

Accidental, Natural and Social Fire Risk (ANSFR): the prevention and diminution of the human and financial costs of fire through effective risk assessment and management

Final Technical Implementation Report



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**Report by Northumberland Fire and Rescue Service
in close partnership with Frederikssund-Halsnæs Fire and Rescue Department, Corpo
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Executive Summary

This is the final technical report of an innovative two-year project on fire risk assessment and management. The full title of the project was: “**Accidental, Natural and Social Fire Risk (ANSFR): The prevention and diminution of the human and financial costs of fire through effective risk assessment and management**”, referred to from this point forward as the ANSFR Project. The ANSFR Project was co-financed by the European Union¹ and was delivered between 1st January 2009 and 31st December 2010. The project was led and managed by Northumberland Fire and Rescue Service (UK) working in close partnership with Frederikssund-Halsnæs Fire and Rescue Service (Denmark), Corpo Nazionale dei Vigili del Fuoco – Nucleo Investigativo Antincendi (Italy), the Emergency Services College (Finland), Kanta-Häme Emergency Services (Finland) and South West Finland Emergency Services.

The central aim of the project was to reduce the human, financial and environmental² costs of accidental, environmental³ and social fires that occur each year in Europe. It was decided that this aim would be achieved through the identification of good practice and the development of recommendations for European Fire and Rescue Services. In order to identify, exchange and discuss good practice, and to facilitate the cross-border collaborative development of recommendations of relevance to all European countries, the project involved the successful delivery of a number of key activities, including the:

- Organisation and delivery of four workshops to be held in four different European countries;
- Creation of a multi-lingual web based system and training tool for use by European Fire and Rescue Services;
- Organisation and delivery of the “Fire Risk in Europe Conference 2010”, an international conference on good practice in fire risk assessment and management.
- Production of a final report of recommendations concerning good practice in fire risk assessment and management.

The recommendations of the ANSFR Project have been collaboratively developed by more than 30 individuals working within the four ANSFR countries; however, the recommendations will be of significant interest and relevance to all fire and rescue services in Europe. Full copies of the report are available in English, Danish, Italian and Finnish from the Project Manager (contact details on page 1 of this report).

The partners conclude that the ANSFR Project has been extremely successful. The project team adhered to all formal deadlines imposed by the co-financier, successfully produced all of the anticipated outputs to a very high standard and delivered the project under budget. Importantly, the project delivered significant European added-value through the dissemination of

¹ The project was co-financed through the Civil Protection Financial Instrument, which was initially managed through the European Commission Directorate-General for Environment (website: http://ec.europa.eu/environment/index_en.htm) but was later managed by the European Commission Directorate-General ECHO (Humanitarian Aid and Civil Protection) (website: http://ec.europa.eu/echo/index_en.htm).

² The original co-financing application explicitly stated that the project would aim to reduce human and financial costs; however, it was evident to the project team during the first year of the project that many risk assessment and management strategies also reduce risk to the environment. Consequently, the project team have fully integrated this within the central project aim and overall framework.

³ The term “environmental” has been used in place of the term “natural”, which was originally used within the project co-financing application. Essentially, the theme is the same, however, the ANSFR Project team decided during the first project workshop in Northumberland that the term “environmental” better represented the types of fires under consideration within this thematic area. Further information concerning this change in terminology is presented on page 14 of this report.

activities and outputs to a wide European audience. This level of dissemination was made possible through the development and implementation of a comprehensive communication strategy which included the publication of journal/magazine articles across Europe, the placement of advertisements on websites, the circulation of emails via a substantial distribution list, and through the creation and maintenance of the project web system (www.fire-risk.eu). The translation of the final report of recommendations into four European languages, and the inclusion of an automatic translation facility within the project web system, also significantly contributes to the high European added value of the project.

Another measure of success for the ANSFR Project is the high degree of interaction and collaboration that has been achieved between the project partner organisations and between partner and external organisations. The new partnerships that were formed during the project will be developed and nurtured beyond the life of the ANSFR Project. To provide a specific example, all of the project partners are currently in discussions regarding future collaborative work on a number of fire-related issues of mutual interest.

There is no “one size fits all” best practice for all FRS in Europe. European FRS face both similar and contrasting fire risk problems within both similar and contrasting social and environmental contexts. However, the ANSFR Partners believe that the outputs produced during the project contain information of interest and benefit to all FRS. It is the opinion of the project team that the resources produced during ANSFR will contribute towards a reduction in fire risk within the four project countries and potentially a reduction in fire risk at a wider European level. The impacts of the project will take time to be realised because FRS across Europe will need time to absorb, adopt and implement the good practice identified, generated and shared during the project. However, the potential is now there for all FRS in Europe to benefit from ANSFR.

List of Abbreviations

| | |
|--------|---|
| ANSFR | Accidental, Natural and Social Fire Risk Project |
| ATF | Arson Task Force |
| CFOA | Chief Fire Officers' Association |
| CMS | Content Management System (used for website administration and functionality) |
| CNVVF | Corpo Nazionale dei Vigili del Fuoco (Italy) |
| DG | Directorate-General |
| EAPI | European Exchange of Best Practice in Arson Prevention and Investigation Project ⁴ |
| ECHO | European Commission Directorate-General for Humanitarian Aid and Civil Protection |
| ENFIP | European Network for Fire Investigation and Prevention |
| ESC | Emergency Services College/Pelastusopisto (Finland) |
| F-HFRD | Frederikssund-Halsnæs Fire and Rescue Department (Denmark) |
| FRS | Fire and Rescue Service |
| IRMP | Integrated Risk Management Plan (UK) |
| ISP | Internal Security Programme (Finland) |
| K-HES | Kanta-Häme Emergency Services (Finland) |
| MSI | Monash Sustainability Institute, University of Melbourne (Australia) |
| NIA | Nucleo Investigativo Antincendi (central department within CNVVF) |
| NPC | National Prevention Committee |
| NFRS | Northumberland Fire and Rescue Service (UK) |
| SWFES | South West Finland Emergency Services |
| UK | United Kingdom |
| USB | Universal Serial Bus |

⁴ Co-financed by the European Union (Grant Agreement Number: 07.030601/2006/448114/SUB/A3). Further information about the E-API Project can be obtained from the ANSFR Project Manager (contact details on page 1 of this report)

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1. Project Overview

1.1 Project partnership

Four formal partners worked together to deliver the project:

- Northumberland Fire and Rescue Service (NFRS), United Kingdom – coordinating beneficiary
- Frederikssund-Halsnæs Fire and Rescue Department (F-HFRD), Denmark – associated beneficiary
- Corpo Nazionale dei Vigili del Fuoco – Nucleo Investigativo Antincendi (CNVVF-NIA), Italy – associated beneficiary
- the Emergency Services College (ESC), Finland – associated beneficiary

In addition, two partner organisations joined the project team to contribute as part of the project team from ESC:

- Kanta-Häme Emergency Services (K-HES)
- South West Finland Emergency Services (SWFES)

The ESC provided a national perspective on fire risk assessment and management, including key inputs with regards to research, training, national prevention campaigns and national data systems. K-HES and SWFES contributed their perspectives from the point of view of two of the Regional Rescue Services in Finland.

Further details about the daily work of all of the partner organisations can be found in Appendix 1. The Northumberland Arson Task Force (ATF) team was responsible for overseeing the successful management and delivery of the project. The Northumberland ATF is responsible for investigating, preventing and reducing fire crime through effective partnership working with multiple public and private organisations and stakeholders. Further information about the Northumberland ATF is contained in Appendix 2.

1.2 Project personnel

The key personnel involved in the design and delivery of the ANSFR Project were:

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1.3 Defining “fire risk assessment” and “fire risk management”

During the first six months of the ANSFR Project, the project team discussed existing terminology used within each of their countries with regards to fire risk assessment and management. For the most part, the project partners currently use similar terminology and definitions, although some individual nuances were identified which could have created some confusion and misunderstanding during the project. The partners worked together to collaboratively create a common set of reference terms for use throughout all of the ANSFR Project activities. This system ensured that when an individual/partner organisation used a particular term then all other individuals and partner organisations could understand exact what the term meant.

For the purpose of the ANSFR Project, the following terms and definitions were agreed for use throughout the project, and, as a consequence, have been used throughout this document:

Risk = “Risk depends on, and so is a function of, hazard, probability and consequences” This can be presented using the following formula: $\text{Risk} = f(\text{hazard, probability, consequences})$

Fire Risk = “Fire risk is the threat, danger or possibility of a fire occurring. As with risk (above), fire risk is a function of hazard, probability and consequences”.

Risk Assessment = “The process of establishing information regarding acceptable levels of risk and/or levels of risk for an individual, group, society or the environment. The process involves the identification of risk, probability assessment and assessment of expected damages.”

Risk Management = “The risk management process involves the systematic application of policies, procedures and practices to identify, analyse, evaluate, manage, control, communicate and monitor risks.”

The ANSFR Project incorporated three key themes: accidental fire risk; environmental fire risk; and, social fire risk. Each of the themes is described in further detail on page 8 of this report. The themes were used to divide the project into three key work areas covering a number of distinct and overlapping topic areas. The three themes have been central to the overall structure and delivery of the project.

Further information about the terminology that was collaboratively developed for use during the ANSFR Project can be found within the ANSFR Report titled: *“Summary Report on the Terminology used in the United Kingdom, Denmark, Italy and Finland for the Assessment and Management of Fire Risk”*. A copy of this report has already been sent to the desk officers responsible for the ANSFR Project. Further copies of this report can also be downloaded from the ANSFR website⁵.

1.4 Project concept

We know that the costs and impacts of fires occurring across Europe each year are substantial. On a purely economic basis, estimates in the UK state that each fire fatality costs the economy in excess of £1 million, each serious injury costs £155,000 and each slight injury from fire will cost £12,000⁶. To put this figure within an appropriate national context, between 1st April 2008 and 31st March 2009, there were 430 fatalities in the UK⁷. Using the 2004 estimates, this equates to a cost to the economy of £430 million. This cost is solely for fire fatalities and does not include the costs of injuries, whether serious or slight. If you apply similar calculations to fire fatalities occurring across the whole of Europe, the cost to the economy is enormous.

It would be wrong, however, to become preoccupied with economic cost of fire. The impacts of fires are much more complex and far-reaching. Economic cost of fire estimates, such as those produced in the UK, can only be viewed as crude indicative measures and they undoubtedly underestimate the true impact of fires. To provide some specific examples of the limitations of the UK estimates, there is no comprehensive attempt to quantify costs of fire to the environment⁸. The crude calculations do, however, provide a quantitative foundation and justification for resource allocation and prioritisation. They provide evidence on which to base risk reduction activities.

The philosophies and processes of risk assessment and management are now becoming more integrated within some Fire and Rescue Service (FRS) cultures in some European countries⁹. Rather than exist as a discrete and isolated department, team or function within a Service, the

⁵ From the following link: http://www.fire-risk.eu/resources/documents/document_display.htm?pk=9.

⁶ Source: Office of the Deputy Prime Minister (2006) *“Economic Cost of Fire: Estimates for 2004”* (Office of the Deputy Prime Minister: London).

⁷ Source: Office of the Deputy Prime Minister (2006) *“Economic Cost of Fire: Estimates for 2004”* (Office of the Deputy Prime Minister: London).

⁸ Indeed, it was ascertained during the ANSFR Project that none of the ANSFR countries, and perhaps no countries in Europe, currently assess the true impact of fires on the environment. This is an area of work which requires immediate attention, particularly if policy and decision makers within stakeholder organisations are to be convinced that it is appropriate and desirable to invest in resources to better protect the environment and to take active measures to reduce fire risk. The loss of rare habitats due to fire, for instance, could have substantial repercussions for biodiversity and sustainable development.

⁹ It would be inappropriate to state here that the philosophies and processes of risk assessment and management are being integrated within the cultures of FRS in all European countries, as there is no evidence to support such a claim. However, the project team can state that risk assessment and management are of significant importance to FRS within the four ANSFR countries (Denmark, Finland, Italy and the UK).

philosophies of risk assessment and management have sometimes become a core foundation for all activities. The policies, procedures and tools of risk assessment and management are also being used by many, if not all members, of some FRS in their daily work. To provide another example from NFRS, principal managers complete corporate risk assessments to safeguard and protect the reputation of the Service, while fire fighters complete dynamic risk assessments when responding to any incident to ensure that they are adopting safe practices for themselves and for members of the public. The adoption and integration of the philosophies and processes of risk assessment and management is often being driven by national guidance and/or national legislation. However, in many countries (including the UK) practical implementation of risk assessment and management is very much completed at a more localised level.

The philosophies and techniques of risk assessment and management provide FRS with appropriate tools to utilise to appropriately identify, analyse, monitor and respond to fire risk. If FRS can more effectively identify and assess the likelihood and impact of fire risks within their communities, then they can better design, review and constantly revise strategies that aim to manage and reduce these risks. However, in order to do this FRS need to be aware and informed of existing good practice in this field. They also need to be aware of unsuccessful and negative experiences, so that they can learn from rather than replicate other peoples' mistakes. Finally, FRS need to understand the principles that underpin current good practice. Put simply, they need to understand why good practice *is* good practice and why it has worked within a particular country and/or locality. It was this basic concept that provided an overall foundation for the design, development and implementation of the ANSFR Project.

1.5 Project aim and objectives

The central aim of the project was to reduce the human, financial and environmental¹⁰ costs of accidental, environmental¹¹ and social fires that occur each year in Europe. It was decided that this aim would be achieved through the identification of good practice and the development of recommendations for European Fire and Rescue Services.

In order to achieve the project aim, five specific objectives were formulated:

1. Undertake a comparison of research techniques and tools used by the partners to evaluate risk assessment and prevention practices.
2. Develop the tools, techniques and procedures for an effective and innovative risk assessment framework capable of implementation within all European states.
3. Create an example of an innovative, secure access knowledge portal with document library.
4. Create an example of a multilingual training tool for fire risk assessment and management which can be accessed by Fire and Rescue Services throughout Europe.
5. Collaboratively draw upon, disseminate and implement best practice and expertise in fire prevention techniques and procedures and risk assessment tools from Europe.

¹⁰ The original co-financing application explicitly stated that the project would aim to reduce human and financial costs; however, it was evident to the project team during the first year of the project that many risk assessment and management strategies also reduce risk to the environment. Consequently, the project team have fully integrated this within the central project aim and overall framework.

¹¹ The term "environmental" has been used in place of the term "natural", which was originally used within the project co-financing application. Essentially, the theme is the same, however, the ANSFR Project team decided during the first project workshop in Northumberland that the term "environmental" better represented the types of fires under consideration within this thematic area. Further information concerning this change in terminology is presented on page 14 of this report.

1.6 Project actions and means involved

In addition to the five key project objectives, four key actions and means were identified and included within the project plan. These were to:

1. Assemble information on fire risk assessment and management. Information will be collected through questionnaires and the cooperative, mutually beneficial learning process of 4 workshops held in different locations within Europe.
2. Develop fire risk assessment framework solutions capable of being implemented within Europe to meet the challenges of different land/property types (for example, agriculture, forestry, domestic, industrial, commercial).
3. Stimulate permanent and ongoing collaboration between fire professionals across Europe to develop and implement risk assessment methodologies that challenge current paradigms of risk management.
4. Recommend interactive learning tools, training and awareness for fire service authorities across Europe to enable the implementation of the “natural”, “accidental” and “social” fire risk assessment frameworks and strategies developed through the project.

1.7 Expected deliverables

The project plan outlined five key outputs that the project team expected to deliver before the end of the project. These were:

1. **Deliver and document four regional workshops/training sessions within the partner regions** - These workshop sessions will recommend examples drawn from collaborative best practice in prevention activities, and techniques and tools in risk assessment and risk management gleaned from the synergy of partner cooperation.
2. **Create an electronic web-based platform tool** - This web-based platform will facilitate the EU wide exchange of good practice in fire risk assessment and management.
3. **Create a multi-lingual training tool available via the web-based platform** - Embed the collaborative transfer of best practice on prevention techniques and expertise through permanent cooperation and online training delivered through the web portal.
4. **The organisation and delivery of a conference open to practitioners from Europe** - The event will be used to promote the adoption and implementation of good practice in fire risk assessment and management and to promote the work completed during the ANSFR Project Workshops.
5. **Produce a final report of recommendations regarding good practice in fire risk assessment and management** - The recommendations will be developed primarily as a response to issues that currently exist within the four ANSFR countries; however, the recommendations will be of significant interest and relevance to all fire and rescue services in Europe.

1.8 The three key thematic areas of the ANSFR Project

The ANSFR Project team collaboratively developed key themes to use to structure and organise project activities. The initial outline of the themes was submitted with the co-financing application; however, the project team decided during their first meeting¹² that amendments were required in order to improve the delivery of the project. Consequently, the team began with the basic description formulated for the application and then completed an exercise to generate ideas about some of the key factors influencing fire risk. Through this exercise, the project team developed three lists, each related to different key factors associated with fire risk. The first list

¹² The first ANSFR workshop was held in Northumberland in May 2009. Further information about the project workshops is contained on page 38 of this report.

contained potential causes/contributory factors for fires (see Appendix 3). The second contained a list of potential location types for fires (see Appendix 4) and the final list contained categories of particular social groups at higher risk of experiencing or causing fires (see Appendix 5). The project team then compared and collated the key terminology and definitions used within the four countries for activities related to fire risk assessment and management¹³. The team then analysed and appraised the three lists and the partners' existing terminology. This process then informed the revisions made to the initial project themes.

After completing the aforementioned process, the project team mutually decided upon three key thematic areas for the project and their respective definitions. The three thematic areas, and their respective definitions, are presented in Figure 1 (overleaf).

It is important to provide some additional comments here regarding the thematic definitions. Firstly, the theme of "accidental fire risk" has been divided into five sub-categories based on different location types/building ownership types. Different locations/building types represent different contextual challenges for FRS with regards to accidental fire risk assessment and management. For instance, achieving more efficient and effective fire risk management of domestic properties requires different techniques and processes to achieving the same situation within industrial premises. The different locations/building types selected pose different risks due to the nature of their use and occupation.

Secondly, the term "natural fire risk" was initially incorporated into the project grant application and was thus incorporated into the project acronym. All of the project partners decided during the Northumberland Workshop (see page 17 for further details) that the term "natural fire risk" implied a theme centred on fires caused by natural phenomena, such as lightning and volcanic eruptions. However, as a number of the partners highlighted, human behaviour is much more likely to lead to fires within rural or rural-urban interface environments than natural phenomena¹⁴. This was particularly the case within the four ANSFR countries. It was decided that the second key theme of the ANSFR Project would more generally address fire risk within rural and rural-urban interface environments, and that it would include fire risk created both by natural phenomena and human activities/causes. The partners favoured the more holistic term of "environmental fire risk" and mutually decided to discontinue using the term "natural fire risk". The partners decided to retain the original project acronym of "ANSFR", despite the change in thematic terminology, in order to preserve the identity that had been created and maintained over the first few months of the project.

¹³ Further information about the terminology discussed and developed for use during the ANSFR Project is contained within the document titled: "Summary Report on the Terminology used in the United Kingdom, Denmark, Italy and Finland for the Assessment and Management of Fire Risk". A copy of this report can be downloaded from the following page of the ANSFR website:

http://www.fire-risk.eu/resources/documents/document_display.htm?pk=9

¹⁴ As an example, in Finland in 2008 the following causes were allocated to wildfires: 5% were caused by natural phenomena; 68% were caused by human activities; 4% were caused by "other"; 2% were machine failure; 1% were caused by animals; and, the causes of 20% were unknown. The statistics do, however, fluctuate when specific natural landscapes are considered. For instance, in Finland in 2008, 22% of wildfires within peat bogs were caused by natural phenomena and 24% were caused by human activities. Source: p43 of the Frederikssund-Halsnæs Workshop Handbook, available at: http://www.fire-risk.eu/resources/documents/document_display.htm?pk=30

Figure 1 – Three Themes of the ANSFR Project



- **Accidental Fire Risk** – "The threat, danger or possibility of a fire being started as a result of an accident and/or as a result of negligence and/or as a result of lack of knowledge and awareness of common potential causes of fire."
- **Environmental Fire Risk** - "The threat, danger or possibility of a fire being started within a rural¹⁵ or rural-urban interface environment¹⁶ as a result of accidental/deliberate human activities or as a result of natural phenomena, such as lightning strikes, volcanic eruptions etc."
- **Social Fire Risk** - "The threat, danger or possibility of a fire being started as a result of "arson" and/or as a result of factors associated with, or factors contributing to, the "high risk lifestyles" of an individual or social group."

¹⁵ The term "rural" is defined by The ANSFR Project as "Areas of a country with relatively low population densities. Rural environments are characterized by small human settlements (farms, villages etc.), and have few, if any, medium or large settlements (towns etc.)."

¹⁶ The term "rural-urban interface environment" is defined by The ANSFR Project as: "The boundary area between a rural and urban environment."

Thirdly, and finally, the theme of “social fire risk” was divided into two key sub-categories: “arson” and “high risk lifestyles”. It was agreed that the terms “arson” and “deliberate fire” would be used interchangeably throughout the ANSFR Project but that a distinction between the two terms would be used as appropriate. It was mutually agreed that:

- If referring specifically to a criminal case (i.e. a case being investigated/which has been investigated by the Police or other investigative authority, irrespective of whether a perpetrator(s) was caught and convicted), the term “arson” would be used. In simple terms, for the purposes of the ANSFR Project, an “arson” fire is: “any fire set illegally (i.e. when setting a fire contravenes one or more local or national laws)”.
- The term “deliberate fire” would be used when referring to any fire where: “the person(s) who lit the fire showed intent to damage or destroy life and/or property and/or the environment by fire and/or by the effects of fire”.

The ANSFR Project team also decided that high risk lifestyles should be divided into two different sub-categories:

- The first type of high risk lifestyle was defined as: “Those individuals/social groups who ‘choose’ to engage in high risk lifestyles through regular participation in one or more activities that increase their risk of death, injury or ill health above the normal level of risk experienced by the wider population.”
- The second type of high risk lifestyle was defined as: “Individuals/social groups who have not chosen to engage in a high risk lifestyle but who live a high risk lifestyle as a result of personal circumstances which may or may not be beyond their control. Individuals included within this category may be disadvantaged economically, socially, culturally, physically and/or mentally”.

The project team did acknowledge that an individual’s lifestyle may not be the sole product of either choice or circumstance and that both elements may in varying degrees contribute to an individual’s “high risk lifestyle”. The team did, however, still decide that the division of “high risk lifestyles” into two sub-categories was useful and appropriate for the structure and delivery of the project activities.

2. General Summary of the Project Implementation Process

2.1 General overview of the project implementation process

A general overview of the project process concludes that the project was extremely successful. As will be discussed in further detail at a number of points throughout this report, the project achieved all of its aims and objectives and delivered all of its anticipated outputs. The project team delivered good value for money, particularly in respect of the European added value of the outputs produced.

One of the key contributing factors to the success of the ANSFR Project has been the strong working relationship that has developed between the four partner organisations and K-HES and SWFES. None of the partners had worked together on a transnational project prior to ANSFR. The team bonded extremely well and the ANSFR Partners are already exploring future opportunities to work together on issues of mutual interest. To provide one of multiple examples, NFRS will provide wildfire suppression training¹⁷ to officers from F-HFRS in February 2011. NFRS and F-HFRS are also exploring the possibilities for arranging a wildfire exercise, to be attended by officers from both organisations and potentially from all ANSFR partner organisations, in the near future.

2.2 Comparative analysis of the initial and actual time schedule

All project activities and deliverables were completed before the project deadline of 31st December 2010 (excluding the completion of this report and the final financial reports of the project). The time scale for the delivery of individual project tasks was planned and presented in the form of a dynamic Gant Chart. This chart was constantly referred to during the course of the project. Any indications of slippages in the delivery of individual tasks were identified quickly and measures were put in place to ensure that they returned to schedule. Some tasks were completed ahead of schedule, while others were not completed within initial expected timeframes. The chart was updated to reflect any changes to the actual and planned delivery of individual project tasks. Constant updates enabled the Project Manager to keep a close eye on the overall delivery of the project. The Project Manager also developed contingency plans that could be implemented should any delays or problems occurred, which meant that the project team were better prepared for expected and unexpected issues that arose. This approach to project management ensured that the project was delivered within the time frame available.

Some of the most significant amendments made by the Project Manager to the initial project task time plan are now outlined:

- The Kuopio Workshop was unexpectedly postponed due to travel cancellations caused by the second eruption of the Eyjafjallajökull volcano in southern Iceland¹⁸. The workshop was to be held on 19th -22nd April 2010. The project team were able to reschedule the event for September 2010, which still provided three months before the end of the project in which to deliver the event, should any additional unexpected events cause a second postponement. The workshop went ahead and provided a timely opportunity for the project team to work together face-to-face to finalise the final report of recommendations for the project.

¹⁷ The Chief Fire Officers' Association (CFOA) has given NFRS the status of lead Fire and Rescue Service in England and Wales with regards to wildfire. NFRS also currently Chairs the English Wildfire Forum.

¹⁸ The eruption led to the closure of Finnish airspace and prevented the ANSFR Partners from outside Finland from travelling to the workshop.

