing safety reports because there is a risk I would be blamed if I made a mistake.

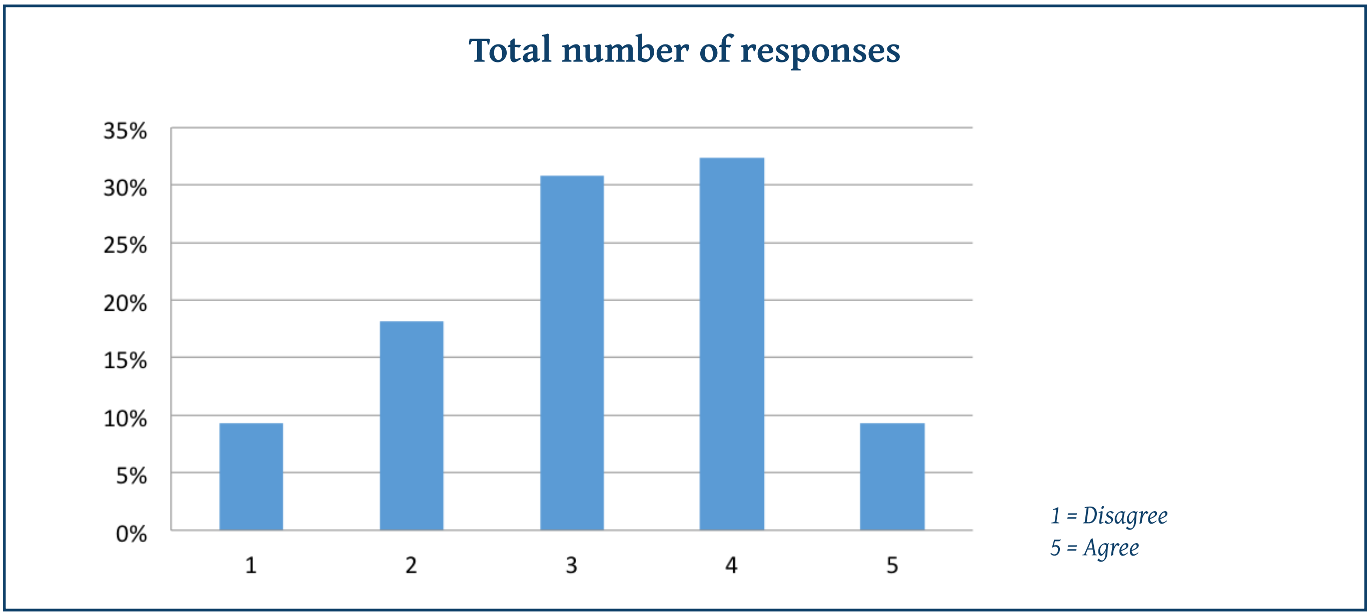


II.5.4. I do not like losing time filing safety reports because nothing will change anyway

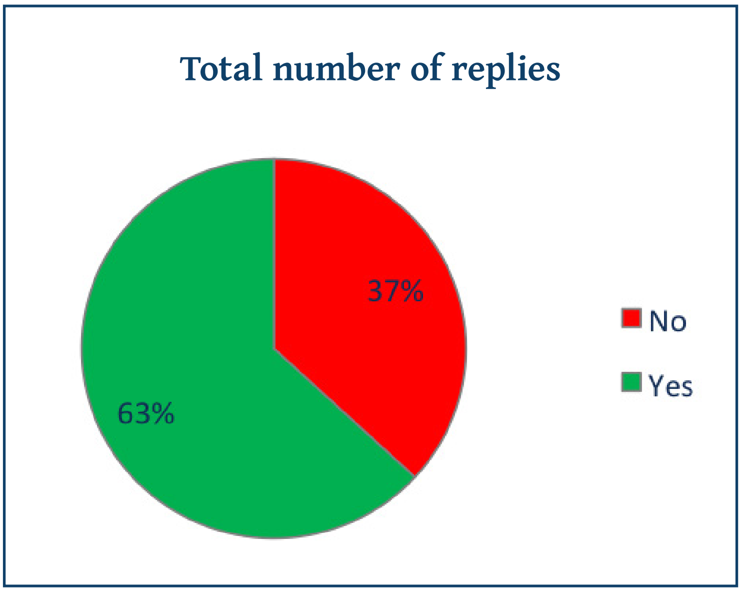


II.5.5. In my company, people are treated in a just and fair manner when reporting safety occurrences and issues

My company deals with pilot human errors in a constructive and non-punitive way.

