

Recruitment and retention of volunteers in European Fire Services

Phase 1: document study and exploratory focus group



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Publication details

Brandweeracademie (2019). *Recruitment and retention of volunteers in European Fire Services. Phase 1: document study and exploratory focus group*. Arnhem: Instituut Fysieke Veiligheid.

Colofon

Commissioned by: Raad van Brandweercommandanten (RBC, Board of Fire Chiefs)
Contact person: K. Dangermond, MSc Ma (Karin.Dangermond@ifv.nl)
Title: Recruitment and retention of volunteers in European Fire Services.
Phase 1: document study and exploratory focus group
Date: 1 October 2019
Status: Final
Version: 1.0
Author: M.J. Elbers, MSc
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Review: dr. ir. R. Weewer
Final responsibility: dr. ir. R. Weewer

Samenvatting

Het werven en behouden van brandweervrijwilligers is vorig jaar als een belangrijk thema benoemd door het Veiligheidsberaad en de Raad van Brandweercommandanten (RBC). In dat kader is in juni 2018 het Programma vrijwilligheid van start gegaan. Hierin participeren de Vakvereniging voor Brandweervrijwilligers, het Instituut Fysieke Veiligheid en het ministerie van Justitie en Veiligheid. Het programma bestaat uit verschillende 'trajecten' waarbinnen onderwerpen die met dit thema te maken hebben, worden uitgediept. De Brandweeracademie van het Instituut Fysieke Veiligheid is verantwoordelijk voor de uitvoering van de trajecten 3, 4 en 5. In deze publicatie worden de resultaten beschreven van traject 5, deelonderzoek 1.

Ook in andere Europese landen wordt veel gewerkt met vrijwillige brandweerkorpsen. In internationale brandweernetwerken wordt regelmatig vernomen dat zich problemen voordoen of worden verwacht rondom vrijwilligheid, specifiek het vinden en binden van vrijwilligers. Een duidelijk overzicht van deze problemen (en mogelijke leerpunten daaruit voortvloeiend) ontbreekt tot op heden. Eerdere pogingen om een overzicht van knelpunten en (effectieve) oplossingen te krijgen middels internationale enquêtes hebben niet tot een scherp beeld kunnen leiden. Het doel van deze studie is dan ook om de problematiek (knelpunten en uitdagingen) rondom vrijwilligheid bij diverse brandweerorganisaties in Europa, evenals mogelijke oplossingen, wél goed in kaart te brengen. De onderzoeksvraag van dit onderzoek luidt: Wat kan de Nederlandse brandweer leren van de ervaringen – knelpunten, uitdagingen, (mogelijke) oplossingen/activiteiten en *good practices* – van andere Europese brandweerorganisaties met betrekking tot het thema vrijwilligheid?

Methode

Om de onderzoeksvraag te kunnen beantwoorden is gebruikgemaakt van een documentstudie (n = 25). De Nederlands- en Engelstalige documenten waren voornamelijk afkomstig uit het Verenigd Koninkrijk, Ierland en Nederland. Aanvullend zijn (gedurende drie dagen) focusgroepen met experts van brandweerorganisaties in 15 verschillende Europese landen georganiseerd.

Resultaten

De documentstudie en focusgroepen brachten allereerst aan het licht dat in de 15 betrokken landen er verschillende definities worden gehanteerd voor zowel vrijwillige als beroepsbrandweermensen, die niet allemaal gelijk zijn. Deze definities zijn als volgt te classificeren:

1. Vrijwilligers: Zij die (of wiens organisaties) geen betaling of vergoeding ontvangen voor het werk dat zij voor de brandweer verrichten, en een andere hoofd baan hebben.
2. Vrijwilligers met bepaalde privileges: Zij die (of wiens organisaties) geen betaling of vergoeding ontvangen voor het werk dat zij voor de brandweer verrichten, maar wel (al dan niet financiële) privileges, en een andere hoofd baan hebben.
3. Gepiketeerde vrijwilligers zonder opkomstplicht: Zij die piket hebben, betaling of vergoeding per uur of per inzet ontvangen, niet verplicht zijn op te komen, en een andere hoofd baan hebben.

4. Gepiketteerde vrijwilligers met opkomstplicht: Zij die piket hebben en/of verplicht zijn in de nabijheid van de brandweerkazerne te verblijven, betaling of vergoeding per uur of per inzet ontvangen, verplicht zijn op te komen, en een andere hoofdtaak hebben.

In vijf van 15 landen bestaat het brandweerpersoneel voor meer dan 75 procent uit vrijwilligers (classificatie 1, 2, 3 en 4 samen). In sommige Europese landen is training en opleiding van brandweervrijwilligers gelijk aan dat van de beroeps. Dat geldt ook voor de taken die zij uitvoeren: vrijwilligers voeren daar dezelfde taken uit als beroepscollega's. In een aantal andere landen voeren vrijwilligers enkel ondersteunende taken uit.

De knelpunten die de verscheiden Europese brandweerorganisaties ervaren of voorzien verschillen per land. De meest genoemde knelpunten (in documenten en door experts) met betrekking tot werving van vrijwilligers zijn:

- > Vrijwilligerswerk bij de brandweer is niet te combineren met andere activiteiten en hoofdtaak.
- > Leegloop van rurale gebieden beperkt het vrijwilligerspotentieel.
- > Vrijwilligerswerk bij de brandweer kent te hoge medische en fysieke ingangseisen.
- > Werkgevers zijn steeds minder vaak bereid om hun werknemers onder werktijd naar een inzet te laten gaan.

De meest genoemde knelpunten (in documenten en door experts) met betrekking tot behoud van vrijwilligers zijn:

- > Vrijwilligerswerk bij de brandweer is niet te combineren met andere activiteiten.
- > Vrijwilligerswerk bij de brandweer is niet interessant genoeg door vermindering van alarmeringen/inzetten.
- > Vrijwilligerswerk bij de brandweer kent te hoge eisen qua opleiding, training en beschikbaarheid.
- > Werkgevers zijn steeds minder vaak bereid om hun werknemers onder werktijd naar een inzet te laten gaan.

De meest genoemde oplossingen voor deze en andere knelpunten zijn:

- > Het differentiëren van opleiding en taken van vrijwilligers (in vergelijking met beroeps).
- > Het betrekken van hoofdwerkgevers bij werving en behoud van vrijwilligers.
- > Het werven van vrijwilligers in specifieke doelgroepen.
- > Het overbrengen van waardering voor vrijwilligers door de organisatie en beroepscollega's.

Er zijn in de documenten en focusgroepen geen bewezen effectieve (met data onderbouwde) oplossingen gevonden.

Conclusie

Een aantal van de knelpunten die in de documentstudie en focusgroepen naar voren zijn gekomen, zijn herkenbaar in de Nederlandse context. Daarbij valt te denken aan vergrijzing of het idee dat vrijwilliger zijn (te) veel tijd kost en dit potentiële vrijwilligers demotiveert, of dat een afname van inzetten of hoge eisen huidige vrijwilligers demotiveert. Om te kunnen duiden wat de Nederlandse brandweer kan leren van andere brandweerorganisaties is verdieping van de gerapporteerde knelpunten en oplossingen noodzakelijk. Dat geschiedt in de volgende onderzoeksfase.

Vervolg

Traject 5 bestaat in totaal uit vier fasen. Dit deelrapport presenteert de resultaten van fase één. In de resterende drie fasen worden onder meer brandweervrijwilligers en managementleden uit verschillende Europese landen geïnterviewd, en zal een internationaal symposium over brandweervrijwilligheid worden georganiseerd.

Preface

The Brandweeracademie (Fire Service Academy), part of the Instituut Fysieke Veiligheid (IFV, Institute for Safety), hereby presents a first report on the recruitment and retention of (on-call) volunteer firefighters in Europe, part of the comprehensive research programme on Volunteer Firefighting in the Netherlands, funded by the Dutch Ministry of Safety and Security. This study adds an important international dimension to the predominantly national-oriented research programme.

Experts from fifteen Fire Services throughout Europe responded to our call and have devoted their time and effort to discuss together the issues apparent in their respective countries regarding recruitment and retention of volunteer firefighters, when we came together in April 2019 in Amsterdam for our first focus group discussion. This collaboration of experts, within the context of empirical research, is unique in the history of the Brandweeracademie.

The main goal of this study is to learn from our colleagues in other European Fire Services, by gaining a better understanding of common and different issues regarding volunteer firefighters. Reflecting on the focus group discussion we had in April 2019, and the contact we have maintained since then, I think we have made a very good first step into that direction. I am certain that European Fire Services can learn much from one another and that collaboration on such an important topic as volunteer firefighting will benefit all participating countries. I hope that this report will not only support the Netherlands Fire Service, but also the fire services of all FEU member states in deciding how to proceed with volunteering in the future.

Judging by the positive reactions from all experts, the first focus group discussion was an enormous success. We are therefore looking forward to visiting some of these experts in their countries in the next phase of this study.

We would like to thank all experts for their presence at, interaction and input during our discussions. We hope to keep in touch during the next phases of this study. A special thank you to our focus group discussion chairman Paul Verlaan and the researchers and other staff that made possible the focus group discussion and this report: Jan Maarten Elbers, Karin Dangermond and Monique Bicker.

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Content

	Samenvatting	3
	Introduction	7
1	Results of document analysis	12
1.1	Definition	12
1.2	(De)motivators	14
1.3	Solutions	19
2	Results of focus group discussion	23
2.1	Definition	23
2.2	Challenges	27
2.3	Solutions and good practices	31
3	Conclusion	36
3.1	What is the definition of volunteer firefighters in European fire services?	36
3.2	What are the challenges regarding recruitment and retention of volunteer firefighters as experienced by European Fire and Rescue Services?	37
3.3	Which solutions/activities have European fire services developed to cope with these challenges?	39
3.4	What can the Netherlands Fire Service learn from challenges and solutions of other European fire services?	40
3.5	Limitations	41
	Literature	43
	Appendix A	45
	Appendix B	47
	Appendix C	50
	Appendix D	52
	Appendix E	59

Introduction

The Netherlands Fire Service (Brandweer Nederland) consists of more than 28,000 firefighters who are committed to their fellow citizens heart and soul and are working 24/7 for a fire-safe society. They are helpful, decisive and experts at what they do. Nearly 80 percent of all Dutch operational firefighters are volunteers (Centraal Bureau voor de Statistiek, 2018) and have other primary employment.

The Dutch Safety Council (Veiligheidsberaad) has identified several developments on multiple levels (society, organisation, individual) that may lead to challenges in recruiting and retaining volunteer firefighters, and thereby may impact the vitality of the current organisation model. Societal changes are for instance demographic shifts, legal changes, technical progress and changes in society, such as increasing individualism. Developments regarding individuals relate to personality, ambitions and motives (TNO, 2013). These developments raise the important question: How can the organisation model of the Netherlands Fire Service keep building upon volunteers in the future and be sustainable and robust at the same time?

(Volunteer) firefighters share the aforementioned concerns, as prior national research pointed out. For instance, Dutch firefighters think the Netherlands fire services are only moderately attractive to possible recruits and less than half of the 9000 firefighters questioned stated that their fire services are doing enough to recruit new volunteer firefighters (Brandweer Nederland, 2017, pp. 44-46). The aforementioned study underlines that these concerns are already seen and experienced by firefighters today, but does not delve into specific challenges and solutions regarding recruitment and retention of volunteer firefighters. In this lies the added value of the current study.

Also in many other European countries the organisation model of the fire services is partially or predominantly built on volunteers. It is therefore hypothesized that other European countries face similar challenges as the Netherlands, when it comes to recruitment and retention of volunteer firefighters. In international networks of fire services, it is frequently mentioned by various representatives that fire services throughout Europe experience or foresee challenges regarding recruitment and retention of volunteer firefighters. Insight in these challenges and possible solutions could create more understanding of the magnitude, as well as the possibility to compare and learn from other European fire services. Previous attempts to map out these challenges and solutions by means of questionnaires have unfortunately not sorted the desired effects due to a low response rate. Several (PhD-)students throughout Europe are working on their respective national levels on the topic of recruitment and retention of volunteer firefighters, fire service organisation models and fire service culture and the place of volunteers therein.¹ This exploratory study provides a new and more elaborated attempt to finally create this much needed European overview.

¹ Such as: Fran Echeverria (ES), Emelie Lantz (SW), Karin Dangermond (NL) and Joe Hassel (UK).

It is important to interpret challenges and solutions within their given context. Organisational, legal and cultural differences may co-determine the nature of these challenges, as well as the working mechanisms in the (possible) solutions designed to tackle them.

Therefore, it is necessary to understand the extent to which similarities exist between the Netherlands and other European countries regarding obligations, secondary benefits, training, and other aspects of volunteer firefighting. However, an overview of these contextual elements in European Fire Services is absent.

The focus of this report is on Europe. Therefore, it can benefit both the Netherlands Fire Service, as well as the fire services in other European countries.

Research questions

The goal of this study is to describe challenges and solutions regarding recruitment and retention of volunteer firefighters in European fire services, whilst taking into account different definitions of volunteer firefighters throughout Europe. The central question that follows from this goal, and which will be answered in this study, is:

What can the Netherlands Fire Service learn from experiences – problems, challenges, (possible) solutions/activities – of other European Fire Services with regards to recruitment and retention of volunteers?

Sub questions therefore are:

1. What is the definition of volunteer firefighters in European fire services?
2. What are the challenges regarding recruitment and retention of volunteer firefighters as experienced by European fire services?
3. Which solutions/activities have European fire services developed to cope with these challenges?
4. What can the Netherlands Fire Service learn from challenges and solutions of other European fire services?

Study outline

This exploratory study is divided into four consecutive phases.

1. Gain knowledge regarding the definition, recruitment and retention of volunteer firefighters in European Fire Services by means of an exploratory international focus group and document study.
2. Design a topic list for and conduct semi structured group interviews with volunteer firefighters and their management in seven European countries, regarding challenges, solutions and good practices.
3. Organise a second international focus group to discuss the results of phase 1 and 2.
4. Organise an international symposium on volunteer firefighters in Europe at which the results of phases 1-3 are presented.