- As a direct result of the rescheduling of the Kuopio Workshop, the production of the Kuopio Workshop Handbook was also delayed. In order to ensure there was no slippage in the overall project schedule, partners' time and resources were diverted to working on the final report of recommendations. The final report of recommendations was finished and approved by the partners ahead of schedule, which allowed additional time during the latter stages of the project in order to produce the Kuopio Handbook. The Kuopio Handbook was completed prior to the end of the project.
- The rescheduling of the Kuopio Workshop was inadvertently made easier due to a prior rearrangement of the Fire Risk in Europe Conference 2010. The partners had intended to deliver this event in September 2010, however, other commitments among the project team and difficulties in securing a venue for an event at this time of year meant that the team decided to deliver the event during June.
- By bringing the Fire Risk in Europe Conference 2010 ahead of the initial project schedule, the project team had to delay the production of the Roma Handbook. A significant amount of time and effort needed to be diverted from producing the handbook to planning and designing the conference event. The team decided that the handbook required a significant amount of time and effort and that the quality of this document should not be sacrificed in order to finalise it according to the initial schedule. Delaying the Roma Handbook task did not cause any problems to the overall project schedule and, once a significant volume of work for the conference had been completed, the project team at CNVVF and NFRS were able to return to and finish the document. The Handbook was still completed well in advance of the end of the project.
- Due to efficient time and task management during the early stages of the project, the Project Manager was able to bring forward the deadline for creating the project website. While this assisted the Project Manager in balancing a number of tasks and in achieving an appropriate workload balance for all individuals involved in the project, it also helped to save some costs. With the project website going live on 1st April 2010, the project team were able to upload advertising material onto the website concerning the Fire Risk in Europe Conference 2010. This additional advertising was achieved at no extra cost as the website was to be created anyway. In addition, the project team decided to utilise the website in order to provide copies of presentations, posters etc. to all conference delegates, rather than purchase and upload material onto USB memory sticks, as had been planned. The added benefit of uploading the conference material on to the website was that the material could be shared with all registered users¹⁹ of the website rather than just those who attended the Fire Risk in Europe Conference 2010. Thus the project team were able to share the knowledge and experience presented and discussed at the event with a wider audience of professionals.

2.3 Comparative analysis of the planned and used resources

The resources used to deliver the project differed slightly to those resources that had been planned and budgeted. The financial documents included with this report provide more detailed information related to the resources actually used, however, it is useful to provide a basic summary here. Firstly and foremost, the project was delivered under budget and delivered good value for money. The delivery of the project under budget was due to under-spends in two of the key project budget categories. The under-spends for each of these categories are now explained:

1. **Personnel** – The project team budgeted for personnel costs of €195,480 and actually spent €214,993.28. This represents an overspend of €19,513.28.

¹⁹ The functionality and design of the ANSFR website will be discussed in further detail on pages 61-64 of this report.

Although the project partners did overspend within this budget category, the overspend was within the 10% allowance afforded under the financial conditions of the grant agreement. Also, this overspend was more than compensated by the underspends in travel and subsistence (point 2. below) and sub-contracting (point 3. below).

The overspend for project personnel costs can be accounted for by an overspend by NFRS, the CO. NFRS initially underestimated the personnel costs that would be incurred during the project, particularly for internal specialists. The inclusion of additional specialists is partly a response to decisions made during the early stages of the project when the partners mutually decided which topic areas would be addressed during the project. Some of these topic areas were not the specialist areas of the core project team and it was therefore necessary and extremely beneficial for NFRS to bring in internal specialists to contribute to specific workshops (i.e wildfire specialists brought in to contribute to discussion regarding environmental fire risk).

- 2. Travel** – The project team budgeted for travel and subsistence costs of €77,680 and actually spent €61,762.48. This represents an underspend of €15,917.52.

Many of the flights that partners needed to take to attend the project workshops were greater than the initial budget of 310 Euros per person per flight. This issue was partly a product of the relatively more peripheral locations of NFRS and ESC, where NFRS and ESC needed to take three flights to the workshops in the UK or Finland. This issue was identified early in the project when some of the partners (most notably NFRS and ESC) approached their travel agents to identify prices for future flights. In order to address the greater than expected travel costs, the ANSFR Partners reduced the budget for subsistence for each workshop. This helped to ensure there was no overall overspend within this budget.

Despite the greater than expected travel costs, there were two factors that contributed to the underspend within this budget heading. Firstly, the project partners were able to utilise the rooms of two of the partner organisations (CNVVF and ESC) to accommodate workshop participants. This led to significantly reduced bed and breakfast costs for two of the workshops (Roma and Kuopio), along with lower than expected costs for some meals (particularly lunches). The subsistence costs for these workshops would have been significantly higher if participants had been accommodated in local hotels. The utilisation of the accommodation facilities of CNVVF and ESC was only made possible through detailed planning and the early confirmation of the dates of all of the workshops. Had the workshops been held at other times there may not have been capacity (due to local training courses etc.) to accommodate ANSFR participants.

The second key factor influencing the underspend in this category, was the reduction in travel and subsistence costs for the project conference speakers. The project plan had budgeted for ten speakers outside of the project team to attend the Fire Risk in Europe Conference 2010. The project team budgeted for €8,620 to cover travel and subsistence costs for ten speakers to attend the project conference. However, the actual travel and subsistence costs to the project were €4,870, which represents an underspend of €3,750. All speakers were notified of the travel and subsistence costs that could be covered by the organisers. By setting clear limits to the costs that would be reimbursed, the conference organisers were able to encourage many of the speakers to book their travel early. This benefited the project budget as some speakers were able to pay lower fares for their flights and travel. The lower than anticipated travel and subsistence allowances for speakers did not have a negative influence on the calibre of speakers or the number of countries represented by the speakers.

3. Sub-contracting – The project team budgeted for sub-contracting costs of €131,230 and actually spent €89,035.74. This represents an underspend of €42,194.26.

The most significant underspends within the sub-contracting budget category were recorded for conference venue costs and translation costs. The venue costs had been budgeted at €36,000, however, Northumberland Fire and Rescue Service were able to significantly reduce the venue costs to €19,475.96. This saved the project budget a total of €16,524.04.

The project team decided to reduce the expenditure on translation because of a number of reasons. In particular, it was decided that some of the budgeted translation costs might not add significant European added value:

- The project team specifically asked delegates attending the Fire Risk in Europe Conference 2010 if they required/would benefit significantly from simultaneous translation. Very few delegates responded that they required simultaneous translation, so the project team decided that the cost would not outweigh the benefit. Therefore, simultaneous translation was not provided at the event which saved €11,680 from the budget.
- The project team decided not to translate the papers/presentations delivered at the Fire Risk in Europe Conference 2010. While this may have been useful for a small number of delegates, it was decided that the benefit would not outweigh the significant cost of translating presentation slides (which is significantly more expensive than translation of word processed documents). The translation of presentation slides would still only have given delegates a general idea and structure of the presentation and would not significantly enhance knowledge or understanding. By not translating conference papers, the project team saved €12,000 from the budget.
- Another reduction in sub-contracting costs was achieved by not translating the project progress reports into project languages. It was decided that this was an unnecessary cost as all project teams could speak, write, and read English to a very high standard. By not translating progress reports into the four project languages, the project team saved €6,300 from the budget.

Finally, the project team also reduced sub-contracting costs by not purchasing USB memory sticks. These were to be given all delegates attending the Fire Risk in Europe Conference 2010 and were to contain copies of all of the presentations and posters delivered at the event. However, the project team re-evaluated the project task schedule immediately after the Frederikssund-Halsnæs Workshop in October 2009 and decided that the deadline for the website could reasonably be brought forward so that all conference material could be made available online. The readjustment of the task schedule was made possible by the fact that all project tasks and activities were running on or ahead of their target deadlines. By not providing USB memory sticks, the project team saved €1,200 from the budget.

4. “In kind” contributions – The ANSFR Partners made some substantial “in kind” contributions to the project, which have been estimated as approximately €30,106.53. These “in kind” contributions cover costs not anticipated within the initial project budget. Frederikssund-Halsnæs Fire and Rescue Department provided the greatest “in kind” contributions at an estimated €27,088.24. This “in kind” contribution covered additional personnel hours worked by Frederikssund-Halsnæs officers on the project. Frederikssund-Halsnæs wanted to remain within their original budget, but also wanted to

ensure that they could participate fully in all of the project activities. Frederikssund-Halsnæs therefore decided to record personnel hours for 2010 as “in kind” contributions, rather than as personnel costs.

Northumberland Fire and Rescue Service also recorded “in kind contributions” of €2,751.50. These estimated costs came in the form of personnel hours worked by the project supervisor during the final months of the project, and in the form of staff hours (for drivers) and fuel costs for transport provided to speakers and project partners for the Fire Risk in Europe Conference 2010.

It is the belief of the ANSFR Project team that the estimated “in kind contributions” recorded did enhance the project. In particular, the project team believe that the additional personnel hours recorded as “in kind” contributions reinforced the European added value of the project deliverables.

2.4 Comparative analysis of the expected and actual results

2.4.1 Delivery of predicted outputs

It was decided at the outset that the project would produce four key outputs:

1. Deliver four workshops, one to be hosted by each partner organisation;
2. Organise and deliver a conference for practitioners from across Europe;
3. Create an online knowledge portal/web system
4. Create a multi-lingual training tool²⁰
5. Develop and circulate guidelines/recommendations concerning good practice in fire risk assessment and management.

The project team successfully delivered all of the proposed outputs. The project team believe that all of the outputs were delivered to a suitably high standard. Each of the four project deliverables will now be discussed in turn. Comparisons will be made between the expected and actual results achieved.

Delivery of four project workshops

Four workshops were designed and delivered during the project, one each in the UK, Denmark, Italy and Finland. All of the project partners attended all of the workshops. Each of the project partners took responsibility for designing and delivering the workshop that they were to host, with overall coordination and advice provided by the Project Manager within NFRS. This ensured that all of the partners were able to tailor their workshop to the specific theme that they had been allocated and that each partner could orientate the workshop activities towards areas which their organisation had previous experience and good practice to present and discuss. Please see page 31 of this report for further information about the European added value of the project activities and outputs.

The project team had initially planned for the four workshops to be primarily attended by the project team, however, it was agreed during the first workshop in Northumberland that, as far as possible, practitioners from additional organisations and countries should be invited to attend and contribute to the remaining workshops. The Frederikssund-Halsnæs, Roma and Kuopio Workshops all received contributions from practitioners working outside of the project team. These additional contributions were invaluable to the workshop discussions, and ultimately provided valuable insights which informed the creation of the final report of recommendations.

²⁰ Within the initial plan, the online knowledge portal and training portal were separate deliverables, however, the project team decided that it would be advantageous (practically and economically) to combine the two within one comprehensive online system. Further details are presented on page 60-65 of this report.

This was a positive change to the initial plan with the actual results being of better quality than had been anticipated. It also ensured that the project team remained opened to outside influences and did not become too insular.

The initial plan was for a Handbook to be developed to document each workshop. The Handbooks would provide a reference resource for the partner organisations, but would also be shared with practitioners across Europe so that they could benefit from the material presented and discussed within each workshop. The project team had initially envisaged that the Handbooks would include a brief synopsis of each presentation, group work session, and each field trip organised during the workshop. It is a fair to state that the actual Handbooks that were produced are more detailed and comprehensive, which thus makes them a more useful resource for practitioners across Europe. The greater level of detail contained within the Handbooks was only achievable because all of the project partners were willing to contribute and assist in the writing and approval process. Individual presenters were also willing to provide additional text to accompany their presentation slides which provided more contextual detail concerning particular topics, tools and strategies.

Organisation and delivery of a European conference

This event was successfully hosted by NFRS on 21st and 22nd June 2010. All of the project partners (all Abs) were involved in both the design and delivery phases of the event. All of the partners delivered at least one presentation; however, most partners actually delivered multiple elements including presentations, poster presentations and workshop sessions. The event was mostly delivered according to the original plan, although there were some slight differences between the initial plan and actual event delivered. These differences are now briefly explained.

The initial plan was for the event to be held in the Autumn of 2010, however, the project partners' mutually decided during the first year of the ANSFR Project to hold the event during early summer 2010. This change to the initial plan ensured all of the partners were able to send relevant specialists to the event and it also helped the partners to better balance and distribute work across the whole of the second year of the project.

The project team set an initial target of attracting 150 delegates to attend the event. However, the project team decided to revise this target during March 2010 because of a succession of events within Europe. It was believed that the cumulative impact of these events would limit the number of practitioners that might be able to travel overseas. These events included, but were not limited to:

- A rise in aircraft fuel costs and airport taxes.
- The first volcanic eruption in Southern Iceland in March 2010.
- World recession and the significant impact this had on the public sector in some European states.

The project team decided on a revised target of at least 100 delegates. This target was surpassed, with 125 delegates attending the actual event. Despite not achieving the initial target of 150 delegates, the ANSFR team have made the conference material available to a minimum of 175 individuals, all of whom are registered users of the ANSFR website. The project team were also successful in attracting delegates from 18 countries.

The initial project plan budgeted for ten external speakers to deliver presentations at the event. This was in addition to the speakers that would attend the event from the ANSFR Partner organisations. The project team decided that it would be beneficial if an even greater number of presenters could be invited to attend the event. It was thought that this could help to further enhance the European added value of the conference material. The project partners decided to

include additional sessions during the event for poster presentations. The project team did not have a budget for travel, accommodation and subsistence costs for the additional poster presenters, but they did give them a free space to present their poster and arranged for copies of the posters to be uploaded onto the ANSFR website. Indeed, the project partners' experience of previous conferences suggested that it is not common place for these costs to be reimbursed by conference organisers. This opinion was supported when eleven individuals/organisations agreed to present posters at the event. It is the belief of the conference organisers that the inclusion of poster presentations within the event schedule was a key improvement to the initial project plan. At least eleven additional examples of good practice were formally integrated within the event schedule through the poster sessions. This information could not have been accommodated within the presentation or workshop sessions.

Despite the changes that were made to the initial plan, the project team believe that the event was extremely successful and beneficial. Indeed, the project team believe that the inclusion of the poster presentations represented an improvement to the initial plan because of the additional material that was presented, discussed and exchanged. The project team believe that future events are both wanted and needed in order to continue the European exchange of good practice and experience. Further details concerning the Fire Risk in Europe Conference 2010 are outlined on pages 42-55 of this report.

Creation of a multi-lingual online knowledge and training portal

The original project plan stated that two separate systems would be created during the ANSFR Project. The first system was to be an online knowledge portal which would electronically store documents and website links, present news items and facilitate networking among practitioners around Europe within a secure environment. The second system was to be an online training tool containing documents that could be used by European practitioners to devise and deliver training in fire risk assessment and management. During the first few months of the project, the project manager completed some additional exploratory research into the costs and practicalities of creating the two systems. The findings of this research were briefly discussed with the project partners and it was decided that it was possible and more cost effective to combine the two systems. This revision to the project plan ensured that all resources developed during the ANSFR Project are now available in one place, which is of significant benefit to all end users. This combined system was delivered without making compromises regarding the system specification.

For the sake of brevity, the combined knowledge portal and training system is referred to throughout this report as the ANSFR website. It should be noted here that the combined system which has been created is much more comprehensive and has a much greater level of functionality than a simple web page. The system is, nevertheless, accessed in the same way as any other website.

Further information about the actual system that was delivered is presented on pages 60-66 of this report.

Development and circulation of recommendations concerning good practice in fire risk assessment and management

The project team initially planned to produce at least three recommendations for each project theme (general fire risk; accidental fire risk; environmental fire risk; and, social fire risk). The plan outlined that at least three draft recommendations would be developed during the concluding sessions of each project workshop. This meant that the target was to develop at least twelve recommendations. While the initial plan was good, the actual recommendations delivered, and the way in which they were developed, deviated slightly. Firstly, the project team actually exceeded the initial target by producing 26 recommendations:

- 9 general recommendations
- 6 recommendations regarding accidental fire risk
- 8 recommendations regarding environmental fire risk
- 3 recommendations regarding social fire risk

Secondly, the project team found that it was too difficult to develop draft general recommendations following the first workshop in Northumberland. This was primarily due to the fact that the event was held very early in the project and that it also incorporated project management and team building activities in addition to the core workshop content of presenting and discussing good practice. The project team did, however, develop find it appropriate to develop recommendations during the concluding sessions of the three theme specific workshops. The project team found it more appropriate to develop the general recommendations of the project during the final workshop of the final year of the project. The general lesson that was learnt here is that transnational project partners do need time during a project to be able to absorb and discuss material before developing draft recommendations.

The project team initially planned to disseminate the recommendations of the project during the project conference. However, a number of factors restricted the degree to which this was possible. Firstly, the project conference was brought forward because of difficulties in finding a date for all of the project partners to attend the event. Secondly, one of the project workshops was cancelled due to the volcanic ash cloud from Iceland which closed the airspaces of many countries in Europe. The workshop was subsequently delayed to a date that was later than the project conference, which meant that the project team had not discussed and developed recommendations related to one of the three project themes. In order to address this issue, the project team used the conference to raise awareness of good practice that had been identified during the first three project workshops and to raise awareness among the delegation of the fact that a report of recommendations would be produced and circulated at the end of the project. A copy of the final report of recommendations has since been sent to all registered users of the ANSFR website and to all delegates who attended the Fire Risk in Europe Conference 2010. The project team have also uploaded the final report of recommendations (in all four project languages) onto the project website. In addition, native language copies of the final report of recommendations will be uploaded onto the websites of the CO and AB1, AB2 and AB3. During February to June 2011, the project team will further raise the profile of the report by publishing informative articles within fire and rescue related magazines. These articles will signpost practitioners in Europe to where they can obtain copies of the report. The team will ensure that magazines are published and circulated within all of the project countries and within other European countries.

The report of recommendations has also been disseminated at a national level by the project partners:

- In the UK, NFRS has sent copies of the report to:
 - Communities and Local Government (CLG), the government department responsible for the Fire and Rescue Service in the UK.
 - The Cabinet Office, a government department with responsibility for civil contingencies within the UK.
 - The President of the Chief Fire Officers Association²¹ (CFOA) in England and Wales²².
 - All Chief Fire Officers in the United Kingdom

²¹ Website: <http://www.cfoa.org.uk/>

²² A copy of the report has since been uploaded onto the CFOA website and NFRS has already received very positive feedback from a number of individuals within CFOA.

- The Chief Fire and Rescue Advisor to CLG
- The Chief Executive of the Fire Service College²³, Moreton in Marsh, Gloucestershire, England.
- In Denmark, F-HFRD has sent copies of the report to:
 - Chief Fire Officers Association of Denmark
 - PRIMO Public Risk Management Organisation²⁴
 - Association of Danish Mayors
- CNVVF – NIA has sent copies of the report to:
 - The Chief of CNVVF
 - The Central Directorate for Emergencies and Technical Rescue within CNVVF.
 - The Civil Protection Department within CNVVF.
 - Corpo Forestale dello Stato²⁵ – Nucleo Investigativo Antincendi Boschivi²⁶.
- In Finland, ESC has sent copies of the report to:
 - Ministry of Interior, department of rescue services
 - Ministry of Environment, department of housing and building
 - Regional Rescue Services
 - Emergency Services College
 - Finnish Association of Fire Chiefs
 - Finnish National Rescue Association
 - Federation of Finnish Insurance Companies

²³ Website: <http://www.fireservicecollege.ac.uk/>

²⁴ Website: http://www.primo.dk/PRIMO_DENMARK-3944.aspx

²⁵ Website: <http://www3.corpoforestale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/1>

²⁶ Website: <http://www3.corpoforestale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/330>

3. General Evaluation of the Project Management and Implementation Process

3.1 Positive aspects/opportunities

3.1.1 The Partnership between NFRS, F-HFRD, CNVVF-NIA, and ESC

The ANSFR Project represented the first time that any of the four partner organisations had worked with one another on a transnational collaborative project. Despite this, all of the project partners conclude that the project team developed a very strong partnership. In response to the development of this mutually beneficial partnership, all of the partners have pledged to continue to sustain and nurture the partnership beyond the life of the ANSFR Project.

The project team have identified three key factors that positively influenced the development of an excellent partnership between the project partners. In summary these are:

- Previous experience among the partners of delivering local, national and transnational project.
- Awareness among all the partners of project and financial responsibilities and limitations from the outset.
- Acknowledgement of a key factor that slightly restricted a partnership of a previous transnational project delivered by NFRS.
- Informal nature of the project workshops.

Each of these factors is now briefly explained.

The previous experience of project management and delivery among the project partners provided a good foundation for the partnership. All of the partners had experience of previous successful partnerships for the delivery of daily duties and specific one-off projects. Both NFRS and ESC had considerable experience of delivering transnational, national and more localised projects on fire-related issues. Also, F-HRD and CNVVF-NIA both had experience of delivering successful projects at national and local levels. While this was a new project team at the start of the project, each of the partners had a good foundation of project experience, and a good understanding of effective project management and delivery processes, from which to draw upon.

Another factor contributing to the excellent partnership that was developed was that all of the partners were acutely aware of their individual responsibilities with regards to finances and the delivery of specific activities from the outset of the project. The responsibilities of all of the partners were clearly and concisely outlined within the project plan and budget. All partners were invited to contribute their suggestions to the project design and project budget, and these documents were mutually agreed by all partners prior to the submission of the co-financing application. Partners' responsibilities and commitments were also further expanded and described within the signed Partnership Agreements between the Coordinating Beneficiary (NFRS) and the Associated Beneficiaries (F-HFRD, CNVVF-NIA and ESC) and the detailed Project Management Handbook²⁷. Again, both of these documents were mutually agreed by all of the project partners.

²⁷ The fourteen page "ANSFR Project - Project Management Handbook" was created and circulated by the Project Manager during the first month of the ANSFR Project. The Handbook made specific reference to the following key issues: project manager's contact details, project time and task management, communication between the project partners, project finances and financial rules of the co-financing agreement, payment schedule for the pre-financing grant payments, submission of documents and information for inclusion within project progress reports, recording

A third contributing factor of success stems from the integration of a critique of a previous transnational project coordinated and delivered by NFRS. The E-API Project was delivered between 2007 and 2009 and was co-financed by the European Union. The project was extremely successful in achieving its objectives and delivering its expected outputs, however, the project team identified a key factor that limited the project partnership and, specifically, the associated beneficiary's contribution to the project. This limitation stemmed from the fact that the associated beneficiary only had a budget for travel and subsistence costs and did not have a formal budget for staff hours worked on the project. Increased workloads and pressures within the associated beneficiary, and the lack of funding to cover staff hours worked on the project, meant that the associated beneficiary had to cut back the amount of time spent working on the project. Had this scenario been identified as a possible risk, then the associated beneficiary may have had an even greater involvement in some of the project activities. To address this limitation, the ANSFR project team ensured that sufficient staff hours were included within the project budget for all beneficiaries. Irrespective of internal workloads, this approach ensured that all partners had a pre-defined commitment and budget for staff hours.

The fourth and final contributing factor was that the four project workshops were designed to be informal. This allowed the project team and external participants to talk freely and openly within a relaxed atmosphere. It also allowed the project team to explore ideas and issues as they emerged, rather than waiting to fit discussions into more formal and rigid structures. In addition, the first project meeting, the Northumberland Workshop in May 2009, incorporated ice-breaker and team building sessions which were designed to break down barriers and foster a good understanding and relationship between individual team members. It was for this purpose that each of the project workshops and the project conference included evening social sessions for the team to attend. These evening sessions helped the team to bond and maximised the time spent discussing project work and issue.

While the outputs that were delivered during this project are of significant importance to the professional fire community throughout Europe, the project partners all agree that they have all learnt some important lessons regarding the development of successful cross-border partnerships. These lessons will inform the design and delivery of future projects and activities. In addition, some of the project partners have decided to work together in the near future. For instance, in early 2011, NFRS will deliver advanced wildfire training to several officers from F-HFRD in order to transfer and exchange knowledge and skills in this specialist area of fire-fighting. The project partners are also looking into several other possibilities for future collaboration.

3.1.2 Development of new cross-border partnerships for the future

During the implementation of the project, the project partners developed a number of new external links and partnerships. The workshops provided a key opportunity for project partners to develop and nurture new partnerships. The project partners developed a good partnership with the Hellenic Fire Service²⁸ in Greece during the early stages of the project. This partnership led to the attendance of a Hellenic Fire Service Officer specialising in wildfire suppression and prevention at the Frederikssund-Halsnæs Workshop in September 2009. The project partners also developed a new partnership with the Monash Sustainability Institute²⁹ (MSI) in Australia, which is currently delivering a programme of projects related to the prevention of bushfire arson

of staff hours worked on the project, travel and subsistence for the project workshops, project identity and promotion and dissemination of the project activities and outputs. The document also included a summary of key project deadlines.

²⁸ Website: <http://www.fireservice.gr/pyr/site/home.csp>

²⁹ Website: <http://www.monash.edu.au/research/sustainability-institute/>

in Australia³⁰. A Chief Research Officer at MSI also attended and contributed to the Frederikssund-Halsnæs Workshop, and engaged in regular contact and discussion with the project team over the life of the project.