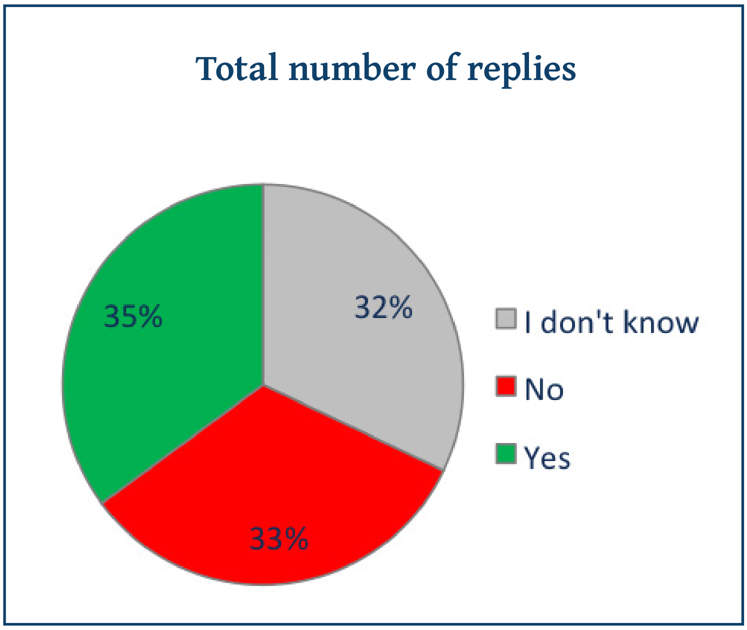


II.5.6. I have appropriate privacy and confidentiality when reporting

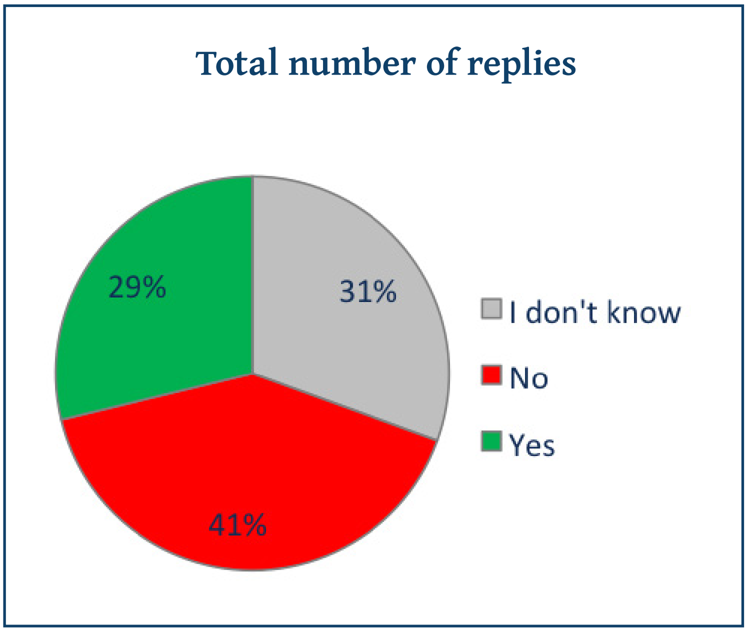


II.5.7. I can report anonymously if I want to

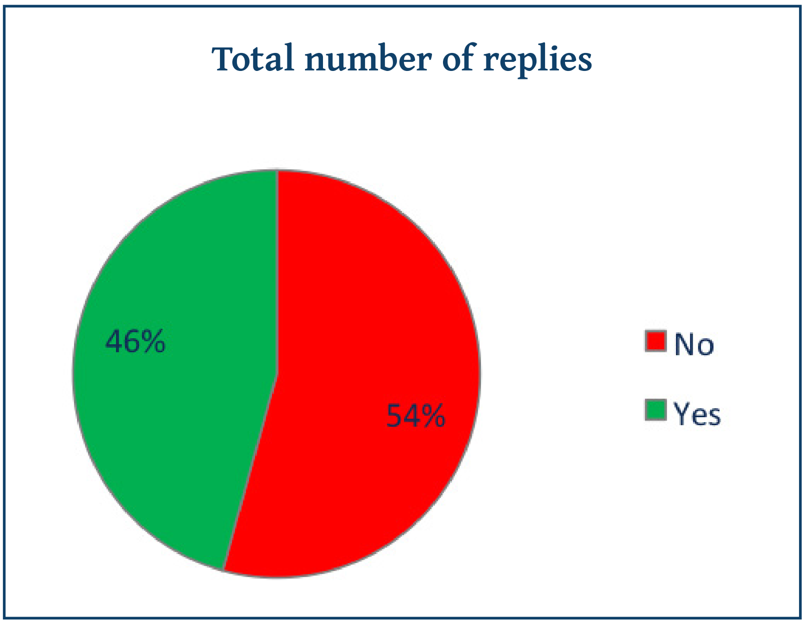
Anonymous means that there is no way of tracing the author of a report. Just like writing a piece of paper without a name. It is NOT de-identification where the name is known, but removed afterwards.



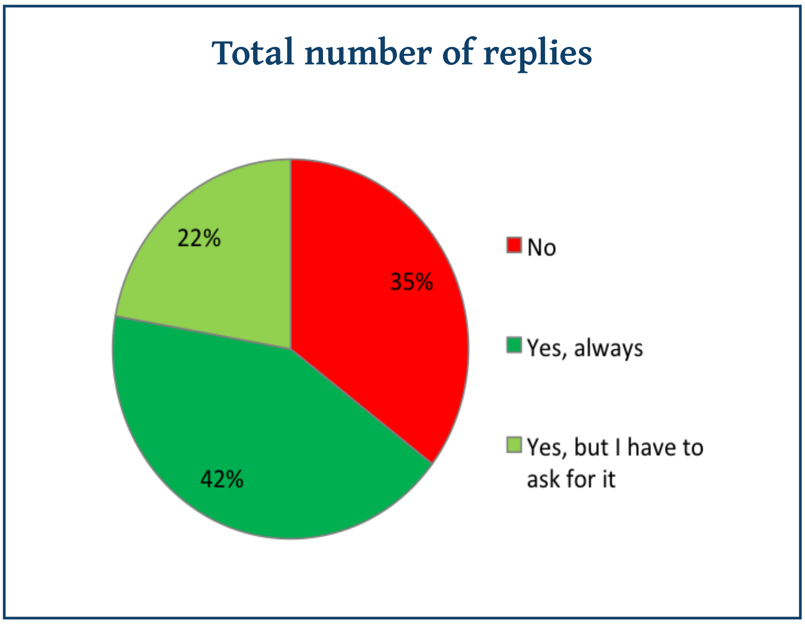
II.5.8. After reporting, I am actively involved via discussion and/or informed at key stages of the investigation



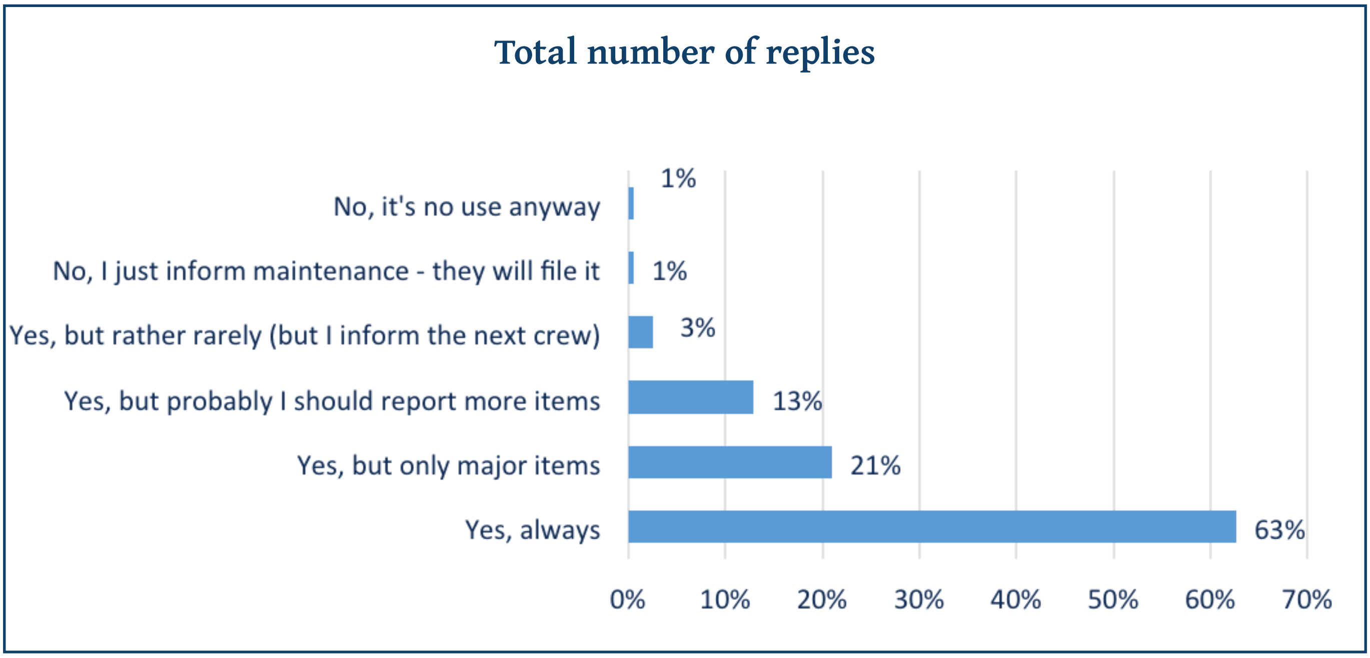
II.5.9. My company informs me when my Mandatory Occurrence Report (MOR) is forwarded to the National Aviation Authority (e.g. BCAA)



