EU FIRESTAT - CLOSING DATA GAPS AND PAVING THE WAY FOR PAN-EUROPEAN FIRE SAFETY EFFORTS

Second Progress Report

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Content

PREFACE

This progress report presents the results obtained during the first year of the project, with focus on the progress during the latest six months. The initial stages of this project have focused on collecting and understanding the current practices in the different countries and identifying existing definitions for data collected across Europe. The results from a survey on the data needed by regulators to provide meaningful datasets and allowing legislative and other policy decisions for the fire safety has been used to determine a number of important variables that need to be collect as a priority. A detailed analysis has been performed to investigate how to properly define and collect these variables across Europe in a harmonised way.

In the next tasks of this project, the cost benefit analysis of collecting fire statistics will be discussed and illustrated through a description of practical case studies. Furthermore, guidance on the implementation of the harmonised fire statistics will be suggested.

Finally, the consortium would like to thank all the interviewed persons and the stakeholders for their valuable input, support and commitment to the project.

1. INTRODUCTION

The present report is the second progress report of the project SI2.830108 financed by the European Parliament and commissioned by the European Commission. The report presents the progress and status of the project.

The main activities performed so far in the project are the following:

- Existing data and their terminology
- Data needed for decision-making
- New harmonised terminology
- Collection methods
- Cost benefit analysis

The conclusions as well as proposals made at this stage may be amended at a later stage of the project depending on the discussions with the Steering Committee.

2. TERMINOLOGY ISSUES WITH EXISTING DATA

The terminology and data collection methodology were examined in 27 EU Member States and 8 Other European and Non-European countries (Australia, Canada, New Zealand, Norway, Russia, Switzerland, UK and USA). The 8 Other European and Non-European countries have been chosen based on their structured and detailed fire statistics. Our review of fire data collection measures within and outside the European Union is critical for understanding the degree of commonality across the various systems and also for identifying opportunities and challenges in any efforts to create uniform measures that will facilitate comparisons in fire experience.

Although it was not possible to identify information on data collection measures from a number of countries, it appears that fire data collection systems in the European Union fall into different tiers with respect to the amount of information collected. Some systems collect a limited amount of fairly basic information, such as information on the date, time, and location of the fire, type of fire (building, vehicle, etc.), type of building, fire cause, and number of deaths or injuries. Countries with more advanced data collection systems include to varying degrees a number of additional data elements. These may determine information on the room where the fire originated, degree of fire spread, material contributing to fire spread, type of equipment involved in the fire, information on victim characteristics and involvement with the fire, types of fire safety measures, and other relevant information.

As our review indicates, there is also substantial variation in the amount and type of information sought by data elements that are common to different data collection instruments. For instance, spread of fire may be recorded on the basis of number or rooms involved or some other physical measure, while automatic extinguishing equipment as to whether it was present or absent or involved specific types of equipment.

Comparability of fire data between systems will require the development and adoption of a core set of measures that have common categories or classifications. In light of our findings, it does not seem realistic to expect that those countries with less advanced histories of fire data collection can simply adopt the more detailed data collection systems that have been built over time in countries with more extensive practices and traditions. It may be useful as an initial step to explore the feasibility of identifying a set of major indicators with moderate levels of detail that could form a common content for a unified fire data collection instrument. Over time, participation in a common data collection system may encourage countries with less mature systems to enhance their data collection practices and to add data elements to the common core.

3. DATA NEEDED FOR DECISION MAKING

A survey was developed to collect the opinion of the stakeholders regarding the required data that can help decision making in fire safety policy. The proposal we developed is based on the result of the survey filled by the stakeholders of the Member States.

The results of the survey among the stakeholders were compared with the data already collected by the EU Member States, and with the opinion of the consortium. Findings from the literature were used to illustrate the importance of proposed variables. Priority was given to the variables that are already collected by the majority of the EU Member States to facilitate it implementation.

We propose 13 variables to include in harmonized European fire statistics. The following eight variables should be collected, as a starting point.