Another ANSFR activity to provide opportunities for the project team to develop new cross-border partnerships was the Fire Risk in Europe Conference 2010. Indeed, the event also provided opportunities for all delegates present to develop new contacts and partnerships. Many of the individuals attending the event were unknown to the project team, but many continue to stay in touch even though the event was held more than six months ago. The ANSFR website also provides all delegates at the conference with the ability to continue networking and sharing information and ideas long after the completion of the project (and at least until March 2013).

It is extremely unlikely that many of the new contacts and partnerships that were made and nurtured could have been developed were it not for the implementation of the activities of the ANSFR Project. While all of the project partners are always open to external influences, ideas, and practices, none of the organisations have the time or resources to routinely develop the number of links and contacts that were made during this project. While this has obviously been of significant benefit to the project partners, the creation and development of new links and contacts (particularly through the contact network that is stored on the ANSFR website) will also benefit a considerable number of organisations and professional individuals across Europe, and beyond.

3.1.3 Management of inter-partner interaction and communication

At least one officer from each of the partner organisations was given overall responsibility for managing their organisations' contributions to the project. They were responsible for coordinating project administration, financial reporting, progress reports, work allocation and completion and submission of tasks for their organisation. Dedicated project officers within each organisation were also responsible for coordinating specialist contributions to the project from departments within their own organisation. Finally, they also took overall responsibility for designing and delivering their organisation's workshop, although the Project Manager at NFRS also provided guidance, support and assistance in the completion of this role.

The project team conclude that a dedicated project contact within a partner organisation is of vital importance for the successful delivery of transnational projects. This ensures that close mutual relationships can be developed and accountability is firmly established. It is also of significant importance that project contacts can communicate fluently in one common language to ensure effective and efficient exchange of ideas and information. In the case of the ANSFR Project, all dedicated personnel working for the partner organisations could communicate fluently in English.

3.2 Internal difficulties encountered

NFRS have concluded that the project management mechanisms and techniques adopted by the project team ensured the successful delivery of the project within the original schedule and without any delays. In particular, time charts and regular progress assessments and reports ensured that the project remained on target. Where there were slight slippages in deadlines, these were quickly identified and measures were put in place to ensure tasks quickly returned to schedule. The project partners were regularly informed of progress and were able to adapt their time commitment to individual tasks at particular points in time. This constant checking

³⁰ Further information about the Australian Bushfire Arson Prevention Initiative is available at <http://www.monash.edu.au/research/sustainability-institute/bushfire-arson/>.

procedure ensured that there were no significant slippages and no significant knock-on effects for subsequent activities.

The comprehensive project management approach, coupled with the excellent partnership that developed between the project team, helped to reduce the likelihood of any internal difficulties. Those internal difficulties that did occur were rapidly addressed and none had a significant impact upon the project delivery. The ANSFR partners also identified one area of improvement for future events concerning contingency planning for multinational events. While there was no significant impact on future events, it was decided that had the scenario been slightly different, there could have been an impact which had not been planned for. The three slight internal difficulties that were identified are discussed in turn in more detail below. Specific reference has been made to how these difficulties were addressed.

a) Complication regarding booking of travel for project events for one partner organisation

There were some difficulties that were experienced early in the ANSFR Project concerning booking and payment for travel and subsistence for officers from CNVVF. Complications concerning internal rules made it difficult for officers from CNVVF to book and pay for travel through their organisation, even though this had been agreed in the partnership agreement. NFRS worked with CNVVF to rectify the situation and to ensure that CNVVF staff could attend the first workshop in Northumberland. The agreed solution was for NFRS to retain the pre-financing amount due to CNVVF for travel and subsistence (but still to distribute the pre-financing amount for personnel costs) until officers from CNVVF could provide invoices/receipts for travel and subsistence. Upon production of receipts, NFRS then reimbursed CNVVF officers for these costs.

b) Contingency planning

During some of the workshop events, the host organisation had planned for a limited number of possible problems that might occur. Partners had plans in place for unexpected delays to the event timetable; however, contingencies were not always planned in enough detail for very serious problems, such as the volcanic eruption in Iceland which prevented all overseas partners from travelling to Finland. While the situation was not too serious, as all partners were prevented from travelling and all were entitled to a refund for their travel, the situation could have been more complicated. No plan was developed to cover the scenario of some partners being able to travel with some partners being prevented from travelling. It is a difficult scenario to address, however, had it occurred it would have been easier and more efficient if the team had pre-planned their actions, preferably in a staged contingency plan³¹. The project partners will consider developing contingency plans around similar scenarios for future events attended by individuals from multiple countries.³²

c) The need to communicate contingency plans to project partners prior to event

In addition to not developing all-encompassing contingency plans for the workshop events, where contingency plans were developed, these were not always communicated to all of the project partners prior to the event. Should a problem have occurred, it would have been useful for all project partners to be aware of what the contingency plans might be, especially as communication may be temporarily lost between partners in transit. This experience has led the

³¹ A staged contingency plan involves a number of different scenarios, usually of varying severity, with associated actions to take should that scenario occur.

³² After experiencing the postponement of the Kuopio Workshop, the ANSFR Project team did develop a comprehensive staged contingency plan for a volcanic eruption or similar major event during the Fire Risk in Europe Conference 2010. Thankfully this plan was not put into practice, but the team were prepared for multiple scenarios, including non-attendance of multiple speakers and/or some delegates and speakers being grounded and unable to return to their home countries after the event.

ANSFR partners to decide that they will individually develop contingency plans for this type of scenario for use at future multinational events.

3.3 External difficulties encountered

3.3.1 Very minor language barriers

Minor language barriers were experienced on a very small number of occasions by members of the project team. This issue was anticipated by the project team. Language barriers were not a significant issue because the informal nature of the workshops allowed the team to openly discuss and attempt to explain any issues or ideas that were not understood by one or more participants. The informal nature of the workshops meant that questions were actively encouraged and the team building delivered during the early stages of the project was designed to help make individuals feel comfortable asking questions to each other. When language barriers were experienced while the project team was working on tasks remotely (i.e. via email), everybody was patient with one another and tried to provide alternative explanations, sometimes through the use of web translation tools.

When delivering international cross-border projects, particularly to a large number of countries speaking multiple languages, translation of all documents produced and distributed is rarely cost effective or possible. Consequently, it is concluded that project officers need to use their initiative to identify other less costly methods of translating and communicating information for transnational projects. The approach adopted during this project was particularly successful in breaking down most communication barriers while reducing the cost of document and simultaneous translation.

3.3.2 Minor difficulties recruiting delegates for the Fire Risk in Europe Conference 2010

In contrast to a previous European fire conference organised by NFRS, it was relatively more difficult to recruit delegates to attend the ANSFR Project Conference. There were a number of reasons identified for these difficulties:

- Economic recession and budget cuts within many European countries.
- No existing network of risk assessment specialists to target conference advertising.
- Major flight disruptions in Europe in Spring/Summer of 2010 (caused by the volcano in southern Iceland) which meant that some potential delegates were anxious about attending an international event for fear of being unable to get home from another country and the associated impact of such a situation on personal lives and work commitments.

The project team believe that these three factors meant that a smaller number of delegates attended the Fire Risk in Europe Conference 2010 than anticipated; although the project team did manage to exceed the minimum target of 100 delegates from 15 countries (125 delegates from 18 countries attended the event). While it was a significant challenge at the outset of the project to recruit enough delegates for the event, the project team believe that by developing a range of strategies they were able to successfully identify and contact a significant number of practitioners. It is concluded that the project team were successful in recruiting a satisfactory number of delegates and achieved an excellent representation of countries. The advertising campaign that was implemented by the project team is outlined in more detail on page 42-45 of this report.

3.4 Cooperation with the European Commission

The desk officers assigned to the project, Biljana Zuber and Ioanna Sgourdopoulou-Karra have been extremely helpful during the entire course of the project. Queries regarding the project

were always dealt with very quickly and efficiently. The desk officers always provided concise practical advice when sent queries regarding the complexities of the grant agreement and European Commission rules. The project team believe that a good working relationship was established between the project team and the officers working for the Commission and that this was of significant importance for the successful delivery of the project. It should be noted, however, that one slight challenge did emerge in terms of communication between NFRS and the European Commission. During the early stages of the ANSFR Project, a dedicated contact within the European Commission DG Environment was assigned to receive and respond to financial queries about the project. NFRS found this to be an excellent system. The contact provided good, clear advice in a timely fashion. However, when the Civil Protection Financial Instrument was transferred to DG ECHO, NFRS were not given contact details of a dedicated officer to send financial queries. Officers from NFRS believe the transfer from DG Environment to DG ECHO could have been improved by supplying more comprehensive information and instructions to those leading projects at the time.

3.5 Comments on European added value

The project team believe that the project has delivered good European added value. This has been achieved through the following activities and/or deliverables:

- Firstly, the Fire Risk in Europe Conference 2010 was attended by representatives from 18 countries (17 European countries and 1 country outside of Europe). A significant number of countries were also represented within the presentation, poster and workshop sessions held at the event.
- Secondly, the final report of recommendations has been translated into the four project languages of English, Danish, Finnish and Italian. The multiple translations of the entire document will help the project team to achieve an even greater level of European added value by ensuring that non-English speaking practitioners (or those able to read only limited English) will be able to benefit from the report.
- Thirdly, the executive summaries of all four of the workshop handbooks have been translated into the four project languages. Again, this ensures that non-English speaking practitioners can easily identify the specific topics that were covered within the individual handbooks. This will help individual practitioners to identify information of most interest and to prioritise which documents to attempt to translate in part or in full. The fact that the handbooks are all available online also provides the opportunity for practitioners to be able to copy and paste text from the handbooks (perhaps from a particular chapter) into online translation machines.
- Fourthly, the ANSFR website includes a built-in translation tool which allows users to automatically translate the website into English, Danish, Finnish, Italian, Swedish, French and German.
- Fifthly, the ANSFR website also includes a number of documents in multiple languages and relevant documents and website links from a total of 20 countries (of which three countries are situated outside of the continent of Europe).
- Finally, the communication strategy adopted for the project was very successful in achieving European added value. Informative articles were published in national fire magazines within the four project countries (UK, Denmark, Italy and Finland) and within the Republic of Ireland and Romania. In addition, some of the magazines published in the UK had large international circulations which thus ensured that the project was

promoted to a significant number of countries both within and outside of the European Union. Project summaries have also been placed on all four of the partners' websites (see Appendix 6 for list of websites and articles published). Finally, the project website went live on 1st April 2010 and contains a lot of detailed information about the project activities. Magazine articles concerning the project were translated³³ and published in 5 EU languages³⁴. A number of the magazines have expressed interest in publishing follow-up articles in 2011 to present and discuss the final recommendations of the project. By publishing material in multiple languages and in a number of countries, the project team have been able to reach out and inform a large number of practitioners working in multiple countries.

3.6 Lessons learnt and possible improvements

During the course of the project design and delivery, the project team have learnt some valuable lessons regarding effective management of large international projects. The experiences of this project have indicated the significant benefits of effective project management. The techniques and methods used during this project helped to mitigate potential problems that may have occurred and which may have delayed progress. To provide a particular example, the confirmation of dates of all project events during the early stages of the project was extremely important. This approach ensured that workloads of all partners were prioritised and balanced to ensure that there were no delays to project meetings/events.

Upon reflection, the project team also learnt some valuable lessons that will inform and improve management of future transnational projects. As has already been noted on pages 17 and 29, the project team have learnt of the significant importance of developing contingency plans for unexpected scenarios that might occur during or around the date of a project event. Detailed contingency plans are particularly important for events which are to be attended by individuals from multiple countries.

The second key lesson that has been learnt was that a formal partnership agreement/contract between partners was extremely useful, as was the production and circulation of a project management handbook during the first few months of the project.³⁵ These documents mapped out the arrangements for the entire project in a clear and concise format³⁶. The documents outlined the responsibilities of each of the partners and the project management and financial procedures that would be applied during the project. By signing and agreeing to the provisions of the agreement and the handbook, all partners were well informed of the tasks that they would complete and the tasks that each of the other partners would complete.

The third and final key lesson that was learnt was that an initial meeting of lead project officers within each partner organisations would have been useful. This meeting could be held within the first two months of the project and would allow the lead project officers to meet to discuss project management issues and to agree dates for future project meetings and events. NFRS did attempt to cover these issues during the first project workshop held in Northumberland; however, the workshop schedule was too full to provide sufficient time to cover all of the issues raised by the project partner organisations.

³³ This cost was not born by the project. The ANSFR Project Partners and some magazine editors covered the cost of translating magazine articles for publication.

³⁴ The languages included: English, Danish, Italian, Finnish and Romanian.

³⁵ Ideally, project management handbooks should be circulated prior to the start of the project. This has been acknowledged for future projects.

³⁶ It should be noted that all partners were invited to comment on the content of the partnership agreement and project management handbook prior to them being signed and finalised. It is important that project managers engage in this type of dialogue so that the opinions of all of the project partners are duly considered and integrated within these documents.

4. Activities

4.1 Comparison between initially planned and actually implemented activities

4.1.1 Monitoring of project activities

In order to monitor the project activities a Gant Chart was produced by the project team during the first few weeks of the project. This chart highlighted the specific time frames for individual project tasks. The chart was constantly reviewed and revised by the project manager. Where risks of slippages were identified, remedial action was taken to reduce the risk of further slippages. As with most projects, the progress of some tasks was slower than had been anticipated at the project outset. The project team were aware from the outset that the key to good project and task management is to identify which tasks can be completed independently of other tasks (i.e. those that do not need to be delivered sequentially) so that, if delays in other tasks occur due to unforeseen circumstances, these independent tasks can be started ahead of schedule to prevent a delay to the entire project. By constantly monitoring and reviewing the progress of individual tasks and amending the Project Task Gant Chart, the project team were able to ensure the timely delivery of individual tasks and the entire project.

Another key element of the project monitoring and management strategy was the production of regular progress reports during the course of the project. As part of the co-financing agreement, the European Commission stipulated that two interim progress reports should be compiled and submitted during the project. In addition, project managers of large projects completed by NFRS are required to submit progress reports to the NFRS Integrated Risk Management Planning (IRMP) Team on a quarterly basis. The Project manager also took the opportunity to discuss a brief progress report with the project team during each of the five key project events (the four workshops and the project conference). This regular progress review process provided a good framework through which the project team were able to monitor the progress of project tasks and activities and the achievement or slippage of targets.

In summary, the following progress reports were compiled during the project:

- **April 2009** - Internal project progress report submitted to NFRS Integrated Risk Management Planning (IRMP) Team.
- **May 2009** – Progress report delivered to the project team by the Project Manager during the Northumberland Workshop.
- **July 2009** - Internal project progress report submitted to NFRS IRMP Team.
- **31st August 2009** – First interim progress report to the project desk officers at the Civil Protection Unit of the European Commission Directorate General for Environment.
- **September-October 2009** - Progress report delivered to the project team by the Project Manager during the Frederikssund-Halsnæs Workshop.
- **October 2009** - Internal project progress report submitted to NFRS IRMP Team.
- **November-December 2009** - Progress report delivered to the project team by the Project Manager during the Roma Workshop.
- **January 2010** - Internal project progress report submitted to NFRS IRMP Team.
- **March 2010** - Internal project progress report submitted to NFRS IRMP Team.
- **30th April 2010** – Second interim progress report to the project desk officers at the Civil Protection Unit of the European Commission Directorate General ECHO.
- **June 2010** - Progress report delivered to the project team by the Project Manager during the Fire Risk in Europe Conference 2010.
- **July 2010** - Internal project progress report submitted to NFRS IRMP Team.

- **August-September 2010** - Progress report delivered to the project team by the Project Manager during the Kuopio Workshop.
- **October 2010** - Internal project progress report submitted to NFRS IRMP Team.
- **January 2011** – Forthcoming internal project progress report to be submitted to NFRS IRMP Team.

4.1.2 Dissemination of project activities

The project team initially planned to disseminate information about the project through four key techniques:

- Delivery of the Fire Risk in Europe Conference 2010 on 21st and 22nd June 2010 and production of conference handbooks.
- Creation and regular revision of website pages providing details about the ANSFR Project on the partners' websites.
- The production of informative articles for publication within national and international fire and rescue publications.
- The production and circulation of electronic copies of the final report of recommendations.

A comparison of the initial and actual dissemination techniques that were implemented during the project will now be described in turn.

One of the key techniques for disseminating good practice and information about the project was the delivery of "The Fire Risk in Europe Conference 2010". By bringing together specialists from across the continent the event would provide a European forum for exchanging good practice. The initial plan was also to produce conference booklets including all of the conference materials. This technique would allow the project partners to share the material generated and presented at the conference to an even wider audience after the event. However, the project team decided to modify the original plan by not producing hard copy conference handbooks. It was decided that this technique would be relatively costly, both in economic and environmental terms. In order to produce a handbook with enough detail for those not present at the event, the project team believe that they would have needed to print a document of at least 100 pages. Rather than complete a substantial volume of printing, it was decided that all conference material would be made electronically available to registered users via the conference website. The website was already a key deliverable of the project so there was no additional cost involved. An additional benefit to this strategy was that the project team could raise awareness of the project and pull users in from the conference delegation and from wider a field. The hope is that users who access the conference material will also look at other parts of the website and, if they find information of use and interest, they may return at a later date.

The second key dissemination technique was the creation of website pages. The project team believe that the websites were a very effective dissemination tool and that the majority of queries about the project came from individuals who had read the website material. The use of websites also helped the project team to disseminate the project deliverables to a worldwide audience. By creating one update or uploading one additional document, the project team, are able to contact hundreds, if not thousands, of individuals across the World. Analysis of website traffic³⁷ shows that there have been more 13,000 page views on the ANSFR website alone between 1st April and 31st December 2010.

The initial plan of the project was to create two sets of website pages:

³⁷ Further information about website traffic to the ANSFR website can be found on page 65 of this report.

- The project team were to create basic website pages on each of the four project partners' website. These website pages would include a basic summary about the project (translated into the native language of the partner). The addresses of the website pages that were actually created are listed within Appendix 6.
- The project team aimed to use the ANSFR website, one of the key deliverables of the project, to disseminate a considerable amount of information about the project. The ANSFR website would also provide the public and registered users access to all other project deliverables.

Both of these initial plans were implemented. In addition, NFRS created six website pages about the project within the Northumberland County Council website. The pages provided an overall summary (about the project and the project partners), information about the Fire Risk in Europe Conference 2010, and specific information about the four project workshops. These pages provided more detailed information to the brief summary pages created on the partners' websites and provided a central point of information about the project. This was of key importance for promoting the project prior to the creation of the ANSFR website (which was not live until 1st April 2010, which was ahead of schedule but still 15 months after the start of the project). As per the Common Provisions of the Grant Agreement, reference was made on the website pages of the financial contribution from the European Union.

The third key disseminate technique was the publication of informative magazine articles about the project. All of the project partners assisted in completing this work. The initial plan was to publish two articles within each project country (UK, Denmark, Italy and Finland):

- The first article to be published in 2009 (during the first year of the project) to raise awareness of the project activities and to invite practitioners to contact the project team with examples of good practice;
- And, the second article to be published in 2011 to document the key findings of the project and to raise awareness of the ANSFR website and final report of recommendations³⁸.

The initial plan was amended slightly with the project team also submitting magazine articles for publication in the Republic of Ireland and Romania, two countries which the project team had existing contacts with national fire magazines. The project team also submitted magazine articles to multiple publications in the UK, most of which had a global circulation list. A full list of magazine articles published about the ANSFR Project is presented in Appendix 6.

The fourth key dissemination technique was to produce and circulate electronic copies of the final report containing the project recommendations to all established project contacts (i.e. those contained within the created network of contacts). The initial plan was for this report to be translated into all four project languages (English, Danish, Italian and Finnish) and for it to be uploaded onto the ANSFR website. The project team have completed this activity according to the initial plan.

Finally, an additional dissemination technique that was not foreseen in the initial project plan is now being utilised by the project team via the ANSFR website. The ANSFR website contains a function which allows administrators to compose and circulate mass emails to all or some of the registered users on the website. This means that the project team can quickly and easily

³⁸ These articles have not been submitted for publication at this time. The project team aim to send the articles for publication during March/April 2011. Editors of national magazines in some of the ANSFR countries have already expressed their interest in publishing a follow-up article about the key findings of the project. Consequently, the project team are confident that this objective will be achieved.

circulate an email to inform registered users of new material or about future events. This function is also extremely useful for stimulating and maintaining interest in the website.

By implementing the planned dissemination strategies and by devising and implementing new techniques, the project team have tried to disseminate the activities and final results of the project as widely as possible. The project team believe that the comprehensive dissemination strategy that was implemented was very successful in raising the profile of the project and in sharing the project deliverables across Europe.

4.2 Qualitative evaluation of the activities

Through the use of effective project management techniques, the project team ensured that all key objectives were met and, in some cases, exceeded. Reference has been made to demonstrate the qualitative evaluation of the implementation of the project activities in both subsequent and previous sections of this report. Consequently, these comments will not be repeated here.

5. Presentation of the Technical Results

This section of the report will now discuss, in turn, each of the key project deliverables. Each sub-section will describe and evaluate an individual deliverable and how the deliverable was disseminated. The European value added and the transferability of each deliverable will also be referred to, where appropriate.

5.1 Delivery of Four Project Workshops

A key deliverable of the project has been the organisation and delivery of four workshop sessions. The project plan dictated that each of the signatory partners (NFRS, F-HFD, CNVVF-NIA and ESC³⁹) would host a two day workshop within their country/locality⁴⁰. Each of the workshops was then assigned a different project theme, meaning that all key areas related to fire risk assessment and management could be discussed face-to-face by the partners at some point during the project.

The workshop hosts were given responsibility for designing, planning and delivering their event, with NFRS coordinating and providing advice for all four events. This system ensured that the workshops were designed so as to achieve the key objectives and outcomes of the project, but it also allowed each partner organisation to design their workshop so as to reflect their expertise in particular areas related to fire risk assessment and management.

From the outset, the project partners recognised the importance of selecting the most appropriate techniques for delivering different sessions within each of the workshops. Each partner organisation delivered at least one presentation during each workshop. This ensured that each partner was able to provide an overview of the situation within their locality/country with regards to each of the project themes. These presentations served as a useful starting point from which to begin further discussions and debates. In addition to the presentation sessions, all of the workshops included field visits, which enabled workshop participants to gain first-hand experience of the landscapes (both human and physical) within which all of the ANSFR partners assess and manage fire risk. The final key delivery method was the integration of small group work sessions. During these highly interactive sessions⁴¹, participants were divided into smaller groups containing representatives from each of the project countries. The groups were then given questions and/or problems to answer/solve and issues to discuss.

A brief summary of each workshop is now provided on the following pages. Detailed handbooks documenting all material generated from each of the workshops have already been produced. These handbooks are publicly available on the ANSFR website and have already been made available to the desk officers within the Civil Protection Unit.

³⁹ K-HES and SWFES assisted ESC in designing and delivering the Kuopio Workshop.

⁴⁰ Two full work days were allocated to each workshop, with an additional day either side allocated to travel to/from the event for participants attending from various countries. Three of the four workshops included field visits, presentations or other informal sessions on the day of arrival, which meant that these workshops maximised contact time between the project partners to extend the workshops into three day events.

⁴¹ Through the post-event evaluation process completed for each workshop, the ANSFR Partners identified that the small group work sessions were notably the most productive and collaborative sessions of the workshops.

5.1.1 Workshop 1 – Northumberland (UK), May 2009

The Northumberland workshop was the first of four workshops to be designed and delivered during the ANSFR Project. The event focused on developing an understanding of the project partners' current challenges and priorities regarding fire risk assessment and management. After discussing these challenges, partners then described and discussed the approaches and initiatives that they currently implement to reduce and prevent fire risk.⁴²

Figure 2 – Team Building and the Generation of Ideas during Small Group Work Sessions held at the Northumberland Workshop, May 2009



Photographs courtesy of Matthew Thomas, NFRS

⁴² Further information about the Northumberland Workshop is available at: <http://www.fire-risk.eu/project/workshops/northumberland2009.htm>.