This report provides a summary of the findings of phase 1: the document study as well as the exploratory focus group.

The Brandweeracademie (Fire Service Academy), part of the Instituut Fysieke Veiligheid (IFV, Institute for Safety), conducts this study. The Brandweeracademie is responsible for educating and maintaining competence of firefighters and people working in crisis management. The IFV is the national support organization for the 25 Dutch safety regions, which are responsible for the regional fire services. The IFV supports the safety regions in fire prevention and repression and the disaster and crisis management, by means of research and education, among others.

This study is part of a larger Dutch research program on volunteers in the fire service, issued by the Board of Fire Chiefs (RBC), together with multiple partners such as the Dutch Trade Union of Fire Service Volunteers, the Ministry of Justice and Security, the IFV and the Brandweeracademie. Another comprehensive study within this research program is due to start halfway 2019 and reviews the experienced challenges and solutions by the 25 regional fire services in the Netherlands.

Methodology

Participants

In order to gain maximum effect of the exploratory (and following) focus group, it is important that the participants have ample knowledge about the subject of volunteer firefighting. This message was communicated clearly to the points of contact.

An expert of the Fire Services of Austria, Belgium (Flanders), the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Norway, the Netherlands, Portugal and the United Kingdom participated in this exploratory focus group discussion. These countries are abbreviated in this report respectively with AT, BE, CZ, DK, EE, FI, FR, DE, HU, IE, LV, NO, NL, P and UK. In Appendix A the participating experts per country are presented.

All experts was provided the chance to review this report when in concept, seven did.

Instruments

Document analysis

In order to answer the research questions, a document analysis was conducted. A document analysis is a review of secondary data and creates a first impression of the topic at hand. It encompasses a process of finding, selecting, appraising and thematically synthesising data through content analysis (Bowen, 2009). Themes used were: definition of volunteer firefighters, recruitment and retention challenges regarding volunteer firefighters, solutions and good practices regarding challenges in recruitment and retention of volunteer firefighters. This instrument fits the exploratory nature of phase 1 of this study well and complements the field research of the focus groups. Secondary data included were research articles, datasets and policy papers. The search was limited to the fifteen countries that participated in this study. Unfortunately, only few publications were found. Therefore, all representatives were asked to send in English-written (scientific) research reports or policy documents that treated challenges and *good practices* regarding volunteer firefighting in their country, by email. In total, 93 documents were found and retrieved.

- > 55 documents were excluded from this study because they were not English or Dutch written. One Danish document was included because the Danish representative helped interpret the results.
- > 15 documents were excluded because they offered no information on the three aforementioned research questions.
- > A total of 24 documents written in English or Dutch have been intensively studied by one of the researchers. See Appendix B for an overview of these documents. Year of publishing ranged from 1991 to 2019. In chapter 1, the results of the document analysis are presented extensively.

Focus group discussion

The desk research resulted in data from a limited amount of countries. A focus group was therefore believed to be necessary to retrieve information needed in order to answer the research questions. A focus group discussion offers a perfect setting to introduce a topic and to identify opinions, beliefs and values (Carey & Asbury, 2016). It is these expert opinions and beliefs on volunteer firefighter challenges that are extremely important in the first phase of this study, in light of lacking English documentation on this topic. An important feature of this research instrument is the possibility of interaction and creating chains of associations. In communication with experts, the focus group discussion was termed 'Exchange of experts', stressing the importance to points of contact of sending representatives that carry expertise on this topic.

The willing representatives were invited to participate in a three day exploratory focus group discussion in Amsterdam, on April 8-10, 2019. The objectives for this meeting were finding answers for the research questions of this study. The timetable for this focus group session is presented in Appendix C.

In order to answer the research questions, all experts were asked (up front) to present at the exploratory focus group discussion on:

1. the definition of volunteers in the current fire service model in their country
2. experienced challenges regarding recruitment and retention of volunteer firefighters, and
3. possible solutions and good practices (working solutions) for these challenges.

Challenges and solutions are differentiated in several ways in this report. First, they are presented per country, as this is important for selection of countries for phases 2 and 3. Second, a distinction is made between challenges and solutions that apply to an external (e.g. ageing, demographic shifts), individual (e.g. ambitions, motives) and organisational level. This differentiation is important as it is assumed that Fire Services can more easily tackle challenges and implement solutions that relate to their own organisation, rather than those rooted in external and individual facets. Another differentiation in organisational level will be made (TNO, 2013):

- > work content (e.g. tasks, work pressure)
- > work conditions (e.g. working hours)
- > career perspective (e.g. personal development, job assurance)
- > work relations (e.g. culture, team spirit)
- > terms of employment (e.g. pay, autonomy).

Delimitation and focus

In answering sub questions 3 and 4, focus lies on innovative approaches rather than on known solutions (in Dutch context).

Note that all the information in this report is either mentioned by national experts that participated in the first focus group discussion or retrieved from the documents studied. This report is therefore exploratory, not exhaustive. It is possible that there are also unmentioned challenges and solutions experienced in the participating European countries.

This study is not designed to develop a pan-European definition of 'volunteer firefighter', nor to pinpoint universal challenges and solutions regarding volunteer recruitment and retention within European fire services. It is a given that countries are very diverse when it comes to social, cultural, legal, economic and organisational context.

Diversity is apparent also on regional and local levels, such as between states or provinces and even between individual fire stations in one and the same region. Rather, the aim of this study is taking stock of ideas, possible solutions and good practices.

1 Results of document analysis

This chapter describes the results of the document analysis, i.e. the scores on items such as definition of volunteer firefighters, challenges and solutions in recruitment and retention.

Take into account whilst reading that the 24 documents were mostly Belgian and Dutch, as not all countries sent in (many, English) documents. This means that the results presented here are probably not exhaustive and not representative for all 15 participating countries.

1.1 Definition

1.1.1 Definitions of volunteers

The English terminology used for indicating different types of volunteer firefighters differed between experts. One of the documents sent in by an expert contained survey data on definitions of volunteer firefighters in Europe (Appendix B). Definitions from Austria, Belgium, Estonia, Hungary, Ireland and Latvia were absent in this dataset, the other participating countries were included. A comparison shows that terms used to indicate different types of firefighters ranged from 'contracted' (e.g. in BE, CZ, NL, NO, UK), 'part-time' (e.g. in CZ, DE, DK, FI, NO, PT, UK), 'retained' (e.g. in UK), 'part-time retained' (IE), to the more general term 'volunteer' (e.g. in CZ, DE, DK, FI, FR, HU, NL, NO, PT). However, the dataset illustrates that the same terms are used to indicate different types of firefighters. For example, Denmark and the UK differentiate between part-time, retained and volunteer firefighters, whereas Germany and Norway also distinguish three types of volunteer firefighters, but only use two terms: they also indicate a retained firefighter with the term 'part-time'. Some countries appeared to only employ one type of volunteer firefighter and thus only use one term, such as France and the Netherlands (vrijwilliger/sapeur-pompier volontaire).

1.1.2 Numbers

In order to grasp the magnitude of the challenges regarding volunteers, it is important to illustrate how many volunteers are operational in the participating countries (table 1.1).

Austria, the Czech Republic and Germany have many volunteer firefighters and are not experiencing a strong decrease in volunteer recruit and retention numbers. One of the reasons that these countries have many volunteers, is because they have a strong tradition of engaging volunteers in the fire service. Other countries nowadays rely much less on volunteer firefighters (Estonia, Latvia). In the three aforementioned countries, it is mandatory for municipalities to set up a (volunteer) fire department. This does not mean that they do not experience challenges in recruiting and retaining volunteer firefighters. It is remarkable that these countries also have many youth firefighters.

In Estonia, firefighting and rescue work is a state service. Here it is not mandatory (but possible) for municipalities to support NGOs which facilitate volunteer firefighters. All volunteer firefighting organisations however (of which mostly are NGOs), are facilitated by the State by means of a contract. In France, the number of volunteers is rising since 2013. Portugal is the only country which employs category 2 firefighters. There does not exist a Fire Service in any of the participating countries that does not employ any career firefighters.

Table 1.1 Amount of volunteer and career firefighters in Europe, classified per country

Country	Volunteer	Career/fulltime	% of volunteers
Austria	251959	2500	99 %
Belgium	12000	17000	41 %
Czech Republic	68463	6608	87 %
Denmark	5000	1700	75 %
Estonia	1938	1583	55 %
Finland	13500	4000	77 %
France	195000	5300	79 %
Germany	1100000	32793	97 %
Hungary	1100	6750	14 %
Ireland	2068	1289	62 %
Latvia	70	2909	2%
Netherlands	18857	5375	79 %
Norway	7654	3500	69 %
Portugal	45000	2847	94 %
United Kingdom	12213	22749	35 %

Note: Numbers are based on (a) all documents studied and presentations held, (b) www.f-e-u.org, (c) www.ctif.org, (d) <https://www.ethnicity-facts-figures.service.gov.uk/workforce-and-business/workforce-diversity/fire-and-rescue-services-workforce/latest>, (e) Estonian Recue Board Yearbook 2018, (f) <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71482ned/table?ts=1561098422270>, (g) information provided by experts during the exploratory focus group and the review of this report.

Numbers differed enormously between sources used to fill table 1.1, sometimes up to 100.000. These differences expose the fact that there is no clear up-to-date overview of volunteer firefighter numbers on neither national nor European levels. Therefore, the final decision on which number is accurate and to use here was left to the participants, trusting them to have access to the most recent and correct national statistics.

1.2 (De)motivators

Most of the documents studied do not perceive and mention challenges and solutions from the perspective of the fire service, but capture personal experiences of volunteer firefighters (e.g. in surveys). To emphasize the difference between expert opinions (chapter 2) and experiences of volunteer firefighters (chapter 1), as well as to differentiate between positive and negative experiences, we prefer to use the terms 'motivator' and 'demotivator' in recruitment and retention in this chapter, instead of 'challenges'. Positive experiences (motivators) are included because they could point to promising directions for solutions.

By 'demotivator' we mean any reason for volunteers to *not* join/stay active in the fire service. By 'motivator' we mean any reason for volunteers to join/stay active in the fire service.

Again, note that these findings are exclusively derived from the few documents studied.

1.2.1 Recruitment (de)motivators

Table 1.2 Recruitment demotivators

#	Recruitment demotivators	Countries
1.	Entry standards too high or procedures too long	FR, NL, UK
2.	Rural exodus and availability requirements	IE, UK
3.	Pay is too low	IE, UK
4.	Competing activities	FI
5.	Increased reluctancy primary employers	IE
6.	Volunteering takes too much time	NL
7.	Incompatible with primary job	NL
8.	Incompatible with private situation (e.g. family)	NL
9.	Lack of effort by FRS to raise awareness of job vacancies	UK
10.	Lack of flexibility in terms of availability	UK
11.	Lack of awareness within local community	UK

Recruitment demotivators found in the literature predominantly lie with individual factors (4, 7, 8). Two demotivators can be categorized as both a societal and organisational factor (2, 11). Difficult application procedures and the time volunteering demands relate to work content. Two demotivators relate to work conditions (5, 10), one to terms of employment (3). A remaining demotivator pinpoints recruitment strategies. Career perspective and work relations were not mentioned.

Several documents mentioned that that the standards for entering the fire service as a volunteer are too demanding and/or that the recruitment procedure was too complicated (1) (see table 1.2). In a British survey of the Retained Firefighters Union (2017), a respondent stated: "In some instances it still take 18 months from the application stage to riding an

appliance. It is no wonder so many lose interest after their initial enthusiasm.” Irish and British documents (The Irish National Directorate for Fire and Emergency Management (NDFEM, 2019; RFU, 2017) also show that volunteer firefighters think that a lack of possible recruits in the countryside is due to people leaving the countryside to go and live in urban areas (2). As a result there are less possible recruits who live within the time-bounded or appropriate distance of the fire station. They also illustrate that low payment might be a turn-off for possible recruits (3). The NDFEM stated that the reason for low payment of volunteers in Ireland is because “[...] the majority of their pay comes from attending emergency calls, training and special duties” and the fact that these calls have dropped over recent years (NDFEM, 2019, p. 5), This is no different in the UK, where calls on station level dropped up to 45 percent in one year (RFU, 2017).

Finnish documents state that a barrier in recruitment is time (Malinen & Mankkinen, 2018). Other activities compete with volunteering, mostly with regards to time. Dutch volunteers underline this general perception, by stating that volunteering takes too much time, and (therefore) is incompatible with their primary job or family situation. Irish volunteer firefighters also experience an increased reluctance of primary employers to let them turnout. British documents address the question of demotivators in recruitment at a more general level, stating that recruit numbers possibly drop because of a general and specifically local unawareness of volunteer firefighting job vacancies, in addition to providing insufficient flexibility in terms when one has to be available (FBU, 2004; RFU, 2017).

Table 1.3 Recruitment motivators

#	Recruitment motivators	Countries
1.	Commitment to the safety of citizens	AT, BE, NL
2.	Group spirit fire department	AT, BE, NL
3.	Personal development possibilities	AT, NL
4.	Making (new) friends	AT, NL
5.	Gaining knowledge for the benefit of fellow human beings	BE
6.	Gratitude/recognition by citizens	BE
7.	Fitting in to social/peer group	NL
8.	Excitement	NL
9.	Closed culture	NL
10.	Having something to do	NL
11.	Because other people advised so	NL
12.	Additional income	NL
13.	Status	NL

A minority of the recruitment motivators that are mentioned in the literature is unrelated to the organisation, but rather individual (10, 11, 13) or societal (1, 5). Motivators related to work relations are multiple (2, 4, 6, 7, 8, 9). One motivator relates to terms of employment

(12), another to career perspective (3). Work content and work conditions were not mentioned. The only experts who sent in documents that treated motivators in recruitment were Belgian experts. Bear in mind these documents represent the opinions of current volunteers, not of possible recruits. As shown in table 1.3, Belgian and Dutch volunteers opine that recruits want to commit to volunteer firefighting because of two main reasons, one more altruistic and value-based (1) and one more interpersonal oriented (2) (Nederlands Instituut voor Brandweer en Rampenbestrijding (Nibra), 1997; Vakvereniging Brandweer Vrijwilligers & Brandweer Vereniging Vlaanderen (VVB & BVV), 2017).