Tier 1:

1. Number of deaths
2. Number of injuries
3. Age of victims
4. Primarily causal factor
5. Type of building
6. Incident location
7. Incident date
8. Incident time

Once these eight variables have been implemented efficiently, we propose adding the second tier, which would include five additional variables:

Tier 2:

9. Number of floors
10. Area of origin
11. Heat source
12. Material contributing for fire development
13. Fire safety measures

This list constitutes a minimum dataset for collection and it does not prevent a fire department or national authority from having a separate data collection.

4. PROPOSED DEFINITIONS

The nature and format of fire data collected varies significantly across the EU Member States. Naturally, this poses an obstacle to data comparison and thereby to effectively assessing potential best practices and successful safety approaches. Therefore we proposed a set of definitions for all fire data to be collected aiming at ensuring the common understanding within the EU. The proposed terminology includes and complete ISO TS 17755-2 standard in EU context. The common terminology is based on the learnings from the current practices and the result of the survey from the stakeholders. For each variable, a definition and values assigned to the variable are proposed which should enable better fire statistics and possible comparison between countries.

5. COLLECTION METHODS

We have reviewed critical issues involved in the design and implementation of fire incident data collection systems. The latter can facilitate opportunities to share experiences and successes across regions and between countries, promoting a broader diffusion of technical and other innovations that increase fire safety. To achieve these objectives, it is important that data collection systems produce data that is reliable.

It appears that most countries currently employ a voluntary approach to data collection, with expectations that fire departments should participate in filing reports, but mixed efforts by national programs to encourage and evaluate compliance. Whatever form the data collection system takes, it is important that it reliably capture

the experiences of the populations it seeks to measure. To this end, data collection systems should be prepared to conduct follow up with non-respondents, assess the completeness of reporting, and identify any systematic patterns of non-reporting.

The potential for missing data is an issue that should be addressed in all phases of the research. The impact of missing data is likely to be especially problematic if it fails to account for differences in the population that impact fire experiences. Such differences might include regional differences in the built environment, differences in neighborhood conditions, including housing quality and social conditions, or differences in age demographics. Assessment of missing data will accordingly be especially important in countries that are characterized by diverse regional levels of economic development and diversity of economic and social conditions.

On this point, it is important to note that the fire data collection systems examined in this research appear to be generally regarded as census systems of data collection. We cannot say if this is a view held by key users of fire data in these systems. However, there is a danger in assuming that data collection systems capture all or most fire incidents absent any examination of the degree and form of unreported fires or other missing data. Any systematic failure to collect data that is not randomly distributed runs the risk of failing to identify risk factors associated with social and economic disadvantage. Accordingly, it is important that the implementation of fire data collection systems include plans for data quality checks and procedures for handling missing data in order to verify the validity and reliability of data findings.

Financial costs will vary by country and be influenced by existing state of fire data collection practices and resources. It is important that there be some realistic appraisal of the economic costs of fire incident data collection if any harmonized system is to be sustainable over time. Countries and regions with stronger national traditions of data collection in support of policy objectives will require substantially less investment in supporting a harmonized fire incident data collection system than those in which data collection efforts are less mature or concentrated in specific areas. The cost burden will also be influenced by the availability and sophistication of computer hardware and software. Considering such differences, as well as relative differences in certain costs between Member States of the European Union, we have identified the core cost components of data collection as a starting point for assessments of financial commitment.

6. COST BENEFIT ANALYSIS

It is important to analyse the cost benefit of collecting fire incident data as they can serve a number of important purposes -- helping to reduce fires and losses, identifying opportunities for safety interventions and education programs, guiding the allocation of public resources to areas of greatest need and impact, and monitoring progress of safety initiatives. Previously conducted cost-benefit analysis used to evaluated various fire safety measures were reviewed.

The most common way to perform a socio-economic analysis seems to be through a cost-benefit analysis. The procedure of performing such an analysis varies, but it will always include an estimate of all the costs of introducing the measure and an estimate the benefit due to risk reduction as well as other benefits associated with the introduction of the measure. A cost-benefit analysis is considered to provide a structured and explicit way to create basis for decision making regarding fire safety measures and it has shown to work well in several EU countries.