5.1.2 Workshop 2 – Frederikssund-Halsnæs (Denmark), September 2009

The Frederikssund-Halsnæs Workshop was hosted by Frederikssund-Halsnæs Fire and Rescue Department and focused on the assessment and management of environmental fire risk. Specialists in the prevention and suppression of wildfires and forest fires from the project countries, Greece and Australia attended and contributed to the event. The event produced some extremely important findings which revealed some areas for possible improvement in the partners' current wildfire suppression and prevention activities. Some of the partners have now pledged to work together in the near future to deliver and receive training in wildfire risk prediction systems and suppression strategies. These future projects will help fire fighters and incident commanders better interpret and predict the risk posed by developing wildfires.⁴³

Figure 3 – Demonstration of Fire Fogging Technology on a Field Visit to the Tisvilde Forest during the Frederikssund-Halsnæs Workshop, October 2009



Photographs courtesy of Ole Lindblad, F-HFRD

⁴³ Further information is available at: <http://www.fire-risk.eu/project/workshops/frederikssund2009.htm>

5.1.3 Workshop 3 – Roma (Italy), December 2009

The Roma Workshop was hosted by Corpo Nazionale dei Vigili del Fuoco - Nucleo Investigativo Antincendi (CNVVF-NIA) and focused on assessment and management of accidental fire risk. A number of departments within CNVVF and from across Italy contributed and participated in the workshop to share the benefit of their expertise and experience. Some of the specific topics that were discussed and debated during this workshop included: fire safety in the home; fire safety in industrial premises; fire inspections; reducing fire risk in cultural/heritage buildings; reducing risk of fire from trains carrying volatile/flammable substances; fire safety testing and engineering; fire inspections and risk-based inspection schedules.⁴⁴

Figure 4 – LPG Gas Transfer Demonstration by Officers of Corpo Nazionale dei Vigili del Fuoco during the Roma Workshop, December 2009



Figure 5 – The ANSFR Project Team during a field visit to Scuola di Formazione Operativa, Montelibretti, during the Roma Workshop, December 2009



Photographs courtesy of Heikki Harri, K-HES and CNVVF

⁴⁴ Further information is available at: <http://www.fire-risk.eu/project/workshops/roma2009.htm>

5.1.4 Workshop 4 – Kuopio (Finland), September 2010

The Kuopio workshop was the final workshop to be delivered during the ANSFR Project. The event was hosted by the Emergency Services College in September 2010 and focused on the assessment and management of social fire risk. The topics that were discussed at this event included: arson prevention and investigation; reducing risk of fire for individuals living “high risk lifestyles”, risk assessment for care centres, fire risk among children/young people and the elderly, techniques for using incident data to support and inform fire prevention strategies and initiatives, risk assessment and management for public sporting events.⁴⁵ The workshop also benefited from an extremely informative presentation by an officer from the Ministry of the Interior of Finland on the Internal Security Programme (ISP), which was adopted in 2008.⁴⁶

Figure 6 – Practical Demonstration of Automatic Fire Sensor Systems within the Fire Theatre of the Emergency Services College, during the Kuopio Workshop, September 2010



Photographs courtesy of Heikki Harri, K-HES

⁴⁵ Further information is available at: <http://www.fire-risk.eu/project/workshops/kuopio2010.htm>

⁴⁶ The key vision of the ISP is to make Finland the safest country in Europe by 2015. This vision will be achieved by implementing a number of measures, including the reduction of fire deaths and the installation of automatic fire suppression systems within all nursing and care home facilities in the country.

5.2 Delivery of the “Fire Risk in Europe Conference 2010”

A key element of the project was the organisation and delivery of The Fire Crime in Europe Conference 2008. This event was hosted by the Northumberland Fire and Rescue Service and was collaboratively designed and delivered by all of the partners working on the ANSFR Project. The event was held on 21st and 22nd June 2010 at the Gosforth Park Marriott Hotel, near Newcastle upon Tyne in northern England. Practitioners from 18 European countries working at both senior and grassroots levels attended the event.

5.2.1 Aim and objectives of the conference

In January 2010, the project team decided that the aim of the conference would be:

“To provide an international forum for fire and rescue practitioners involved in fire risk assessment and management and to facilitate the exchange of information, experience and good practice between those attending.”

In order to achieve the conference aim, the organisers decided that the event would need to satisfy five specific objectives:

1. To achieve an attendance level of at least 100 practitioners from 15 European countries.
2. To schedule formal and informal sessions within the conference agenda to stimulate and facilitate excellent interaction and networking among delegates.
3. To include speakers within the event schedule from at least ten countries⁴⁷.
4. To coordinate and deliver at least three small group problem-solving workshops that facilitate delegate interaction through problem-solving exercises.
5. To provide all delegates with electronic access to material presented and discussed during the conference.

Central to achieving the conference aim and objectives was the development of an appropriate communication strategy through which to attract speakers and delegates from across Europe.

5.2.2 Conference communication strategy

The ANSFR Project Team developed a comprehensive and multi-faceted communication strategy. The event organisers needed to promote the event to practitioners working across Europe in order to attract a good representation of speakers and delegates. The conference brand was used throughout the strategy so that practitioners across Europe would come to recognise the brand and logo. In addition, all of the ANSFR Partners provided corporate logos and images for use in the event advertising and promotion literature. The corporate images in particular provided a clear visual representation of the European (rather than national) nature of the conference and the ANSFR Project.

The pre-event advertising campaign incorporated a number of traditional and more contemporary methods of communication, including:

- A campaign newsletter was created and circulated at regular intervals during April, May and June 2010 through two email distribution lists.
- Conference advertisements were purchased and informative articles were published in 11 fire and rescue-related publications circulated in Europe and worldwide (see Table 1, below).

⁴⁷ From the four project countries (UK, Denmark, Italy and Finland) and a further six countries.

- A bespoke booking website was created to advertise the event, present draft copies of the event schedule and to provide an online registration facility for delegates. This website was available at <http://www.fireriskeuropeconference.com/>
- A page was created on the ANSFR website to promote the conference, provide details about registration and to present the draft and final copies of the event schedule.
- A website page advertising the event was created on the NFRS/Northumberland County Council (NCC) website at <http://www.northumberland.gov.uk/default.aspx?page=7707>
- Advertisements were placed on the websites of third party organisations (see Table 2, overleaf)
- An email invitation was issued to all members (550 individuals in 37 countries) of the European Network of Arson Practitioners, an information sharing network with practitioners working in multiple fields connected to risk assessment and management.

The advertisement placed within the fire and rescue-related magazines was designed by a graphic designer and formed the basis for the branding of the entire event (see Figure 7, overleaf, for a copy of the advertisement). This brand was later adopted by the ANSFR Project as a whole. The graphic design gave the event a strong and easily identifiable identity.

Table 1 - Magazine Advertising for the Fire Risk in Europe Conference 2010

| Name of Publication | Media | Country | Description of Advertising/Promotion | Circulation |
|----------------------------|--------------------|---------------------|---|---|
| Brandvæsen | Advert | Denmark | One half of a page advert published in April 2010 issue. | Largest circulation fire magazine in Denmark, published by the Association of Danish Chief Fire Officers. |
| Pelastustieto | Advert | Finland | One quarter of a page advert published in May 2010 issue. | National fire magazine, with 6534 readers in Finland. |
| Antincendio | Advert and Article | Italy | One half of a page advert published in May 2010 issue. Also, a two page article on the conference was published in Italian in May 2010 issue. | National fire magazine produced in Italy by the Corpo Nazionale dei Vigili del Fuoco. |
| Feuerwehr Fachsjournal | Advert | Germany | One third of a page advert published in May 2010 issue. | German language magazine with Over 10,000 readers in Germany, Austria, Luxembourg and Switzerland |
| Burning Issue | Advert | UK | One third page advert published in May/June 2010 issue. | Nationwide, free distribution to the public sector, sent to all Fire and Rescue Services in the UK |
| Fire Magazine | Advert | UK | One quarter page advert published in April 2010 issue. | 4,500 readers including UK, and Overseas |
| Fire Risk Management | Advert | UK | Two half page adverts published in April and May 2010 issues. | 10,000 UK readers and 5,000 overseas readers including 65 countries worldwide |
| Fire Times | Advert and Article | UK | One quarter page advert published in May 2010 issue. An editorial on the conference of 500 words was also published in the May 2010 issue. | 5,000 targeted readers, distributed free of charge. |
| In attendance | Advert | UK | One half page advert published in May 2010 issue. | Circulation list of 10,000 copies within the UK. |
| Emergency Services Ireland | Article | Republic of Ireland | Article on the ANSFR Project and Fire Risk in Europe Conference 2010 published in Issue 34 (pages 70-75) and Issue 35 (page 125). | National emergency services magazine in Republic of Ireland. |
| Revista Pompierii | Article | Romania | Article published in Romanian in May 2010 issue. | National fire magazine in Romania. |

Table 2 - Website advertising for the Fire Risk in Europe Conference 2010

| Name of Website | Web address | Country | Description of Advertising/Promotion |
|---|---|---------|---|
| Asociación Nacional de Investigadores de Incendios (ANINCE) website | http://www.anince.es/ ⁴⁸ | Spain | Conference information published as a news item on 25 th March 2010. |
| Chief Fire Officers Association website | http://www.cfoa.org.uk ⁴⁹ | UK | Free advert posted on the website. Published online since 5 th April 2010. |
| Hemming Fire Online | http://www.hemmingfire.com/ | UK | Free advert posted on the website. Published online since March 2010. |
| Northumberland County Council website | http://www.northumberland.gov.uk ⁵⁰ | UK | Short information article published in the website since February 2010. This article has been updated over time, and now contains post-event information. |
| Norwegian Association of Fire Officers website | http://www.nblf.no ⁵¹ | UK | Free advert posted on the website. Published online since 30 th April 2010. |

Figure 7 – The Fire Risk in Europe Conference 2010 Advertisement

Fire Risk in Europe Conference 2010

The Marriott Hotel Gosforth Park,
Newcastle upon Tyne, England

Monday 21st & Tuesday 22nd June 2010



Northumberland Fire and Rescue Service (UK) have the pleasure of hosting this event in partnership with Frederikssund-Halsnaes Fire and Rescue Service (Denmark), Corpo Nazionale dei Vigili del Fuoco - Nucleo Investigativo Antincendi (Italy) and the Emergency Services College (Finland).

The conference will provide a European platform for sharing best practice, knowledge and experience on how to identify, assess and manage fire risk. Professionals working to prevent and reduce fire risk are invited to attend this important event.

For more information please go to the conference website www.fireriskineurope.com, email Sarah Byrne on the following address ANSER2010@mosaicevents.co.uk or call on +44 (0)845 6434 812







⁴⁸ There was a time expiry date on the item. The item was removed from the site the day after the event.

⁴⁹ http://www.cfoa.org.uk/11346?not_logged_in=true

⁵⁰ <http://www.northumberland.gov.uk/default.aspx?page=7707>

⁵¹ http://www.nblf.no/arkiv_vis.asp?NyhetID=727

On 5th March 2010, the conference booking website went live and the first delegate registrations were received within ten days. On 17th March 2010, the campaign newsletter was circulated for the first time to the two distribution lists. The newsletter was then circulated at regular intervals during the three months prior to the event:

- 27 April 2010
- 5 May 2010
- 21 May 2010
- 3 June 2010
- 10 June 2010

Subsequent circulations of the campaign newsletter included updates regarding the event programme and event information. Those on the circulation list were regularly kept informed about the high level of interest in the event, which allowed the event team to inform prospective delegates when delegate places were approaching maximum capacity.

In addition to using the campaign newsletter and website to promote the event and recruit delegates electronically, the project team created and circulated A5 information flyers and booking forms⁵². The information flyer circulated to potential delegates contained a link to the conference booking website¹⁰. NFRS, F-HFRS, CNVVF-NIA and ESC were all involved in circulating the A5 flyers to colleagues within their own countries and to their personal contacts working in related fields in other countries:

- NFRS circulated the A5 flyers to all 61 Chief Fire Officers in England, Scotland, Wales, Northern Ireland, the Channel Islands and the Isle of Man on 16th March 2010.
- F-HFRS took responsibility for circulating A5 flyers to Fire and Rescue Services in Denmark. Flyers were sent to Frederikssund-Halsnæs on 19th March 2010.
- CNVVF–NIA took responsibility for circulating A5 flyers to provincial commands of the Italian State Fire Service. Flyers were sent to CNVVF-NIA on 27th May 2010.
- ESC assisted in circulating the A5 flyers to the Chiefs of the 22 Regional Rescue Services in Finland. Flyers were sent to ESC on 16th March 2010.

It has been noted by the project partners that the delay in sending flyers to CNVVF had a knock-on effect in terms of reducing the potential for attracting additional delegates from within the Italian State Fire Service. This delay was caused by a slight breakdown in communication between the partners. This may or may not have restricted the size of the delegation from Italy.

The communication strategy that was implemented was very successful in raising the profile of the conference and the project and also helped to attract a number of delegates who, prior to viewing the advertisements, were unaware of the conference.

5.2.3 Presentation and poster sessions

⁵² The A5 flyers essentially contained the same information that was initially presented on the conference website. However, as time progressed, the conference website was updated with new information about the event. This service was performed at no additional cost; however, if the event team had decided to update and reprint the A5 flyers then additional costs would have been incurred. There is clear benefit to utilising websites and hard copy material as part of a coordinated approach to advertising conferences. Websites can be a more cost effective option for providing more timely and up-to-date information during the pre-event and indeed post event period, while hard copy material can be used to draw people's attention to the website.

The project team decided that speakers and poster presenters from across Europe should be invited to deliver presentations/posters on their examples of good practice in fire risk assessment and management. In order to identify and select appropriate speakers and poster presenters, the organisers distributed a call via email (through the distribution list of the European Network of Arson Practitioners) and via the conference and ANSFR Project websites. The call included a brief background to the event, a Presentation and Poster Presentation Pro-Forma to complete to request a presentation/poster slot, and a short section outlining the potential benefits to individuals and organisations of delivering a presentation/poster at the event.

To apply for a presentation/poster slot at the conference, applicants were required to complete a short form to provide contact information and a short abstract (maximum of 200 words) outlining what they proposed to present. The organisers requested that specific information be included in all abstracts, including:

- What fire risk problem was identified?
- How was the problem identified?
- How was the problem assessed/quantified?
- What measures have been put in place to reduce fire risk?
- And, finally, what impact has the implementation of any fire risk reduction measures had?

The call for papers was issued on 12th March 2010 and potential applicants were given until the 14th April 2010 to submit their proposals.

The organisers used the presentation abstracts as one of several methods to select appropriate presentations and posters for the conference. In addition to using the submitted abstracts, the conference organisers also adopted a selection methodology based around several key criteria. It was deemed critical that all presentations delivered at the conference:

- present information about an example of good practice in fire risk assessment and management;
- present an example of good practice that could be adopted in part or whole by practitioners working within other European countries (i.e. the good practice presented must be transferable to other countries and not rely upon specific legal mechanisms or cultural factors);

In addition, the conference organisers also deemed it important to satisfy, as far as possible, the following set of criteria:

- to select speakers from a variety of different countries in order to ensure a truly inclusive European conference. All four ANSFR Project countries would deliver a presentation, but the organising team also decided that a number of other countries from across Europe should, ideally, also be represented;
- to select presentations representing a variety of different topics related to fire risk assessment and management;
- to consider applications
- to select an approximately equal number of presentations addressing the three key themes of the event: accidental fire risk; environmental fire risk; and, social fire risk.

All of the presentation and poster abstracts were reviewed by the project lead, NFRS. 18 presentations and 11 posters were selected⁵³. Severe time constraints meant that the other ANSFR Project partners could not be consulted at any great length about the selection of speakers, although some of the partners did provide some important input to the selection process. The individuals that were selected as speakers were contacted by 16th April 2010 and were asked to confirm their attendance as soon as possible. Those who were not selected were informed that they had been unsuccessful but were informed that they had been placed on a reserve list of speakers in case any of the selected speakers were unable to attend. One applicant was not placed on the reserve list as the presentation topic was not deemed to be relevant and topical to any of the event themes. Those who were not accepted as speakers were asked if they would be willing to submit a poster presentation. Four unsuccessful presentation applicants accepted the offer of creating and presenting a poster.

Speakers delivering presentations at the conference represented 8 European countries and New Zealand (see Table 4, overleaf, for the full list of speakers and presentations selected). Individuals selected to present posters at the conference represented 5 European countries (see Table 3, below, for a full list of poster presenters selected).

Table 3 – Poster presentations delivered at the Fire Risk in Europe Conference 2010

| Author(s) | Organisation | Country | Poster Presentation Title |
|---|--|----------------|--|
| Christian Muckle | European Southern Observatory | Germany | Risk Management in Scientific Intergovernmental Organisations |
| Helen Prior, Richard Hall and Kate Slowinski | Firebrake Wales | United Kingdom | Fire Safety – Make the Connection |
| Matthew Jollands | Forest Research | United Kingdom | Mapping Wildfire Risk, Deprivation Indicators and Resident Perceptions of Wildfire in South Wales, UK. |
| Saverio La Mendola and Biancamaria Cristini | Corpo Nazionale dei Vigili del Fuoco | Italy | Fire Investigation of a Superstore Arson |
| Francesco Notaro, Cristina D'Angelo and Luca Ponticelli | Corpo Nazionale dei Vigili del Fuoco | Italy | A Simple Application of Fire Safety Engineering to Fire Investigation |
| Fabio Giovinazzo | Fire Service Regional Command of Aosta | Italy | Forest Fires in Italy |
| Alain Waser | University of Lausanne | Switzerland | Situational Classification of Fire Risks |
| Dave Myers and Matt Thomas | Northumberland Fire and Rescue Service | United Kingdom | The Northumberland Arson Task Force |
| Paul Langdown | Northumberland Fire and Rescue Service | United Kingdom | Making a Difference to Young People and Local Communities |
| Maria Smedley and Lesley Moore | Warwickshire Fire and Rescue Services | United Kingdom | Anti Social Behaviour Intervention Team (ASBIT) |
| Kathy Burke | West Sussex Fire and Rescue Service | United Kingdom | Working in Partnership to Tackle Domestic Violence |

⁵³ It should be noted that some of the individuals/organisations who were declined a presentation slot were instead offered a poster presentation slot. Some of those who were given this alternative did accept the offer, while some did not.

Table 4 – List of speakers and presentations delivered at The Fire Risk in Europe Conference 2010

| Speaker | Country | Presentation Title |
|---|---------------------------|--|
| Dr. Robert Stacey | United Kingdom | The ANSFR Project: A European project to reduce the human, financial and environmental costs of fire |
| Dr. Esa Kokki | Finland | PRONTO statistical data system for Finnish Rescue Services and applications for fire prevention |
| Ian Clough | United Kingdom | Emergency planning and Community Risk Registers in the United Kingdom |
| Tim Donovan | United Kingdom | Wildfire – weather and climate change |
| Pedro Manuel Palheiro | Portugal | Wildfire management in Portugal: prescribed burning and wildfire suppression activities |
| Rob Gazzard | United Kingdom | Development of wildfire statistics in the United Kingdom |
| Darrin Woods | United Kingdom | Wildfire groups – addressing wildfire risk through collaboration |
| Yvette Schoenmakers | Netherlands | Serial arson and serial arson investigation in the Netherlands |
| Dr. Ian Lambie | New Zealand | The New Zealand Fire Awareness and Intervention Programme: What happens to children 10 years after they leave the programme? |
| Dr. Brita Somerkoski | Finland | Working with juvenile firesetters in Finland |
| Brian Hesler | United Kingdom | Fire Command and resilience arrangements in the United Kingdom |
| George Sorescu | Romania | Fire risk management in Romania |
| Fabio Alaimo Ponziani and Saverio La Mendola | Italy | The role of fire engineering in fire prevention in Italy |
| Stephen Baker | United Kingdom | A Priority Crime? A briefing guide to the investigation of vehicle arson |
| John Amos, Inspector Barry Thacker, Brian Cavanagh, Gunnar Dahl, Sue Tabberer and children from the Pingle School | United Kingdom and Sweden | “The Writing on the Wall”: exploring factors and influences that promote positive behaviour in the school environment |
| Kim Lintrup | Denmark | Working with children and young people to reduce fire risk in Frederikssund-Halsnæs |
| Adam Langner, Alicja Borucka and Tomasz Wiśniewski | Poland | New quality in social fire risk assessment and management in the State Fire Service in Wielkopolska |
| Knut Lehtinen | Finland | Fire and accident safety of disabled persons in Finland |

5.2.4 Workshop sessions

While presentations are an excellent method of conveying information about an initiative, process or procedure, the organisers wanted to include sessions within the schedule that promoted a greater level of interaction among the delegates. It was decided that three workshop sessions would be delivered, each of which would encourage small group

discussions. The three workshops would be simultaneously delivered during three sessions, allowing delegates to attend each of the workshops over the course of the two-day event.

Prior to selecting and/or inviting individuals/organisations to design and deliver a workshop at the event, the project partners devised a set of key criteria that the workshop sessions would need to satisfy.

- the three workshops would be led by three different organisations;
- if possible the three workshops would be led by three different organisations representing three European countries;
- each workshop would address a different key theme of the ANSFR Project (accidental fire risk, environmental fire risk and social fire risk).

The initial plan was for three of the four partner organisations to design and deliver a workshop. However, not all of the project partners were confident designing and delivering a workshop at such a large event. Consequently, NFRS and ESC each took charge of one workshop and provided an overview of their workshop design to the Project Manager for consideration and comment.

In order to recruit a third workshop leader, NFRS approached a number of individuals and organisations across Europe, however, no interest was expressed. NFRS then approached two external companies, Explain Market Research Ltd. and Hippo Creative Ltd., both of which are based in North East England. At the time, both companies were involved in delivering a social marketing project for the North East England Fire and Rescue Services⁵⁴. This innovative project was of strong relevance to the ANSFR Project, particularly with regards to the themes of accidental and social fire risk. In addition, the two companies had significant experience of designing and delivering workshop style events and were willing to deliver the workshop at no cost. The actual workshop sessions and leaders selected for the event are listed in Table 5 (below).

Table 5 – Workshops delivered at the Fire Risk in Europe Conference 2010

| No. | Workshop Leader(s) | Organisation(s) | Country | Conference Theme | Workshop Title |
|-----|---|--|----------------|-------------------------|--|
| A | Paul Usher Kim Davis Lucy Swan Rebecca Johnson | Hippo Creative & Explain Market Research Ltd. | United Kingdom | Accidental Fire Risk | Social Marketing: An Introduction |
| B | Steve Gibson | Northumberland Fire and Rescue Service | United Kingdom | Environmental Fire Risk | Wildfire Risk Prediction Systems |
| C | Dr. Brita Somerkoski and Timo Lopenen | Emergency Services College | Finland | Social Fire Risk | Working together with juvenile firesetters – what works? |

⁵⁴ Further information about the social marketing project is contained on the ANSFR website at <http://www.fire-risk.eu/project/conference2010/socialmarketingworkshop.htm> and within the Kuopio Workshop Handbook, a copy of which is available at <http://www.fire-risk.eu/project/workshops/kuopio2010.htm>.

All but one of the key criteria had been satisfied through the selection of the workshop sessions. The workshops were led by four organisations and each workshop addressed a separate thematic area. Even though the project team had recruited workshop leaders from just two countries, they believe this was an acceptable compromise: the innovation and European added value of the two workshops from the UK (the social marketing workshop and the wildfire workshop) outweighed the desire for representation from three countries.

A month prior to the delivery of the conference, detailed plans of all of the workshops had been submitted to the organisers. The three workshop plans are shown in Figures 8, 9 and 10 (starting below and continuing overleaf).

Figure 8 – Plan for Workshop A

Workshop A - “Social Marketing: An Introduction”

Led by Paul Usher of Hippo Creative Ltd. and Kim Davis, Lucy Swan and Rebecca Johnson of Explain Market Research Ltd. (UK)

Objectives of the session:

- Provide an introduction to social marketing
- Explore how social marketing can be applied in context

Schedule:

20 minutes: Behaviour change

Introduction – thinking about behaviour changes that have happened in society in recent years.

Discussion around the question:

- Can you think of any examples of behaviour change in the last 10, 20 years?

Group discussions will be encouraged. Explain and Hippo will circle the room facilitating discussion on each table. Zing technology will be used to share responses. Common themes will be drawn from responses and used to facilitate discussion further.

40 minutes: Social marketing

Demonstration of how social marketing can be applied to change problem behaviours. Consider key aspects of social marketing. Use of case studies to aid understanding.



Figure 9 – Plan for Workshop B

Workshop B - “Working Together with Juvenile Firesetters – what works?”

Led by Dr. Brita Somerkoski and Timo Loponen of the Emergency Services College (Finland)

This workshop focused on case studies of juvenile fire setting. Small groups of delegates were given a hypothetical incident concerning a juvenile who had set some fires. Groups were tasked with interviewing the firesetter to extract information about the juvenile’s behaviour and possible reasons/causes for this behaviour.

Groups were then asked to discuss two key questions:

1. What *would currently* happen with the juvenile involved with the fire setting?
2. What *should* happen with the juvenile involved in the incident?

The workshop design encouraged delegates to critically reflect on current practices adopted in their countries and localities. It also provided the opportunity for delegates from multiple countries to generate ideas about what improvements can be made in the future.



PELASTUSOPISTO



TULIPYSÄKKI

Figure 10 – Plan for Workshop C

Workshop C - “Wildfire Risk Prediction Systems”

Led by Steve Gibson of Northumberland Fire and Rescue Service (UK)

To improve safety and effectiveness at wildfire incidents, fire fighters need to proactively identify likely fire behaviour and fire spread. This workshop examines the Wildfire Prediction System (WPS) which is a simple practical tool used by Northumberland Fire and Rescue Service at wildfire incidents. The key aim of the session was to inform delegates about the benefits and practical application of using a Wildfire Prediction System at a wildfire incident.

Following a presentation outlining the key principles of the Northumberland WPS, delegates were given an opportunity to participate in a practical exercise. During this exercise, delegates were given an ignition point from which to attempt to use the Northumberland WPS to predict likely fire spread over time.