1.2.2 Retention (de)motivators

Multiple documents (Belgian, Danish, Dutch, Finnish and Irish) mentioned a total of 20 demotivators in retention; reasons why volunteer firefighters (might) quit.

Table 1.4 Retention demotivators

#	Retention demotivators	Countries
1.	Incompatible with other activities or family with regards to time	BE, FI, NL
2.	Too few (valid) calls	DK, FI, NL
3.	Too many demands regarding training, practice and/or availability	BE, IE, NL
4.	Missing/unhealthy group spirit	BE, NL
5.	Incompatible with primary job	BE, NL
6.	Specific family circumstances (e.g. house reconstruction)	BE
7.	Too much work done by professionals (or: too little by volunteers)	BE
8.	Too high demands of physical readiness	BE
9.	Have no say in organisation (regional level)	BE
10.	Centralisation	DK
11.	Closed, traditional culture	DK
12.	Too low payment	DK
13.	Living/working too far away from station	FI
14.	Rural exodus and availability requirements	IE
15.	Increased reluctance primary employers	IE
16.	Too high work pressure	NL
17.	Bureaucracy	NL
18.	Insecurity about future possibilities to stay	NL
19.	Too little recognition by full-timers	NL
20.	Health	NL
21.	Confrontation with victims	NL

The retention demotivators found in the documents vary in nature (see table 1.4). Many were not organisational, but rather individual factors (1, 6, 13, 20, 21) or societal factors (5, 14). Those demotivators that are organisational, for the most part relate to the content of the work, such as division of tasks or work pressure (3, 7, 8, 16, 17) or working relations, indicating a feeling of not being heard or valued properly by other (career) firefighters (4, 11, 19) and management (9). Also terms of employment (low pay), lack of career perspective (18) and work conditions (2, 15) were mentioned as demotivators. Centralisation was also mentioned as a demotivator, however it was unclear what this comment referred to.

Documents from three countries name competing other activities, too few valid calls or turnouts and high demands for training, practice and availability as main demotivators (1, 2, 3). This does not necessarily mean that all volunteer firefighters want to do is operational work. A survey in the UK showed that over 73 percent of British volunteer firefighters would be willing to perform other tasks within the fire service (RFU, 2017). Belgian and Dutch documents state that a missing group spirit (a positive group spirit was also identified as motivator in recruitment) and incompatibility with primary job (mentioned as a demotivator in recruitment also) are considered demotivators for current volunteers (4, 5).

The remaining 15 demotivators were identified by one country. Belgian volunteers identified four additional demotivators (6, 7, 8, 9). This could mean that they are specific for that country. However, the fact that other documents do not mention certain factors, of course does not mean they are not present in that country. First, specific family situations such as house renovation. It is assumed that this factor revolves around setting different priorities due to scarce time. Second, volunteers state that professionals conduct more (interesting) tasks than volunteers. Third, Belgian volunteer firefighters more than once think that their periodic physical readiness tests are too demanding. Fourth, they also feel voiceless and unheard at regional levels.

Danish documentation (Weisdorf, 2017) articulates three more demotivators (10, 11, 12). First, centralisation. Possibly, centralisation could influence both group spirit and self-government. This may be the reason that volunteer firefighters indicate centralisation as a demotivator. Second, a closed and traditional culture is named a demotivator by Danish volunteer firefighters, perhaps indicating that they desire a more dynamic, yet healthy group (spirit). Third, low payment is considered a demotivator. Note that Weisdorf (2017) is the only researcher who included volunteer firefighters who have actually quit the fire service, and interviewed them about their motivations to leave.

Finnish volunteer firefighters indicate that they quit because they live too far from the station, geographically speaking (13). It is unclear whether this is due to moving further away, that commuting over time becomes increasingly wearing or something else is at play here.

Irish documentation (NFDEM, 2019) on volunteer firefighters indicates two additional demotivators in retention (14, 15). First, the fact that increasingly more volunteers leave the countryside for more urban areas. As a result, they no longer live within the time-bounded or appropriate distance of the fire station and have to quit. Second, they experience an increasing reluctance of primary employers to let them turnout to calls (this was also considered a demotivator in recruitment).

To conclude, Dutch documentation states five more demotivators in retaining volunteer firefighters (16, 17, 18, 19, 20). First, an experienced high work pressure, which possibly relates to high demands (5, 8). Second, bureaucracy, meaning the requirement to conduct many administrative tasks, is demotivator for current Dutch volunteer firefighters. Third, insecurity about whether or not they can stay is also considered a demotivator. Fourth, too little recognition by full-timers is stated to be a demotivator. Perhaps what lies underneath here is an unhealthy group spirit (3). Fifth, Dutch volunteer firefighters would quit for health-related reasons. Lastly, being confronted with victims was a negative aspect of volunteer firefighting according to Dutch volunteer firefighters (Nibra, 1997).

Please note that most documents do not state whether demotivators actually made volunteer firefighters quit.

Table 1.5 Retention motivators

#	Retention motivators	Countries
1.	More gratitude, recognition and better appreciation by the fire department of the competences of the volunteers	BE, DK, NL
2.	More calls	BE, NL
3.	Group spirit on local level	BE, NL
4.	More recognition by means of more salary	BE, DK
5.	Align training and exercises hours better with wishes of volunteers	BE
6.	Bigger say by volunteers	BE
7.	Measures to improve the combination of the fire brigade with a full-time job	BE
8.	Measures to improve the combination of fire brigade with family life	BE
9.	Lower requirements for physical readiness	BE
10.	Altruism: Doing good for society/ helping people	NL
11.	More freedom at local fire station	NL
12.	Excitement	NL
13.	Positive evaluation of own fire station	NL

Belgian, Danish and Dutch documents (resp. N = 2, 1 and 6) all treated reasons to stay active in the fire service, based on surveys among current volunteer firefighters (see table 1.5). Note that surveys more than once framed questions with regards to the current situation, which is why motivators contain superlatives (e.g. 'more', 'bigger').

Of these retention motivators, one pointed towards societal factors: more calls (2). Organisational induced motivators constituted the majority of motivators mentioned, mostly regarding work relations (1, 3, 6, 13), followed by work content (9, 10, 12), terms of employment (4, 11) and work conditions (5). Two motivators were directed at individual needs (7, 8).

One motivator (1) was mentioned by Belgian, Danish and Dutch volunteer firefighters: receiving more appreciation from career firefighters and management. In Belgium and the Netherlands, volunteer firefighters also seem motivated to stay in service when they can turnout often (2) and when the group spirit is good (3). The *absence* of these three motivators was also mentioned as demotivating (see previous section) in Belgium and the Netherlands. However, remarkably, turning out was not mentioned as a recruitment motivator, nor was not turning out enough mentioned as recruitment demotivator. This indicates that current volunteer firefighters seem to think that the motivation of new recruits are not affected by the amount of calls/turnouts.

Next, Belgian documents showed five additional retention motivators (4, 5, 6, 7, 8). All of these motivators relate to better facilitating firefighters to volunteer, next to their day job and other activities, by means taking down organisational barriers. In order for measures to sort desired effects, the fire service should consult and take serious the wishes and needs of volunteer firefighters. Dutch documentation stated four different retention motivators (9, 10, 11, 12). Whereas one motivator is external to the fire service (9), 'doing good' can also be seen as a subjective experience that can be influenced by the fire service; as is excitement (11). The other two motivators concern a positive experience of the own fire station, including a certain autonomy of doing things at fire station level.

1.3 Solutions

Table 1.6 Solutions, clustered thematically

Clustered themes	Solutions
a. Communication and Recognition	2, 4, 10, 19, 20, 21, 22, 26, 34
b. Selective recruitment	10, 15, 17, 18, 23, 24, 25, 27
c. Involve primary employers and politics	1, 3, 6, 14, 28, 30, 31
d. Task differentiation and recruitment based thereon	9, 10, 14, 18, 23, 24
e. Tackle organisational barriers	12, 29, 32, 33, 35, 36
f. Increase self-government	8, 11, 13, 19, 22
g. Recruit on different levels	3, 5, 16, 30

Note: these solutions are predominantly derived from Dutch and Irish documentation, see table 1.7 and Appendix D.

30 possible solutions (or recommendations) to challenges were identified in the documents studied (see table 1.6, and Appendix D for more details and sources). These are presented in this section.

No distinction has therefore been made between solutions regarding recruitment and retention. However, it was not always clear which solution was directed to which challenge. Furthermore, some 'solutions' were mere recommendations, of which was not clear whether or not they had been transposed into policy or other actions, nor to which extend these posed solutions have positive effects. 'Good practices' were therefore also not found. Nonetheless, all identified solutions and recommendations are included here.

It would be too elaborate to delineate all 30 solutions (see table 1.7 at the end of this paragraph). However, they are clustered into main themes. Some solutions fall into more than one category.

a. Communication and Recognition

Nine solutions are related to communication (a) between superiors (and possibly full-timers) and volunteer firefighters, listening to and understanding volunteer firefighters' needs and wishes, and also acting upon those needs and wishes, to take away any felt barriers and increase motivation for and pleasure in volunteering.

b. Selective recruitment

Eight solutions state that targeting specific groups in recruitment (b) would benefit the growth of volunteer firefighter numbers. For instance caretakers, entrepreneurs or youth firefighters. Such way of recruitment would require multiple specialized recruitment campaigns on group level.

c. Involve primary employers and politics

Seven solutions also state it is important to invest in promoting volunteer firefighters to primary employers (c), making them more willing to employ volunteer firefighters. For instance by rewarding them with 'volunteer firefighter friendly' awards or (financial) benefits and addressing their corporate social responsibility. Also promoting volunteer firefighting in politics, by means of marketing.

d. Task differentiation and recruitment based thereon

Six solutions mention the differentiation or flexibilization of tasks and recruitment based on that (d), meaning volunteer firefighters (no longer) conduct a wide array of tasks. Rather, tasks would be fragmentized, creating different subsets of tasks for different groups of volunteers or even personalized sets of tasks. Task differentiation could also result in tailor-made training and education, which could hypothetically be less demanding and therefore more appealing for volunteer firefighters.

e. Tackle organisation barriers

Six solutions mention interventions in the fire service organisation (e), resulting in more eligible recruits. For instance liberalizing turnout times, which means people who live or work further away can also become volunteer firefighters.

f. Increase self-government

Five solutions seem to be grafted on the idea of promoting self-government of volunteer firefighters (f).

g. Recruit on different levels

Three solutions also relate to recruitment campaigns (g) on different levels, such as more general on national level and more targeted on local level or group level; targeting specific groups in society and stressing the merits of becoming a volunteer. In the UK for instance (station Devon and Somerset), recruitment campaigns first address the financial driver by answering the question: 'What could I earn as a an on-call firefighter?' Moreover, unofficial results of data analysis on the UK 'national on-call awareness week' show promising figures: 1078 emails alone were send to the Fire and Rescue Services across the UK. This was the reason for the British representative to speak about a 'good practice'.

Table 1.7 Solutions

#	Solutions	Countries
1.	Promote corporate social responsibility and/or reward primary employers for employing on-call volunteer firefighters	BE, IE, NL, UK
2.	Maintain open, two-way communication between the volunteers and the brigade leadership	FI, NL
3.	Provide enhanced campaigns at both local and national levels, on the role of the retained firefighter, particularly through the various media platforms. This should specifically address the issue of diversity in the workforce, in particular female participation	IE, NL
4.	Review the title of 'Retained Firefighter'	IE, UK
5.	Improved use of social media to promote and inform on the merits and benefits of becoming an On-Call firefighter	NL, UK
6.	Greater involvement of and promotion by politics	NL, UK
7.	Flexibilization: Fragmentation of tasks and recruitment for particular tasks (e.g. Recruit 'old' volunteers for non-repressive tasks)	NL
8.	Use ICT to facilitate self-government, flexibility of calls and balancing tasks with needs of volunteers	NL
9.	Flexibilization: Selective recruitment: Match tasks with competences of volunteers	NL
10.	Better meet motives and situation of volunteers	NL
11.	Modern volunteer management, with a mix of measures, adapted to the regional context	NL
12.	More insight in availability (smart apps) and optimize attendance times	NL
13.	Facilitate working on local level, including space for own identity and initiative	NL
14.	More self-government on station level through separation of tasks that are good to treat on regional level and those better to treat on a local level	NL
15.	Think of ways how entrepreneurs can also be a volunteer firefighter	NL
16.	Develop online competence scans for the general public	NL
17.	Connect with schools: use obligatory 'social training' at fire service	NL
18.	'Smart' recruiting, per task (e.g. for fire prevention, recruit among caretakers, etc.)	NL
19.	Involve volunteers in policy changes that affect them most	NL
20.	Tailor-make learning possibilities	NL
21.	Research how to better utilize the competences and knowledge of volunteers	NL
22.	Manage volunteers based on trust and professionalism, rather than control	NL
23.	Utilize youth firefighters and start task differentiation there	NL

24.	Approach victims of fires for fire prevention tasks	NL
25.	Recruit Emergency Response Officers	NL
26.	Breach of closed culture	NL
27.	Recruit women and migrants	NL
28.	Promote to local politics	NL
29.	Harmonize selection criteria nationally	NL
30.	Local authorities should prepare and rollout a media campaign for potential and existing primary employers, which outlines the role and benefits of employing a retained firefighter	IE
31.	The Local Authority sector should seek to identify what opportunities exist within its own workforce, to effectively support members of its staff being members of the retained fire service	IE
32.	A national review and provision of a flexible availability model for retained firefighters. This model should have a transparent and equal amount of structured and guaranteed time off, whilst meeting the requirements of the fire service as employers.	IE
33.	Review the current payment structure for retained firefighters	IE
34.	Communicate and put in place a documented training pathway for retained personnel, which outlines the opportunities available for professional development	IE
35.	Review the current model of all resources and stations being available on a 24-hour basis with reference to the existing activity/risks	IE
36.	Review the current turnout time requirements and include the overall in-attendance time for reviewing performance, particularly where it is more challenging to recruit the retained firefighters within prescribed geographical areas	IE

2 Results of focus group discussion

This chapter represents expert opinions (as expressed during the exploratory focus group) on challenges that the fire services in their country face, regarding the recruitment and retention of volunteer firefighters, and solutions they think are helpful in tackling these challenges.