Furthermore, an appropriate method for cost benefit assessment to be used by the Member States and/or the European Commission is proposed. The proposal includes a calculation procedure to conduct a cost-benefit analysis together with a description of the most important input variables.

7. NEXT STEPS OF THE PROJECT

A number of case studies will be elaborated to illustrate the application of cost benefit assessment. These are based on the experience from a couple of European countries. It is very difficult to perform a case study at EU level, hence we propose to perform it at national or regional level. In many cases, however, we would need to find values that do not exist or cannot be found (especially on costs). Therefore hypothetical cases might be considered.

Guidance on the implementation of the harmonised fire statistics will be suggested. In particular, we will provide indicators and recommendations for fire safety prevention efforts that can be achieved once harmonized and well defined statistics are in practice. Finally, a discussion will take place with the European commission and the various stakeholders regarding the appropriate routes for the implementation of the proposal.

8. LIST OF CHALLENGES

TASK 0
Challenges in Task 4 were mainly related to renaming few of the variables resulted from Task 2 and defining few additional variable, which describe better a certain category. For example, instead of the variable “fire cause”, a group of variables were proposed, i.e., “heat source”, “primary causal factor” and “intent”, in order to describe the “cause”.

TASK 1
The challenges of Task 1 are represented by the difficulties in creating summary tables and gathering the related information about terminology and data collection methodology of the fire statistics for the 27 EU Member States and 8 Non-EU countries.

In particular, the challenges for the collection of the fire statistics are represented by:
- language barriers,
- delay in receiving the response from relevant authorities,
- confidentiality policies, and
- private datasets.

Furthermore, the difficulties and limits in the analysis of the data gathered are due to:
- the lack of available glossary of terms for the fire statistics of specific countries;
- the data fields with very different definitions, and the fact that the same term may have different meanings in different countries; and
- the different level of detail and number of data fields recorded which can vary in the various countries examined. Some fire statistics collect only the fire incident date, time and location while others cover pre and post-conditions of the fire incidents in various property types.

TASK 2
The approval of the questionnaire took more time than expected (3 weeks instead of 1 week) delaying the execution of Task 2.

TASK 3
Ample information for documenting general data collection methodologies, as well as information on the impact of missing data and methods for its treatment. However, it was difficult to find information on specific data collection practices for fire data among the countries included in this review, with the exception of a few countries with which project team members had personal familiarity. In addition, it was difficult to ascertain the completeness of reporting on fires in national fire data collection systems or to find information about how countries treated missing data. Finally, the creation of prospective cost estimates for fire data collection systems in 27 Member States of the European Union was a substantial challenge. The cost estimate modeling not only required considerable discretionary judgement, but information was not readily available on important cost components, such as staffing and resources for data collection in Member States.

TASK 4

For some variables, it was difficult finding definitions, which can suit practices for most countries, such as for a fire death or the type of building.

9. RISK ANALYSIS

Updated on 24 December 2020

Risk ID	Task number	Date Raised	Description of Risk	Consequences (resultant effect/impact)	Likelihood (score 1 for lowest - 5 highest)	Impact (score 1 for lowest - 5 highest)	Score (Severity)	Mitigation	Status (open or closed)
R1	0, 1, 2	17/08/2020	There is a risk that some countries do not have fire data	Some EU countries will not be covered in the analysis	1	2	2	Contact representatives and other public institutions	Closed
R2	0, 1, 2	23/09/2020	Language barrier	Some EU countries will not be covered in the analysis	2	1	2	Find a person to translate information or verify if EC can provide translation help in certain languages	Closed
R3	1, 2	23/09/2020	Delay in receiving the response for the summary tables	Some EU, other European and International countries will not be covered in the analysis	3	2	6	Establish direct contacts with the relevant organizations and present the whole project to provide a detailed description of the outputs and benefits generated.	Closed
R4	1	23/09/2020	Confidential policies and private datasets	Some EU, other European and International countries will not have public fire statistics datasets	2	2	4	Establish direct contacts with the relevant organizations and kindly ask for their contribution to the project providing the relevant information.	Closed
R5	1	23/09/2020	Lack of available glossary of terms for the fire statistics of specific countries	Some EU, other European and International countries will not have definitions or a glossary of terms for the fire statistics	3	2	6	Focus on high level and most important definitions available	Closed
R6	1	23/09/2020	The data fields can have very different definitions and the same term may measure different aspects in two or more countries	Some EU, other European and International countries will have different definitions for the same terms	3	2	6	Focus on the semantic analysis of the terms	Closed