5.2.5 Delegates attending the event

The conference organisers calculated that they could accommodate 150 day delegate places at the conference. The minimum number of delegates for the event was set at 100 delegates. 125 delegates actually attended the event, which was a good number for the space available. There were a total of 6 no-shows (mostly due to illness) and a total of 4 individuals who showed up who were not registered prior to the event. The only costs that the majority of delegates had to cover during their stay were for travel and accommodation and for any evening meals taken on the Sunday or Tuesday evenings. Delegates were not asked to pay a registration cost to attend the event as this cost was covered within the sub-contracting costs outlined within the Grant Agreement. By providing free day delegate places to the majority of delegates, the conference organisers believe that the event was more inclusive and affordable, particularly for those incurring greater travel costs as a result of travelling larger distances across Europe. However, it should be noted that a significant number of queries were received from prospective delegates due to the lack of clarity concerning registration costs within the conference publicity material. Publicity for future events providing free day delegate places should highlight this more explicitly. This same slight criticism was also identified within the evaluation report of the Fire Crime in Europe Conference 2008, a previous event hosted by NFRS. NFRS will certainly aim to improve the way that future events are advertised so that vital information, such as cost, is communicated more clearly.

5.2.6 Conference evening meal

All delegates attending the conference were invited to attend the Conference Evening Meal at 7:15pm on Monday 21st June 2010. The evening meal was hosted by Northumberland Fire and Rescue Service within the banqueting suite at the conference hotel. Delegates were provided with a Northumbrian themed menu with traditional entertainment provided by a Northumbrian Piper. The aim of the meal was to allow delegates the opportunity to converse and network with colleagues from across Europe within a comfortable setting and atmosphere. Following from experience of a previous European conference hosted by NFRS in 2008, it was decided that a table plan seating arrangement would be implemented for the evening meal. Each table contained two members of the ANSFR Project team. The other delegates sat at each table were selected at random with a view to creating tables with individuals from multiple countries. The conference meal was very well received by delegates, with 99% of people who completed the delegate feedback forms stating that the dinner was either “excellent” or “good”. Some delegates made additional comments that the randomised table plan was a good idea as it stimulated networking among individuals who had not met at any other point during the event.

5.2.7 Evaluation of the conference

The conference was thoroughly evaluated by NFRS with the assistance of F-HFRD, CNVVF, ESC, K-HES and SWFES. Data collected from delegates attending the event was analysed and presented alongside comments and recommendations made during two post-event debrief meetings that were attended by officers from Northumberland Fire and Rescue Service, representatives of all of the ANSFR Partner organisations and Mosaic Events Ltd⁵⁵.

Feedback collected from delegates via delegate feedback forms was overwhelmingly positive. Most importantly, the conference met, and in a number of cases exceeded, the expectations of those who attended. For instance, of those who completed and returned the feedback questionnaires:

- 99% stated that the conference was informative and useful;
- 94% stated that their expectations had been met;
- 99% rated the pre-event organisation as “excellent” or “good”;

⁵⁵ Mosaic Events Ltd. was sub-contracted to manage the event on behalf of the project partners.

- 93% rated the onsite organisation as “excellent” or “good”;
- 67% stated that the selection of presentations and workshop topics was either “excellent” or “good”;
- 100% stated that the venue was suitable for the event;
- 96% stated that the standard of catering was either “excellent” or “good”;
- 99% stated that the conference evening meal was either “excellent” or “good”.

Feedback about several of the key elements of the conference design and delivery which was provided by delegates is presented within Figures 11 (below) and 12 (overleaf). In addition, satisfaction indexes calculated from feedback supplied by delegates regarding the three workshop sessions is presented within Figure 13 (overleaf).

The conference organisers also collected feedback concerning the ANSFR Project website, which went live on 1st April 2010. The following results were obtained from the feedback questionnaires:

- 25% stated they had visited the ANSFR website prior to the event;
- 95% stated that they would visit the ANSFR website after the event;

Of those who had already visited the ANSFR website prior to the event:

- 89% stated that they found the website interesting;
- 80% stated that they found the resource section useful;
- 79% stated that they found the website easy to navigate.

Figure 11 – Feedback from delegates regarding “The Fire Risk in Europe Conference 2010” (1)

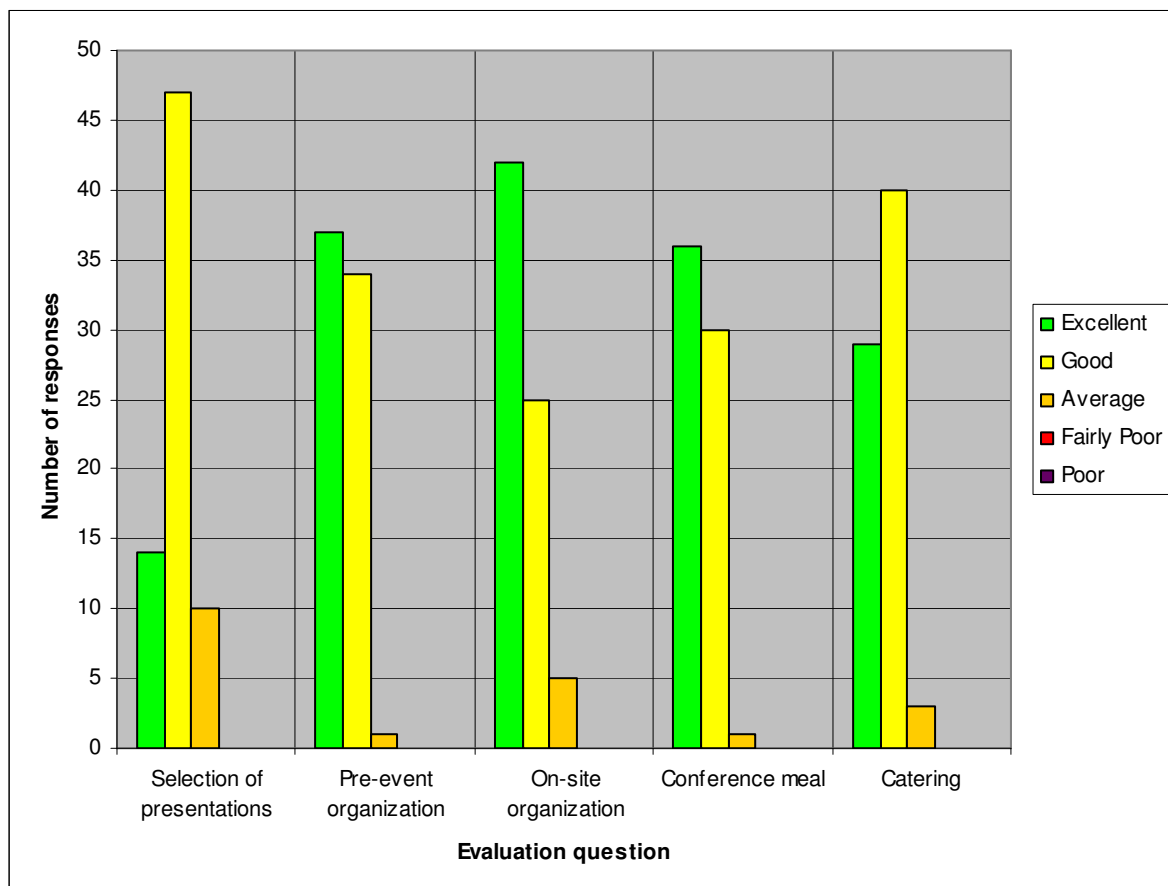


Figure 12 – Feedback from delegates regarding “The Fire Risk in Europe Conference 2010” (2)

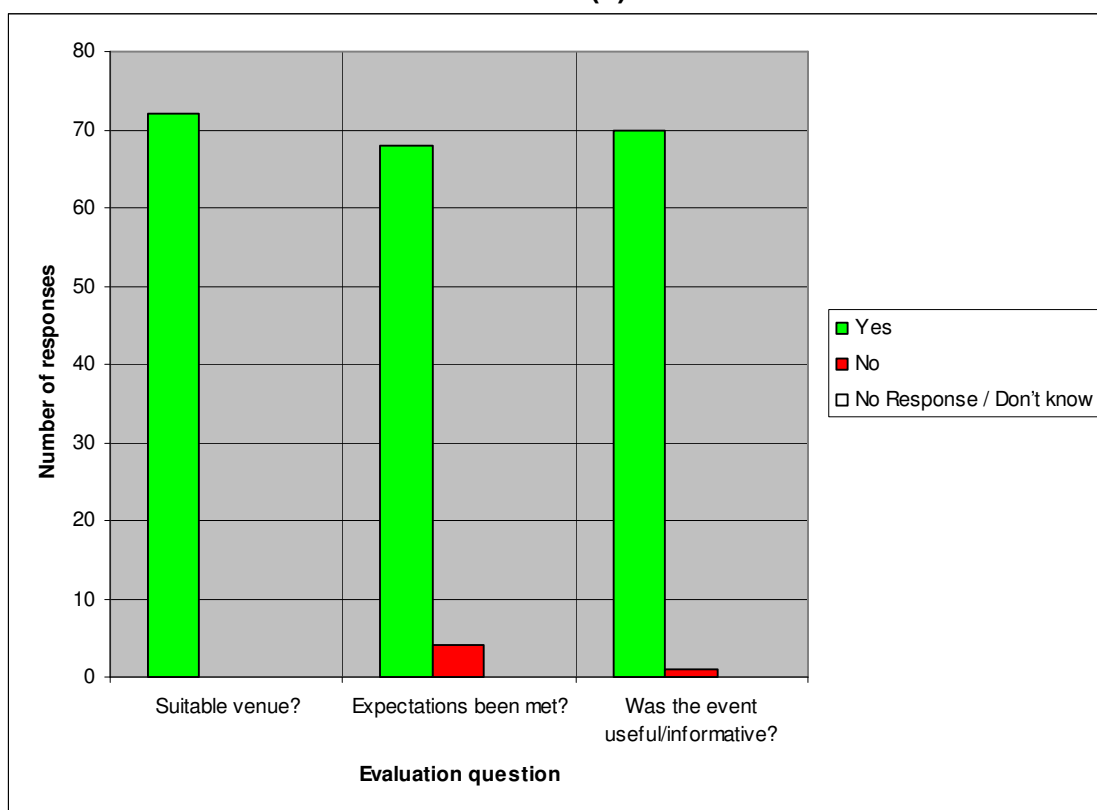
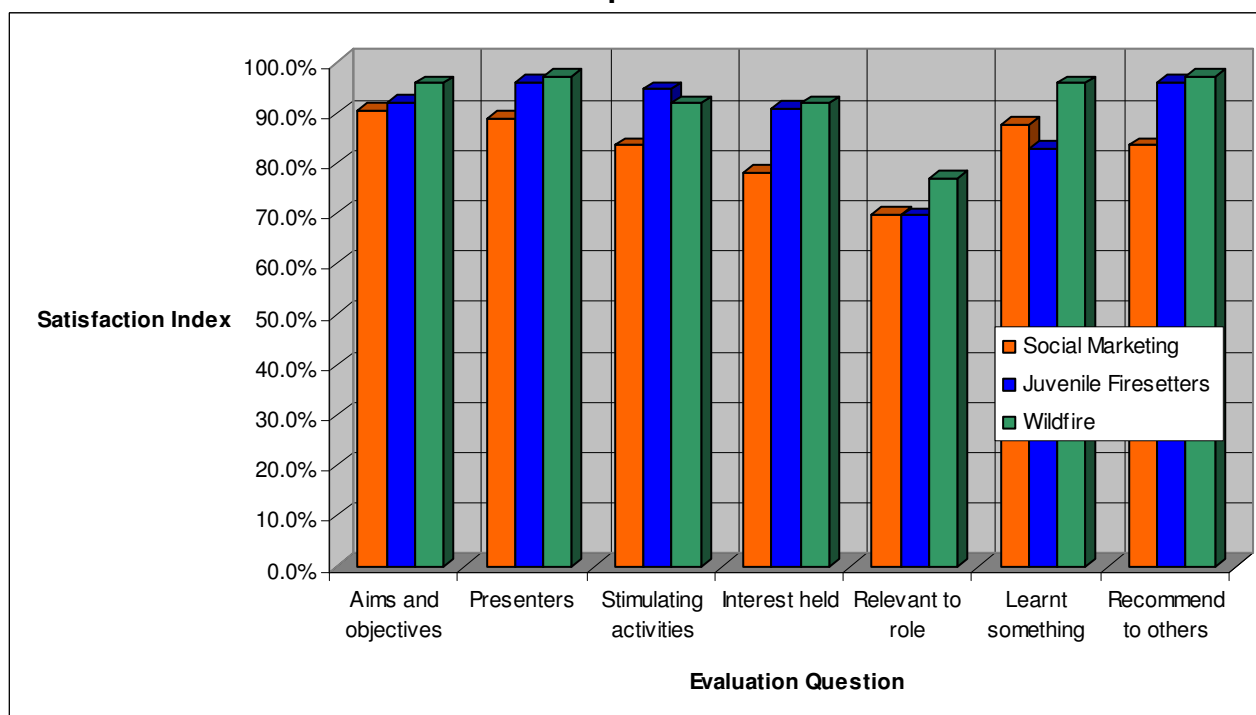


Figure 13 – Feedback from delegates regarding workshop sessions delivered at “The Fire Risk in Europe Conference 2010”



During the first post-event evaluation debrief meeting, it was decided that there would be benefit in collecting some additional feedback from delegates on specific elements on the event design and delivery. In order to collect further feedback after the event, the organisers created an electronic survey containing five questions. The electronic survey was then circulated via email to all individuals who attended the event, with a short introduction and some concise instructions for completion. While the response rate for the feedback forms was 58%, just 34 individuals completed the electronic feedback which constituted a response rate of 27%.

Despite the low response rate, it was still useful for the conference organisers to gather some feedback through the electronic surveys, particularly as this feedback indicated that the majority of delegates learned about the event via email circulations or via word of mouth from a colleague or friend. Very few individuals originally learned about the event from advertisements placed in magazines. Advertisements within magazines were published quite late, so it is not appropriate to say that advertisements cannot successfully attract delegates. However, evidence from this event suggests that other methods of communication may be more effective for attracting delegates.

5.2.8 Conclusions of the conference and recommendations for future events

The overall conclusion of the post-event evaluation report was that the Fire Risk in Europe Conference 2010 was an extremely successful event and that it achieved all five of its predetermined objectives and, consequently, achieved its key aim which was:

“To provide an international forum for fire and rescue practitioners involved in fire risk assessment and management and to facilitate the exchange of information, experience and good practice between those attending.”

The full post-event evaluation report concluded that there were five key factors that contributed to the success of the event:

1. The highly professional team of organisers and external contractors commissioned to provide facilities, equipment and services for the event.
2. The superb team of eminent and experienced speakers, workshop leaders, poster presenters.
3. The excellent management and coordination of the event by the conference chair.
4. The number of delegates who attended from a number of different types of organisations and from eighteen countries.
5. The depth of experience among the event organising team of planning and delivery European conferences and workshops.

In light of the identification of these five key factors, the organisers also made 12 specific recommendations for the design and delivery of future international conferences on fire-related issues. These recommendations can be found on pages 65-67 of the full post-event evaluation report, a copy of which has already been supplied to the two desk officers within DG-ECHO. Further copies of this report are available upon request from the ANSFR Project Manager.

A number of high quality presentations, posters and workshops were turned down because of the time and budgetary constraints of the event programme. The project team believe that there is a need and demand for future European conferences focusing on fire risk assessment and management. The organisation and delivery of future European conferences will help to ensure that there is a forum for fire risk assessment and management practitioners across Europe to continue to share their knowledge and experience with colleagues working outside their own national borders.

While the project team spent considerable time promoting and advertising the event in order to attract delegates, time and effort was also spent on publishing post-event reports about the event. The purpose of these reports was to provide wider feedback on the event and to encourage registered users of the ANSFR website, and those wishing to become registered users, to access the conference material on the website. A list of all post-event reports published to date is presented in Table 6 (below).

Table 6 – Post-event reports published on the Fire Risk in Europe Conference 2010⁵⁶

| Name of Publication | Media | Country | Description of Advertising/Promotion |
|---------------------------------|--------------------|---------------------|---|
| British Fire Safety Association | Members newsletter | UK | Post event report. |
| Chief Fire Officers Association | Members newsletter | UK | Post event report. |
| Emergency Services Ireland | Magazine article | Republic of Ireland | Post event report. |
| Fire Risk Management | Magazine article | UK | Post event report in September 2010 issue. |
| Fire Times | Magazine article | UK | Post event report within August/September 2010 issue. |
| In Attendance | Magazine article | UK | Post event report within August 2010 issue. |
| International Fire Buyer | Website article | UK | Post event report to be uploaded onto the website ⁵⁷ . |

5.3 Develop recommendations for good practice in fire risk assessment and management

The project team decided during project planning meetings and correspondence that it would be beneficial to collaboratively develop recommendations for good practice in fire risk assessment and management. These recommendations would be based upon the good practice discussed and developed over the course of the entire project. The project team were aware of existing guidance and legislative documents regarding risk assessment and management within some European countries, but believed that these documents did not focus enough on the specific topic of fire risk assessment and management. The basic premise was that the four partner organisations could combine and synergise their knowledge and experience in order to create useful universal recommendations for fire risk assessment and management practitioners working within all European countries.

The ANSFR team decided there would be two key practical benefits of producing this document:

- it could be used as a valuable training resource for those newly employed in fire risk assessment and management professions;
- it could be used as a useful reference resource for more experienced practitioners working within fire risk assessment and management fields;

⁵⁶ The project team are also currently awaiting confirmation of whether a post-event press release will be published in one or more German language fire publications.

⁵⁷ www.firebuyer.com/Fire-Risk-in-Europe-Conference

5.3.1 Design and development of the report of recommendations

During the design and planning phase of this project activity, it was decided that all recommendations made by the project team would need to fulfil certain basic criteria. The criteria were that each recommendation must:

- be capable of being implemented, at least in theory⁵⁸, within all European countries;
- and, be supported by evidence of good practice/ evidence of success⁵⁹ (and be illustrated with appropriate case studies).

In addition, it was decided that recommendations could suggest the need for further research, but that any such recommendations would need to be as specific as possible.

Once completing the design and planning phase of this project activity, the project team embarked on a comprehensive phase of development. The development phase included three separate stages:

- **Stage 1 – Generation of draft recommendations during the concluding session of each project workshop**

During the concluding session of each workshop, the project team generated ideas for key recommendations to emerge from the event. For instance, the Roma Workshop focused on accidental fire risk, so the project team discussed and suggested draft recommendations related to the assessment and management of accidental fire risk. The arbitrary target was for the project partners to make at least three recommendations following each workshop. It is perhaps not surprising that the draft general recommendations that were made during the first workshop in Northumberland required the greatest number of revisions and additions compared to those developed during the latter project workshops.

While a lot of the collaborative work on the development and creation of the report of recommendations was conducted via email correspondence, sessions held during all four of the ANSFR workshops were crucial for ensuring that the recommendations and draft documents were appropriately and adequately discussed, debated and critiqued by the project partners. The value and importance of these face-to-face discussions for this project activity should not be underestimated.

- **Stage 2 – Preparation of the first full draft of the final report of recommendations during the Kuopio Workshop**

In preparation for the final project workshop in Kuopio (Finland), the partners revisited the draft recommendations that had been developed during the previous workshops. Members of the partner organisations met within their home country during July and August 2010 and discussed and decided the recommendations that they thought should be included within the final report of recommendations. They also discussed any amendments that should/could be made to the individual recommendations and devised additional recommendations which had not been considered or discussed prior to the final workshop. The partners drafted their suggested recommendations and identified case study material to support and justify each recommendation. Where case study material was not easily identifiable, the partners created recommendations that reflected

⁵⁸ Consequently, the implementation of any recommendations could not rely upon highly specific legal requirements as this would reduce the usefulness of the recommendations to Fire and Rescue Services in multiple countries.

⁵⁹ Throughout the ANSFR Project, the ANSFR team have consistently advocated the need for evidence-based practice to inform strategies and initiatives for fire risk assessment and management.

this situation (i.e. they recommended that further research was needed on a particular topic). The partners brought their recommendations to the workshop in Kuopio and presented them during small group work exercises⁶⁰. Workshop participants were divided into four groups and each group was tasked with discussing the merits of all the recommendations created for a particular project theme. Each group contained a representative from each ANSFR partner organisation and, as far as was possible, each representative was a specialist in a field related to the theme discussed within their group. The groups then collated and integrated the recommendations and decided which recommendations to combine, which recommendations to reword and improve and which recommendations to reject. The final result was the production of a refined list of recommendations relevant to all four ANSFR themes⁶¹. Importantly, the project team did not set a quota during this exercise for a minimum number of final recommendations. The principle behind this approach was that it was better to focus on quality and justification rather than quantity.

- **Stage 3 – Amendments and final approval of the report of recommendations**

During September 2010, the final recommendations that had been agreed during the small group exercises in Kuopio were combined into one single document which was circulated to all members of the ANSFR Project team for further comments and suggestions. This gave all members of the team the opportunity to contribute and influence the recommendations developed for all four of the project themes, not just those developed within their group in Kuopio. The final document was approved by all project partners and the primary desk officer within the Civil Protection Unit on 26th November 2010. The entire document was then translated into the four languages of the project: English, Danish, Italian and Finnish. The four translated versions of the document were uploaded onto the ANSFR website in late January 2011.

The key principle that underpinned the development phase was that the recommendations needed to be a collaborative effort and that they needed to be of relevance and importance to practitioners working in all European countries. The project team believe that this was achieved because the document was created by a team of more than 30 individuals working for six organisations in four European countries. In addition, representatives of Western Europe (UK), Scandinavia (Denmark and Finland) and Southern Europe were involved in the activity. The only drawback that might be perceived is that the project team did not contain representatives from Eastern Europe; however, the project team believe that the document is still very relevant to this region of Europe. This relevance has been achieved because the project team have attempted to develop an awareness of some of the issues that face FRS in Eastern Europe with regards to fire risk assessment and management. This awareness has been obtained via a variety of different means, including: participation in previous transnational projects with Eastern European nations; email correspondence with Eastern European FRS during the course of the ANSFR Project; presentations delivered by Eastern European nations during the Fire Risk in Europe Conference 2010; and, discussions between representatives of the project team and European FRS held at the Fire Risk in Europe Conference 2010.

5.3.2 Summary of the material contained within the guidance document

The key chapters and sub-chapters of the final report of recommendations include:

- **Chapter 1 – Introduction 9**

⁶⁰ Further information about the small group exercises delivered in Kuopio is presented on pages 93-97 of the Kuopio Workshop Handbook, which is available at: <http://www.fire-risk.eu/project/workshops/kuopio2010.htm?showpage=2>

⁶¹ In addition to the three themes of the project (Accidental, Environmental and Social Fire Risk), the project team developed generic recommendations that transcended the specific themes.

- **Chapter 2 – Overview of the ANSFR Project**
 - 2.1 The project partners
 - 2.2 Aim, objectives and deliverables of the project
 - 2.3 The key themes of the ANSFR Project
 - 2.4 The ANSFR Project Workshops
 - 2.5 The Fire Risk in Europe Conference 2010 – 21st and 22nd June 2010
 - The ANSFR Project website
 - The recommendations of the ANSFR Project
- **Chapter 3 – Recommendations of the ANSFR Project**
 - 3.1 General recommendations concerning good practice in fire risk assessment and management
 - 3.2 Recommendations for assessing and managing accidental fire risk
 - 3.3 Recommendations for assessing and managing environmental fire risk
 - 3.4 Recommendations for assessing and managing social fire risk
- **Chapter 4 – Conclusions**

The report currently makes reference to a good selection of material from European and non-European sources. While a significant portion of material has been gathered and integrated from the four ANSFR countries (Denmark, Finland, Italy and the UK), the ANSFR Project team have also been able to integrate material from other European countries, Australia, New Zealand, and the USA.

5.3.3 Dissemination of the guidance document

As has been discussed, the final report of recommendations is the product of more than two years of collaborative work between members of the project team. It has taken the project team a significant period of time to identify useful and appropriate resources, contacts, documents, tools and models and to identify what constitutes good practice and what constitutes practice which requires further improvement and development. This has not been an easy task, but it has nevertheless been a much-needed and extremely rewarding task. By completing a range of activities over the course of the project, the project team have been able to discuss, debate, compare and contrast ideas, theories and practices to devise one single and coherent report of recommendations.

During previous projects delivered by NFRS, final public reports have been produced in hard copy format and circulated by mail to contacts throughout Europe. It was decided during the design phase of the ANSFR Project that this approach would not be cost-effective, primarily because there are too many individuals across Europe who currently work in fields that are connected to fire risk assessment and management⁶². Rather, the team decided that the final report of recommendations should only be produced in electronic format for electronic circulation and download from websites. This strategy produced a significant cost saving by removing costs associated with printing, binding and postage. The team were also able to easily and rapidly share the document across national borders by utilising the capabilities of the internet.

The entire report of recommendations has been translated into four languages: Danish, English, Finnish and Italian. The purpose of this is to make the document accessible to practitioners within the ANSFR countries and across the rest of Europe. The document will be disseminated along with several other outputs completed during the ANSFR Project, including all four

⁶² It should be noted that although some individuals/organisations may not specifically label particular work as being connected to fire risk assessment and management, there are a lot of professionals in Europe who are involved in this work on a daily or regular basis.