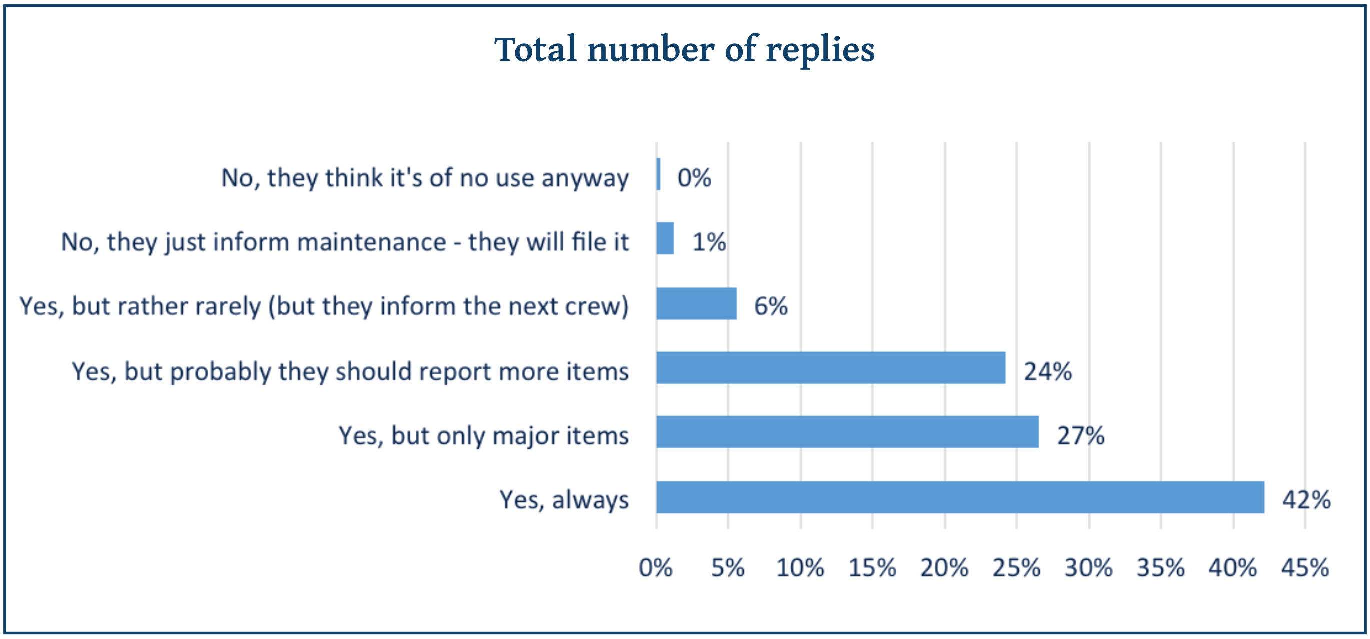
II.5.10. I always receive feedback when I file a Mandatory Occurrence Report (MOR) or a Voluntary Report (VR)



II.5.11. I always report technical problems in the airplane technical log



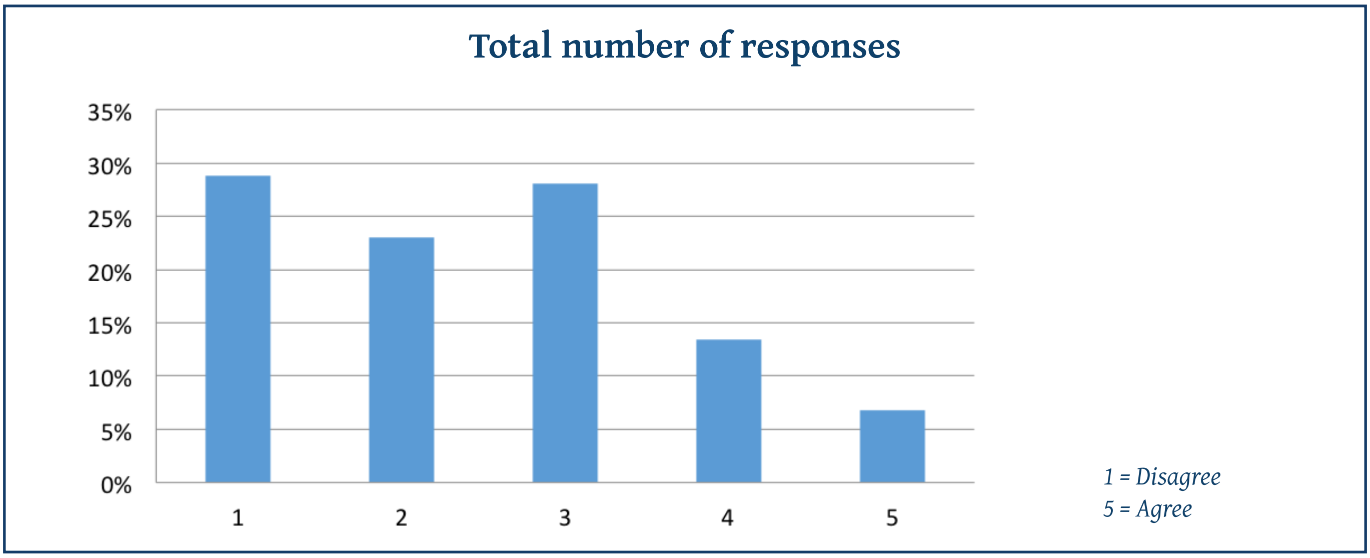
II.5.12. My colleagues always report technical problems in the airplane technical log



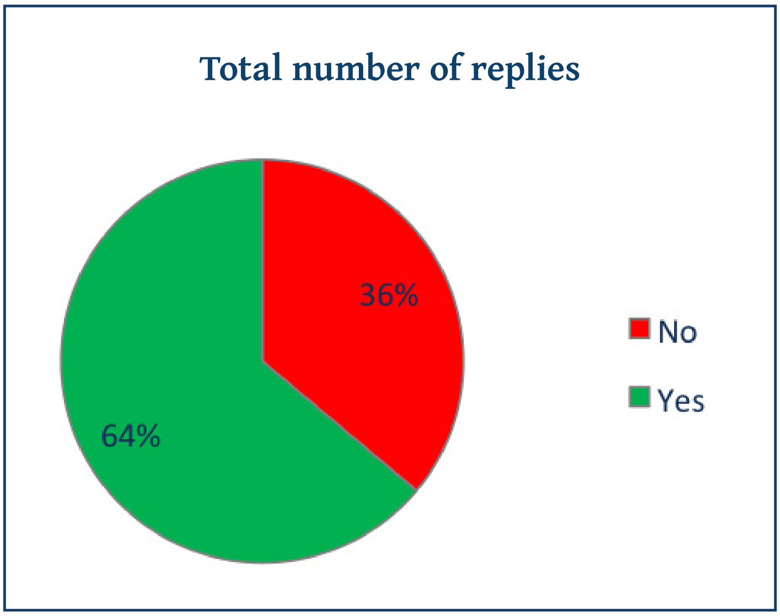
II.6. Fatigue

II.6.1. My company safety culture encourages to call in fatigued when I am fatigued