Risk ID	Task number	Date Raised	Description of Risk	Consequences (resultant effect/impact)	Likelihood (score 1 for lowest - 5 highest)	Impact (score 1 for lowest - 5 highest)	Score (Severity)	Mitigation	Status (open or closed)
R7	1	23/09/2020	Different level of detail and number of fields recorded which could vary in the various countries examined. Some fire statistics collect only the fire incident date, time and location while others cover pre and post-conditions of the fire incidents in various property types.	Some EU, other European and International countries will have different detail for the fire statistics recorded	3	2	6	Group the countries examined based on the level of detail provided for the fire statistics	Closed
R8	2	24/09/2020	Little or delayed response from the stakeholders o the questionnaire	Not enough information from the stakeholders	2	3	6	Establish contact as soon as possible, provide support letter from EC, and allow possibility to update the analysis later.	Closed
R9	2	24/09/2020	There is a risk that we will receive unclear answers in surveys	Unusable contribution from some EU countries	1	2	2	Make sure questions are explicit and provide example of answers. Send the questionnaire to different stakeholders of the same country. Follow-up unclear answers	Closed
R10	3	08/11/2021	Lack of attention to missing data.	Incorrect reporting of total numbers from individual countries.	3	5	15	This will be an ongoing issue when implementing a harmonised data collection methodology. Clear policies, funding for national statistics centers and education of data mangers essential.	Open
R11	3	08/11/2021	Lack of information on cost of data collection.	Cost difference between methodologies overestimated.	4	1	4	Used information available from CTIF and NFPA for estimation.	Closed

Risk ID	**Task number**	**Date Raised**	**Description of Risk**	**Consequences** (resultant effect/impact)	**Likelihood** (score 1 for lowest - 5 highest)	**Impact** (score 1 for lowest - 5 highest)	**Score** (Severity)	**Mitigation**	**Status** (open or closed)
R12	4	08/09/2021	There is a risk that some countries can decide to not change the local data collection by the fire departments	Some EU countries will not participate, or partially participate in the statistics	3	2	6	Contact representatives and other public institutions	Open
R13	4	08/09/2021	Language barrier for implementing the proposed terminology	The translation might lead to some changes in the terminology	2	2	4	Find a person to translate information or verify if EC can provide translation help in certain languages	Open

10. COMMENT HANDLING DOCUMENT

Comments received up to 8 November 2021

In the following table are all written comments received during the project assembled.

An explanation to the columns used are as follows:
Column 1 – No: Numbering of comments
Column 2 – Body Reference: The body who have given the comment
Column 3 – Comment on document: A reference to which document the comment belongs
Column 4 – Paragraph/Figure/Table: A reference to which part of the document the comment belongs
Column 5 – Comment: The received comment
Column 6 – Response and proposed change by the consortium: A short description on how the comment has been handled

No	Body Reference	Comment on document/ procedure…	Paragraph/ Figure/ Table	Comment	Responses / proposed change by consortium
1	MSB - Sweden	Global comment on the project	NA	The project mainly covers definitions and collection methods but is not proposing a common method for analysing the data,	In Task 3, the group will include proposals for methodologies on how to deal with unknowns in the data and incomplete data, which is an essential part of the analysis. The initial discussions and proposals for analysis methods will occur in Task 3 and then again in Task 7. Overall, the group will provide guidance on data analysis and the risks of misinterpretation.
2	BVS - Austria	1st progress report	Task 0 - Annex B	Our feeling is that the efforts concerning harmonization of data collection in Austria is not reflected sufficiently. […] We provide an updated diagnostic sheet for Austria and the latest publishes fire statistics for Austria	The updated diagnostic sheet for Austria and all the information about Austria was updated throughout the reports for Task 0 and 1.
3	ANEC	1st progress report	NA	The quality of data is extremely important in a project like this and it is suggested that this be undertaken on some of the data on an ad hoc basis to establish how accurate it is together with a Cost/benefit analysis looking at the problem in more depth. Because most of the data is obtained from official sources there is a danger that it is not truly representative of the problem.	Considerations about the quality of the data and how errors and inconsistencies are removed have been stated in the diagnostic sheets created in Task 0 for each country. The importance of data quality is discussed in the conclusions obtained for Task 1. Finally a cost benefit analysis will be made in task 5 of the project.