Workshop Handbooks. The project team will disseminate the document using a range of strategies to contact as many practitioners as is practicable, including:

- Upload onto the ANSFR Project website at www.fire-risk.eu⁶³
- Upload onto the websites of the four partners of the ANSFR Project⁶⁴
- Circulation of an electronic copy of the report to all registered users on the ANSFR website (164 individuals at the time of writing).
- Circulation of an electronic copy of the report to all members (more than 550 individuals at the time of writing) of the European Network for Fire Investigation and Prevention (ENFIP)⁶⁵.
- Advertising and promoting the report through magazine articles published in national fire and rescue publications within the four ANSFR countries, and a small number of magazines published in other European countries.⁶⁶

5.3.4 Future development of the report of recommendations

There is scope for future review and improvement of the report of recommendations, not least because the ANSFR Partners made 7 specific recommendations for the design and delivery of further work and research within specific fields. The project team will continue to monitor progress throughout Europe on specific issues and, when significant progress is identified, new material will be uploaded onto the ANSFR website. In addition, members of the ANSFR Project team have identified some areas that they will personally try to develop through the delivery of future collaborative projects with existing and new partners. NFRS and F-HFRD for instance already propose to work together in a future project aimed at developing and improving techniques for investigating wildfires.

5.4 Creation of a secure multi-lingual web-based platform and training tool

These two deliverables were actually listed as separate deliverables within the project plan, however, the project team decided it was both practically and economically advantageous to combine the two systems into one integrated solution. The website is an important tool that will allow the ANSFR Project team to share the other outputs of the project with practitioners across Europe. The website also provides practitioners across Europe with a multi-lingual training tool through which they can utilise resources from numerous countries in order to educate and train new and existing members of staff. The website went live on schedule on 1st April 2010. The site hosting agreement and domain name have been purchased so that the site will remain live until at least 31st March 2013.⁶⁷ In addition, the ANSFR Partners have agreed to dedicate resources to maintaining the website for the duration of the hosting agreement.

⁶³ The Report of Recommendations will be accessible within the public areas of the ANSFR website so that any member of the public will be able to download a copy.

⁶⁴ A copy of the document has already been uploaded onto the Northumberland Fire and Rescue Service website at: <http://www.northumberland.gov.uk/default.aspx?page=4604>.

⁶⁵ This network recently changed its name from the European Network of Arson Practitioners. The network was created as part of the E-API European Project which was delivered by Northumberland Fire and Rescue Service working in partnership with Laboratoire Central de la Préfecture de Police (grant number: no. 07.030601/2006/448114/SUB/A3). Further information about ENFIP is available from the ANSFR Project Manager (contact details on page 1 of this document).

⁶⁶ The project team are currently liaising with editors from Fire Risk Management (UK), Brandvæsen (Denmark), Antincendio (Italy), Pelastusleitos (Finland), Emergency Services Ireland (Republic of Ireland), and Revista Pompierii (Romania). More may follow if time and other commitments permit.

⁶⁷ In April 2012, the ANSFR partners will review whether the ANSFR website should be supported for future years of operation. If the website is deemed to be an important resource that has received a relatively high level of traffic and support from practitioners across Europe, then the partners will seek funding for and/or agree a new hosting agreement.

5.4.1 The design and development process

The Project Manager within NFRS took overall responsibility for the task of designing, developing, creating and then maintaining the web-based platform and training tool, although all the project partners were involved and made important contributions. All project partners have nominated at least one officer to act as an administrator of the website, which ensures a shared responsibility for maintenance until March 2013.

The Project Manager received a significant level of assistance from a nominated Development Officer within the Northumberland County Council Information Services Department. The Development Officer provided a significant amount of specialist advice in relation to the development of the system. Using the benefit of his experience and knowledge he was able to provide significant guidance on the creation of a detailed specification for the platform and, when the specification was put to tender, was able to assist in evaluating the proposal submitted by suppliers. The Development Officer also assisted the Project Manager in completing a thorough evaluation of four existing websites/web platforms in order to identify both positive and negative elements regarding functionality, appearance and usability (a copy of the evaluation report produced is contained in Appendix 7).

The final detailed specification was sent to prospective suppliers in December 2009 with an invitation to submit a full proposal and quote for costs for the work required. Four businesses submitted quotes while an additional business declined stating that workloads would not allow them to complete the work according to the proposed deadline. NCC and European Commission procurement principles were applied when making a decision concerning the sub-contract. The company that was given the contract was Tagish Ltd., an experienced website development organisation which has hosted and designed a number of websites for Local Authorities in the UK. The proposal submitted by Tagish Ltd. provided a web-based solution that the project team could maintain in the future with minimal specialist assistance. Indeed, the system that has been developed can be maintained by officers with little or no prior experience in website design and administration.

5.4.2 The four key principles of the ANSFR web platform design

Four key principles were adopted throughout the website design process:

- Functionality
- Ease of use and navigation
- Multi-lingual nature of the website audience
- Security

The following three sub-sections will now provide further details concerning the way that these principles were incorporated into the website design. The final sub-section of this section presents a summary report of traffic to the website to date.

Functionality

The website has been designed to provide a number of key functions (see Table 7, overleaf). Of principal importance was the integration of a number of resource libraries to store good practice information and a contact database to facilitate networking among registered users of the website.

The functions of the website are administered through the bespoke Content Management System (CMS) developed by the website development and hosting sub-contractor. The CMS has allowed the ANSFR team to easily create a powerful, accessible, and highly usable website. The CMS empowers the ANSFR team to keep information up to date, control the timing and authorisation of publication and facilitate collaboration with and between practitioners

Table 7 – Functionality of the ANSFR Website⁶⁸

| Function | Description | User groups accessible to |
|------------------------------|---|---------------------------|
| News items | Central library of all news items created within the website. Website administrators are currently creating news items to inform users to provide information about the ANSFR Project, forthcoming conferences on related topics, and new documents and websites that have been uploaded onto the website. In addition, administrators can select particular news items to be included as feature items on the Home page of the website. | Public/Registered users |
| Contact library | Central library containing contact details of all registered users of the website. | Registered users |
| Document library | Central library for storing documents in multiple formats (Microsoft Office applications etc.) | Registered users |
| Website links library | Central library containing all website links uploaded to the website. | Registered users |
| Image library | Central library containing all images used within the website. | Registered users |
| Polls | This function allows administrators to create and publish polls which ask registered users or members of the public to respond to multiple choice questions. This type of function provides a quick and efficient technique for gathering feedback about the website, but it also allows the administrators to create topic specific polls to ask gather information about current issues related to risk assessment and management. The Home page of the website includes one of the polls (which is currently a poll asking for feedback about the website) and includes a link to the library of all active polls. | Public |
| Mailing list | This function allows website administrators to compose and circulate a mass mailing to all or some of the registered users on the website. This function has been used to notify registered users of new pages that have been added onto the website. The function is particularly useful for stimulating interest in the website and for encouraging registered users to continue to return to the website. | Administrators |

and administrators. Within a very short space of time, new users can find their way around the website and new administrators can learn to manage website content. Importantly, the CMS facilitates a self-service environment for the ANSFR Project Team whereby administrators do not need prior knowledge or experience of website development or administration.⁶⁹

The sub-contractor's CMS is a modular system with many ready-made components that can be rapidly implemented. This allowed the team to build the website very quickly. It will also allow

⁶⁸ Administrators have access to all functions, both to view and to administer/edit. The mailing list function is solely available to administrators and no other user groups.

⁶⁹ As part of the hosting agreement, the ANSFR Project team can request support from the website developers. This support is only required on rare occasions when there are technical issues with the website or when the administrators want to add new functions to the CMS. Assistance from the developers is not required to complete routine daily administration of the website.

the team to add different functions/modules in the future, should additional functionality be required. The CMS puts the ANSFR team in full control of website content. The ANSFR team decide exactly what appears on the website and who has access to that information.

The website's core information is held centrally within the CMS to avoid duplication and ensure consistency. This means that any changes made to core information are applied to all places throughout the site where that information has been used. For instance, a document may be included on multiple pages throughout the website. If that document needs to be changed - for instance it needs to be replaced with a new and updated version - the change need only be made once within the central library. Once the change is made in the central library, it is applied across the website. The system is the same for all documents, images, website links and contact details.

All content within the CMS can have its publication controlled according to the following:

- Publication date: the date on which the information will first be available on the website. This is useful for entering embargoed information prior to a publication time.
- Review date: the date on which an individual will be prompted to review the information.
- Archive date: the date on which publication of the information on the site will be withdrawn.

This system allows flexibility as well as the opportunity for administrators to implement an automatic monitoring system whereby information can be kept timely and relevant.

Ease of use and navigation

It is a common that any website user wants to be able to access what they need as quickly and efficiently as possible. The ANSFR website has been designed with this in mind. All pages of the website include the basic navigation bar across the top of the page and all pages (excluding the Home Page) include an additional navigation bar on the left-hand side of the page. These navigation bars are easily identifiable from other content. In addition, the standard page template used throughout the site means that the navigation bars appear in exactly the same position on each page. The site also has a free text search facility which allows individuals to type in specific search words. The final important navigational feature is the classification tree that has been applied to the website. Each document, news item, website page, and website link is classified according to at least one of three criteria⁷⁰: country; theme⁷¹; topic. When an individual accesses any page then links to other pages, news items, documents and website links with similar classifications are included at the bottom of the page. This function allows an individual to quickly identify all information of relevance to particular countries, themes and/or topics.

The ANSFR website has been constructed to be both usable and accessible⁷². The design of the CMS allows the ANSFR team to focus on content, with the assurance that whatever they create will be both accessible and usable. The content editor interface includes accessibility tools and warnings which will automatically fix some errors.

⁷⁰ Where possible, every website page, document, news item and website link is classified with at least one sub-category from each category (i.e. each one is assigned at least one country, one theme and one topic). By classifying all content on the website as thoroughly as possible, administrators improve users' ability to quickly find the information they need.

⁷¹ This refers to one of the ANSFR Project themes: accidental fire risk; environmental fire risk; and, social fire risk. Further information about the ANSFR Project themes is presented on pages 13-16 of this document.

⁷² The CMS has been designed to comply with the World Wide Web Consortium (W3C) Web Accessibility Initiative's 'AAA' standard. AAA-level compliant pages meet the needs of every group of website users, including those with disabilities. Further information about accessibility ratings and guidelines can be obtained from the following website: <http://www.w3.org/WAI/WCAG1AA-Conformance>

Multi-lingual nature of the website audience

A key element of the website design was to integrate an automatic translation facility so that all of the website pages and navigation bars could be instantly translated. The project team decided to provide a translation facility for all of the languages represented within the ANSFR project countries (English, Danish, Italian, Finnish and Swedish) and the two other key languages of the European Union, French and German. In future, if the need were to be identified, the ANSFR Project team could provide a translation facility for additional languages. Again, the website design allows a high degree of flexibility to meet changes in requirements.

Security

The final key principle of the website design has been to provide a certain level of security for information/resources and for networking among fire risk assessment and management practitioners. In addition to this need for security, some material produced during the ANSFR Project must be made publicly available and the site must facilitate networking between practitioners in multiple countries who do not necessarily know one another. In order to achieve this balance between public availability, networking between practitioners and security, the website has been divided into publicly viewable pages and pages that are only viewable to registered users of the website.

In order to obtain access to the registered users' area of the website, individuals must complete and submit an application form at <http://www.fire-risk.eu/register.htm>. All applicants must complete the fields within the form⁷³, a number of which are mandatory⁷⁴. The application form also requires applicants to check a box to state that they agree to abide by the website's Terms and Conditions of Registration and Use.⁷⁵ It is stipulated within these terms and conditions that all individuals submitting application forms consent for their contact information to be viewable to all other registered users of the website. This system is based on a principle of fairness and two-way exchange (essentially give and take), whereby any individual who would like to access resources contained on the website also approves for other registered users to contact them to request information.

If an individual is granted access to the registered users' area but is later found to have broken any of the terms and conditions of use, the website administrators can instantly block their access to the registered users' area of the website. Such a system ensures that contact details of registered users are not available to the public and are not used for sales or marketing purposes. It also ensures that documents and other resources are only available to a limited audience, all of whom have been vetted prior to being allowed access to the registered users' area of the website. This is important because some of the resources uploaded onto the website may contain sensitive information, for instance those presenting good practice in arson prevention or fire investigation.

⁷³ Once an individual has completed and successfully submitted the registration form, a copy of the form is automatically sent by email to the website administrators who can then check the details and credibility of the application. If the administrators believe that the application is genuine (i.e. that it is from an individual working for an FRS, or closely related organisation), then they can press a link within the email to provide authorisation. Once authorisation has been provided by one of the administrators, an automatically generated email is sent to the individual who submitted the form. If administrators decide that further information is required prior to authorisation, they will contact the applicant directly and outline what information is required. Upon submission of this additional information, the administrators will then decide whether or not to grant access to the website. If administrators decide to reject an application, the administrators will send an email to the applicant to outline the reasons behind the decision.

⁷⁴ If a mandatory field is not completed within a particular application form, the applicant will be instructed on screen that the form has not been submitted successfully and that they need to complete the missing fields before re-submitting. This process ensures that the website administrators can collect basic information from all applicants prior to providing access authorisation.

⁷⁵ The ANSFR website terms and conditions of use are displayed on the following page:
<http://www.fire-risk.eu/registrationdisclaimer.htm>

5.4.3 Website traffic

The website went live on the 1st April 2010 and, since this time, the website administrators have been monitoring traffic to the website using an analytical tool. The tool that is being used allows the administrators to analyse and monitor a significant amount of data, ranging from generic data on the number of users of the website to more specific information concerning individual pages of the website. This powerful analytical tool allows the administrators to identify which website pages are being used and by whom and to analyse usage of both public and private pages. This analysis allows the administrators to gather a lot of useful data to inform future maintenance and modification of the website.

The website administrators are currently monitoring the following website traffic data:

- Site usage
 - No. of site visits
 - No. of unique visitors
 - No. of page views
 - Average no. of pages per visit
 - Average time users spend on site
 - % new visits
- Visitor profile
 - Browser language
 - Browser profile
 - Geolocation visualisation (allowing administrators to identify continent, country and town/city of each user)
- Traffic sources⁷⁶
- Content overview⁷⁷

In summary, at the time of writing the website administrators are very pleased with the statistics on website usage. Between 1st April and 19th October 2010, the website had received a high volume of visits (see Table 8, overleaf). In addition, statistics show that users were looking at multiple pages per visit and were staying on the site for at least five minutes before moving on. The challenge for many websites is to maintain interest over time. Administrators need to create a website which provides something new to users every time they visit. The ANSFR Project team now aim to maintain this level of website usage into the near future and, where possible, stimulate higher levels of usage by regularly uploading news items, creating new pages and sending periodic mass mailings to all registered users to attract them back to the website to view new resources.

⁷⁶ The term “traffic sources” refers to the way in which website users actually come to the site. The tool allows administrators to ascertain if users of the website have typed the link into their browser to access the site directly, or if users have been referred from other websites, such as search engines etc.

⁷⁷ Content overview analysis allows the administrators to monitor the following statistics concerning each individual page of the website: no. of page views, no. of unique page views, and average time spent on page. There are a number of practical uses of this information. One example is that administrators know how long on average it takes users to complete the registration form. If the form is taking too long to complete, the administrators can look to make the registration form more user-friendly. At the time of writing, it was taking users two minutes on average to complete the registration form. The administrators feel that this is a very reasonable time commitment.

Table 8 – Summary Statistics on Traffic to the ANSFR Website - 1st April to 31st December 2010

| Description of Statistic | Number (unless stated) |
|----------------------------------|------------------------|
| Site visits | 2,163 |
| Unique visitors | 1,75 |
| Page views | 13,054 |
| Average page views ⁷⁸ | 6.04 |
| Average time ⁷⁹ | 5 mins 32 seconds |

Traffic to the ANSFR website has varied overtime, as would be expected. Comparative summary statistics for website traffic during the first nine months of the websites existence are presented in Table 9 (below). There are some patterns of note which should be described and explained:

- Peak months of traffic tended to coincide with those months when a significant quantity of new material was added to the website. For instance, in April 2010, when the first month of existence, the draft schedule and booking information for the Fire Risk in Europe Conference 2010 was uploaded onto the website. Also, in July 2010 copies of presentations, posters and workshop material produced/presented during the Fire Risk in Europe Conference 2010 were uploaded onto the website.
- There is an obvious reduction in website traffic for December 2010. This was predicted as the ANSFR Project team had less time to dedicate to the website. This situation will be remedied in January 2011 with the addition of new material onto the website and the circulation of mass mailings to all registered users. The ANSFR Project team also plan to improve the Home Page in a visual sense by reducing the amount of text and improving the way that key information is displayed.

The ANSFR Project team will continue to monitor website traffic over the life of the current hosting agreement (until 31st March 2013). If website traffic reduces significantly, then the project team will be able to identify this relatively quickly and make changes/additions to the site to improve visitor numbers. The publication of informative articles about the project during the first 6 months of 2011 will also help to stimulate visitor numbers (for further information, see Appendix 6, page p85 of this report).

Table 9 – Comparative Monthly Visitor Statistics for the ANSFR Website – April to December 2010

| Description of Statistic | April | May | June | July | Aug | Sept | Oct | Nov | Dec |
|----------------------------------|-------|------|-------|-------|-------|------|-------|-------|------|
| Site visits | 246 | 200 | 246 | 386 | 241 | 139 | 317 | 204 | 184 |
| Unique visitors | 136 | 160 | 171 | 229 | 155 | 96 | 189 | 135 | 142 |
| Page views | 1,247 | 901 | 1,539 | 2,933 | 1,559 | 842 | 1,757 | 1,485 | 791 |
| Average page views ⁸⁰ | 5.07 | 4.50 | 6.26 | 7.60 | 6.47 | 6:06 | 5.54 | 7.28 | 4.30 |
| Average time ⁸¹ | 5:22 | 2:24 | 12:43 | 5:20 | 4:09 | 4:40 | 4:17 | 7:10 | 2:48 |

⁷⁸ Per visit.

⁷⁹ Spent on site per visit.

⁸⁰ Per visit.

⁸¹ Spent on site per visit. Data in this row is presented in minutes and seconds.

6. Evaluation of the Technical Results and Deliverables

6.1 General lessons learnt

Following the completion of the ANSFR Project, the project team have come to three key overarching conclusions. The first key conclusion is that risk identification, assessment and management should become integrated into every element of work completed by FRS in Europe. FRS need to be able to effectively quantify risk, both in terms of probability and impact. As an extension of this recommendation, FRS need to acknowledge that fire risk is a fluid concept – it will change over time, space and between and within social groups. Consequently, FRS need to view risk assessment and risk management as continual cyclical processes and not as end products or one-off exercises. Within some FRS in Europe this may require some whole scale changes to existing corporate cultures and paradigms, but within other FRS this may require considerably less change because key foundations have already been created.

The second key conclusion of the ANSFR Project is that the processes of review and evaluation are of central importance to improving current fire risk assessment and management strategies and techniques. While there is a lot of innovation across Europe in this field, there is significantly less evidence of the effectiveness of new and existing approaches. Many FRS simply do not know how effective their approaches to fire risk assessment and management are and why certain initiatives/strategies may or may not be effective. The development of an accurate and reliable evidence-base is crucial, both locally for individual FRS and internationally for the benefit of all FRS in Europe. In order to develop a strong evidence base, FRS need to thoroughly and regularly evaluate and review their processes, procedures, initiatives and strategies.

The third and final key conclusion of the ANSFR Project is that FRS need to work in close partnership with a range of organisations in order to comprehensively assess and manage fire risk. FRS need to work with other stakeholders to reach out and adequately protect all members of society. Within all countries, there are multiple organisations, public, private and voluntary, that work to protect and improve safety for similar social groups to achieve similar generic goals. The primary interests for FRS are to reduce risk of fire and reduce loss of life and damage caused by fire, but there are multiple stakeholders with a general interest in preventing harm to individuals/society and in protecting property and the environment. Good partnership working is a prerequisite for the appropriate and successful targeting of “at risk” social groups and “at risk” environments. FRS cannot work in a silo. It is also important to note that partnership working will not only improve the overall effectiveness of fire risk assessment and management, but it will also improve cost effectiveness and value for money. This is particularly apt considering the current global recession and cut-backs in budgets at national and local levels.

6.2 Key strengths

A key strength of the project is that contributions have been made to the deliverables by practitioners working across Europe. To provide some specific examples:

- Workshops were held within four European countries and were attended by participants from six countries.
- The ANSFR website portal includes links and documents from 20 countries⁸² worldwide.
- The ANSFR website includes a network of 172 members from 19 countries⁸³ worldwide.

⁸² At the time of writing.

- The Fire Risk in Europe Conference 2010 was attended by representatives from 18 countries (17 within Europe and 1 from outside Europe).
- Speakers, poster presenters and workshop leaders at the Fire Risk in Europe Conference represented 12 countries.

The end result is that most of the project deliverables have a very high degree of European added value (as discussed elsewhere in this report).

As an extension to the previous point, the fire investigation training modules developed for the project also have a key strength: they can essentially be delivered anywhere in Europe (and the world) because they contain scientific reference material that is relevant to investigators working in any country. While those using the modules need to write their own additional sections related to country specific laws and procedures, the modules currently provide a substantial amount of information and knowledge that is required for the delivery of good quality fire investigation training. The project team were able to utilise the skills of multiple officers working for the partner organisations in order to develop these modules and this will save other organisations considerable time and money.

The final key strength of the project has been that the project deliverables have been promoted and disseminated to both senior and grassroots level officers working for Fire and Rescue Services and related organisations across Europe, and further a field. A number of individuals and organisations across Europe are now aware of the project activities, the website, and the documents produced during the project (the workshop handbooks and the document of recommendations). The multi-faceted communication approach that has been adopted will ensure that the project findings are disseminated very widely.

6.3 Possible challenges and/or improvements to be tackled through further action

There are two key challenges/areas of improvement to be tackled through further action. Some of this further action can be completed by the ANSFR Project Team, however, other elements will need to be addressed by others responding to the recommendations outlined in the final public project report. The two challenges/areas of improvement are now outlined below:

Challenge/Improvement 1 – Ongoing website maintenance

The short term future of the ANSFR website has been secured through the finalisation of a hosting agreement until 31st March 2013. However, a key remaining challenge is the ongoing maintenance of the website. The challenge includes two key facets:

- Dedication of resources to ensure that website administration is completed.
- Stimulation and maintenance of interest in the website.

In order to address these challenges, the four ANSFR Project partners have devised a strategy. On a basic level, the hosting agreement includes technical support time from the website developer. This means that the ANSFR Partners do not need additional funding to change elements of the website in the future or to cover the costs of any significant technical problems. On a day-to-day practical level, three of the four partner organisations have nominated an individual to act as an administrator on the website. The website currently has four administrators, in addition to the technical administration provided by the sub-contracted website developer. The Project Manager has issued general guidance to all of the website administrators and a training manual. The guidance document was created in order to ensure that a standardised approach to administration is achieved. The training manual, which was

⁸³ At the time of writing.

produced by the website developer, provides a step-by-step guide to completion of all administration functions. The administrators have all been given the opportunity to practice their administration skills (i.e. creating new website pages, uploading new documents etc.) on the development site of the subcontractor. This website is not live to the general public but it functions in exactly the same way as the live website. By providing administrator access to the development site first, administrators have been given the opportunity to become familiar with the administration functions and the Content Management System (CMS) prior to publishing material that can be seen on the live website.

The second challenge to the project team is to maintain interest in the website so that it fulfils the identified need. If users are to be convinced that the website is useful, and that there is a benefit to returning to it on multiple occasions, then new material must be constantly updated. An additional challenge associated with the maintenance of the ANSFR website is the identification of new material to upload to the website. The project partners have all pledged to upload material on a semi-frequent basis, and as often as is reasonably possible. The website will also be used as a tool in order to identify new material for upload. For instance, mass emails can easily be sent to all registered users of the site requesting they submit information about any material of relevance to fire risk assessment and management. In addition, the ANSFR Partners can utilise other existing networks (such as ENFIP) to request that individuals submit information for possible inclusion.

While the project team have devised a strategy to address the aforementioned challenges regarding website maintenance, it will take time before the team can identify whether the approach will be successful. NFRS will monitor website usage and development for the first four months of 2011. If the system is not being maintained appropriately, or sufficient new material is not being uploaded, then NFRS will discuss alternative strategies with the ANSFR Partners. Even if the challenges are not addressed during this initial follow-up period, it is the belief of the Project Manager that the challenges will be addressed and overcome during 2011. There are three reasons for this optimism. Firstly, the CMS makes the system extremely flexible and modifiable. This means that the site can be amended relatively quickly. By recruiting four administrators, the website administration is split between four individuals, which means that ongoing investment from the individual partners is kept to a low level. Secondly, the ANSFR website bears the logos of the partner organisations and it is therefore in all of their interests to maintain the website to sustain a positive image of their organisations. Thirdly and finally, the website can be used for the mutual benefit of all of the partner organisations by allowing them to reach out to practitioners across Europe. This will be of significant benefit for the partners when they host future conferences/events, try to promote their work to others in Europe or look to find new partners for future collaborative work. The ANSFR Partners are, however, willing to work with others, where possible and appropriate, in order to address these challenges.