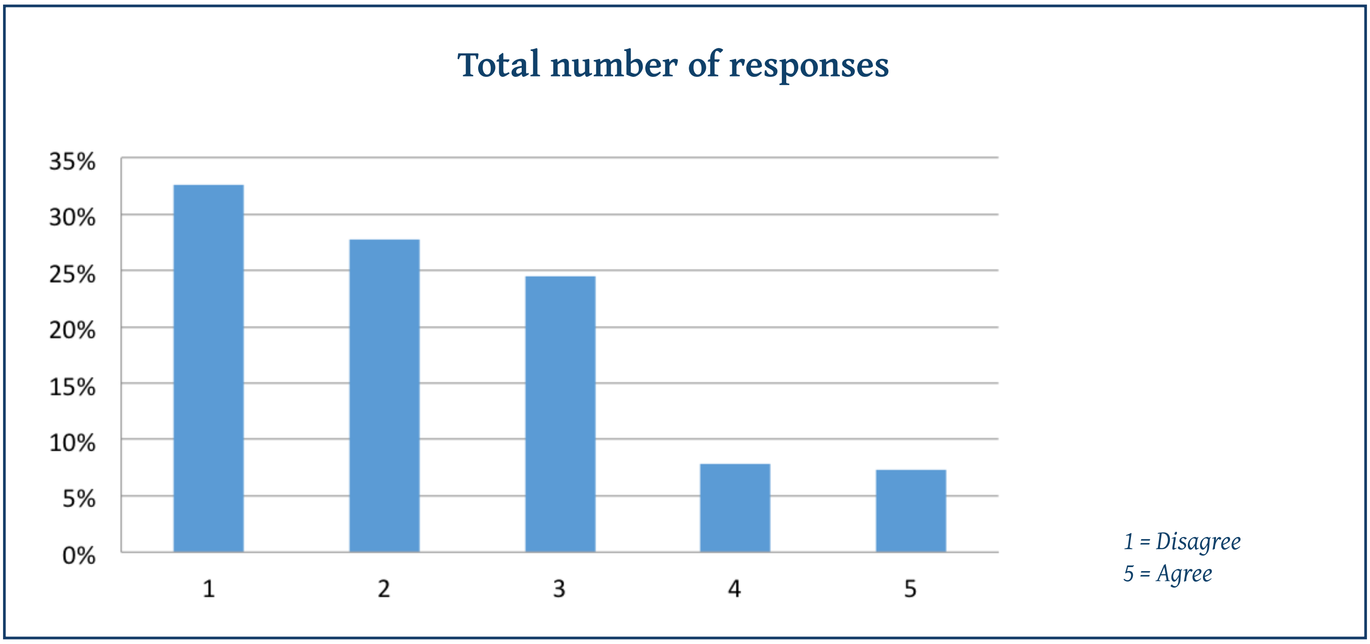
I will not hesitate to cancel a flight if I feel too fatigued at reporting time.



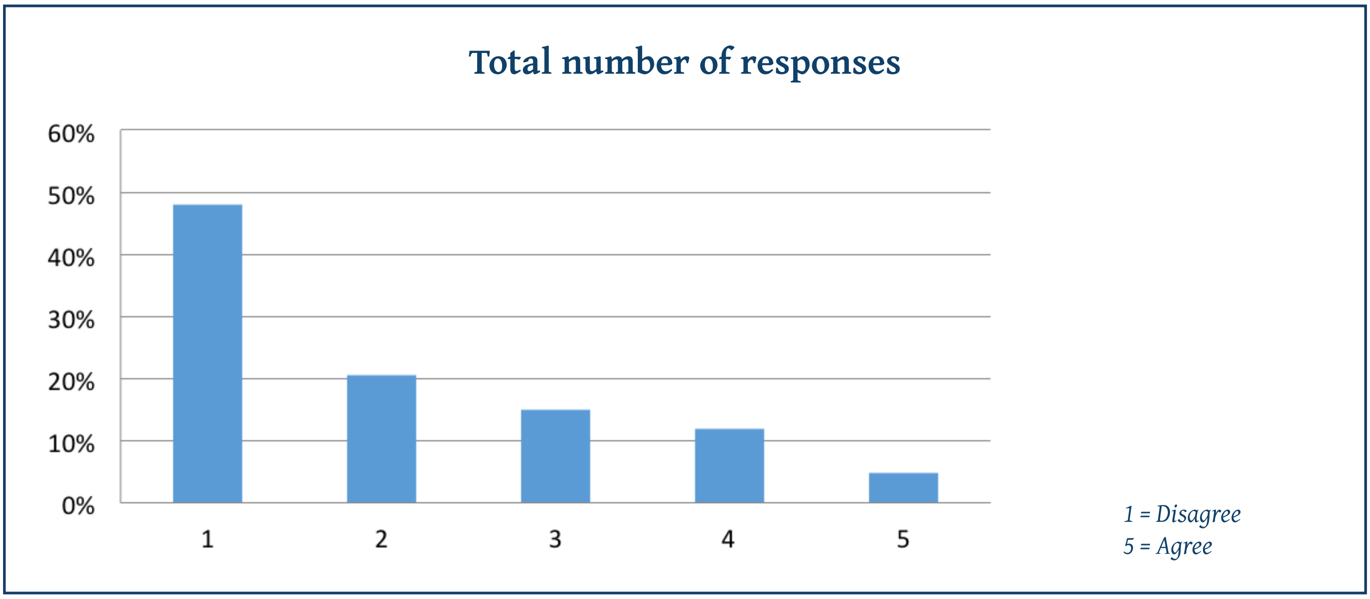
II.6.2. I would rather call sick than fatigued



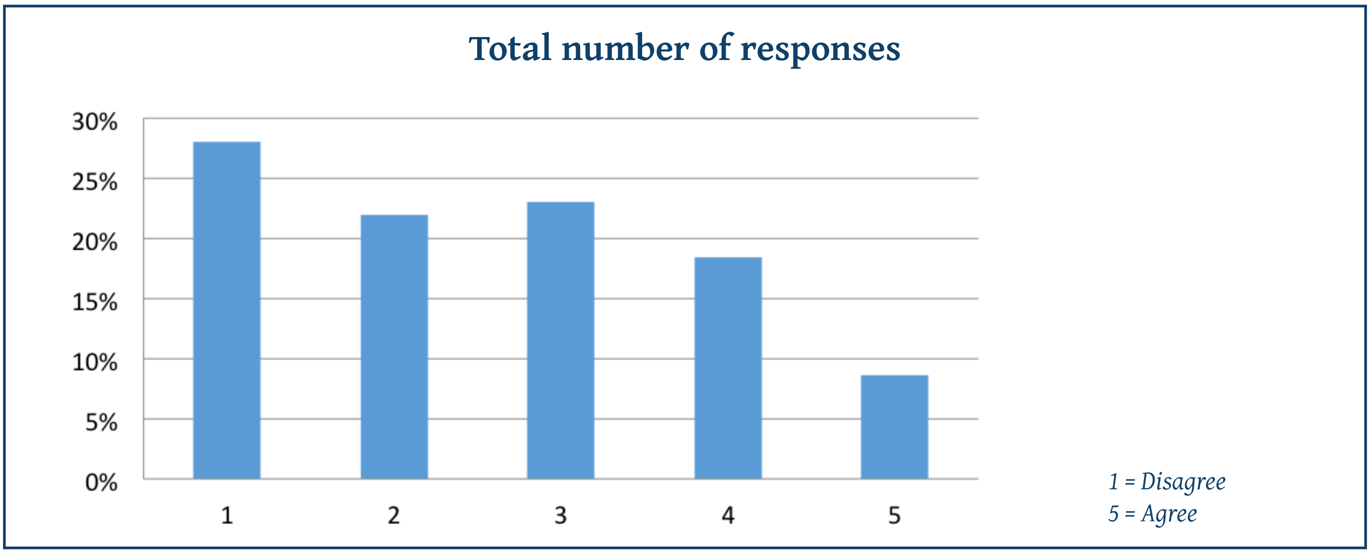
II.6.3. In the past, I always reported fatigue as I should have