4	ANEC	1st progress report	NA	"Near misses" are an important aspect to consider when trying to identify future fire safety problems and these may not necessarily be included in official figures. The sprinkler system that operates very quickly and prevents a serious fire may not result in the fire service being called or the incident recorded but could have a significant impact on the future provision of such systems. The small fire that occurs and is prevented from spreading by the provision of flame-retardant furniture and there is no subsequent call to the fire service will not be included in the national figures but again could point the way to go for much more effective fire safety solutions. This aspect of the current work is important to consider "Whatever model of fire data collection system is employed in host countries, available literature suggests that closing the gap between the data needed for drawing comparisons and information that is practically accessible will remain a challenge, but one with substantial public benefits." If we are to pave the way for future fire safety efforts we need to consider implementing a scheme that allows the public/responsible person to input these occurrences.	As stated in Section 1.1 of Task 1: "Our project has the goal to provide a clear understanding of the fire statistics related to buildings subjected to fire incidents and does not include the evaluation of "near misses" which are usually not collected in the recording systems examined. For instance, in Scandinavia, reports can be created for fire spread in criminal cases, to judge how dangerous it could have been for human beings/property, if accidental circumstances had not prevented fire spread. These evaluations represent a useful field of investigation to identify physical and societal hazards and support the creation of preventive measures. The collection of "near misses" implies, in some cases, a detailed and challenging assessment able to determine benefits for user input. However, such reporting could also result in uncertainty in the data. Furthermore, it would also require a new system able to describe such investigation and could lead to a much higher need for resources to check the correctness and treat the data once a reporting system is in place". We also added in Section 7 of Task 0 report a short explanation about near misses and that their collection implies a detailed and challenging evaluation, as these are never reported to the fire department and hence are never entered into an official data system. To get this type of information, every household in Europe would be required to record the information and to submit it to a relevant agency or online on a dedicated platform. Alternatively, it could be accomplished as a sample survey every few years to see how many "near misses" occur. This is outside the

					scope of this project, but we highly encourage pursuing it at European and National levels.
5	ANEC	1st progress report	NA	IDB-FDS data could deliver quite interesting information in this respect. Selection could be made regarding mechanism 04.14 (contact with fire or flame) or 4.17 (Inhalation of smoke from burning objects) and manyfold analyses regarding age of victim, type of injury, time of incidence activity when injured , place of occurrence (e.g. residential fires) and – of course – products involved (from candles to fan heaters). Analyses of the narratives could eventually deliver additionally information on the start of the fire (at least in some cases). A rough estimates for the number of cases in the EU-27 would also be possible. As far as we remember, an analysis of this issue has never been made, which is a shame. As far as we know from the EC JRC-study on injury data systems, data from fire brigades do not deliver such depth of information – aside from the problem, that there are no harmonised European fire damage statistics at all.	The work of Task 0 and Task 1 is focused on an analysis of the fields recorded in the various fire statistics to increase awareness of the aspects covered and those missing. In particular, for the evaluation of victims and injured people, various fields such as age, gender and cause of death or injury are investigated to determine the available aspects recorded related to life safety.
6	ANEC	1st progress report	NA	As to the list of national fire service unions, we would expect the federation of Eur. Fire Officer Association (member of the Eur. Fire Safety Alliance) to be in the best position to make such a full inventory of national fire safety unions.	The federation of Eur. Fire Officer Association, who is also in the Steering committee, has been very helpful in providing contacts all over Europe, especially for the distribution of the questionnaire of Task 2.
7	Fire Safe Europe	NA	Task 2	We decided to digitalise the Task 2 questionnaire and circulate it to our Members and to the European Fire Safety Community in an attempt to provide you with more stakeholders feedback on the fire data needed for policy making. We reproduced the original questionnaire as accurately as possible. We	We thank you for that and we will consider how we can analyse your input and fit them in the context of the project.

