

Master Thesis : "How have key human factors shaped and been shaped by the reformation of fire and rescue services in Belgium over the past decade? In what ways can these insights foster innovation while maintaining critical standard operations, that is, achieving organizational ambidexterity?"

Auteur : van der Have, Frederick

Promoteur(s) : 27876

Faculté : HEC-Ecole de gestion de l'Université de Liège

Diplôme : Master en sciences de gestion, à finalité spécialisée en MBA

Année académique : 2024-2025

URI/URL : <http://hdl.handle.net/2268.2/22644>

Avertissement à l'attention des usagers :

Tous les documents placés en accès ouvert sur le site le site MatheO sont protégés par le droit d'auteur. Conformément aux principes énoncés par la "Budapest Open Access Initiative"(BOAI, 2002), l'utilisateur du site peut lire, télécharger, copier, transmettre, imprimer, chercher ou faire un lien vers le texte intégral de ces documents, les disséquer pour les indexer, s'en servir de données pour un logiciel, ou s'en servir à toute autre fin légale (ou prévue par la réglementation relative au droit d'auteur). Toute utilisation du document à des fins commerciales est strictement interdite.

Par ailleurs, l'utilisateur s'engage à respecter les droits moraux de l'auteur, principalement le droit à l'intégrité de l'oeuvre et le droit de paternité et ce dans toute utilisation que l'utilisateur entreprend. Ainsi, à titre d'exemple, lorsqu'il reproduira un document par extrait ou dans son intégralité, l'utilisateur citera de manière complète les sources telles que mentionnées ci-dessus. Toute utilisation non explicitement autorisée ci-avant (telle que par exemple, la modification du document ou son résumé) nécessite l'autorisation préalable et expresse des auteurs ou de leurs ayants droit.

Appendices

Use of Generative Artificial Intelligence

In this dissertation, generative AI tools such as ChatGPT and Copilot have been used to enhance research efficiency, primarily by facilitating access to a broader range of perspectives and aiding in the refinement of language and structure. These tools have been particularly valuable in reformulating complex ideas, improving coherence, clarity, and readability, and ensuring that key arguments are articulated effectively.

However, while AI-assisted refinements in wording and structuring, the core research process remains entirely the author's work. AI was used as a supportive tool rather than a content generator, ensuring that the dissertation maintains academic and intellectual integrity.

Figures



Figure 17 - Map of the 34 emergency rescue zones in Belgium



Algemeen overzicht

Exploitatie	Rekening 2023
Ontvangsten	29.717.197
Prestaties	1.923.665
Gemeentelijke dotaties	18.546.759
Federale overheid	6.723.992
Overige	2.391.128
Schuld	131.652
GD Uitgaven	29.189.826
Personeel	19.510.876
Werkingskosten	5.184.584
Divers	132.981
Schuld	1.379.527
Overboeking naar inversteringen	2.981.858
Resultaat Boekjaar	527.370

Figure 18 - Financial overview 2023

Bevolkingscijfer	Aantal posten	Aantal operationele personeelsleden*	Punten
minder dan 100.000			1
van 100.000 tot en met 149.999	minder dan 3	minder dan 80	2
van 150.000 tot en met 199.999	van 3 tot en met 5	van 80 tot en met 100	3
van 200.000 tot en met 249.999	van 6 tot en met 9	van 101 tot en met 120	5
van 250.000 tot en met 329.999	van 10 tot en met 18	van 121 tot en met 160	7
van 330.000 tot en met 429.999	van 19 tot en met 39	van 161 tot en met 200	10
van 430.000 tot en met 529.999	meer dan 39	van 201 tot en met 250	14
van 530.000 tot en met 629.999		van 251 tot en met 300	18
van 630.000 tot en met 799.999		van 301 tot en met 400	22
van 800.000 tot en met 1.100.000		van 401 tot en met 550	26
meer dan 1.100.000		meer dan 550	30

Figure 19 - Categories for emergency rescue zones (source: Royal decree of February 24th, 2014)



2024	BE	BO	HA	HE	HZ	ST	TE	TO	<u>Total</u>
FIRE	119	47	448	77	137	207	76	142	1253
HAZMAT	16	5	88	18	28	45	20	37	257
TECH	974	308	2569	670	1289	1382	647	925	8764
SPEC	1	0	7	1	2	5	1	0	17
LOG	54	19	468	66	147	185	51	159	1149
<u>Total</u>	1164	379	3580	832	1603	1617	795	1263	11440

Figure 20 - Overview of incidents for each station in 2024

Interview guide

Dutch translation is used during the interviews due to the participant's native language.