2.1 Definition

In this paragraph we summarize the information derived from the focus group discussions on sub question 1: What is the definition of volunteer firefighters in European Fire and Rescue Services? Focus is put on societal and legal definitions of volunteer firefighters. It is important to have a common definition on the various terms used for volunteers to ease to communication and discussion about this subject. The amount of training these volunteers receive and the tasks they usually conduct is also included, as this creates awareness into contextual and organisational differences between countries. These differences should be accounted for when looking at possible solutions to challenges.

2.1.1 Definitions of volunteers

The English terminology used for indicating volunteer firefighters differed considerably between experts. Definitions used by experts to indicate these different types of firefighters ranged from 'on-call' (e.g. in BE, NL, NO, UK), 'part-time' (e.g. in CZ, DK, NO), 'retained' (e.g. in NL, UK), 'part-time retained' (IE), 'community' (e.g. sometimes by IRE, UK), 'contract' (e.g. in FI, NO, UK) to the general term 'volunteer' (e.g. in AT, DE, DK, EE, FI, FR, HU, PT).

During the discussion there were two other terms that should be mentioned here. The first one is 'part-time'. In some countries this term is used for 'volunteer' firefighters that get paid for the hours they spent, but are not career full-time firefighters. In a report of FiReComp (2007) this term was applied for the group career firefighters that have a part-time contract. It was decided in our group to stick to this definition. Therefore, the term 'part-time' firefighter does in our definition not refer to volunteers but to career firefighters. We decided to apply the term 'part-time' only to career firefighters who do not work full time. Another term was 'retained' since this term has a negative connotation in the UK, we decided to not use this term anymore, but refer to this group as 'on call'.

At least two out of 15 participating countries mentioned to have a legal definition of what constitutes a volunteer firefighter/fire brigade (Estonia, Hungary). These examples illustrate the variety in definitions, which are often connected to the fire service models in the country.

The Hungarian act on Protection against fires, technical rescue, and fire departments (1996, pp. 10-30) states: "Volunteer fire brigade: a non-governmental organization that contributes or participates in the fulfilment of fire prevention, firefighting and technical rescue tasks which

in its statutes stated this as an activity.” The Estonian Rescue Act from 2010 (chapter 1, paragraph 2, article 4) dictates: “Voluntary rescuer is a person who voluntarily participates in rescue work or prevention work on the basis of and pursuant to the procedure provided by rescue act.”

During the exchange, the participating experts agreed upon the use of a categorisation of four different types of volunteer firefighters (see below) in their communication. These categories are not meant as universal definitions, but can function as working definitions and for sake of clarity, in order to understand variations in the volunteer firefighter population. They also build upon the terms and descriptions found in the document analysis (Appendix B). However, these definitions differentiate between whether or not a volunteer firefighter is obliged to turn out following calls or not.

1. **Volunteers:** Those who (or whose organisation) receive no payment or financial reimbursement, and have another primary job.
2. **Volunteers with benefits:** Those who (or whose organisation) receive secondary benefits, but no payment or financial reimbursement, and have another primary job.
3. **On-call volunteers:** Those who are 'on call' and receive payment by the hour or incident, but are not obliged to respond to calls, and have another primary job.
4. **On-call volunteers with obligations:** Those who are 'on call' and/or are required to be present within a predetermined specific proximity of the fire station and receive payment by the hour or incident and are obliged to respond to calls, and have another primary job.

The categories mentioned above will be used throughout this report. Whenever the term 'volunteer firefighters' is used without addressing a specific category, all four categories are meant. All categories have one thing in common: they are all about firefighters who have another primary job, and that is what this study is about.

Category 1 firefighters could be seen as the 'traditional' volunteers, who – free of rewards – commit themselves to firefighting and rescue, next to their primary job. These volunteers are present in Austria, Belgium, the Czech Republic, (parts of) Denmark, Estonia, Germany, Hungary and Latvia. However, in Hungary and Estonia, not individuals but brigades receive payment: “volunteer fire brigades receive multi-channel financing, including: membership fees, grants, municipal support, budgetary and other funds available through applications, business activities pursued in line with their deeds of association, etc.” (Varga, 2018, p. 356). An example of category 2 are firefighters in the Portuguese fire service. They do not receive any payment (except when taking on shifts in the fire station), yet receive a multitude of individual benefits: pension bonus, social insurance, medical assistance, legal representation, tax reduction et cetera.

In Austria, the Czech Republic, Denmark, France, Hungary, Ireland, the Netherlands, Norway and the United Kingdom, category 3 firefighters work in the fire service. They have another primary job, are on call, but are not obliged to respond to calls when they are alarmed for an incident. But if they respond, they are reimbursed by the hour. Unfortunately Category 4 firefighters get paid by the hour or incident but also have a contract which obliges them respond to calls, and/or to wait (be 'on call') near to or at the fire station. These firefighters are employed in Belgium, France, Ireland, the Netherlands, Norway and the United Kingdom.

Experts stressed that in their countries, often more than one category of volunteers is part of the fire service model (see table 2.1).

Table 2.1 Categories of volunteer firefighters in Europe, classified per country

Country	1. Unpaid	2. Unpaid but benefits	3. On call (no obligation)	4. On call (obligation)
Austria	X		X	
Belgium	X			X
Czech Republic	X		X	
Denmark	X		X	
Estonia	X			
Finland				
France			X	X
Germany	X			
Hungary	X		X	
Ireland			X	X
Latvia	X			
Netherlands			X	X
Norway			X	X
Portugal		X		
United Kingdom			X	X

2.1.2 Training

Some experts shared information on training hours of volunteers, yet many detailed data from many countries is lacking. Required training for volunteer firefighters is different from full time firefighters in the Czech Republic, Finland and Norway. Career firefighters in the Czech Republic for instance need to complete 600 hours of basic training, part-time firefighters 280 hours, whereas volunteers are required to complete 40 hours of basic training. Czech volunteer firefighters can be (Breathing apparatus-)trained to also conduct smoke diving, yet it is not part of the basic training. However, in Belgium, Denmark, the Netherlands, Portugal and the UK, the training requirements are the same for career firefighters as for volunteers.

The content and amount of hours of volunteer firefighter training differs per country; they have different baselines. For instance, basic training for all Portuguese firefighters is 250 hours and six months training on the job. All volunteer and career firefighters in Denmark all have a basic training of 234 hours, and an annual training (48 hours), comprising of First aid, Advanced first aid, Firefighting (including smoke diving) and Rescue techniques. In the UK initial training consists of two weeks, with modular training for other skills such as Breathing Apparatus, Rescues and Hazmat.

Firefighters are usually deemed 'component' and on full pay from 18 till 24 months. All other training is carried out on a weekly, mandatory 'drill night' of between two to three hours. This is not too different from Estonia, where initial training comprises Prevention, Firefighting (except smoke diving) and Supporting activities, together a total of 16 + 36 hours. Modular training for other skills can be added, such as Traffic incident (16 hours), Water rescue (32 hours) and Smoke diving (40 hours). There is no annual training to keep skills at the right level, but there it is required to take an eight hour course every five years. In Austria, initial training does not include Breathing Apparatus, but comprises Legal and organisational issues, First Aid, Safety at work, Gear, Equipment, Vehicles, Basic breath protection, Radio communication, Fire prevention, Firefighting, Technical Rescue, Basic risk assessment and Tactics.² This training takes around 80 hours. Austrian career firefighters have a much weightier training, as it takes 640 hours (including advanced trainings such as Breath protection and Water Rescue). In the Netherlands, volunteer firefighters are initially trained for Orientation, Firefighting, Technical aid, Hazmat and Water Rescue, which together is about 318 hours (NIFV, 2010) plus some additional hours for tests (\pm 70 hours). Annual training of Dutch volunteer firefighters is around 56-80 hours, but also depends on whether and how much specializations they have (e.g. Diving, Reconnaissance), which require additional annual training. The Irish Initial Recruit Course takes 15 days and generally includes Manual Handling, Critical Incident Stress Management, Road Traffic Collision, NICS, Emergency Traffic Management & Working at Heights/Fall Arrest. Specialisations are possible, such as Water awareness, Hazmat or Initial breathing apparatus wearer, and require additional training. In Ireland, not all of these tasks need to be refreshed annually by training. Working at height is refreshed every five years, whereas Breathing apparatus wearing is refreshed every two years and On station training (84 hours) is annually refreshed. This boils down to some 100 hours annual training, according to the Irish expert. In Finland, a basic course takes around 77 hours and contains tasks such as Orientation, First aid, Extinguishing, Occupational safety, Firefighting technique, Leading of rescue operations and Communication. Annual training varies from 30 till 100 hours.

In conclusion, the content of a basic training course for volunteer firefighters differs between all these countries. In the Netherlands, Hazmat is part of this basic training, whereas it is a modular component in the UK and Ireland. Breathing apparatus/smoke diving is part of basic training in the Netherlands, but not in Austria, the Czech Republic, Estonia, Finland and Ireland. However, there also are some similarities. All countries include the basics of firefighting (i.e. suppression), and Austria, Denmark and Finland include First aid in their basic training.

2.1.3 Tasks

The training that volunteer firefighters receive has everything to do with the tasks they are expected to perform. Therefore it is no surprise that there is also a notable difference regarding the various tasks that volunteer firefighters conduct in European Fires Services. In some countries, such as Denmark and Hungary, volunteer firefighters only support the professional firefighters, by means of logistics, providing water, setting up emergency power, assisting in major and long lasting incidents such as floodings and hurricanes. In France and Portugal, volunteer firefighters can conduct all firefighting tasks, as well as medical emergency tasks. In these countries, volunteer firefighters are involved in nearly 80 percent of emergency medical responses (EMR).

² See: https://www.bundesfeuerwehrverband.at/wp-content/uploads/2017/08/DO_OEBFV_SG57_Kompetenzprofil_TRM_v3.pdf

In other countries, such as Finland or Austria, volunteer firefighters can perform EMRs, but only when (additionally/ modularly) trained for it – which is not the case for all volunteer firefighters. In the Czech Republic, firefighters are not all involved in EMR either. In Estonia, volunteer firefighters are allowed to conduct all firefighting tasks, except smoke diving. In Finland, the Netherlands and the UK, volunteer firefighters can conduct all firefighting tasks, just as career firefighters. This also goes for the Irish part-time retained firefighters.

2.2 Challenges

This paragraph represents expert opinions on challenges that the fire services in their country face regarding the recruitment and retention of volunteer firefighters.

All experts expressed to experience or foresee some kind of challenge regarding recruitment or retention of volunteer firefighters today. However, these challenges were not believed to cause a *current* decrease of volunteer firefighters by nearly half of the experts, from Austria, Estonia, the Czech Republic, Finland, Germany, Hungary, Latvia and Portugal. Remarkably, five of these countries rely heavily on volunteer firefighters (AT, CZ, DE, HU, PT), whereas one relies extremely little on volunteer firefighters (EE), and one country partially relies on volunteer firefighters (FI).

Experts did often not state the (possible) causes of challenges in recruitment and retention.

2.2.1 Recruitment challenges

Table 2.2 Recruitment challenges identified by experts

#	Recruitment challenge	Countries
1.	Incompatibility of volunteering with other (time consuming) activities	AT, BE, EE, FI, IE, LV, NO, NL
2.	High physical and/or medical entry and annual requirements	BE, FI, FR, IE, NL, UK
3.	People do not work where they live	CZ, EE, HU, IE, NL, UK
4.	Urbanisation leading to a rural exodus	AT, EE, DE, IE, LV, UK
5.	Not recruiting inclusively (e.g. few women, ethnic minorities etc.)	BE, DK, IE, NL, UK
6.	Reduction of turnouts	BE, EE, IE, UK
7.	Growing reluctance primary employers	CZ, HU, NL, UK
8.	High education and/or training standards	BE, FI, NO
9.	Fewer possible recruits due to general aging	EE, FI, NL
10.	Pay is too low	CZ, HU
11.	The fire service is not attractive enough for younger generations	UK, FI
12.	Unwillingness to volunteer due to low number of accidents in particular areas	LV

The fifteen experts more frequently indicated recruitment challenges than were found in the documents (although more individual challenges were retrieved from the documents). Some challenges were mentioned in documents from a country, whereas it was not mentioned by the expert representing that country, as well as the other way around. This could indicate that not all perceived challenges on recruitment of volunteer firefighters in Europe are documented (in English-written reports).

Experts identified 13 challenges in recruiting new volunteer firefighters (see table 2.2). Experts preferred to speak about 'challenges' rather than 'problems' as not all countries were struggling as much with the various challenges.

The recruitment challenges identified by experts vary in nature. Three challenges address societal factors that influence the volunteer, yet not the work per se (1, 9, 12). Three challenges can be grouped under working conditions (6, 10), including externally influenced working conditions: primary employers who do not allow their staff to turnout during working hours (7). Terms of employment were considered a challenge with regards to low payment and complicated application procedures (10, 13). The content of the work was considered a challenge when it comes to high medical, physical, educational and training requirements (2, 8). Other challenges relate to individual factors of which it is uncertain to what degree work aspects play a role, such as incompatibility with other activities and choosing to live and work in different places (3, 4). Two remaining challenges relate to recruitment strategies and being an attractive employer for volunteers (5, 11).

Table 2.2 presents the recruitment challenges identified by experts. In general it can be stated that not all countries experience the same challenges, to the same degree. This is partly due to differences in tradition, culture, fire service model, the position of volunteer firefighters in that model, geography, societal and economic situation. The interviews in phase 3 of this study aim to shed more light on these differences and help to interpret results of focus groups.

The recruitment challenge (1) that was mentioned by most (eight) experts was, the incompatibility of volunteering with other activities. This is said to be a main barrier for people to join the fire service as a volunteer. People think volunteering is too time consuming and prefer to spend their time on other activities than volunteer firefighting, such as their family or hobbies. Incompatibility with other activities was deemed a bigger problem today than some decades ago, due to the increased 'Value of Time': people want to do more with the same amount of time.