Challenge/Improvement 2 – Recommendations for the completion of further work/research

The final report of recommendations produced by the project team included seven recommendations for further work/research in specific areas. In summary⁸⁴, these recommendations were:

- The need for further research in order to develop and improve current practices for calculating the financial, social and environmental costs of fires.
- The need for further research to evaluate the success of the introduction of fire safer cigarettes in Finland in April 2010. This evaluation can then be used as a basis for

⁸⁴ Further details concerning these specific recommendations can be found in the final report of recommendations.

assessing whether the introduction of fire safer cigarettes across Europe may be beneficial.

- The need for common wildfire training systems across Europe. This will allow greater cooperation and interoperability across national borders.
- The need for further research into land and fuel management, particularly in areas of Europe that are currently experiencing significant declines in traditional agricultural practices.
- The need for research into the effectiveness of public warning systems concerning wildfire risk. Further research is urgently needed to investigate the impacts of public warning systems and legislation on public behaviour and wildfire occurrence. This research is needed to ensure that wildfire warning systems are appropriate and effective. In particular, such research should determine whether public warning systems need to be supported by legislative regulations to be most effective. Without supporting research, it is unclear what constitutes best practice in this area.
- It is recommended that there is a need for collaborative working between European FRS in the field of wildfire investigation. In addition, it is recommended that knowledge and expertise that currently exists outside of Europe in this field (in, for instance, Australia, the USA and Canada) needs to be imported and implemented in the form of an appropriate European model. At present there are too few individuals working in Europe who have the skills or experience necessary to complete this type of work. Wildfire investigation techniques and principles are based on scientific laws and methods and are thus universally applicable. It is therefore appropriate and desirable for subsequent work to be complete on the standardisation of wildfire investigation training and for professional standards to be developed for use across Europe.

Some of the ANSFR Partners are already looking at devising new collaborative projects in order to address some of the recommendations listed above. For example, NFRS, CNVVF-NIA and F-HFRD are exploring possibilities of working together on a transnational wildfire investigation project. It would be wrong, however, to assume that the ANSFR Partners can address all of the challenges and areas of improvement that were identified during the project. It is for this reason that the ANSFR Partners will promote the report of recommendations as widely as possible, and specifically to national bodies within the four project countries. Inevitably, it will be the decision of other organisations and groups as to whether some of the recommendations for further work/research are addressed in the near or more distant future.

6.4 Quantifying the success of the project

The overall success of the project can be measured by looking in detail at the degree to which the specific project aim, objectives and outputs were delivered.

The aim and objectives of the project

The central aim of the project was to reduce the human, financial and environmental⁸⁵ costs of accidental, environmental⁸⁶ and social fires that occur each year in Europe. It was decided that this aim would be achieved through the identification of good practice and the development of

⁸⁵ The original co-financing application explicitly stated that the project would aim to reduce human and financial costs; however, it was evident to the project team during the first year of the project that many risk assessment and management strategies also reduce risk to the environment. Consequently, the project team have fully integrated this within the central project aim and overall framework.

⁸⁶ The term “environmental” has been used in place of the term “natural”, which was originally used within the project co-financing application. Essentially, the theme is the same, however, the ANSFR Project team decided during the first project workshop in Northumberland that the term “environmental” better represented the types of fires under consideration within this thematic area. Further information concerning this change in terminology is presented on page 14 of this report.

recommendations for European Fire and Rescue Services. More specifically, the successful completion of the project aim rested on the successful completion of five specific objectives contained within the project plan. To refresh, the five objectives were to:

1. Undertake a comparison of research techniques and tools used by the partners to evaluate risk assessment and prevention practices.
2. Develop the tools, techniques and procedures for an effective and innovative risk assessment framework capable of implementation within all European states.
3. Create an example of an innovative, secure access knowledge portal with document library.
4. Create an example of a multilingual training tool for fire risk assessment and management which can be accessed by Fire and Rescue Services throughout Europe.
5. Collaboratively draw upon, disseminate and implement best practice and expertise in fire prevention techniques and procedures and risk assessment tools from Europe.

Evaluation of the project activities indicates that these objectives were achieved, and the achievement of some objectives even surpassed expectations. The delivery of each objective will now be discussed in turn.

Firstly, during both the workshops and Fire Risk in Europe Conference 2010, the project partners compared and contrasted tools and techniques used to assess, manage and evaluate risk within the four project countries, within additional countries in Europe and within two countries (Australia and New Zealand) outside of Europe. The workshop handbooks and conference material, all of which is available on the ANSFR website, document the different techniques and allow other practitioners to compare and contrast the different approaches. Consequently, the project team believe that objective one has been achieved to a very satisfactory level.

Secondly, the project team identified that there is significant variation in the way that FRS in Europe currently assess and manage fire risk. Consequently, the team found it difficult to develop tools, techniques and procedures that could be taken and used anywhere in Europe. However, the project team did identify a number of tools, techniques and procedures that could be taken and adapted for implementation in any European country. The team also identified some basic principles that underpinned existing good practice. It is the conclusion of the project team that, although they did not develop new tools etc., objective two was still satisfied to a reasonable degree. Firstly, the project partners have documented, in detail, a number of existing tools, techniques and procedures via the workshop handbooks and the Fire Risk in Europe Conference 2010 material. This material is available to all FRS in Europe, if they want it. The project partners have also produced a detailed blueprint framework of good practice in fire risk assessment and management. This has been presented in the form of the final report of recommendations. The project team have thus identified, analysed and evaluated existing tools and provided a number of recommendations related to good practice in this field. Consequently, objective two has been achieved to a satisfactory level.

Thirdly, the ANSFR website went live on 1st April 2010. The website has excellent functionality in the form of: document library; contact network; website links library; image library; news items archive; polling/voting function; mass mailing function; and, automatic translation for 7 European languages. These functions provide practitioners with the ability to network and to search and retrieve good practice information which can be used to inform their work and as a basis for creating and delivering training in this field. All appropriate documents produced during the ANSFR Project are available to the general public via the website, while all other resources are provided within a secure access environment (only accessible to registered users with usernames and passwords). The website is innovative because it includes information from so

many countries and in so many different languages in a format which is user-friendly, exceptionally easy to administer, and very flexible. In addition, the ease of use and administration and the flexibility have not been achieved to the detriment of the visual. With this in mind, the project team believe that they have achieved objectives three and four to a very high standard.

The final objective of the project was to “collaboratively draw upon, disseminate and implement best practice and expertise in fire prevention techniques and procedures and risk assessment tools from Europe”. The project team have actively disseminated good practice via the workshops, Fire Risk in Europe Conference 2010, magazine articles and the ANSFR website. In addition, individual partners are now looking to integrate and implement individual elements of good practice identified during the project. This process will take time, but there have been some key findings which will influence the work of some of the partners in the immediate future. When taking into account the fact that good practice from across the world, and not just from Europe, has been identified, disseminated and considered by the project team, it is fair to conclude that ANSFR achieved more than had been anticipated by objective five. Consequently, objective five was achieved to a very high level.

In addition to achieving the five predetermined objectives outlined in the project plan, the project team believe they have successfully promoted cross-border cooperation and sharing of good practice. The Fire Risk in Europe Conference 2010 brought together 125 delegates from 18 countries. Those who attended observed and discussed a number of innovative approaches to fire risk assessment and management across all three key themes of the ANSFR Project. The conference meal provided further excellent opportunities for practitioners to discuss best practice and to develop new contacts and partnerships for future collaboration.

The deliverables of the project

In addition to successfully achieving the seven specific objectives, it can also be stated that the project has been extremely successful in terms of the outputs that were produced. The initial project plan identified that four key deliverables would be produced over the course of the project. The following anticipated outputs were listed in the project plan:

1. Deliver and document four regional workshops/training sessions within the partner regions
2. Create an electronic web-based platform and multi-lingual training tool.
3. The organisation and delivery of a conference open to practitioners from across Europe
4. Produce a final report of recommendations regarding good practice in fire risk assessment and management.

All four of the anticipated project outputs were successfully delivered⁸⁷ and some were delivered to a more comprehensive standard than had been originally anticipated. For instance, the handbooks that were produced to document each of the project workshops were more detailed and comprehensive than had first been anticipated, with each handbook containing more than 100 pages. The level of detail applied means that practitioners can extract a significant amount of information about some or all elements of each workshop. It was also anticipated from the outset that the workshops, and consequently the workshop handbooks, would only incorporate knowledge and experience from Europe. However, F-HFRD and NFRS were able to incorporate specialist input from Australia for the Frederikssund-Halsnæs Workshop, thus expanding the scope and issues discussed beyond a purely European dimension. All members of the project team believe this input from outside of Europe was extremely beneficial.

⁸⁷ As has already been mentioned, outputs 3 and 4 were combined into one integrated system. This was a more effective and efficient strategy than creating two stand alone systems.

In addition to producing the four anticipated project outputs, two additional outputs were delivered by the project team:

- “Summary Report on the Terminology used in the United Kingdom, Denmark, Italy and Finland for the Assessment and Management of Fire Risk”⁸⁸
- A detailed evaluation of the design, organisation and delivery of The Fire Risk in Europe Conference 2010⁸⁹

The fact that additional outputs were produced provides further indication of the overall success of the project. By going beyond the scope of the initial project plan, the project team have achieved some remarkable results within a limited time frame and within the project budget.

There is no “one size fits all” best practice for all FRS in Europe. European FRS face both similar and contrasting fire risk problems within both similar and contrasting social and environmental contexts. However, the ANSFR Partners believe that the resources produced during the ANSFR Project will contribute towards a reduction in fire risk within the four project countries and potentially a reduction in fire risk at a wider European level. The impacts of the project will take time to be realised because FRS across Europe will need time to absorb, adopt and implement the good practice identified, generated and shared during the project. However, the potential is now there for all FRS in Europe to benefit from ANSFR.

6.5 Recommendations to stakeholders, partners, authorities in charge, National and EU institutions

The recommendations to stakeholders, partners, authorities in charge, national and EU institutions have been presented within a separate 100 page report titled: ***The ANSFR Project Final Report: Recommendations for Improving Fire Risk Assessment and Management in Europe.*** A copy of this public document has already been sent to the desk officers responsible for ANSFR. Further copies of the document are available from the Project Manager, any member of the project team or from the ANSFR Project website (www.fire-risk.eu).

⁸⁸ A copy of this report has already been supplied to the desk officers within DG-ECHO. Further copies of the report are available from the following web page:

http://www.fire-risk.eu/resources/documents/document_display.htm?pk=9

⁸⁹ A copy of this report has already been supplied to the desk officers within DG-ECHO. Further copies can be obtained from the ANSFR Project Manager.

7. Continuation of Activities related to the Project

7.1 Comparison between initial and current follow-up measures

The project team have already uploaded the final report of recommendations (in all four project languages) onto the project website. In addition, native language copies of the final report of recommendations will be uploaded onto the websites of the CO and AB1, AB2 and AB3.

The project team believe, however, that the final report of recommendations needs to be promoted more widely, both at European and national levels. In order to raise the profile of the report at a European level, between February and June 2011 the project team plan to publish a number of informative articles within fire and rescue related magazines. These articles will signpost practitioners in Europe to where they can obtain copies of the report. The team will ensure that magazines are published and circulated within all of the project countries and within other European countries. In addition, NFRS will promote the final report of recommendations at a European level by circulating copies to all practitioners within the European Network for Fire Investigation and Prevention (ENFIP)⁹⁰.

In order to raise awareness of the final report of recommendations within each of the four project countries, between February and June 2011 the partners will circulate information to the following organisations and stakeholders:

- In the UK, NFRS has already sent copies of the report to:
 - Communities and Local Government (CLG), the government department responsible for the Fire and Rescue Service in the UK.
 - The Cabinet Office, a government department with responsibility for civil contingencies within the UK.
 - The President of the Chief Fire Officers Association⁹¹ (CFOA) in England and Wales⁹².
 - All Chief Fire Officers in the United Kingdom
 - The Chief Fire and Rescue Advisor to CLG
 - The Chief Executive of the Fire Service College⁹³, Moreton in Marsh, Gloucestershire, England.
- In Denmark, F-HFRD will forward copies of the report to:
 - Chief Fire Officers Association of Denmark
 - PRIMO Public Risk Management Organisation⁹⁴
 - Association of Danish Mayors
- CNVVF – NIA will forward copies of the report to:
 - The Chief of CNVVF
 - The Central Directorate for Emergencies and Technical Rescue within CNVVF.
 - The Civil Protection Department within CNVVF.
 - Corpo Forestale dello Stato⁹⁵ – Nucleo Investigativo Antincendi Boschivi⁹⁶.

⁹⁰ A network containing more than 550 members at the time of writing.

⁹¹ Website: <http://www.cfoa.org.uk/>

⁹² A copy of the report has since been uploaded onto the CFOA website and NFRS has already received very positive feedback from a number of individuals within CFOA.

⁹³ Website: <http://www.fireservicecollege.ac.uk/>

⁹⁴ Website: http://www.primo.dk/PRIMO_DENMARK-3944.aspx

⁹⁵ Website: <http://www3.corpoforestale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/1>

⁹⁶ Website: <http://www3.corpoforestale.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/330>

- In Finland, ESC have arranged to forward copies of the report to:
 - Ministry of Interior, department of rescue services
 - Ministry of Environment, department of housing and building
 - Regional Rescue Services
 - Emergency Services College
 - Finnish Association of Fire Chiefs
 - Finnish National Rescue Association
 - Federation of Finnish Insurance Companies

7.2 Additional follow-up approaches

The key additional follow-up approach that was not totally foreseen within the project plan will be the continued coordination of the network of practitioners that was created during the ANSFR Project. This network of 172 individuals (all of whom are registered users of the ANSFR website) from 97 organisations will be fostered and nurtured by the project team to ensure that information regarding good practice and experience is shared across Europe beyond the life of the project. The primary technique that will be used in order to facilitate this exchange will be the project website. The project team will dedicate some small resources to maintaining the website until the hosting agreement expires on 31st March 2013. This will involve uploading new documents and website links as they become available. It will also involve recruiting new registered users to the website, in order to expand the network of practitioners, and the coordination of the circulation of mass mailings to all registered users concerning new material on the website, forthcoming risk assessment and management events etc. The project team will also continue to monitor website traffic on a three monthly basis over the life of the current hosting agreement (until 31st March 2013) and if traffic reduces then attempts will be made to address the issue.

An additional follow-up approach that was not entirely predicted during the project plan is that all of the project partners are already actively exploring possibilities for future collaboration. The partners have identified a number of areas of mutual interest, most of which concern areas requiring improvement and development that were identified during the ANSFR Project. These new work areas include the development of new projects to develop innovative approaches to fire risk assessment and management (or closely related issues) and the sharing of existing knowledge and expertise between partners. NFRS and F-HFRD will share knowledge and expertise in advanced wildfire training in February 2011. There are also plans for specialist wildfire officers from NFRS to assist F-HFRD in a planned large-scale burn in Frederikssund-Halsnæs in the near future. NFRS, CNVVF-NIA and F-HFRD are exploring possibilities of working together on a transnational wildfire investigation project. The partners are also beginning to hold further discussions on a range of other issues. There is a strong desire among all of the partners to continue the excellent working relationship that has been developed. The partners are all aware of the excellent benefits that have been realised during the ANSFR Project and there is an acknowledgement that future transnational working could be very beneficial. Irrespective of which ideas are actually taken forward, the ANSFR Partners have established and will maintain a strong partnership over the coming years. It is apt to note that none of the organisations had worked together prior to the project. The ANSFR Project has therefore successfully forged new long-term cross-border partnerships between six forward-thinking organisations.

Appendix 1

The ANSFR Project Partners

Four organisations were involved in designing and submitting the project plan and co-financing application. The four original signatories on the grant agreement were then joined by two additional organisations from Finland, Kanta-Häme Emergency Services and South West Finland Emergency Services, who agreed to participate and contribute to the project through the Emergency Services College in Finland. A brief introduction to each of the partner organisations is now provided.

Northumberland Fire and Rescue Service (NFRS)⁹⁷

NFRS provides fire and rescue cover to the County of Northumberland in northern England. The County covers an area of almost 2,000 square miles (approximately 500,000 hectares) and is home to approximately 310,000 residents. NFRS has a long term strategic aim of improving the social, economic and environmental well being of the residents of the county it serves. Central to this is "preventing fires and other emergencies happening" and in doing so "reducing death, injury and damage to property". It is NFRS's aim to share knowledge and expertise, and to learn from the successful practices and initiatives implemented by other organisations, in order to improve safety and quality of life for those living in, working in and visiting Northumberland.

The Northumberland Arson Task Force (ATF)⁹⁸, a multi-agency team established to tackle arson in the County of Northumberland, is managing the project. A guiding principle for the project is the stimulation and utilisation of effective partnership working, both at the local and international scale. Officers working within the Northumberland ATF have significant experience of forming and maintaining effective partnerships through their daily work in coordinating fire investigations, arson prevention initiatives and local and international research projects.

Frederikssund-Halsnæs Fire and Rescue Department (F-HFRD)⁹⁹

F-HFRD provides fire and rescue services to the municipalities of Frederikssund and Halsnæs in the centre of the island of Seeland, in Denmark. Frederikssund-Halsnæs is a municipal fire and rescue service and its activities, like all fire and rescue services in Denmark are overseen at the national level by the Ministry of Defence.

Corpo Nazionale dei Vigili del Fuoco (CNVVF)¹⁰⁰

CNVVF is the Italian Fire Fighters Corps within the Ministry of Interior of Italy. CNVVF provides fire and rescue services to the country of Italy through various central and local sub-departments and divisions. Nucleo Investigativo Antincendi (NIA) is the department within CNVVF that will be involved in delivering the ANSFR Project. NIA is a department based in Rome within the central technical core of the Italian Fire Fighters Corps. NIA is responsible for fire investigation and other related issues.

⁹⁷ Website: <http://www.northumberland.gov.uk/default.aspx?page=1304>

⁹⁸ Further information about the Northumberland ATF is available at:
<http://www.northumberland.gov.uk/default.aspx?page=605>

⁹⁹ Website: <http://www.fh-brand.dk/>

¹⁰⁰ Website: <http://www.vigilfuoco.it/>

Emergency Services College (ESC)¹⁰¹

The ESC is situated in Kuopio in central Finland and provides education, vocational training and further training to the Finnish Rescue Services. The ESC also provides courses and consultancy in preparedness training for disturbances in normal and emergency conditions, international emergencies and civil crisis management. The Research and Development Unit at the ESC has been responsible for coordinating the ESC's contribution to the ANSFR Project. ESC has been assisted by officers from two of the Regional Rescue Services in Finland: Kanta-Häme Emergency Services (K-HES)¹⁰² and South West Finland Emergency Services (SWFES)¹⁰³. This partnership within the project team has been extremely advantageous in terms of providing multiple perspectives on fire risk assessment and management in Finland. The ESC has provided the project with a perspective on research and training at the national level, while K-HES and SWFES have provided practical knowledge and experience on operational fire and rescue work. K-HES and SWFES have also provided detailed input regarding the design and delivery of a number of recent projects related to fire risk assessment and management which have been delivered at regional and local levels within Finland.

¹⁰¹ Website: <http://www.pelastusopisto.fi/>

¹⁰² Website: <http://www.pelastuslaitos.fi/portal/fi/>

¹⁰³ Website: <http://www.turku.fi/Public/default.aspx?nodeid=8600>

Appendix 2

The Northumberland Arson Task Force

The Northumberland Arson Task Force (ATF) is a multi-agency task force that currently consists of 3 personnel from Northumberland Fire and Rescue Service (NFRS) and 1 police officer from Northumbria Police. Personnel within the ATF employed by NFRS include the ATF Manager, ATF Researcher, and ATF Project Officer. Team members are involved in providing a range of community safety and intervention activities. The Northumberland ATF has been identified by the UK government¹⁰⁴ as an example of best practice in effective arson prevention and investigation. The department is dynamic in its response to changes and problems as they occur, and proactive through its anticipation of potential future problems.

The Northumberland ATF aims to reduce and detect arson through a two-pronged strategy of:

1. Arson Prevention
2. Arson Investigation

1. Arson Prevention

Using a problem solving approach the ATF works closely with partner agencies to develop and implement arson reduction and prevention initiatives. The ATF's prevention strategy involves three key strands:

- a. Education
- b. Removal of Opportunity
- c. Deterrence



a. Education

The ATF sits within a larger department within Northumberland Fire and Rescue Service called the Community Safety Academy (CSA). The principle objective of the Community Safety Academy is to improve safety in the community and reduce risks to life through effective partnerships with other agencies. The structure of the CSA has been developed to create three distinct, but mutually supportive teams: the Programme Delivery Team; the Programme Development Team; and the Arson Task Force. However, a review is currently underway which will streamline the department into two distinct areas of delivery, The Research and Intervention Team and the Children and Young People Team. The ATF will form the core of the Research and Intervention Team along with additional areas of work including research, problem solving and situational education and intervention activities. The Children and Young People Team will co-ordinate and deliver the range of youth education courses and opportunities currently delivered. The Members of the ATF assist in the delivery of Fire and Security Awareness training courses given to school caretakers. These courses aim to educate and raise awareness among school caretakers of potential targets for arson attacks and how they can reduce opportunities for arson by implementing simple preventative measures. In addition to this form of education, the CSA has designed and supports delivery of the Schools Education Programme to all schools within Northumberland. This programme is a long-term initiative that educates young people in community safety issues (including fire safety and the dangers of deliberately setting fires). The programme has been designed to mutually support the National Curriculum and is structured to deliver appropriate and relevant messages to children and young people throughout their school lives.

¹⁰⁴ By the former Office of the Deputy Prime Minister (ODPM).

b. Removal of opportunity

A significant proportion of the work completed by the Northumberland ATF involves the identification and removal of potential arson opportunities. This involves continual analysis of the Fire Service Incident Database and the Police Crime and Incident Databases by the Arson Task Force Researcher and Police Officer. The ATF also relies upon information about potential risks being conveyed by the 6 Community Wardens, partner agencies (for instance, the local authority), fire crews attending incidents or completing other duties, and observations made by the team while on duties throughout the County. The ATF also rely upon intelligence provided by members of the public. Where arson risks are identified, the ATF does everything in its power to ensure that the risks are removed as soon as possible. A common arson risk within the county is the existence of fully-laden skips that are not promptly collected. When the ATF identifies a fully-laden skip it notifies the company that owns the skip and requests that they remove it as soon as possible. This proactive approach towards risk removal has contributed to a significant reduction in the number of rubbish fires set within the county.



Another specific initiative aimed at removing opportunities for arson which has been set up with the assistance of the Northumberland ATF has been the AVAIL Scheme – Abandoned Vehicle Action Information and Liaison. This initiative involves the rapid removal of abandoned vehicles from the streets of Northumberland. Any abandoned vehicle reported through the central hotline telephone number is removed and impounded within 24 hours. This has helped to significantly reduce the number of criminal fires within vehicles across the county.

c. Deterrence

The deterrent aspect of the ATF's preventative work includes engaging in focused publicity campaigns that warn against the dangers and potential ramifications of fire-setting (particularly during the Bonfire Period around November 5th each year). The ATF also coordinates periodic "letter drops" to homes and businesses within recorded arson hotspots around the county. The letters request that residents pass any information they may have about incidents of fire-setting to the ATF via a confidential telephone number. Any information received is passed directly to Northumbria Police. While these letter drops often yield important information that the Police can act upon, there is also an important deterrent element – individuals who are setting fires are notified that the Fire Service and Police are working together to stop fire setting behaviour in the area and that if they continue to set fires they may be caught and punished.

2. Arson Investigation

No strategy can prevent all criminal fires from occurring. Consequently, when criminal fires do occur, the ATF's strategy involves the completion of thorough fire scene investigations in order to yield information about the origin and cause of the fire, as well as potential evidence that can be used to identify criminal fire setters. By conducting thorough investigations in partnership with other organisations including the Police, the ATF is working to increase the detection rate for arson and prevent and reduce future arson fires. By thoroughly investigating fire scenes and bringing more fire setters to justice through the courts, the ATF has helped increase the number of successful prosecutions for criminal fire setting. The ATF is also helping to deter some would-be fire setters by making examples of those who have been caught and punished through the use of targeted publicity campaigns.