				have received 12 answers that we hope will be useful for your research.	
8	DG ESTAT	1st progress report	Task 1	The questionnaires/forms used for the registration of data have not been collected, nor the manual or guidelines/instructions for their usage	The research is focused on the analysis of the definitions and fields recorded in the fire statistics of EU, Other European and Non-European countries. For each of them, in the abstracts provided, it is specified who collects the fire statistics, the recording system adopted, and the origin of the information gathered. Instead of providing a unique list of reference at the end of the report, the references have been specifically addressed for each country investigated in the tables provided in Appendix I and Appendix II where each definition is related to the specific recording system. Moreover, in the references, where available, links to this information have been provided. Furthermore, analysing the forms in and by themselves is somewhat beyond the scope of this task, particularly given the large number of languages involved. This was added in Task 1 report, Section 1.1.
9	DG ESTAT	1st progress report	Task 1	Another information missing or not well documented is about what is mandatory, according to which legal provisions	A few sentences have been added to the text in Section 1.2 to address this comment and make our choices and considerations more transparent: “From the analysis developed, it appears difficult to evaluate the mandatory and optional fields collected by the various fire statistics. Within a specific country, fire statistics could be a voluntary system, differently managed at a local level or, considering a unique recording system (e.g., UK), only a number of fields are mandatory while others could be filled in only if specific fire conditions appear. In the description provided by the abstracts, such differences have been highlighted to provide a clear overview of current practice in various countries”.

10	DG ESTAT	1st progress report	Task 1	There is no clear indication of which data-source the definitions refers to / what if fire service and insurance have a different definition of "accidental" or of "victim" … all the grids are presented as if there was a unique data-system	The abstract for each country needs to be considered in the context for which the information provided by the table of Appendix I and Appendix II should be referred to. This is now clearly stated in Section 1.3: "The information provided in the abstract of each country needs to be related to the available definitions provided in the tables of Appendix I and Appendix II".
11	DG ESTAT	1st progress report	Task 1	In the fiches by country of task 1, what is the difference between b and c cases?	The analysis developed by Task 1 is mainly focused on the terminology and definitions available. Therefore, the relevant authority of each country has been asked to fill in the table. The consortium was also interested in a clear understanding of the proposed terminology. The possible responses have to be considered as follows: - "a": fields available - "b": definitions not available - "c": fields not clear to the relevant authority of the fire statistics. These considerations have now been addressed in the report in Section 1.2. The analysis of the fields collected in the fire statistics is now included in Section 4 of the final report of Task 1. The revised report of Task 1 includes: - Semantic analysis of the definitions available in the fire statistics and comparisons with those provided by the ISO 17755-2 - Evaluation of the fields collected by the various fire statistics - Specific and general conclusions about the findings of Task 1.
12	DG ESTAT	1st progress report	Task 1	There is incomplete usage of the statistical methodology that distinguish between	The consortium believes that it is important to clarify if specific fields are described by the