Three challenges in recruitment were mentioned by six countries (2, 3, 4). First, entry and annual medical and/or physical requirements are so high (yet different per country), that it excludes many possible recruits in advance, and also puts off eligible recruits. Second, the trend that people work further away from home. These people often cannot make the set response times and are therefore not eligible recruits. Third, it is hard to find recruits in rural areas, mostly due to urbanisation decreasing rural population (rural exodus).

One recruitment challenges (5) was identified by five countries: exclusivity in recruitment, as few women, ethnic minorities et cetera join their fire services.

It was not clear whether they deemed this organisational exclusion a challenge in itself, or specifically in light of dropping volunteer numbers. It was clear, however, that in most of these countries tackling exclusivity explicitly was not just an answer to recruitment and retention challenges, but a wider perceived problem that needs to be addressed. For instance, only 1,6 percent of volunteer firefighters ('part-time retained') in Ireland are women (among career firefighters this is 4 percent, and 16 percent of all officers is female). In contrast, 6 percent of all Dutch volunteer firefighters is female³, and 9 percent of all 14.000 part-time and volunteer firefighters in Finland are women (Japan Firefighters Association, 2014, p. 13).

Two recruitment challenges (6, 7) were experienced by four countries. First, a decrease in the amount of (valid) calls and turnouts to incidents is described to be a barrier for possible recruits; they desire operational action. Second, it is perceived a problem that employers are less willing then before to allow their staff to maintain a volunteering position at the fire service. The exact reason why employers are more unwilling now than years ago, or the reasons for them to not allow their employees to be a volunteer firefighter, did not come to light during the discussion.

Two recruitment challenges (8, 9) were described by three experts. First, high education and training standards are said to scare possible recruits off. Although it is unclear how 'high' these standards are in these respective countries. Second, an aging population evidently shrinks the pool of eligible recruits.

Two recruitment challenges (10, 11) were described by two experts. First, the experience that the fire service is not attractive enough for young people, providing a barrier for this subgroup to become a volunteer firefighter. Second, two countries experienced that the pay for volunteers is often deemed low by possible recruits, and that this could be a barrier for them to join. One of these countries currently has very few (HU) volunteer firefighters. Two other recruitment challenges (12, 13) were described by one particular country, all different. Which recruitment challenge (and to which extent it) goes for which category of volunteers was not deduced from the group discussion.

2.2.2 Retention challenges

Experts identified eight challenges in retaining volunteers, six of which (1, 3, 4, 5, 6, 7) are also mentioned as barriers in recruitment (see table 2.3).

³ See: <https://www.cbs.nl/nl-nl/nieuws/2019/25/personeelsbestand-brandweer-niet-verder-gegroeid>

Table 2.3 Retention challenges identified by experts

#	Retention challenge	Countries
1.	Incompatibility of volunteering with other (time consuming) activities	AT, BE, EE, FI, IE, NO, NL
2.	Increasing turnover	AT, DE, NL, NO, UK
3.	People do not work where they live	CZ, DK, HU, IE, UK
4.	Reduction of calls/turnouts	BE, EE, IE, UK
5.	High education and/or training standards; too many hours of training and exercise	BE, FI, NO, NL
6.	Growing reluctance primary employers	CZ, NL, UK
7.	Too high workload (too many calls / turnouts)	FR
8.	It is not easy for volunteer firefighters to get a promotion	PT

The nature of retention challenges is diverse. Some challenges appear to be organisational or structural, related to work conditions (4) also of the primary job (6), work content (5, 7) and career perspective (8). Others relate to individual choices of which it is uncertain to what degree work aspects play a role, such as choosing to work and live in different places (3), not staying active for a long time in the fire service (2) or prioritising other activities (1) over volunteering.

One retention challenge (1) is identified by seven countries: the incompatibility of volunteering with other activities, with regards to time. This is said to be a reason for current volunteers to quit their volunteering position. A British expert framed this challenge as a contemporary social and cultural quest for a desired work-life balance. The Norwegian expert defined the underlying issue at stake in that quest as an “increased value of time”. He noted that other activities are competing over the available free time, *because* people nowadays want to do more within the same amount of time. This means e.g. that spending 2/3 hours per week on firefighting training is perceived as more demanding today, than it was a decade ago.

One retention challenge (2) was mentioned by five countries: the observation that turnover (outflux) increases: volunteers spend increasingly less time in the fire service. This means that the decreasing number of volunteers in these countries is not (only) due to a decreased influx, but also to an increased outflux. One other retention challenge (3) was mentioned by four countries: a reduction of the amount of (valid) turnouts or calls to incidents is described to demotivate volunteer firefighters, which for some of them is a main reason to quit the fire service.

Two retention challenges (4, 5) were identified by four countries. First, people sometimes move for work or take on a job in another town or city, which makes that they are no longer able to reach the required response time and therefore have to quit their volunteering position. In theory, however, a volunteer could also re-join the fire service as a volunteer in his or her new place. Second, volunteer firefighters are said to experience the required

annual education and (weekly) training hours too burdening in measures of time, making them more inclined to quit the fire service.

One retention challenge (6) was identified by three countries. Experts indicated that primary employers are increasingly less keen to let their employees go to respond to a call whilst on the job. Hence, some volunteer firefighters (after some years of service) are told by their new or current primary employer that they are not or no longer allowed to turn out to calls.

Two retention challenges (7, 8) were identified by one expert. First, volunteer firefighters sometimes experience the workload as too high and therefore quit the fire service. In France, the fire service also turns out (often) to emergency medical responses, which increases the workload significantly. Second, in Portugal it is hard for volunteers to take a next career step within the fire service, as they need to fill out many forms. This is said to scare off volunteer firefighters from applying for a promotion.

Which retention challenge (and to which extent it) goes for which category of volunteers was not deduced from the group discussion. Next to loss of volunteers, an Irish expert expressed other possible negative consequences of increasing turnover, such as altered crew cohesion and loss of knowledge and experience.

2.3 Solutions and good practices

During the focus group discussion, possible solutions and 'good practices' were also discussed. By solutions we mean unproven (policy or practical) interventions that could have a positive effect on (identified) challenges and/or the dropping numbers of volunteer firefighters in general. A 'good practice' suggests a certain proven and verified positive effect of an intervention. However, the group discussion did not lead to a clear distinction between proven and unproven effects, as experts could not always refer to accurate sources. Therefore one should note that 'good practice' in this chapter indicates the fact that experts stated an intervention to be a good practice, but that this has not been verified by any other data. The claimed good practices should be better researched (if, how and why they work) before being able to state whether they indeed sort proven and verified positive effects. On the other hand, upholding the distinction between possible solutions and claimed good practices here, can aid the validation of these claims during the interviews in phase 2 of this study.

2.3.1 Recruitment solutions

Multiple of the recruitment solutions in table 2.4 appear to address a change in recruitment strategies (involve youth fire service, diversify recruitment, involve primary employers and the community). Two solutions are also more pointing towards fundamental changes in the content of the volunteer work, by proposing differentiation (1, 3).

Other solutions address optimizing the conditions in which volunteers do their work (10), stimulating working relations by teambuilding activities (7), and enabling better working conditions for volunteers (8, 9, 11, 12). Solutions regarding career perspectives are not mentioned. This indicates that experts believe recruitment solutions predominantly lie both in changes in work content and finding ways to attract more recruits.

Table 2.4 Solutions and good practices in recruitment of volunteer firefighters identified by experts, arranged by amount of experts that identified an intervention as a good practice

#	Intervention	Solutions	Good practice	Recruitment challenge
1.	Adapt education and training to differentiated tasks	NL, NO	CZ, DK, EE, FI, FR, IE, LV, UK	#8
2.	Invest in Youth Fire Service		AT, BE, CZ, DE, FI, FR, LV	#9
3.	Task differentiation (maybe adapted to risks)	BE, HU, LV, NL, UK	AT, CZ, EE, FI, IE	#2
4.	Invest in diverse recruitment (e.g. women, migrants etc.)	BE, DE, NO, NL, UK	DK, FR, FI, IE	#3
5.	Involve primary employers (provide benefits, rewards)	AT, IE, NO	FR, NL, PT, UK	#7
6.	Engage community (e.g. family, neighbourhood) in station		BE, IE, NO, UK	#2, 3, 11
7.	Firefighter contests		AT, CZ, LV, PT	#5
8.	Adapt medical, physical and other entry requirements to differentiated tasks	FR	FI	#2, 4
9.	Payment increase	IE, PT, UK		#10
10.	Flex working for primary employer at the fire station	FI, NL		#2, 6, 7
11.	Take away some educational/training burdens (e.g. by e-learning)	BE, NL		#2, 8
12.	Altering (liberalizing) response times	UK		#1, 6

Five experts indicated task differentiation (3) could be a solution for recruitment challenges, as a differentiation of tasks to risks could lead to a safe continuance of repressive action, whilst limiting the set of tasks of volunteers. Less tasks could also mean less time has to be spent on the volunteering position (one of the major challenges previously identified, see tables 2.1 and 2.2). Eight experts stated that an additional adaptation of education and training requirements to differentiated tasks (1) could further minimize the time the volunteering position requires. The way in which this is performed in the various countries differs.

In Ireland, for instance, there is an opportunity to be trained and to practice Emergency First Responder (EMS) skills even though EMS is not a defined role of the Irish Fire Service (except for Dublin Fire Brigade). The Irish Fire Service also offers volunteers the opportunity to deliver Community Fire Prevention Safety talks & demonstrations to schools and the local

community, as well as the opportunity to train in other specialist (local risk relevant) skills e.g. drone aviation, swift water rescue, et cetera.

Six experts stated that would be wise to invest in Youth Fire Services (2). This form of selective recruitment would make sense to them, as these youngsters are already engaged in fire service activities and therefore potentially more easy to persuade to join the fire service as a volunteer when they are adults.

Four experts indicated four interventions (4, 5, 6, 7) to be good practices. First, investing in and focus on diverse recruitment strategies, such as on how to recruit women or ethnic minorities as volunteer firefighters. In France, for instance, characteristics of current volunteer firefighters were analysed. Researchers found four distinct volunteer profiles, which ask for different recruitment strategies: soldiers, heroes, villagers and rescuers (Chevrier & Dartiguenave, 2009). Whereas a villager (often aged 18-40) is driven by community engagement, a hero is often younger (12-20 years of age) and more driven by personal motives such as excitement and personal development possibilities. These different 'drivers' are addressed in recruitment campaigns. Second, talking to primary employers and rewarding them with awards or by reimbursements of lost working hours due to responses to calls. Third, engaging the community in the fire service, especially the neighbourhood and the families of volunteer firefighters. Experts stated that volunteer firefighters are often motivated by the feeling to contribute to their own community's safety. In involving the neighbourhood, local citizens could be recruited, which by default have local commitment and therefore possibly extra motivation to join. This is being done in Ireland, the Netherlands and Norway. Fourth, firefighter contests could ease the pain of decreasing turnouts by offering another exciting, operational alternative.

Table 2.4 illustrates that over six countries think a good practice is: task differentiation (leaving volunteer firefighters with less tasks), education and training adapted to these tasks (reducing the amount of education and training) and investing in Youth Fire Services, hoping that they are more likely to join the fire service as a volunteer.

One expert (FR) stated that (8) adapting medical, physical and other entry requirements to differentiated tasks is a good practice, as it could significantly lower the amount of time and workload of the volunteer firefighters, creating more opportunities for them to combine their volunteering with other activities.

Several experts indicated that four interventions (9, 10, 11, 12) could be a possible solution to some of the challenges. First, increasing the payment of volunteers. In Ireland and the United Kingdom, pay for volunteer firefighters has decreased due to payment structure which is partially dependent of the amount of turnouts – which numbers have come down drastically. This change in status quo possibly could put off new recruits and could explain why increased payment is opted as a solution in recruitment in these countries. The Portuguese expert did indicate that increasing payment could also attract more possible recruits. Second, flex working for primary employer at the fire station could help overcome the challenge that people work too far away to be able to reach response times. Third, liberalizing response times could mean that more people are eligible to volunteer; in essence the pool of possible recruits increases as people have more time to respond and can therefore live further away from the fire station. Fourth, innovating education and training could decrease the amount of time and effort that people need to put in, possibly making it

more appealing for people to volunteer. However, as the Portuguese experts indicated, it is important to make sure that a high performance standard is maintained when altering educational and training standards. Not in the least because the public expects this of the Fire Service.

Additionally, multiple solutions were identified for multiple challenges. Experts stated that no universal solutions or good practices exist to counteract the given challenges in every country, but that a combination of interventions is required that is tailored to the cultural, organisational, demographic and economic context. One of the most promising combinations was deemed task differentiation of volunteer firefighters based on regional risks, allowing for tailored and more specialized (entry and annual) education and training, which would require less hours than general basic education and training.

2.3.2 Retention solutions

On one hand, experts opted possible solutions to tackle recruitment challenges (e.g. increasing payment to tackle the perceived low payment of volunteer firefighters). Of course, the question remains what drives volunteer firefighters to say that their pay is too low and whether increasing their pay takes away their true objections. On the other, experts opted for possible solutions that were not directly related to a previously mentioned challenge (see previous paragraph). For instance, supporting firefighter contests generates alternative excitement but does not 'undo' a decrease in turnouts.

Table 2.5 Solutions and good practices in retention of volunteer firefighters identified by experts, arranged by amount of experts that identified an intervention as a good practice

#	Intervention	Solution	Good practice	Retention challenge
1.	Increase sense of pride/ appreciation of volunteer firefighters	HU	BE, DE, DK, EE, NO, UK	
2.	Task differentiation	BE, HU, LV, NL, UK	AT, CZ, EE, FI, IE	#1, 4
3.	Involve primary employers (benefits, rewards)	AT, IE, NL, NO,	FR, NL, PT, UK	#6
4.	Engage community (e.g. family, neighbourhood) in station		BE, IE, NO,UK	#1
5.	Firefighter contests		AT, CZ, LV, PT	#3
6.	Adapt medical, physical and other annual requirements to differentiated tasks	FR	FI	#5
7.	Create a reserve of retired firefighters	FR	AT	
8.	Payment increase	IE, PT, UK		#10

Table 2.5 illustrates that experts addressed eight different interventions regarding volunteer firefighter retention, six of which (1, 3, 4, 5, 6, 8) were also mentioned as possible solutions or good practices to cope with recruitment challenges.