Appendix 3

Potential Causes/Contributory Factors for Accidental, Environmental and Social Fires

- Access to fire safety knowledge and education
- Alcohol consumption
- Animals and pets (e.g. rodents biting through cables)
- Ash
- Biological (e.g. peat)
- Boredom
- Buildings of multiple occupancy
- Building ownership (e.g. owner occupier or rented to tenants)
- Buildings of sole occupancy
- Burning of waste/rubbish
- Camping
- Candles
- Civil unrest (e.g. riot)
- Controlled burning
- Coal and wood burning stoves
- Chemical
- Cigarettes and smoking materials
- Chimneys and flues
- Climate
- Cooking (inside and outside)
- Deliberate fire-setting (arson/fire crime)
 - a) Organised arson
 - Crime concealment
 - Extremist motivated
 - Profit motivated
 - Revenge motivated
 - b) Disorganised arson
 - Crime concealment
 - Excitement motivated
 - Revenge motivated
 - Serial arson
 - Spree and mass arson
 - Vandalism motivated
- Drug taking
 - a) Illegal drugs
 - b) Prescription drugs
- Electricity/Electrical
- Empty/void properties
- Excluded members of society
- Explosions/explosives (e.g. gas explosions, nuclear explosions etc.)
- Failure to apply common sense
- Fascination with fire/play with fire
- Fire work (i.e. welding)
- Fireworks
- Frictional heat
- Hazardous substances (e.g. flammable and explosive substances)
- Heat
- Human error
- Lighting (artificial)
- Maintenance of equipment
- Marital status
- Mechanical
- Mental health difficulties
- Misuse of equipment/machinery
- Negligence
- Non-compliance with building regulations
- Non-compliance with health and safety regulations
- Open fires
- Overheating of an object (for instance, of a machine and/or electrical appliance)
- Ownership of fire safety measures
- Personal/domestic crises
- Physical impairment
- Poor (or no) maintenance (i.e. of machines, of chimneys/fire places, saunas etc.)
- Prescribed burning
- Racial/hatred
- Recession (economic downturn)
- Re-ignition of earlier fire
- Religious practices
- Saunas and steam rooms
- Self-excluded members of society (e.g. hermits, some homeless people etc.)
- Self immolation
- Smoking materials (cigarettes, tobacco, lighter, matches etc.)
- Spark (for instance, from fire place or machine)
- Suicide
- Sunlight (refracted)
- Terrorism and Extremist groups
- Weather conditions (including: storms and high winds, lightning, volcanic eruptions, earthquakes, draught, cold)
- Other

Appendix 4

Potential Location Types for Accidental, Environmental and Social Fires

Property Types

- Agricultural buildings (barns etc.)
- Care homes for the elderly
- Caravans
- Camp sites
- Club rooms
- Community centres/buildings
- Day care centres
- Dormitories/other residential properties
- Electricity sub stations
- Empty/void properties
- Festivals/events
- Holiday/summer homes
- Hospitals
- Hotels/Guest Houses
- Homes/dwellings
- Illegal drug farms (cannabis farms etc.)
- Leisure centres/sports halls
- Libraries
- Museums
- Oil rigs/extraction plants
- Offices
- Entertainment venues (cinemas, theatres, dance halls/discos and nightclubs)
- Petrochemical processing plants
- Places of worship (for instance, churches, synagogues, mosques etc.)
- Power plants
- Prisons
- Pubs and restaurants
- Shops
- Storage facilities (other than warehouses)
- Temporary/mobile homes
- Transport centres (airports, bus stations, train stations, ports)
- Warehouses
- Waste centres (for instance, waste storage sites, recycling facilities etc.)
- Other

Landscapes/Environments

- Coastland
- Grassland
- Heathland
- Moorland
- Peat
- Wildland (Wildfire)
- Woodland/forest (both natural and man-made/managed)
- Other

Modes of Transport

- Aeroplanes
- Bicycles
- Bulk carrier ships (for instance, container ships, oil tankers etc.)
- Buses/coaches
- Car transporters
- Cars
- Construction vehicles (i.e. excavators, cranes etc.)
- Cross-country vehicles (snowmobile, quad bike etc.)
- Ferries/Cruise Ships
- Fishing boats
- Inshore boats/ canal boats
- Jet ski
- Lorries/heavy goods vehicles
- Motorbikes
- Offshore pleasure boats
- Tractors and farm vehicles (including combine harvesters)
- Trains
- Trailers
- Other

Appendix 5

Social Groups “At Risk” of Experiencing/Causing Accidental, Environmental and Social Fires

- Alcohol/drug abusers
- Divorced
- Economically/socially deprived
- Landowners and land managers
- Mentally impaired
- Migrant workers¹⁰⁵
- Neo-unskilful¹⁰⁶
- Physically impaired
- Single
- Smokers
- Elderly
- Very young (infants, children)
- Working in high risk occupations (for instance, steel smelting/production, oil rig workers, quarry workers, miners (particularly those blasting for stone or other minerals) etc.
- Unemployed
- Widowed

¹⁰⁵ The term "migrant worker" refers to a person who is to be engaged, is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national" (UN Convention on the Rights of Migrant Workers, 1990. Last accessed on 3.07.09 at <http://www2.ohchr.org/english/law/pdf/cmw.pdf>).

¹⁰⁶ The category “neo-unskilful” refers to a group of individuals who have not learnt and/or are not interested in learning the knowledge and skills required to act and behave safely particularly (although not solely) around fires, the safe use of fire and fire prevention. The knowledge and skills that were traditionally passed on from generation to generation, and to a degree via closer contact with fire during everyday life (for instance, cooking on open fires, open fires for heating etc.), are no longer widely possessed by the general public. This social group has been identified as ‘at risk’ in Finland and in other European countries.

Appendix 6

Publicity about the ANSFR Project, 2009 - 2011

List of website articles and advertisements published about the project

- **Northumberland County Council website (UK):**
 - Summary page about the ANSFR Project - <http://www.northumberland.gov.uk/default.aspx?page=4604>
 - Page describing the Northumberland Workshop - <http://www.northumberland.gov.uk/default.aspx?page=5596>
 - Page describing the Fredrikssund-Halsnæs Workshop - <http://www.northumberland.gov.uk/default.aspx?page=7651>
 - Page describing the Roma Workshop - <http://www.northumberland.gov.uk/default.aspx?page=7652>
 - Page describing the Kuopio Workshop - <http://www.northumberland.gov.uk/default.aspx?page=7653>
 - Page describing the Fire Risk in Europe Conference 2010 - <http://www.northumberland.gov.uk/default.aspx?page=7707>
- **Frederikssund-Halsnæs website (Denmark):**
 - Summary article concerning the ANSFR Project (in Danish) - <http://www.fh-brand.dk/om-fh-brand/internationalt-samarbejde>
- **CNVVF Website (Italy):**
 - Summary article concerning the ANSFR Project (in Italiano) - <http://www.vigilfuoco.it/asp/notizia.aspx?codnews=9044>
 - Article on the Northumberland Workshop (in Italiano) -
 - Article on the Roma Workshop (in Italiano) - <http://www.vigilfuoco.it/asp/notizia.aspx?codnews=8992>
- **ESC Website (Finland):**
 - Summary article concerning the ANSFR Project (in Finnish) - <http://www.pelastusopisto.fi/pelastus/home.nsf/pages/4CB20FB28521E776C22571D500423F27?opendocument>
- **Website of the Danish Embassy in Athens (Greece):**
 - Article about the Frederikssund-Halsnaes Workshop held during the ANSFR Project (in Danish) - <http://www.ambathen.um.dk/da/menu/OmOs/Nyheder/ATHENSBRANDVAESEN/SOMAKTIVDELTAAGERIINTERNATIONALTBREDSSKABSSEMINARIDANMAR.K.htm>
- **Fire Risk in Europe Conference Booking Website -**
 - This website went live on 5th March 2010 and provided information about the event and online booking facilities - <http://www.fireriskeuropeconference.com/>

- **Chief Fire Officers Association (CFOA) website (UK):**
 - An advertisement about the Fire Risk in Europe Conference 2010 has been published on the website since 5th April 2010 - <http://www.cfoa.org.uk> .
- **Hemming Fire Online (UK):**
 - An advertisement about the Fire Risk in Europe Conference 2010 has been published on the website since March 2010 - <http://www.hemmingfire.com/> .
- **Asociación Nacional de Investigadores de Incendios (Spain):**
 - An advertisement about the Fire Risk in Europe Conference 2010 was published in April 2010. There was, however, an expiry date on this item so it is no longer visible on the website - <http://www.anince.es/> .
- **Norwegian Association of Fire Officers (Norway) :**
 - An advertisement about the Fire Risk in Europe Conference 2010 was published March 2010.
- **www.Brand-Feuer.de (Germany):**
 - A summary article (in German) about the publication of the final report of recommendations was published on this website on 22nd March 2011 at - [http://www.brand-feuer.de/index.php/%22Bericht der Empfehlungen f%C3%BCr das ANSFR P roject%22](http://www.brand-feuer.de/index.php/%22Bericht%20der%20Empfehlungen%20des%20ANSFR%20Projekt%22)

List of informative articles published on the project

Antincendio (Italy):

- “*Conferenza sul rischio incendi in Europa 2010*”, 2010, Issue 5, pp134-135.

Fire (UK):

- “*Fire Risk in Europe Conference 2010*”, June 2010, p52.

Fire Risk Management (UK):

- “*Practice makes perfect*”, September 2009, pp45-47
- “*Shared Logic*”, forthcoming in 2011.

Pelastustieto (Finland):

- “*ANSFR Projekt: tehokkaita euoppalaisia käytäntöjä*”, 2009, Issue 9, pp 54-55.

Emergency Services Ireland (Republic of Ireland):

- “*Projecting Ways to Reduce Risk of Fire*”, 2009, Issue 34, pp70-75.
- “*Risk Assessment Spreads like Wildfire*”, 2009, Issue 35, pp122-127.
- “*The Fire Risk in Europe Conference 2010*”, 2010, Issue 36, pp68-69.

Revista Pompierii Români (Romania):

- “*Riscul di incendiu în Europa*”, 2010, Issue 5, pp20-21

CFOA International Development and Humanitarian Aid Conference (UK):

- “*The ANSFR Project*”, Handbook of the 2010 event, p7.

List of advertisements purchased for the Fire Risk in Europe Conference 2010

- **Brandvæsen** (Denmark), half page in April 2010 issue.
- **Pelastustiето** (Finland), quarter page in May 2010 issue.
- **Antincendio** (Italy), half page in May 2010 issue.
- **Feuerwehr Fachsjournal** (Germany), third of page in May 2010 issue.
- **Burning Issue** (UK), third of page in May/June 2010 issue.
- **Fire Magazine** (UK), quarter page in April 2010 issue.
- **Fire Risk Management** (UK), two half pages, one in April 2010 issue and one in May 2010 issue.
- **Fire Times** (UK), quarter page in May 2010 issue.
- **In Attendance** (UK), half page in May 2010 issue.

Post-Event Reports published on the Fire Risk in Europe Conference 2010

- **British Fire Safety Association** (UK) – post event report published in members' newsletter.
- **Chief Fire Officers Association** (UK) – post event report published in members' newsletter.
- **Emergency Services Ireland** (Republic of Ireland) – post event report published within a magazine article.
- **Fire Risk Management** (UK) – post event report published in September 2010 issue.
- **Fire Times** (UK) – post event report published in the August/September 2010 issue.
- **In Attendance** (UK) – Post event report published in the August 2010 issue.
- **International Fire Buyer** (UK) – Post event report published on the website.

Expected destinations for forthcoming informative articles during 2011

- **Antincendio** (Italy)
- **Brandvæsen** (Denmark)
- **Pelastustiето** (Finland)
- **Fire Risk Management** (UK)
- **Emergency Services Ireland** (Republic of Ireland)

Appendix 7

ANSFR Web Platform Design Process - Evaluation of Existing Websites

Four existing websites were identified as useful points of reference for designing a proposed web platform and training tool. Three of the websites selected for evaluation were aimed at a European audience and one was primarily aimed at operational fire fighters in the USA. Although the latter website is primarily aimed at individuals working within one country, the information contained within this website is of potential interest and significance to professionals working in other countries.

After evaluating the four existing websites, 12 important considerations were identified for designing and implementing a web-based platform and training tool for risk assessment and management. The proposed system should:

1. Be easy to navigate – ideally everything the user may require should be accessible from the home page of the website;
2. Use appropriate fonts and colours so that information is clearly visible and is appropriate to the website subject matter;
3. Include a detailed site map outlining the different pages included within the site;
4. Consider Including an interactive map so that users can easily access information and contact details of individuals from different participating countries by clicking on respective countries.
5. Include a page with contact details of an individual involved in the project who can answer general queries. This could include a web link which, when clicked, will bring up a blank email addressed to the project contact so that users can directly email their requests to an individual involved in the project.
6. Have the ability for forms to be submitted in electronic and paper format;
7. Have the ability for photographs (and possibly videos) to be uploaded onto the website;
8. Include a number of links to related websites and organise these links in appropriate categories. The links could be organised according to the websites' country of origin;
9. Include information that outlines the purpose of the programme/website – this should either be on the home page of the site or on another page that is easily identifiable and accessible from the home page;
10. Include password protection for contact details and best practice case study materials - basic information about the project and website could be publicly accessible (to attract future participators), however, other sensitive material should be password protected to ensure security;
11. Have a thorough indexing system so that detailed searches can be completed by users trying to quickly identify specific information from the site;
12. Be centred on the page so that users can view most of the information on the page without using the scroll bars.

The following four sections provide more detailed evaluations of each individual website.

1. AMIRA Project (Advanced Multi-Modal Intelligence for Remote Assistance)

Website address: <http://www.amira.no/index.php>

Description of website

The AMIRA Project was funded by the European Commission's 6th Framework Programme and brings together experts from academia and the private sector in France, Germany, Norway and the UK. This website presents detailed information about the project, including previous reports and research.

The basic aim of the AMIRA Project is to develop diagnostic and decision support solutions for mobile workers. To include one of the examples outlined in the website, fire service incident commanders may attend an incident and may require detailed information to be relayed to them very quickly in order to decide how to best deal with the situation. AMIRA aims to assist mobile workers, such as fire incident commanders, by providing them with rapid access to appropriate knowledge which will help them assess developing situations.

Key positive aspects of the website

a. Good page of links to other relevant sites – The page including links to other relevant sites was well organised. In addition to providing links, a brief description of the each of the listed site was included. This allows users to easily identify the subject matter of other sites.

b. Contact page with details of a specific individual who can be emailed directly with queries about the site/project – The website included a page with contact details of an individual to contact about the project. This included a web link to an email address which, when clicked, allows individuals to directly email the project contact.

Negative aspects of the website

a. No site map – The website does not include a detailed site map which would allow users to see links to all pages on the screen. Site maps can allow users to quickly scan the available pages and quickly identify pages that may be of interest to them. By not including a detailed site map, the website fails to include an important search mechanism for users.

2. EU Exchange of Experts in Civil Protection and Marine Pollution

Website address: <http://www.exchangeofexperts.eu/>

Description of website

The EU Exchange of Experts in Civil protection and Marine Pollution programme is funded by the European Commission. On the 18th December 2006, the Federal Agency for Technical Relief (THW), Germany, was commissioned with the management of the programme until June 2008. Prior to this, the EU Exchange of Experts Programme had been managed by the Higher Institute on Emergency Planning in Belgium.

This website is primarily concerned with promoting the exchange of knowledge and experience between experts in civil protection from across the European Union. All 27 EU

Member States are included in the project. In addition, Iceland, Norway and Lichtenstein (signatories of the European Economic Area) are also included in the project.

The THW organises the exchanges and arranges for the travel expenses of those completing the exchanges to be met by the programme funding. Exchanges can last from a few days to two weeks. Experts can take part in the exchange programme as individuals or as small groups of 2 to 4 people.

Key positive aspects of the website

a. Register of individuals willing to complete exchanges with other organizations – Importantly, the EU Exchange for Experts in Civil Protection website functions in a similar way to our proposed exchange register/system for arson investigation and prevention experts. While this existing website provides an exchange platform for experts in civil protection, it does not provide an exchange platform for experts working in the highly specialised and specific fields of arson investigation and arson prevention. Indeed, those working in Civil Protection arenas may not necessarily be familiar and conversant with all aspects of work into arson prevention and investigation. While the Civil Protection Exchange system is an excellent existing program which is positively influencing civil protection training across Europe, the establishment of a website to facilitate the European Exchange of Experts in Arson Investigation and Prevention is greatly needed.

b. Map system for identifying contact details of experts willing to do exchanges – The EU Exchange of Experts in Civil Protection and Marine Pollution website uses an interactive map of Europe to organise the contact details of experts registered on the programme. In order to find the contact details of an expert from a particular country, the user clicks on the country of interest and a list of contact names and details are brought up on screen.

c. Good calendar of events – This allows the user to see what is happening throughout the year in a user friendly format.

Negative aspects of the website

a. Poor indexing – Some test searches were conducted using the website search facility. However, it was evident that the website had poor or no indexing. As an example, if the word “fire” is entered as a search query then 17 results appear, all of which are for the Czech Republic. After browsing the website, there are clearly pages of information from other countries which contain the word “fire”. It is important that the proposed website should have a good indexing and search system so that users of the website can quickly and efficiently identify specific information that they require.

b. No instructions for the calendar of events – No instructions are provided for how to use and navigate the calendar of events. This means that users need to perform a trial and error exercise in order to learn how to use the resource.

c. Limited search capabilities – Users are restricted to completing basic text searches in the website’s search function. The data held in the website could be more efficiently searched if the search function also allowed users to search particular categories and subcategories of data. This more comprehensive and efficient type of search function ensures users can more specifically identify pages of interest.

3. European Virtual Academy (EVA)

Website address: <http://www.evanetwork.net/>

Description of website

The European Virtual Academy is the training and education portal for civil protection in Europe and is a joint platform for two projects funded under the European Commission Directorate-General for Environment. The programme was set up on 23rd October 2001 and there are currently 30 European States involved in the scheme.

The key focus of the programme is to provide a platform through which civil protection professionals within the participating European States can communicate together and share training expertise and experience. Users can click on individual countries on a map of Europe. Once the user clicks on an individual country they are then prompted to supply a password in order to obtain the contact details of individuals from that particular country who are participating in the programme. Once authorised individuals have obtained the relevant contact details that they require, they can then contact those involved and try to arrange exchanges and/or placements within that country.

Our proposed register of experts, which would be accessed from a secure access best practice website, would operate using a similar system. Individuals from fire, police, forensic and government organisations would be able to securely access the contact details of experts from across Europe who specialise in investigation and prevention. Individuals can then use these contact details to arrange exchanges and placements with experts from other countries. These exchanges and placements will provide a platform for a greater degree of exchange of best practice information across European national borders.

Key positive aspects of the website

a. Excellent layout of site – This site probably had the best layout and arrangement of all of the websites evaluated. The pages have been designed so that only a small amount of white space is visible. The majority of the page is covered with graphics and links to other parts of the site, making a good use of the available space.

The home page in particular is well constructed. The home pages of some websites are very basic and only include a small number of links to other pages. Some pages and information is consequently accessed by clicking on a number of subsequent links which take the user through several different pages. The European Virtual Academy home page however, includes links to all of the key sections of the website so that the user can access all of this information directly from one page. Users can consequently navigate around the European Virtual Academy with relative ease and efficiency.

b. Inclusion of a detailed site map – In addition to the previous point, this site includes a detailed site map which is accessible from the home page. This again allows users the facility to quickly and efficiently access information that they require. Some of the other websites do not include a site map and therefore do not allow users this very useful navigation facility.

c. Allows users to view pages in PDF Format – The site allows users to download PDF Format documents to save and/or print. These documents can contain a lot of detail and

can include detailed research reports, research articles etc. By including information in separate PDF Format documents, this website retains its efficiency because the individual website pages are not overloaded with too much information. It is also easier for users to save and print information in PDF Format rather than attempting to save/print text embedded within website pages. This is certainly a useful tool for any website which proposes to include a lot of information.

d. Secure access to documents and contact details – The contact details for each participating centre is kept secure by a password system. As has been mentioned, users click on each individual country in order to obtain contact details of individuals from that country who are participating in the programme. When you click on a country you are then asked to provide a password in order to access the information. This is a good system as it secures individuals contact details and only provides them to those who are authorised. Other information is also kept secure for authorised individuals, including documents etc. Our proposed system must have a secure element to ensure that best practice information about investigation and prevention is not made available to individuals who may use it to benefit their criminal activities.

e. Good calendar of events – This calendar of events uses the same format as the EU Exchange of Experts in Civil Protection and Marine Pollution website. The calendar allows the user to see what is happening throughout the year in a user friendly format.

Negative aspects of the website

a. Home page does not include explicit information about the project and website – The home page of this site does not include any explicit information about the purpose of the website or about the programme. Users of the site should be able to easily identify what the programme and website aim to achieve. This could be achieved by including a short section on the home page which outlines the aims of the programme/website or including a clear link to another page which provides this information.

b. No instructions for the calendar of events – No instructions are provided for how to use and navigate the calendar of events. This means that users need to perform a trial and error exercise in order to learn how to use the resource. The same drawback was identified for the calendar within the EU Exchange of Experts in Civil Protection and Marine Pollution website.

c. Limited search capabilities – Users are restricted to completing basic text searches in the website's search function. The data held in the website could be more efficiently searched if the search function also allowed users to search particular categories and subcategories of data. This more comprehensive and efficient type of search function ensures users can more specifically identify pages of interest. Again, this same point was highlighted as a negative drawback to the EU Exchange of Experts in Civil Protection and Marine Pollution website.

4. National Fire Fighter Near Miss Reporting System (USA)

Website address: <http://www.firefighternearmiss.com>

Description of website

The National Fire Fighter Near Miss Reporting System is a voluntary, confidential, non-punitive and secure reporting system which has been developed to improve safety for fire fighters in the USA. The project is funded by the Department for Homeland Security's Assistance to Fire Fighters Grant Program and Fireman's Fund Insurance Company.

The system relies upon Fire Fighters from across the USA submitting electronic and/or postal forms which outline the details of near miss and dangerous incidents that they have been involved in or that they witnessed during the course of their duties. An administrator receives the completed forms and uploads suitable forms to the system. The forms are submitted to an administrator who evaluates the information provided and decides whether the information is suitable to be uploaded to the main system.

All reports submitted for inclusion in the website are cleansed of personal details by the administrator to preserve anonymity. The other key sections of the report include a brief description of the incident, a bullet list estimating the loss potential of the event (for example, if the incident could cause "property damage" , "life threatening injuries", or "minor injuries" etc.) and a section detailing possible suggestions for reducing the likelihood of a similar incident occurring in the future.

By making this information available to fire fighters, the website creators believe that death, injuries and near misses for other fire fighters can be avoided in future.

Key positive aspects of the website

a. Ability to print blank reporting forms to distribute to those without computer access – The Near Miss Reporting System provides users with the ability to print blank report forms which can then be distributed to individuals without access to a computer. This is important because it does not limit contributions to the website from those with computer access. It also ensures that those who perhaps do not have regular computer access can forward paper forms to the administrator about near miss incidents as soon as possible after the event. This ensures that potentially valuable information about near misses can be uploaded into the public domain quite rapidly ensuring that lessons may be learnt before similar incidents occur elsewhere.

It will also be important for our proposed website system to have the ability for users to submit electronic and paper forms about potential examples of best practice. In addition to the benefits mentioned above, an electronic and paper submission system for our proposed website will also reduce potential problems associated with:

- Lack of or sporadic access to computers among some professionals in the fields of best practice.
- Use of different computer software packages throughout Europe.
- Limitations experienced in sending electronic forms (specifically imposed by certain firewalls).

b. Ability to upload videos and photographs - The Near Miss Reporting System provides users with the ability to upload videos and photographs of incidents. This provides users of the site with useful visual points of reference when scanning reports. Photographs and videos are often essential tools for conveying complex information during presentations delivered at research seminars, conferences and training sessions. Uploading videos onto websites obviously raises additional challenges; however, at a minimum this proposed website must have the capability to upload photographs.

c. Inclusion of a substantial and well organised page of links to related websites – The Near Miss Reporting System has a page dedicated to links to other websites associated with fire fighting. In addition to including a large number of links, the links are effectively organised under key categories which makes it easy for users to scan through to find sites that may be of interest to them. For the proposed website a page of related website links will be constructed and these links will be organised according to appropriate categories. For this European-wide project and website, perhaps the most appropriate way to organise website links is arrange them according to the country that the website originates from. Obviously, links to other European-wide websites (for instance, the European Commission) could be placed in a separate category and useful websites from other countries outside of Europe could be placed in a 'Rest of World' category.

Negative aspects of the website

a. Placement of site in centre of screen – The site would probably be more appropriately centred on screen rather than being aligned to the left. The majority of websites are aligned to the centre so that when opened the majority of the site can be seen without using the scroll bars.

Northumberland Fire and Rescue Service (NFRS) provides fire and rescue cover to the County of Northumberland in northern England. The County covers an area of almost 2,000 square miles (approximately 500,000 hectares) and is home to approximately 310,000 residents. NFRS has a long term strategic aim of improving the social, economic and environmental well being of the residents of the county it serves. Central to this is "preventing fires and other emergencies happening" and in doing so "reducing death, injury and damage to property".

Frederikssund-Halsnæs Fire and Rescue Department provides fire and rescue cover to Frederikssund and Halsnæs Municipalities. Frederikssund and Halsnæs Municipalities cover an area of almost 382 square miles (approximately 98,935 hectares) and are home to approximately 75,000 inhabitants. Frederikssund-Halsnæs Fire and Rescue Department has a strategic aim to "prevent fires and other emergencies happening" and in doing so to "reduce death, injury and damage to property".

Corpo Nazionale dei Vigili del Fuoco (CNVVF) is the Italian State Fire Fighters Corps within the Ministry of Interior in Italy. CNVVF provides fire and rescue services across the whole of Italy through various central and local sub-departments and divisions. Nucleo Investigativo Antincendi (NIA) is the department responsible for delivering CNVVF's contribution to the ANSFR Project. NIA is a department based in Rome within the central technical core of CNVVF. NIA is responsible for fire investigation and other related activities.

The Emergency Services College (ESC) is situated in Kuopio in central Finland and provides education, vocational training and further training to the Finnish Rescue Services and the Finnish Emergency Response Centres. ESC also provides courses and consultancy in preparedness training for disturbances in normal and emergency conditions, international emergencies and civil crisis management.