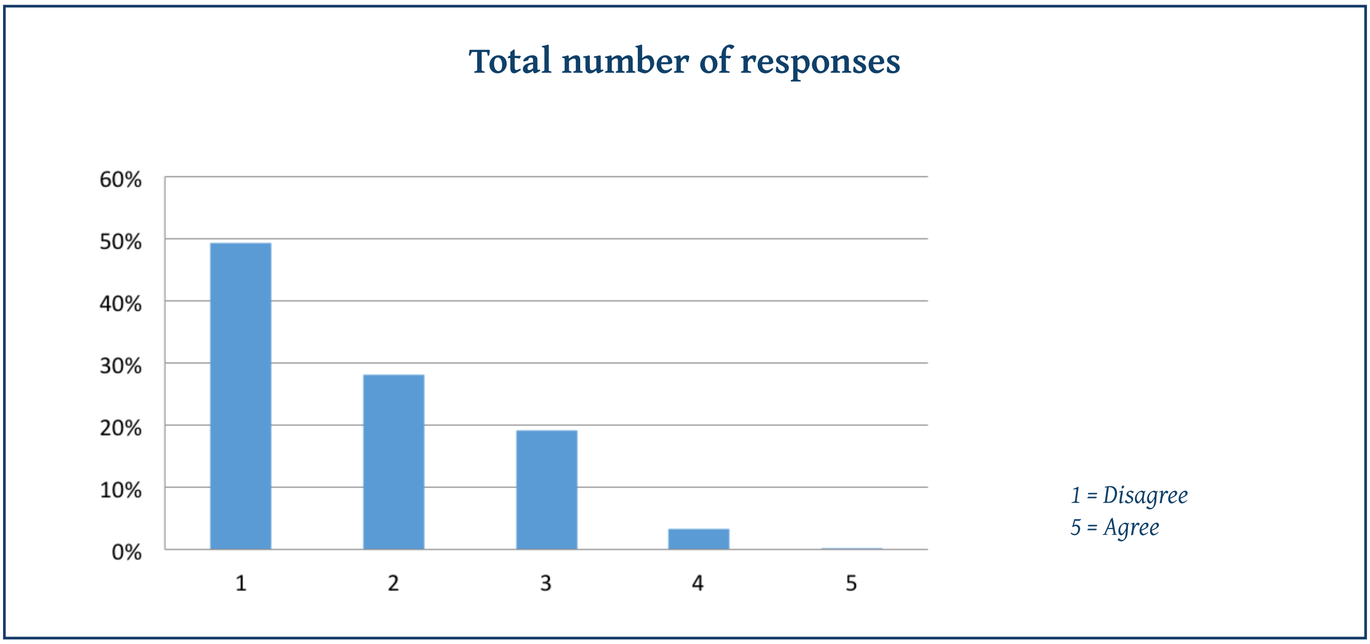
II.6.4. I believe I can work under current working conditions my whole career



II.6.5. The actual way of planning my weekly rest is enough to recuperate from duties



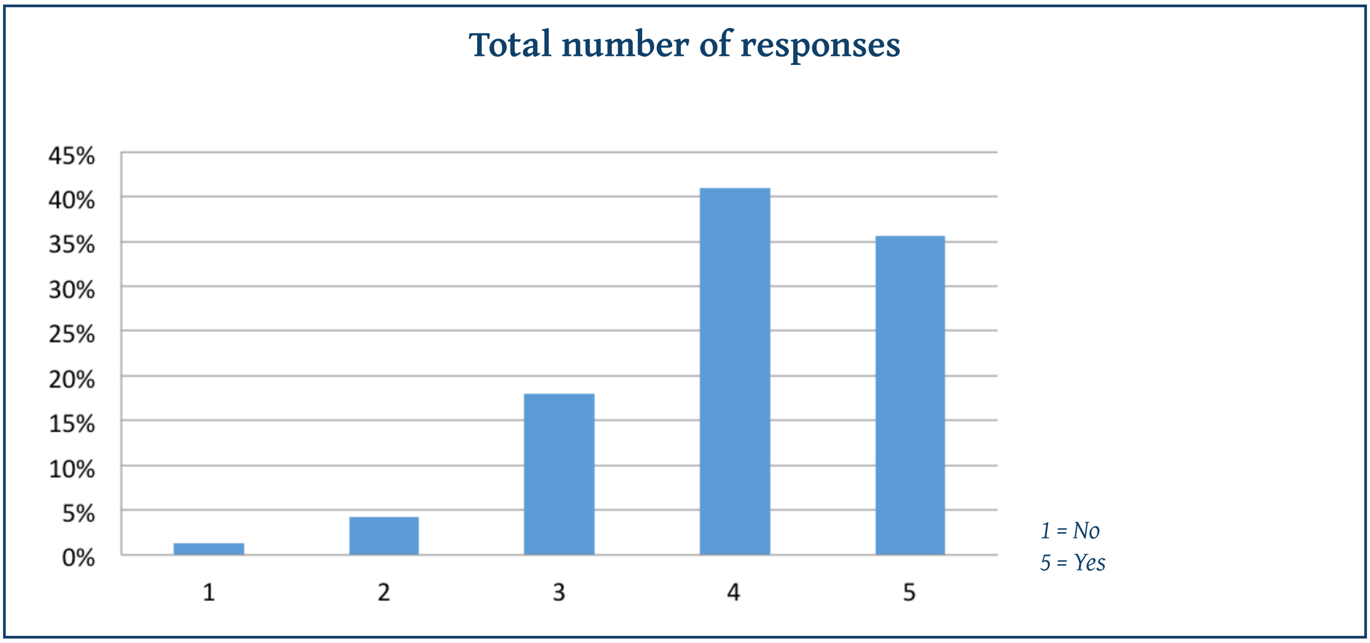
II.6.6. My colleagues never fly when they are fatigued



II.7. FDM

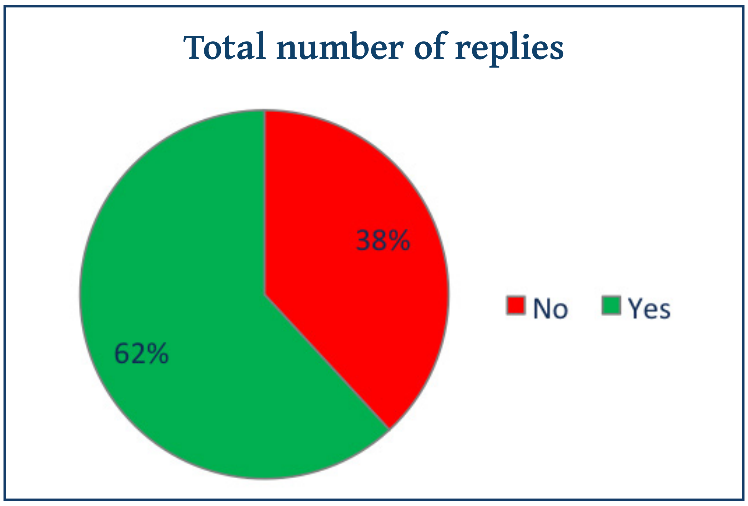
Flight Data Monitoring (FDM) is defined as a proactive and non-punitive programme for gathering and analysing data recorded during routine flights to improve aviation safety.