Solutions regarding retention are diverse. Some target a fundamental change in the content of the volunteer work (1, 6). Others consider a change in recruitment strategy, in order to tackle some externally determined working conditions (3, 4), or employing retired firefighters (7). Again others point towards boosting work relations (2, 5) or address upgrading working conditions (8).

Six countries mentioned task differentiation and increasing the sense of pride/appreciation of volunteer firefighters (1, 2) as good practices. By task differentiation they meant a flexibilization in tasks: not all volunteer firefighters are required to perform all tasks, reducing the set of tasks per volunteer firefighter.

Four countries agreed upon the good practice of three interventions (3, 4, 5) regarding retention. First, involving primary employers more, enabling a more willing climate among employers to allow for their employees to leave work to respond to calls. In parts of the UK and the Netherlands for example, fire services visit primary employers and issue certificates with 'volunteer firefighter friendly' plaques (see appendix E). Second, engaging the local community with the fire stations, in order to foster the connection of volunteer firefighters with their local neighbourhood and creating more understanding within the family for the job of volunteers. Third, encouraging or facilitating firefighter contests was deemed a good alternative for decreasing calls and keeping needed moral and camaraderie up.

Two experts stated that (6) adapting all sorts of general requirements to different tasks could motivate volunteers to stay longer. For instance, medical requirements should be lower for providing education on prevention of fires, than for operational work (e.g. suppressing fires). Adapting and differentiating requirements in such a way could lead to less turnover. Two experts also stated that (7) creating a reserve of retired firefighters could help to cover part of the work in times of crisis. Some other experts thought it might be a solution to (8) increase payment of volunteer firefighters. Remarkably, two countries (CZ, HU) indicated the challenge of too low payment (paragraph 2.2), whereas three different countries (PT, UK, IE) think increasing the amount of salary could be a solution to retention.

3 Conclusion

This chapter is structured by providing answers to the four research questions of this study. The conclusions presented in this final chapter are based on findings of this first exploratory phase only. Further research (phase 2) is necessary to elucidate these findings and give more complete answers and understanding to the research questions of this study. The final research report will see to answering the research questions.

3.1 What is the definition of volunteer firefighters in European fire services?

Due to a lack of practiced European definitions of 'volunteer firefighter', researchers and experts identified four main categories, which will be used throughout this study.

1. **Volunteers:** Those who (or whose organisation) receive no payment or financial reimbursement, and have another primary job.
2. **Volunteers with benefits:** Those who (or whose organisation) receive secondary benefits, but no payment or financial reimbursement, and have another primary job.
3. **On-call volunteers:** Those who are 'on call' and receive payment by the hour or incident, but are not obliged to respond to calls, and have another primary job.
4. **On-call volunteers with obligations:** Those who are 'on call' and/or are required to be present within a predetermined specific proximity of the fire station and receive payment by the hour or incident and are obliged to respond to calls, and have another primary job.

We use the definition of 'part-time firefighters' for career firefighters that do not work full time.

There are some similarities concerning the role of volunteer firefighters throughout Europe. They make up the largest part of fire service personnel (> 75 percent) in Austria, the Czech Republic, Denmark, Finland, France, Germany and Portugal, just as in the Netherlands (82 percent). The Netherlands employs mostly category 3 firefighters, just as Belgium, Denmark, France and Norway. Multiple countries employ several categories of volunteer firefighters. Remarkably, three countries (AT, CZ, DE) are predominantly employing the 'traditional' volunteer (category 1), who receives no payment or reimbursement. All of these countries state to experience few recruitment and retention challenges at present, although it remains unclear why. This could be a reason to visit some of these countries in phase 2 of this study. Explanations could lie in the strong (and intact) local firefighting tradition, the strong sense of community and role of the fire service, and the national obligation for municipalities to constitute and uphold a fire station in these countries. Another explanation is that successful solutions have already been implemented over recent years. The desk research and focus group shed some light on training and education requirements of volunteer firefighters in different European countries, but too little to state which of these organisational features are similar to the Dutch context. This data could also be retrieved in phase 2 and 3 of this study.

3.2 What are the challenges regarding recruitment and retention of volunteer firefighters as experienced by European Fire and Rescue Services?

3.2.1 Motivators

Motivation of volunteer firefighters also seems to be rooted for an important part in organisational factors (mostly work relations and work content) and in individual factors. This again indicates that the fire service organisation can foster retention of volunteer firefighters by creating and maintaining positive work relations and work content that aligns with what an individual volunteer firefighter wants. Specifically, optimizing team spirit at local level, creating healthy relations between volunteer firefighters, management and career firefighters, as well as expressing recognition of volunteer firefighters could be promising ways on motivating them. Findings in this report indicate that the major objection regarding work content lies in the amount of time tasks, training and education require.

What motivates volunteer firefighters to join and stay active in the fire service seems to rely for an important part on societal, individual, and also organisational factors; such as work relations and work content.

There appear to be four commonalities between volunteer firefighters' motivators in recruitment and retention:

- > Group spirit
- > Recognition, gratitude and appreciation
- > Altruism
- > Excitement.

The first two motivators relate to aspects of work relations, indicating that next to individual motives for joining and remaining to volunteer at the fire service, volunteer firefighters are also motivated by work relations from the start. This means that several determining factors in volunteer firefighter motivation can be influenced by the fire service organisation. However remarkable, experts did not identify ways to advance three of these motivators: group spirit, altruism and excitement.

3.2.2 Challenges and demotivators

In general, challenges demotivating current and future volunteer firefighters are mainly rooted in individual factors (e.g. competing activities, moving away) and the content of the work (e.g. time consuming tasks, education and training requirements). It therefore is hypothesized that fire services can better attract and retain volunteer firefighters when taking away demotivating organisational factors and connect more with individual ambitions, needs and desires of (current) volunteer firefighters. This recommendation aligns with findings of prior cross-sector research on motivation of Dutch volunteers (SCP, 2005). Doing so could require changes in work content, such as task differentiation or reducing the amount of time required for training and education. Task differentiation was also opted most by expert as a solution for both recruitment and retention challenges. This solution cuts two ways: it can improve inclusivity and enable participation of new groups of citizens, and it can cause a decrease in time consumption, because not all volunteer firefighters have to perform all tasks. These challenges and solutions thus seem to match, as long as task differentiation in fact reduces the amount of time people have to spend on their volunteering position in the fire service. Of course, maintaining an adequate professional performance quality must not

be forgotten when altering tasks, training and education requirements. In this respect, in phase 2 of this study it is recommended to visit some of the countries that indicate having experience with task differentiation and noticed positive effects on both recruitment and retention (such as FI, IE, FR, CZ).

The most frequently identified challenges/demotivators in literature and by experts are quite similar. The same goes for challenges/demotivators in recruitment and retention.

Regarding retention the most significant similarities are:

- > Incompatibility of volunteering with other (time consuming) activities
- > Reduction of calls/turnouts
- > High requirements (training, education and availability requirements)
- > Growing reluctance among primary employers.

Regarding recruitment the most significant similarities are:

- > Incompatibility of volunteering position with other activities and primary job
- > Urbanisation and rural exodus
- > High medical and physical entry requirements
- > Growing reluctance primary employers.

These findings illustrate that current volunteer firefighters and experts, throughout phases of recruitment and retention, identify two major challenges: incompatibility of volunteering at the fire service due to the amount of time it demands and therefore its incompatibility with other activities, as well as a growing reluctance among primary employers to allow employees to leave work to turn out. Again, these factors lie within the circle of influence of the fire service organisation.

What becomes clear from these findings is that there is a multitude of challenges, relating to factors at different levels (society, organisational, individual). However, many challenges relate to how the fire service, and the role of volunteer firefighters therein, is organized. This leaves a window of opportunity for the fire service to tackle these challenges. In order to effectively do so, measures should be aimed at the *causes* of these challenges.

Unfortunately, experts often did not pinpoint the causes of challenges they identified. This raises the question whether the experts and thus European fire services have adequate knowledge on the causes of the challenges they are confronted with. Interviews in phase 2 have to shed further light on this.

Note, also, that none of the challenges apply to all participating countries. This could be caused by organisational, legal, demographic and cultural differences between countries. However, some developments factually take place, but were not identified as challenges, in some participating countries. For instance, finding less recruits due to an aging public was left unmentioned by most experts and documents, although the population of all of the represented countries is in fact ageing (European Commission, 2018). It would be interesting to further examine if these and other societal changes really do not impact the recruitment (and retention) of other European fire services (and why) – in Ireland and the Netherlands, aging is perceived a serious threat to recruitment of volunteer firefighters. The reason for this being possibly twofold. On one hand less availability of potential younger recruits, on the other a faster speed of escalation of an emergency event due to longer time of attendance of the Fire Service to these remote yet 'low risk' areas.

Tables 3.1 and 3.2 illustrate that challenges (currently) experienced in the Netherlands are also experienced in other European Fire and Rescue Services to some extent (focus group and document results combined). Remarkably, these countries are geographically near to the Netherlands. Five countries that reported similar recruitment and retention challenges/demotivators as the Netherlands also rely heavily on volunteers (over 85 percent in AT, DE, CZ and over 75 percent in DK, FI).

Table 3.1 Recruitment challenges and demotivators in the Netherlands, compared to other European countries

#	Recruitment challenge	Countries
1.	Volunteering takes too much time	BE, EE, FI, IE, NL, NO
2.	Decrease of turnouts.	BE, EE, IE, NL, UK
3.	Not recruiting inclusively (e.g. few women, ethnic minorities etc.)	BE, DK, IE, NL, UK
4.	Entry standards too high or procedures too long	BE, FR, NL, UK
5.	Aging	EE, FI, NL

Table 3.2 Retention challenges and demotivators in the Netherlands, compared to other European countries

#	Retention challenge	Countries
>	Increasing turnover	AT, DE, NL, NO, UK
>	Incompatible with other activities or family with regards to time	AT, BE, FI, NL
>	Growing reluctancy primary employers	CZ, NL, UK
>	Too few (valid) calls	DK, FI, NL, UK
>	Too many demands regarding training, practice and/or availability	BE, IE, NL, UK
>	Missing/ unhealthy group spirit	BE, NL
>	Incompatible with primary job	BE, NL

3.3 Which solutions/activities have European fire services developed to cope with these challenges?

3.3.1 Differentiation

The main proposed solution is actually a sequence of measures and in its core targets the organisational factor of work content: the differentiation of tasks, followed by differentiation in training and education, and then task-based recruitment.

The working mechanism of this solution is thought to be that a differentiation of tasks would mean that a volunteer can choose his or her own tasks, hence being more motivated for this task. Differentiation also means that a volunteer no longer has to be educated and trained for all tasks, but only for specific tasks. Together, this would reduce the amount of time spend

on volunteering and thus minimizes a main demotivator: the volunteer firefighter position being too time consuming. Multiple countries have indicated to have positive experiences with task differentiation regarding recruitment and retention (AT, CZ, EE, FI, IE).

3.3.2 Involve primary employers

Next, both literature and experts indicate that for tackling both recruitment and retention challenges, primary employers should be motivated with benefits and rewards to make the primary job compatible with a volunteering position in the fire service. In essence they should be persuaded to let their employees go out to calls. It is believed this solution would tackle another organisational challenge/demotivator, working conditions: primary employers not letting volunteers attend calls. Experts from the Netherlands, as well as three other countries (FR, PT, UK), indicated to have positive experiences with this, although the means by which they do so, differ. It could be reviewed how primary employers in these countries are involved and what are the working mechanisms of their practices.

3.3.3 Selective recruitment

Specifically regarding recruitment, literature and experts indicate there is more to be gained by selectively recruiting certain subsets of the general public. For instance those underrepresented in the current volunteer firefighter population (e.g. women and migrants) but also in certain professions (e.g. caretakers, self-employed). At first glance, this solution seems rather simple. However, successful selective recruitment requires more than reaching these groups of people. It also requires knowing what motivates them and tap into that whilst shaping a volunteering position that meets this motivation and other personal circumstances. It could therefore be beneficial to visit countries that have indicated to have positive experiences with this promising solution (DK, FR, FI, IE, UK).

3.3.4 Appreciation

Specifically regarding retention, literature and experts indicate above all else that volunteer firefighters should feel appreciated and recognised by their organisation and colleagues. Appreciation and recognition are, however, subjective elements of motivation. It is advisable to visit several countries that have practiced experiments regarding promoting these elements and have documented positive outcomes (BE, DE, DK, EE, NO, UK).

Additionally, from a Dutch perspective the following innovative organisational structures or interventions from other European countries are found:

- > Rewarding volunteer firefighters with social benefits (PT)
- > Differentiating types of volunteers based on risks (CZ)
- > Organise civilian assistance, such as NGO's (HU)
- > Starting youth fire service at young age 8 (now 10) (AT)

3.4 What can the Netherlands Fire Service learn from challenges and solutions of other European fire services?

Whether the aforementioned innovations can contribute to future-proofing the Netherlands Fire Service organisation model has to be further explored during the interviews in phase 2 of this study.

Considering the challenges experienced and solutions posited, whilst taking into account cultural, legal, organisational and societal differences, it is recommended to visit the following countries in phase 2 of this study:

1. Austria
2. Belgium
3. The Czech Republic
4. France
5. Finland
6. Portugal
7. United Kingdom

3.5 Limitations

Results of the first exploratory phase of this study have cast a first and much needed light on volunteer firefighter issues throughout Europe, enabling a cross-European overview of challenges and solutions. However, it is important to note some specific limitations of the results presented in this report.