				concepts/phenomena, dimensions and positions/code lists. In particular, the latter is not analysed systematically, although could/should be the core of the project / few examples of coding is presented in DK or EE fiche. Too often the coding list is presented as the definition (IE, IT).	definitions or covered by a dropdown menu. This is the reason why this, as far as possible, is specified in the tables of the investigated countries. These considerations are now clearly addressed in Section 1.2: "where no definition is available and the specific fields are included in dropdown menu, this is clearly stated".
13	DG ESTAT	1st progress report	Task 1	There are some contradictory information, for example: CZ says no definition, but the reference says it exist (RO the opposite). Or DE says a=yes but doesn't provide it nor the reference. Or NL and other that deleted the column for references.	In Appendix I: For the Czech Republic, there are specific fields that are determined by laws, government decisions and other internal acts. However, definitions are not publicly available. For Romania and Germany, the tables have been edited as suggested. In Appendix I and II, the references for Austria, Germany and Switzerland have been inserted.
14	DG ESTAT	1st progress report	Task 1	What is meant by "victims" (definition so to count?) and "type of fatalities"? cause of death or as socio-economic characteristics of the victim?	Considering fatalities, in some countries, fire statistics provide a proper definition for fire victims while in others, the number of victims is recorded. The type of fatalities is referred to as the cause of death while the socioeconomic characteristics (e.g. age, gender) and this is described in Section 3.8 of the final report of Task 1.
15	DG ESTAT	2nd progress report	Task 2	As already asked, would have expected some dedicated comments on the expectations of specific type of actors as insurance companies and national statistical offices. These are two particular types of expertise which could deserve a paragraph to highlight their specific feedback to the survey. We agree with you expectations.	We initially wanted to investigate the difference in the type of responses. However, only 3 insurance companies responded to the survey (one from Germany, one from the Netherlands one from Sweden). This is not statistically significant to see a proper trend, so this is why we included their answers with the "Other" stakeholders. If we look carefully at their responses, we do not see any striking differences with the rest of the responses. As for the national statistic offices, none of them answered our survey, unfortunately. The vast

					majority of the answers were from the Ministries and the fire brigades. This is the reason why we did not add a paragraph about this topic.
16	DG ESTAT	2nd progress report	Task 3	Good development of some basic statistical scenarios, but I would have expected some more reflection on the institutional aspects: if there is already a central body for each country in charge of collection and analysis of data about fires in buildings or if it should be designated for the future; the range of the mandate including enforcement of a common methodology; if a sampling strategy has to be designed, which framework data could be used to design it (which variables are available for stratification and from which source they come from); etc.	Table 1.4 in Annex 1 provides information on Who collects the data, What Entity Processes the data and What entity reports the data as found during the data collection part of the study in Task 0 and 1. Going into further detail on this is beyond the scope of this task. Considering that no decision is made in Task 3 regarding which collection method to propose going forward talking about sampling strategy and data to be used for designing this is far beyond the scope. This could be touched upon in Task 7 depending on the decision made in that task. However it should be taken into consideration that this is something that is influenced by particular national customs and systems and will need to be spelled out in negotiations.
17	DG ESTAT	2nd progress report	Task 3	also the timing of the data collection is important to analyse (the actual practice is to fill a form in the x days after the intervention ? how long intervention teams are in charge to wait and inquiry about the health status of victims ? by when they have to send reports to an higher (national) level ?). This is important to decide the exact feasible definition of the nb of death and nb of injuries (the “no limitation of time after the fire” actually stated in task 4 risk to be not feasible)	The timing of when data are collected is not something that is readily available or even reliable if it was. Considering the challenge in obtaining reliable information on this and that it isn’t within the scope of the this task we didn’t analyse the timing part of the data collection. We did however, discuss the different steps the data collection has to go through and the table comparing the different methodologies shows the advantages/disadvantages for each of these. It is not the intention that the data collection teams are to wait to inquire about the health status of victims before adding the data to their local database. What is encouraged is that when they learn new information about an incident, either status of victim or cause of fire from investigation, that the data set is updated appropriately. Explaining this in detail should be