II.7.1. The FDM programme is a useful tool



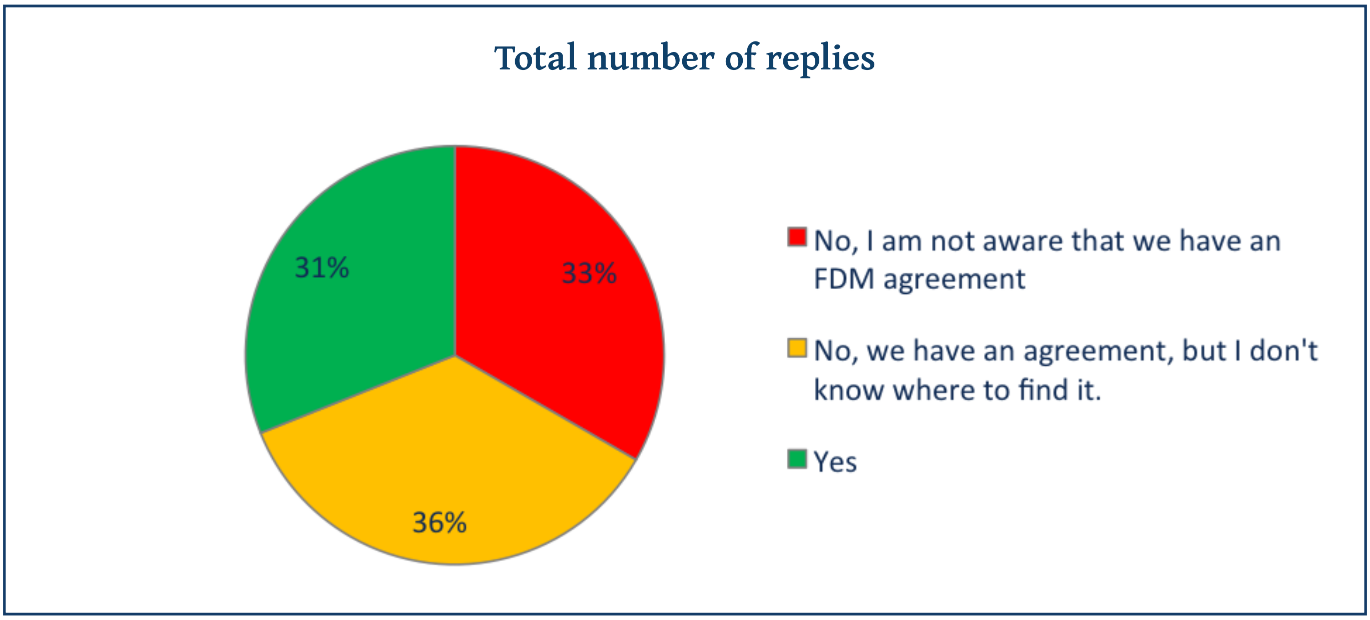
II.7.2. In my company, we have a gatekeeper (pilot representative) which is an intermediate person for crew contacts

In case of an event for which the safety department requires a crew interview, they will forward their request to a gatekeeper which - after an initial assessment - may either act as a liaison between the crew and the safety department or assist during a crew interview. This way the union/pilot representation is always aware of any high level occurrences.

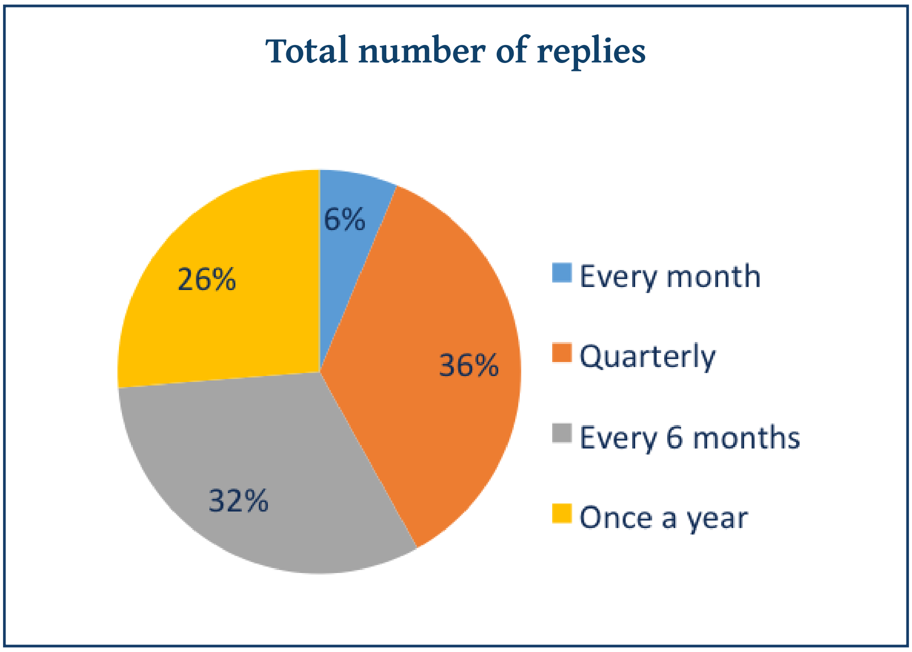


II.7.3. I know where to find the FDM agreement and understand its contents

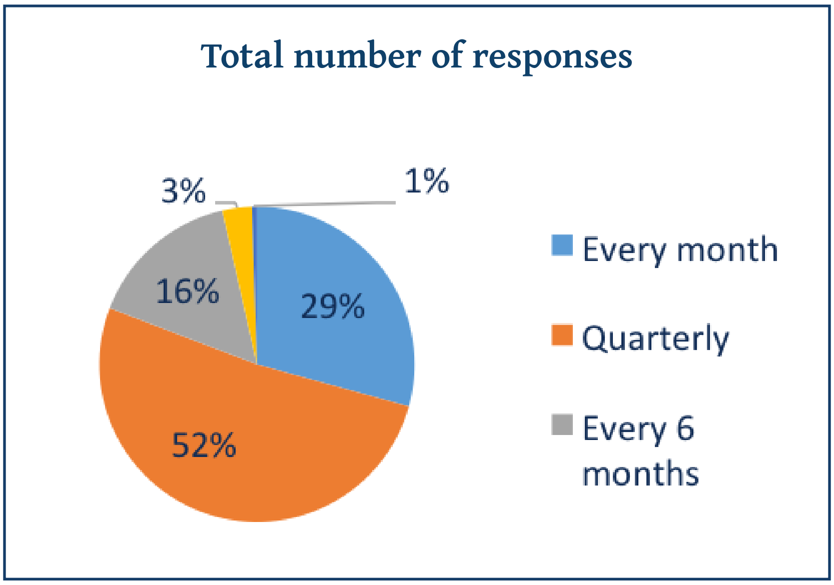
An FDM agreement is the basis of an FDM programme. It usually has the form of a non-disclosure agreement which guarantees data confidentiality and lays down the procedures to be followed in case data need to be de-identified.