First, the document analysis is limited from multiple perspectives. Not all European countries have participated in the focus group nor were included in the document analysis. Some of the documentation dated back to the 1990s. This means the results are not representative for all European countries and over all times. Moreover, the document study is primarily based on Belgian, Dutch and Irish (English or Dutch written) literature, possibly leaving many insights in 55 excluded non-English documents untouched. To gain a more complete view of challenges and solutions that are experienced throughout European Fire and Rescue Services, more documents, from more countries should be studied. A methodological challenge, however, is to find a way to retrieve more available data on this topic (and have it translated into English); assuming that there is more data out there.

Second, in line with the previous limitation lies the fact that the experts included look at volunteer firefighting issues from a management perspective. In order to gain a holistic view on challenges and possible solutions, it is important to also include the perspective of volunteers (of which the document study was an attempt). Furthermore, and experts recognized this, it will be beneficial for the fire service in tackling challenges to consult parties from outside the fire service. Recommended is to conduct research on volunteers including primary employers, the public (opinion), and other organisations (in the public order and safety sector or in other sectors) that employ volunteers.

Third, the results presented in this report are descriptive: they state 'what', not 'why'. Some correlations between problem and solution appear to be crystal clear: when volunteer firefighters state their pay is too low, the straightforward solution might be an increase in salary. However, these findings state little about 'why' volunteer firefighters would ask for more payment. Perhaps they lack recognition, instead of money. If so, solutions not need be financial. Therefore, one should tread careful when deducing correlations and possible solutions for challenges. Further research is necessary to determine whether (a) the expert opinions are corroborated by volunteer firefighters and their management and (b) to gain deeper understanding of 'why' and 'how' the challenges presented in this report are

experienced and 'why' and 'how' solutions work. This is important as certain challenges or successful solutions may be influenced by organisational, cultural, legal or societal factors, which could differ greatly from the Netherlands and the fact that the findings in this report do no account for all of these factors. In conclusion, this report offers many inspiring vantage points for more qualitative research in phases 2 and 3 of this study.

Last, additional caveats of the desk research are twofold. One caveat is that regarding recruitment no study was found and included stating what (de)motivates possible *future* firefighters (i.e. the public). This means that the challenges presented come from experts and *current* volunteer firefighters. However, it is uncertain to what degree these align with public views on barriers to volunteering positions within the fire service.

Another caveat regarding retention is that it is uncertain whether these demotivators actually result in making volunteer firefighters leave, as only one study actually asked a few *former* volunteer firefighters about these reasons, by means of interviews (Weisdorf, 2017). Apart from this exception, it is unclear whether and to what degree these challenges/demotivators make volunteer firefighters quit. More research on needed to advance knowledge regarding these two lacuna.

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Appendix A

Table illustrating the countries and experts that participated in the focus group session.

#	Country	Participants	Position
1.	Austria	Raphael Koller	Officer at Austrian Fire Brigade Association and Fire Chief at local volunteer fire brigade
2.	Belgium	Frank Maertens Jan van Roey	Zone Commander at Fire Service Antwerp Captain at Fire Service Antwerp
3.	Czech Republic	Vladimir Vlcek	Brig. Gen., Regional Chief Fire Officer Ostrava
4.	Denmark	Jesper Bachmann- Marcussen	Analist Strategy & Coordination at Frederiksborg Fire & Rescue Service
5.	Estonia	Mart Haljaste	Advisor Estonian Recue Board
6.	Finland	Mika Gröndahl	Head Instructor at Civil Protection Training Unit of Pelastusopisto, Emergency Services Academy Finland (nowdays, name is updated recently)
7.	France	Eric Flores	General Controller and Chief of Fire department of Hérault
8.	Germany	Hartmut Ziebs	President at Deutsche Feuerwehrverband
9.	Hungary	Zoltán Szilcsanov	Major and Desk Officer National Directorate General for Disaster Management
10.	Ireland	John Keane	Vice-Chairman of the CFOA (Chief Fire Officers Association) and Chief Fire Officer at Roscommon County Council
11.	Latvia	Martins Baltmanis	Deputy Chief at State Fire and Rescue Service
12.	Netherlands	Karin Groenewegen Jos Laumen	Teamleader Repression at Fire Service Twente Group Manager at Fire Service Zuid-Limburg
13.	Norway	Tor-Inge Henriksen	Fire chief at Haugesund fire department
14.	Portugal	Jose Ferreira	President Director of the Escola Nacional de Bombeiros
15.	United Kingdom	Joe Hassell	Station Manager at Devon and Somerset Fire Service

Organisation

Paul Verlaan	Former Regional Commander at Fire Service Brabant-Noord
Ricardo Weewer	Professor of Fire Service Science at Fire Service Academy
Karin Dangermond	Researcher at Fire Service Academy, project leader Volunteer Firefighting in Europe
Jan Maarten Elbers	Trainee at Fire Service Academy

Guests

Fred Heerink	Director/ Regional Commander at Fire Service Drenthe
Gerard van Klaveren	Commander, General Director at Fire Service Zuid Limburg
Peter de Vries	On behalf of the Association of Volunteer Firefighters
Ronald Kraan	Director at Association of Volunteer Firefighters, Programme leader Volunteer firefighting

Appendix B

Definitions (terminology and description) of volunteer firefighters used by CZ, DE, DK, EN, FI, FR, NO, NL and PT, derived from Czech survey data provided by Vladimír Vlcek during Exchange of Experts 1.

CZ	Term	Description
	hasič, částečný úvazek	Osoba, jejíž hlavní zaměstnání je jiné, než hašení požárů, ale jež je zaměstnána jako hasič na částečný úvazek.
	hasič, smluvní	Osoba, jejíž hlavní zaměstnání je jiné, než hašení požárů, ale jež je placena za činnost u zásahu a při odborné přípravě, a jež může také být smluvně placena ročně.
	hasič, dobrovolný	Osoba, jež dobrovolně přijala funkci jako hasič, avšak není za tuto činnost placena.

DE	Term	Description
	Teilzeit- Feuerwehrmann / Teilzeit-Feuerwehfrau	Person, die hauptberuflich eine andere Tätigkeit ausübt, aber nebenberuflich als Feuerwehrmann tätig ist.
	Teilzeit- Feuerwehrmann / Teilzeit-Feuerwehfrau	Person, die hauptberuflich eine andere Tätigkeit ausübt, für Einsätze und Ausbildung bezahlt wird und gegebenenfalls eine jährliche Rufbereitschaftsentschädigung erhält.
	Freiwilliger Feuerwehrmann / Freiwillige Feuerwehfrau	Person, die Feuerwehrtätigkeiten ausführt ohne hierfür eine Bezahlung zu erhalten.

DK	Term	Description
	deltidsbrandmand	Værktøj påmonteret et træskæft, udformet med et skær på den ene side og en pig modsat. Eksempelvis til at nedbrække brændende materiale. ⁴
	honorarlønnet brandmand	Bærbar apparat der mekanisk kan ventilere brandrøg ud af en bygning. ⁵

⁴ Meanwhile, the Danish expert stated, there is a new description: "En person, der typisk har en anden hovedbeskæftigelse, men som står til rådighed for beredskabet. Vedkommende modtager løn for at stå til rådighed og honorar ved fremmøde."

⁵ Meanwhile, the Danish expert stated, there is a new description: "En person, der typisk har en anden hovedbeskæftigelse, men som står til rådighed for beredskabet. Vedkommende modtager løn for at stå til rådighed og honorar ved fremmøde."

frivillig brandmand	Apparat der anvender oxygen for at opnå så høj en temperatur, således at den kan skære i metal eller beton. ⁶
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EN	Term	Description
	part-time fire fighter	Person whose main occupation is other than that of firefighting but who is employed as a fire fighter on a part-time basis.
	retained fire fighter	Person whose main occupation is other than that of firefighting, is paid for fire calls and training and may also be paid an annual retainer.
	volunteer fire fighter	A person who volunteers to undertake the role of a firefighter but receives no payment.

FI	Term	Description
	palomies, sivutoiminen	Henkilö, jolla on joku muu päätoimi, mutta joka toimii palomiestehtävissä sivutoimisena.
	palomies, palokuntalainen	Henkilö, joka toimii palomiestehtävissä vapaaehtoisessa palokunnassa.
	palomies, palokuntalainen	Henkilö, joka toimii palomiestehtävissä vapaaehtoisessa palokunnassa.

FR	Term	Description
	sapeur-pompiers volontaire	Personne dont la principale occupation n'est pas celle de lutter contre les incendies mais qui est employée comme pompier à temps partiel.
	sapeur-pompiers volontaire	Personne dont la principale occupation n'est pas celle de lutter contre les incendies mais qui est employée comme pompier à temps partiel.
	sapeur-pompiers volontaire	Personne dont la principale occupation n'est pas celle de lutter contre les incendies mais qui est employée comme pompier à temps partiel.

NO	Term	Description
	deltids brannmann	En brannmann i stilling eller med annen tilknytning til brannvesen, med definert omfang mindre enn heltidsstilling.
	deltids brannmann	Brannmann uten stilling i brannvesenet, som deltar i utrykninger og innsats med betaling for disse og for øvelser, og som også kan få en årlig godtgjørelse.

⁶ Meanwhile, the Danish expert stated, there is a new description: "En person, der typisk har en anden hovedbeskæftigelse, men som står til rådighed for beredskabet. Vedkommende modtager ikke løn eller honorar."

frivillig brannmann	Brannmann som deltar i et brannvesen på frivillig grunnlag, uten stilling og uten noen som helst betaling.
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NL	Term	Description
	vrijwillige brandweerman	Persoon die part-time voor de brandweer werkt op basis van vrijwilligheid.
	vrijwillige brandweerman	Persoon die part-time voor de brandweer werkt op basis van vrijwilligheid.
	vrijwillige brandweerman	Persoon die part-time voor de brandweer werkt op basis van vrijwilligheid.

PT	Term	Description
	Bombeiro, part-time	Pessoa que preenche algumas,mas nao necessariamente todas as normas de um bombeiro, trabalha numa estrutura de emprego que inclui um numero determinado de horas,escala e salário, diferente de um bombeiro profissional. Pessoa cuja actividade profissiona principal é outra que nao a de bombeiro.
	Bombeiro, na reserva	Pessoa que exerce outra actividade que nao a de bombeiro, mas que pode ser mobilizado por sistema de "requisicao", sendo remunerado para estar disponível para treinos/exercícios ou situacoes de resposta a incidentes.O bombeiro reservista normalmente recebe um salário annual pela sua disponibilidade à requisicao.Pessoa cuja actividade principal é outra que a de bombeiro mas é empregado como bombeiro em part-time.
	Bombeiro, voluntário	Pessoa cuja actividade principal é outra que a de bombeiro mas é voluntário como bombeiro nao recebendo qualquer pagamento por esse servico.Pessoa cuja actividade principal é outra que a de bombeiro, mas que também é empregada como bombeiro em part-time.

Appendix C



Timetable
Exchange of Experts – Volunteer Firefighting in
Europe
8 - 10 April 2019
Amsterdam (Netherlands)

Date	Hour	Item	Remarks
Travel day	7/4	Arrival	
		Check-in	Hotel
First day	8/4	Exchange of Experts: Pitches	dress code: casual
	11.30 h	Walk in	Hotel
	12.00 h	Opening and lunch (<i>Ricardo Weewer, professor IFV</i>)	
	13.00 h	Welcome and presentation working plan (<i>Chairman, Paul Verlaan</i>)	
	13.15 h	Pitches (1/2)	
	13.15 h	The Netherlands	
	13.45 h	Denmark	
	14.15 h	Finland	
	14.45 h	Norway	
	15.15 h	<i>Afternoon break</i>	
	15.30 h	UK	
	16.00 h	Ireland	
	16.30 h	Belgium	
	17.00 h	<i>End of day 1</i>	
	18.30 h	Depart to Amsterdam city	Gather at hotel front entrance
	19.00 h	Dinner at Amsterdam city	Restaurant dress code: smart casual
	± 21.00 h	Return to hotel	Hotel
Second day	9/4	Exchange of Experts: Pitches and Recruiting	dress code: casual
	08.00 h	Breakfast	Hotel

	09.00 h	Opening and conclusions day 1 (Chairman)	
	09.15 h	Update CTIF Tallinn (<i>Jos Laumen, NL</i>)	
	09.30 h	Pitches (2/2)	
	09.30 h	Germany	
	10.00 h	Austria	
	10.30 h	France	
	11.00 h	<i>Morning break</i>	
	11.30 h	Portugal	
	12.00 h	Latvia	
	12.30 h	Estonia	
	13.00 h	<i>Lunch</i>	
	14.00 h	Czech Republic	
	14:30 h	Hungary	
	15.00 h	End of pitches (2/2)	
	15.00 h	<i>Afternoon break</i>	
	15.15 h	Wrap-up and discussion (1/4)	
	17.00 h	<i>End of day 2</i>	
	18.30 h	Depart to Diemen	Gather at hotel front entrance
	19.00 h	Diner, tour and talking with Dutch volunteers	Fire station Diemen dress code: smart casual
	± 21.00 h	Return to hotel	Hotel
Third day	10/4	Recruiting and Retaining	dress code: casual
	08.00 h	Breakfast	Hotel
	09.00 h	Opening and conclusions day 2 (<i>Chairman</i>)	
	09.15 h	Discussion (2/4)	
	10.30 h	<i>Morning break</i>	
	10.45 h	Discussion (3/4)	
	12.00 h	<i>Lunch</i>	
	13.00 h	Discussion (4/4)	
	14.45 h	Closing remarks (<i>Fred Heerink</i>)	
	15.00h	<i>End of day 3</i>	

Appendix D

An overview of the documents included in the document study, arranged per country and the (de)motivators as well as solutions that were identified in these documents is provided below.

Belgium

Belgian representatives had sent in nine documents, of which 2 treated recruitment or retention of volunteer firefighters.