					part of the training on how to use the system but defining this is beyond the scope of this Task.
18	DG ESTAT	2nd progress report	Task 3	the cost part looks weak because of the absence of the above point.	We have on purpose not gone into the cost at the local level as this is the same no matter the collection method. So the major difference in cost is a national level and that was analysed based on available information.
19	DG ESTAT	2nd progress report	Task 3	cost part isn't developing an analysis looking at which costs/efforts are already in place and which "additional" ones would be needed to implement an harmonised approach (i.e. periodical EU level meetings)	This would require a research project on its own as we would need to go into every country and look at what is in place. Considering how difficult it was just to get the information we did, trying to get to this level of detail would take a lot more effort and would have been cost prohibitive.
20	DG ESTAT	2nd progress report	Task 3	the possible exploitation of insurance data as a complementary source of information is not covered (with all its problems in terms of keys to allow microdata linking and/or macro data linking).	It is mentioned in paragraph 4 of chapter 2 that insurance data can provide key information for data collection. However, it is the experience of everyone on the team that these data are almost impossible to access at this point. Unfortunately insurance companies are not willing to share data through linking at this point. In some instances it might be possible to get information for a specific incident but this will take a personal contact to the insurance company. With these significant complication we decided not to go into detail on this issue.
21	DG ESTAT	2nd progress report	Task 4	nb death/nb injuries: the "no limitation of time after the fire" actually stated in task 4 risk to be not feasible	We chose the "no limitation of time after the fire" because we wanted to accommodate the practices in all of the EU countries, also because it is already defined as such in ISO TS 17755-2. As we are getting many comments about this specific choice, we reconsidered it and decided adding a limit of 1 year after the fire event. This is already the practice in some countries such as the USA. Also, as countries usually publish their fire data with a 2-year delay, having a 1-year time limit would allow updating the number of fire deaths/injuries while they are still analysing the

					data and before publication. We expect that the change from “no limit” to “1-year” would not have a major effect on the statistics and trends.
22	DG ESTAT	2nd progress report	Task 4	- if for the type of building you are re-using a Eurostat definition it is important to say and indicate the source, in order to be able to follow any possible development (i.e. the summary tables that will be released next year for the 2021 census results)	We added the reference to the report
23	DG ESTAT	2nd progress report	Task 4	for each of the proposed definition of the variables, I would have expected at least a paragraph discussing how easy/difficult it could be to implement it looking at the actual practices described in task 0 and 1 (for example: this is already the case in 20 countries, while 5 other are still using a more/less precise definition which could be harmonised with low effort/the adoption of a very different approach); could be added after the argumentaire in the annex.	We added a section regarding this point, (see 4. discussion on the implementation of the defined variables in the EU countries), however it remains qualitative.
24	DG ESTAT	2nd progress report	Task 4	there could had been a final section about the key indicators to be derived from such variable and from their combination with other existing statistical data (i.e. standardized frequency of fires – or of fires with casualties - by type of buildings, using census data in the denominator; incidence of casualties for fires in residential buildings; breakdown by NUTS regions and by degree of urbanisation; etc)	This is very interesting we touch it a little in the report of Task 3, but it is not in the scope of task 4. As discussed, we will try to cover it in the ongoing Task 7.
25	Modern Building Alliance	2nd progress report	Task 2-4	The MBA wishes to propose few changes to the variables listed in Tier 2 of the data to be collected. These includes changing the term “Source of ignition” to “Primary source of ignition” and “Materials mainly responsible for fire development” to “Article(s) mainly responsible for fire development”. The MBA	“Source of ignition” was already modified to “heat source”. A term that is well defined and used by fire investigators. It is difficult adding “secondary ignition sources” to the list without any justifications. We are also not sure that a “secondary ignition source” should be collected as a priority compared to other variables. In our understanding, the

				proposes an addition of “Secondary ignition sources” to the variables to be collected.	secondary ignition source is a flammable object that is heated until its burning point. Therefore, we think that sometimes, this can be covered by the material contributing to fire development. The variable “Materials mainly responsible for fire development” was already changed to Material contributing for fire development. It takes the following values such as Fabric, Upholstered furniture, Flammable liquid, Flammable gas, Paper or cardboard, Building elements, etc. It does refers to both materials and articles, and in the explanations, it is suggested that more than one material can be chosen from the list. Nevertheless, we suggest keeping the material for the moment. This can later be adapted in the implementation and translation phases.
26	Modern Building Alliance	2nd progress report	General	The MBA also suggests that the main objectives of the project to include the following: - Integrate EU Fire statistics into Eurostat to ensure the continuity of fire data collection and the supervision on the long term by an official EU body - Make data available for academic purpose	It is difficult to change the objectives of the project at this stage, but your remarks will be included to the discussion in Task 7.