II.7.4. I receive regular updates on the FDM programme statistics

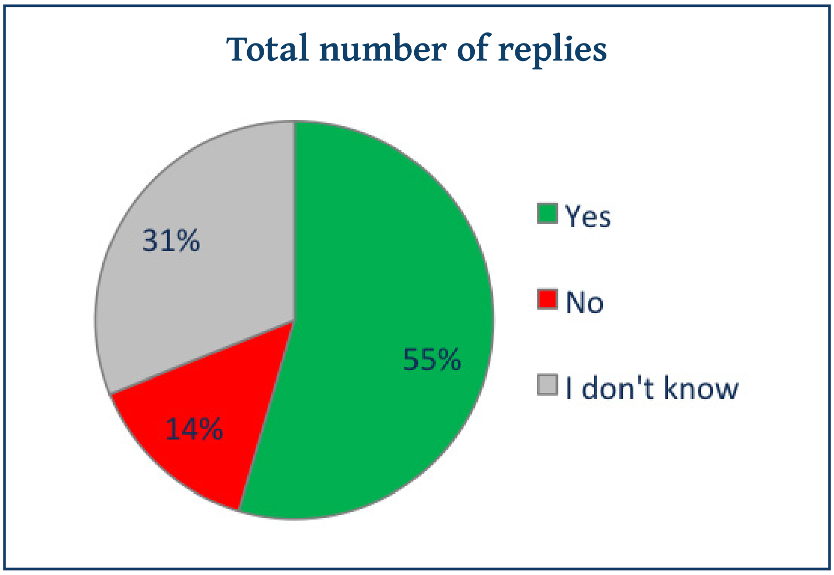


II.7.5. In my opinion, we should have an FDM newsletter

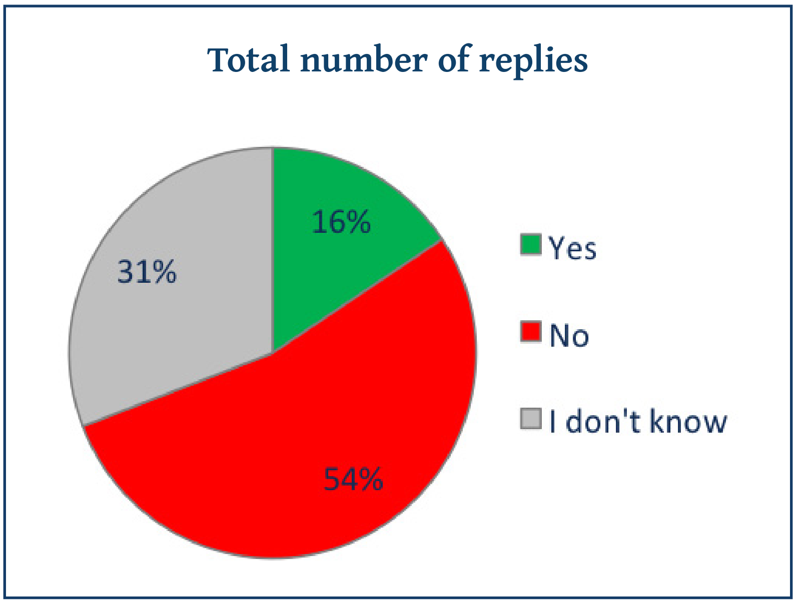


II.7.6. My company uses FDM trends for training purposes

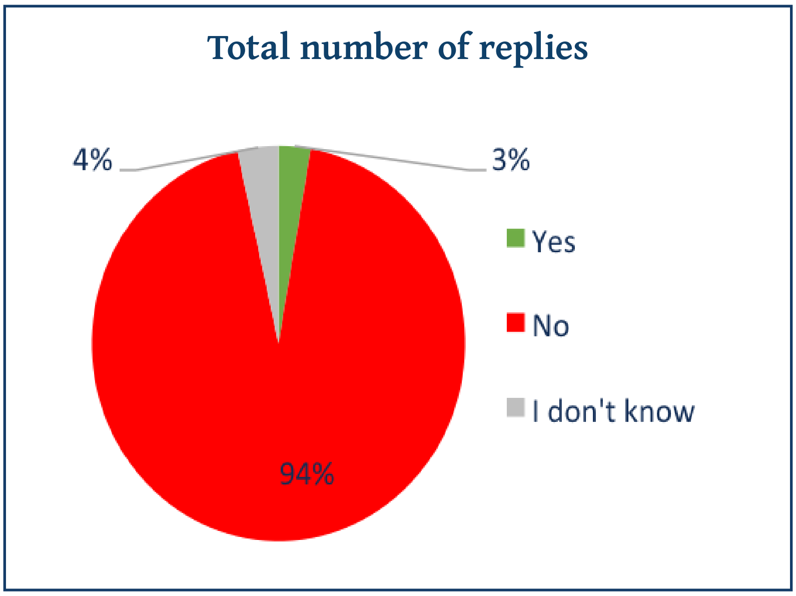
e.g. real life scenarios are used during recurrent/LPC/OPC simulator training; attention to high pitch rate during take-off...



II.7.7. My company provides "individualised FDM" i.e. I can check which FDM events I have triggered over a certain period (e.g. last year/ quarter/month...)