Item	Scores
Recruitment Motivators	<ul style="list-style-type: none"> > Commitment to the safety of citizens [1] > Group spirit fire department [1] > Gaining knowledge for the benefit of fellow human beings [1] > Gratitude / recognition by citizens [1]
Retention Motivators	<ul style="list-style-type: none"> > More calls [1] > Better appreciation by the fire department of the competences of the volunteers [1] > Bring back group spirit within the local fire departments [1] > Align training and exercises hours better with wishes of volunteers [1] > Bigger say by volunteers [1] > Provide for measures to improve the combination of the fire brigade with a full-time job [1] > Provide measures to improve the combination of fire brigade with family life [1] > Moderate the requirements for physical readiness [1] > More salary [1]
Demotivators	<ul style="list-style-type: none"> > Missing group spirit [1] > Too many demands training and practice [1] [2] > Have no say in organisation (zone level) [1] > Too much work done by professionals (or: too little by volunteers) [1] > Too high demands of physical readiness [1] > Family circumstances (e.g. house reconstruction) [2] > Spend time on other hobbies [2] > To be rested for primary job [2]
Solutions Recommendations	<ul style="list-style-type: none"> > Contacting and/or rewarding primary employers for employing on-call volunteer firefighters [2]

[1] VVB & BVV (2017). Resultaten bevraging brandweervrijwilligers omtrent hun motivatie (N= 1099). (A survey among 1099 volunteer firefighters, Belgium)

[2] BVV en Netwerk Brandweer (2018). De Brandweertoets. Een onderzoek naar de werkbeleving van het brandweerpersoneel in Vlaanderen en Brussel. Algemeen Rapport. Universiteit van Antwerpen (A survey among 5575 firefighters in Flandres and Brussels, Belgium).

Denmark

Danish representatives send in one document, written in Danish (Weisdorf, 2017). With help of the representative we were able to deduce several push and motivators regarding retention of volunteers from this document.

Item		Scores	
Retention	Motivators	>	Recognition (salary) [1]
		>	Recognition (respect and gratitude) [1]
	Demotivators	>	Too few calls [1]
		>	Decreased salary [1]
		>	Rigid, traditional culture [1]
		>	Centralisation [1]

[1] Weisdorf (2017). *Hvad motiverer brandfolk? En antropologisk analyse af rekruttering og fastholdelse af honorarlønnede brandmænd. (Interviews with 26 volunteer firefighters, 10 primary employers and 10 former volunteer firefighters, Denmark)*

Ireland

Item		Scores	
Recruitment	Demotivators	>	Pay is based on activity (per hour) = problem in rural areas [1]
		>	High expectations of personal performance and availability [1]
Retention	Demotivators	>	Some primary employers no longer allow retained staff to respond during working hours. [1]
		>	Self-employed staff typically having to work further afield, taking them outside the response area. [1]
		>	Increased centralisation of businesses and services towards larger urban centres. [1]
		>	High expectations of personal performance and availability [1]
Solutions		>	Promotion of the concept of corporate social responsibility, including recognition locally and nationally of existing employers of retained firefighters e.g. recognition plaques in premises, recognition awards, etc. [1]
		>	Local authorities should prepare and rollout a media campaign for potential and existing primary employers, which outlines the role and benefits of employing a retained firefighter. [1]
		>	Promotion of the concept of corporate social responsibility for primary employers, including recognition locally and nationally e.g. plaques in premises, recognition days, awards etc. [1]
		>	The Local Authority sector should lead by example, to seek to identify what opportunities exist within its own workforce, to effectively support members of its staff being members of the retained fire service. [1]
		>	Provide enhanced campaigns at both local and national levels, on the role of the retained firefighter, particularly through the various media platforms. This should specifically address the issue of

- diversity in the workforce, in particular female participation, as they currently constitute 1.6 % of the retained service. [1]
- > Review the title of Retained Firefighter. [1]
 - > A national review and provision of a flexible availability model for retained firefighters. This model should have a transparent and equal amount of structured and guaranteed time off, whilst meeting the requirements of the fire service as employers. Structured time off should be developed by the management of retained fire services to provide an adequate work/life balance. Retained firefighters should be rostered off from duty to ensure that they have structured time off, on an ongoing basis i.e. do not attend for an incident alert during that period [1]
 - > Review the current payment structure for retained firefighters. [1]
 - > Fire Authorities should communicate and put in place a documented training pathway for retained personnel, which outlines the opportunities available for professional development. [1]
 - > Review the current model of all resources and stations being available on a 24-hour basis in the context of the relevant Area Risk Categorisation by the Fire Authority. This will require the use of evidence-based analysis with reference to the existing activity/risks. [1]
 - > Fire authorities should, in the context of the local ARC, review the current turnout time requirements and include the overall in-attendance time for reviewing performance, particularly where it is more challenging to recruit the retained firefighters within prescribed geographical areas. [1]

[1] Report of the Fire Services Management Retained Review Group (2019).

Finland

Fifteen Finnish documents were obtained, fourteen in Finnish. One scientific article in English was found, which treated demotivators (barriers) for retained volunteer firefighters (Malinen & Mankkinen, 2018). The number and severity of barriers were positively related to the volunteers' absence and turnouts to calls, and conflicted with family commitments. The more barriers they reported, the less satisfied volunteer firefighters were. No differences in barriers were found between rural and urban areas, or between gender and age groups.

Item	Scores
Retention Demotivators	<ul style="list-style-type: none"> > Too few calls [1] > Lack of time [1] > Conflict with work school, and other work-related challenges [1] > Other: geographical distance from the fire brigade, dissatisfaction with brigade leadership, and family commitments. [1]
Solutions	<ul style="list-style-type: none"> > maintain open, two-way communication between the volunteers and the brigade leadership [1]

[1] Malinen & Mankkinen (2018). *Finnish Firefighters' Barriers to Volunteering. (A survey among 762 firefighters, Finland)*.

Europe

Results of a survey on European level were retrieved (Echeverria, 2017). No other document or dataset was found on volunteer firefighting across European countries. Hence, it appears that on a European level (as in research on multiple countries), there has sporadically been given attention to (de)motivators and solutions to problems regarding volunteers.

Item	Scores
Recruitment Demotivators	<ul style="list-style-type: none"> > Slovenia: Job situation and demographic trends [1] > Norway: Recruiting volunteers is becoming increasingly difficult. [1] > Sweden: [1] > Urbanization - work outside the “standby-zone” > Small enterprises may not allow the personnel to become firefighters > The population in the countryside gets older > Ireland: Hard to recruit persons who live and work in the local community[1] > Czech Republic: Usually there is a problem with engineers [1] > France: Demands for initial training duration and availability[1] > Finland: Competing hobbies, [1] > United Kingdom: Rural Areas lack of primary employment [1]

[1] Echeverria, F. (2017). *La atención a las emergencias en las zonas rurales. Modelos de personal operativo de los servicios de bomberos. Universidad Pública de Navarra. (A survey among experts on volunteer firefighting from 12 countries, European level).*

The Netherlands

As the researchers are native Dutch speakers, it was more easy to search for documents related to the topic of volunteer firefighting in the Netherlands.

Item	Scores
Recruitment Demotivators	<ul style="list-style-type: none"> > Too few applicants [1] [9] > Volunteer job takes too much time [1] [9] > Incompatible with primary job [1] [9] > Incompatible with private situation (e.g. family) [9] > Too high selection criteria [9] > Other ways to spend free time [2] > No longer working in hometown [2]
Motivators	<ul style="list-style-type: none"> > Commitment to the safety of citizens [14] > Fitting in to social/ peer group [14] > Excitement [14] > Group spirit [14] > Personal development possibilities [14] > Making (new) friends [14] > Closed culture [14]

		<ul style="list-style-type: none"> > Having something to do [14] > Because other people advised so [14] > Additional income [14] > Status [14]
Retention	Demotivators	<ul style="list-style-type: none"> > False calls [9] [11] > To many expectations/burdens/demands [3] [11] > Incompatible with primary job [4] [14] > Incompatible with family situation [14] > Too high work pressure [9] > Too much time demanded by volunteer position [11] [14] > Bureaucratisation [2] [9] > Insecurity about volunteer position in the future (e.g. through financial cutbacks) [10] > Too little recognition by professionals [9] > Health [14] > Turnover: Volunteers leave the service earlier [2] > Bad atmosphere/ lack of group spirit [14] > Confrontation with victims [14]
	Motivators	<ul style="list-style-type: none"> > Volunteer group spirit (station level) / connection with volunteer colleagues [6] [9] [13] [15] > Doing good for society / Helping people [6] [13] [15] > Excitement [6] [13] [15] > Degree of freedom regarding actions at fire station [6] [9] > Calls [6] > Tasks included [15] > Positive evaluation of own fire station [6] > Recognition [7]
Solutions		<ul style="list-style-type: none"> > Flexibilization: Fragmentation of tasks and recruitment for particular tasks [2] [4] [7] > Use ICT to facilitate self-government, flexibility of calls and balancing tasks with needs of volunteers [5] [6] [2] > Flexibilization: Selective recruitment: Match tasks with competences with volunteers [2] [5] > Better meet motives and situation of volunteers [6] [2] > Modern volunteer management by safety regions, with a mix of measures, adapted to the regional context [2] > More insight in availability (smart apps) and optimize coverage plan [2] > Facilitate working on local level, including space for own identity and initiative [2] > More self-government on station level through separation of things that are good to treat on regional level and those better to treat on a local level [2] > Communicate with primary employers [16] and account for entrepreneurs [2] > Recruit 'old' volunteers for non-repressive tasks [5] > Develop online competence scan for the public [5] > Connect with schools: use obligatory 'social training' at fire service [5] > Connect with management of companies [5] > 'Smart' target recruiting: e.g. for fire prevention, recruit among caretakers etc. [5]

- > Maintain communication with and involve volunteers in policy changes that affect them most [6]
- > Tailor-make learning possibilities [6]
- > Research how to better utilize the competences and knowledge of volunteers [6]
- > Manage volunteers based on trust and professionalism, rather than control [6]
- > Utilize youth firefighters [16], start task differentiation there [6]
- > Approach victims of fires for fire prevention tasks [5]
- > Recruit Emergency Response Officers [5]
- > Recruit women and migrants [16]
- > Breach of closed culture [16]
- > Stress benefits of volunteering in recruitment [16]

- [1] Ministry of Internal Affairs (BZ), (1991). *Volunteers in the Fire Service [Vrijwilligers bij de Brandweer]*.
- [2] Inspectorate Ministry of Security and Justice (VenJ), (2018). *Organisation repressive fire service. National image. [Inrichting repressieve brandweezorg. Landelijk beeld] (A document study, interviews and survey among an unknown number of firefighters and their management, Netherlands)*
- [3] Berenschot, (2011). *Voluntary serving and earning. Final report on the positioning of volunteers. [Vrijwillig dienen en verdienen. Eindrapport onderzoek naar de positionering van vrijwilligers] (Literature review)*
- [4] van Wijk, (2012). *Speaking of expectations. The professional relationship in the centre. [Over verwachtingen gesproken. De arbeidsrelatie in het midden] (Literature review)*
- [5] Caluwé, (2011). *Fire Service and volunteer personnel. Seize the opportunity! [Brandweer en vrijwilligerspersoneel. Grijp je kans!]*
- [6] TNO, (2013). *Volunteers in the Fire Service. Building blocks vision development. [Vrijwilligers bij brandweer. Bouwstenen visieontwikkeling] (Survey among 267 volunteer firefighters)*
- [7] Haverkamp, (2005). *Fire as communal enemy. [Vuur als gemeenschappelijke vijand]*
- [9] DSP, Van Dijk & Roorda, (2005). *Recruiting and retaining volunteers for the Fire Service. [Het vinden en binden van vrijwilligers bij de brandweer] (Survey among 248 fire commanders and interviews with 41 volunteer firefighters, among others)*
- [10] VBV, (2011). *Lining up the facts, again. [Nogmaals de feiten op een rij]*
- [11] SP, Van Raak, (2011). *The Fire Service speaking. [De brandweer aan het woord]*
- [12] NVBR, Muilwijk & van der Ven, (2011). *The Fire Service employee on now. [De Brandweermedewerker over nu]*
- [13] Ministry of Internal Affairs (BZ), (1998). *Fire Service and volunteers. [Brandweer en vrijwilligers] (Document analysis, in-depth interviews with key figures and case studies in other sectors)*
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United Kingdom

Item	Scores
Recruitment Demotivators	<ul style="list-style-type: none">> Lack of flexibility in terms of availability [1]> Pay too low [1]> Lack of awareness within local community [1]> Lack of effort by FRS to raise awareness of job vacancies [1]> Entry standards too difficult or too long [1]> Lack of recruitment activity [2]
Solutions	<ul style="list-style-type: none">> Promote on-call to local business and primary employer [1]> A closer relationship with and an improved understanding of the needs of the primary employer so as to remove any barriers to releasing staff [2]> Greater involvement of and promotion by politics [2]> Improved use of social media to promote and inform on the merits and benefits of becoming an On-Call firefighter [2]> Review the title of Retained Firefighter. [1]

[1] RFU (2017). *Recruitment & Retention of Retained Firefighters A survey of Serving RDS Staff. (A survey among an unknown number of retained firefighters, United Kingdom)*

[2] FBU (2004). *Off the Run: Recruitment and Retention of Retained Firefighters.*

Appendix E

Example of an on call letter of appreciation to primary employers, region Devon and Somerset, UK.

Dear [name employer]

Appreciation of Employer Support to Devon & Somerset Fire & Rescue Service

I write to express my sincere thanks and appreciation for the support you have given to Devon & Somerset Fire & Rescue Service for the release of [name firefighter] to regularly respond from your business to undertake On Call firefighting duties at [name station] Fire Station over recent months.

Without such support and goodwill we would not be able to provide such an effective service to our communities and local business's when most needed.

Hopefully, in return you will see benefits through having a trained Firefighter as your employee with all of the attributes we mutually share such as discipline, trust, integrity and having practical skills and knowledge such as first aid training, fire safety awareness, health and safety awareness and similar beneficial aspects of training.

I appreciate the impact that this may sometimes have on your business and recognise that on occasions, you will not always be able to release [name firefighter]. The Local Risk Manager is always happy to discuss any issues you may have so we can continue with this mutually beneficial arrangement.

I thank you and hope that you continue to provide this support to [name station] Fire Station and to the wider community for many years to come.

Yours sincerely

.....
Chief Fire Officer