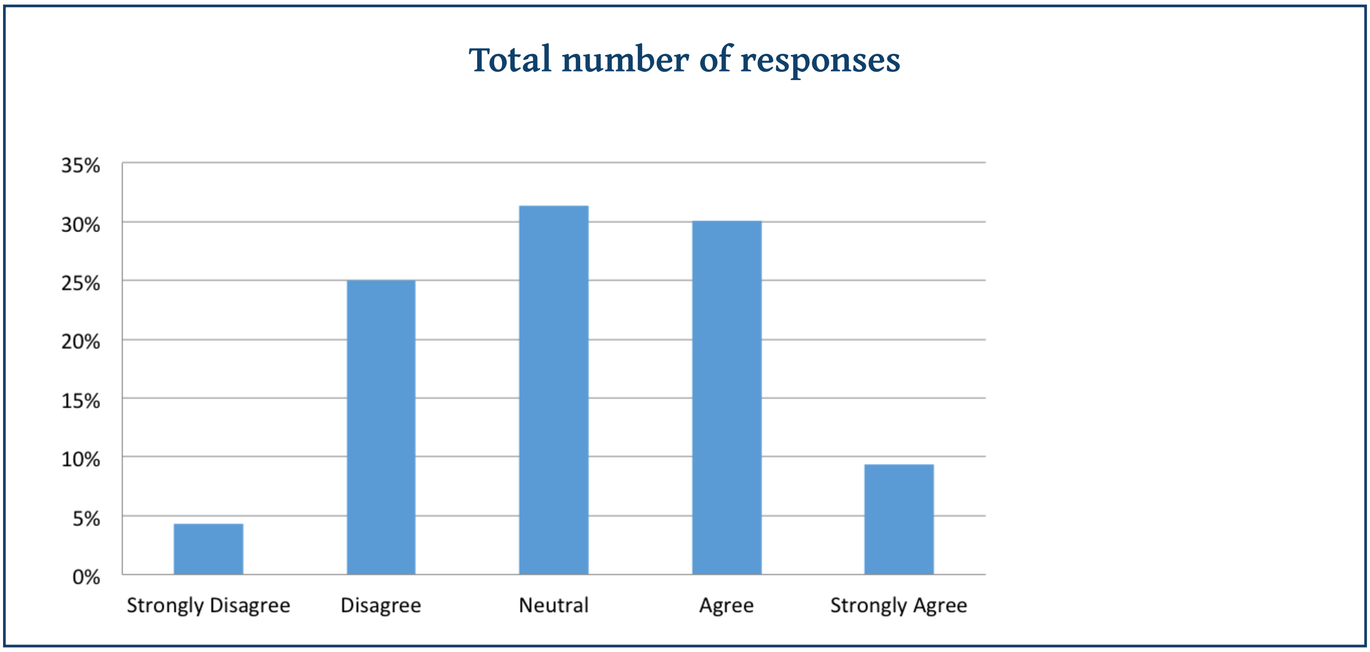
II.7.8. After a simulator training, we analyse our performance using an FDM-like software. (replay analysis)



II.8. Risk Study

These questions are part of an academic research conducted by Mr. Cengiz Turkoglu (Senior Lecturer in Air Transport Engineering at City University, London). He asks you to be 'brutally honest'. The results of this study will become available on the BeCA website.

II.8.1. Today, operational targets (such as 'on-time performance', 'availability', 'technical dispatch reliability'), drive engineers and their managers to take SIGNIFICANT safety risks. (optional question)



II.8.2. In your opinion, which of the following factors - you think - may drive risk taking behaviour? (optional question)

Organisational factors such as safety culture, commercial pressure, management commitment National level factors such as policies, growth in the industry, lack of infrastructure	80,5%
Individual traits such as 'can-do attitude' or 'thrill seeking'	41,2%
Legal factors such as litigation, unrealistic expectations that passenger rights legislation raises Media's attitude i.e. victimisation of individuals who make mistakes	19,3%
Other	5,7%

II.9. Additional Comments

Two optional questions concluded this survey:

- The most hazardous safety issue in my company is... (optional)
- I have some additional comments or suggestions... (optional question)

Four basic topics can be identified: fatigue, management relationship, human resources, training issues and Just (Safety) Culture.

III. Conclusions

III.1. Population

Of the 416 replies, 398 were from Belgium-based operators and retained for this study. Both captains and First Officers (55%-45%) participated and there is an asymmetrical distribution with regards to experience (38% less than 10 years of experience, 24% more than 20 years). 6% of the respondents chose not to disclose the name of their employer. About 1/5th of the pilots have additional duties (TRI/TRE, TKI or other additional office duties).

III.2. Safety Commitment

The overall average remains around 3.5. Furthermore all respondents are convinced that their colleagues take a personal responsibility for safety and that the company provides adequate resources (manuals, documentation, time and equipment) in order to accomplish their job safely.

On the question if people think that the safety department has enough resources (funds and decisive authority) to accomplish its safety management task, replies are scattered and range from 2.7 to 3.8.

III.3. Just Culture

36% of all respondents admit that they do not know/understand their company safety policy.

How a company makes the distinction between a no-blame-error and an intentional violation is in some companies perceived as being very unclear (2.4). Overall, there is almost no rewarding for good safety performance.

III.4. SMS

Most respondents are not convinced that their company have a comprehensive safety management system (average score 2.9).

Most pilots seem to receive quarterly safety information. However flight crew doesn't feel well informed (2.9 average).

62% of the participants say they don't know whether there is adequate pilot representation in their SAG, which is not surprising given that the majority (59%) doesn't even know if they have a Safety Action Group (SAG).

III.5. Reporting

Nearly all respondents (89%) agree that they have good access to a usable reporting method.

Over 1/3 of the pilots said they do not like to report events because they feel this can have negative consequences on my career/job security.

37% says they do not have "I have appropriate privacy and confidentiality when reporting.

III.6. Fatigue

Nearly two thirds of the pilots would call sick rather than fatigued. The more experienced, the more pilots feel they've reported fatigue as they should have. Respondents disagree with the statement that they always reported fatigue as they should have (in the past). All respondents strongly disagree with the statement that their colleagues never fly when fatigued.

III.7. FDM

Nearly all pilots agree that the FDM programme is a useful tool. This study cannot determine if a gatekeeper is used, the FDM agreement/policy, OM-A or SMM reference should be consulted. More than 60% of the participants does not know where to find, nor understand the FDM agreement in their company. FDM programme statistics are perceived to be sent quarterly, every 6 months or once a year, but this should be checked against factual publication dates. The majority of the pilots would like to receive an FDM newsletter quarterly (52%) or monthly (29%). More than half of the respondents say that their company uses FDM data for training purposes.

III.8. Risk Study

Over 80% of the replies received on this optional question agree that organisational factors such as safety culture, commercial pressure, management commitment and national level factors such as policies, growth in the industry and lack of infrastructure may drive risk taking behaviour.

The quantitative study is still ongoing.

III.9. Additional comments

All of the optional comments confirm the statistics. Four basic topics can be identified: fatigue, management relationship, human resources, training issues and Just (Safety) Culture.

IV. Annexes

IV.1. Annex 1: Likert Scale

	Grand total
My company is genuinely concerned about safety.	3,6
My accountable manager is committed to safety.	3,3
The safety department is committed to safety.	3,7
In my company, employees take a personal responsibility for safety.	4,0
There is a mutual expectation among employees regarding safe behavior.	3,9
I am provided adequate resources (manuals, documentation, time, equipment) to accomplish my job safely.	3,6
I understand how my company makes the distinction between a no-blame error and an intentional violation or act of gross negligence.	3,1
The FDM programme is used in a non-punitive way (according to Just Culture principles).	3,4
My company has a comprehensive safety management system (SMS).	2,9
I feel well informed about safety issues (and mitigating measures) within my company.	2,9
The FDM programme is a useful tool.	4,0
In my company, people are treated in a just and fair manner when reporting safety occurrences and issues?	3,1
The forms (paper or electronic reports) to be used when reporting safety events are well designed and easy to access/use.	3,5
I do not like losing time filing safety reports because nothing will change anyway.	2,9
The safety department has enough resources (funds and decisive authority) to accomplish its safety management task.	3,2
My company safety culture encourages to call in fatigued when I am fatigued.	2,4
My colleagues never fly when they are fatigued.	1,8
In the past, I always reported fatigue as I should have?	2,3
I believe I can work under current working conditions my whole career.	2,1
The actual way of planning my weekly rest is enough to recuperate from duties?	2,6

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Belgian Cockpit Association

BeCA Safety Culture Survey Results

Public version

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