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	
3. Inclusion criteria (Double-check exclusion criteria)	Age: _ _ - Between 23 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	_ _ / _ _ / _ _ _ _
5. Participants agree for interviews to be digitally recorded	Yes <input type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	_ _ _ _
7. Time – end of interview (hhmm-24hr)	_ _ _ _

Step 1: Complete Q1-4 above before the interview

Step 2: Introduce yourself as a researcher (not a business leader) – appreciate the participation

Step 3: Explain the study using section A

Step 4: Ask permission to start recording – complete Q5

Step 5: Complete Q5 and start interview (section B + section C)

Step 6: At the end of the interview, thank the participant and ask for further questions – fill in Q7

Keynotes for interviewer's mindset

- Ask open questions and keep on asking these questions.
- When getting stuck into one specific topic, try to get out of it ("I have heard ... in another interview, what's your idea about that?")
- Apply an appreciative approach ("What is your best experience on ... "What could be the ideal circumstances?")
- Search for concrete illustrations, not only opinions.

Section A:

This research aims to give an answer to the question *"what key people management factors have influenced the transition of fire and rescue service in Belgium over the past decade, and how can these factors contribute to achieving ambidexterity in the organization?"*

I am conducting this interview in a researcher's role for an MBA master's thesis. The conclusions in the thesis should deliver valuable insight in people management strategies to address challenges for Fire and Rescue Services in Belgium on organizational ambidexterity and the region of South-Western Limburg more specifically.

Section B:

- This research is about people management, what do you understand by this?

Deepening questions (in general)

- Can you tell me more about what you felt in that situation?
- What led you to make that decision?
- Can you describe the reasoning behind this (your) approach?
- Why do you think it happened that way?
- Can you describe how you arrived at that conclusion?
- What were the circumstances or factors at play?

Research questions

- What did you experience most in people management last decade? Key moments for you?
- Who (person, department, ...) is playing a key role as an accelerator (or decelerator) for the further development and implementation of new ideas you have (or have had)?
- What opportunities for further innovation do you see?
 - How could this be in conflict with our standards and daily work?
- How much of your time is spend on executing tasks compared to working on changes?
 - Change can be any change, reflection with colleagues, try-outs on training moments, discussions on meetings, ...
- How did you experience new tactics and technics during the past decade? Can you compare it before 2015?
 - Experienced frequently or not?
 - Difference before and after 2015?
- Can you describe a moment where you felt a great energy level, fostering creativity and giving results?
 - → Try to detect accelerators (or decelerators, when spontaneously pointed out)
- What leadership behaviors do you think are most critical for fostering ambidexterity?
- What role does (financial) resource allocation in the FRS play in achieving ambidexterity?
- What does innovation mean for you?
- Have you experienced innovation?
 - Bottom-up – experienced need to convince management?



- Top-down – experienced need to convince operational core?

Section C:

Make sure subjects of importance according to personal insights are covered as well. Only after section B is done and in correlation with the answers and depth of the interview so far.

- Training (station or training facilities) vs. incident responding.
- Participation and use of work groups / project teams?

Registration of participants

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	1 (IND)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 7 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 5 / 0 2 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 3 9
7. Time – end of interview (hhmm-24hr)	1 5 2 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	2 (IND)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 3 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	_ _ / _ _ / _ _ _ _
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 3 1 0
7. Time – end of interview (hhmm-24hr)	1 4 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	3 (IND)

3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 0 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	1 4 / 0 3 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 0 2 5
7. Time – end of interview (hhmm-24hr)	1 1 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	4 (IND)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 1 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	0 3 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	0 9 0 0
7. Time – end of interview (hhmm-24hr)	0 9 5 5

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	5 (FG_BK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 3 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 3 / 0 4 / 2 0 2 5
5. Participants agree for interviews to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 0 1 5
7. Time – end of interview (hhmm-24hr)	1 2 0 0



1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	6 (FG_BK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 5 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 3 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 0 1 5
7. Time – end of interview (hhmm-24hr)	1 2 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	7 (FG_BK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 5 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 3 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 0 1 5
7. Time – end of interview (hhmm-24hr)	1 2 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	8 (FG_BK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 3 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 3 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>



6. Time – start of interview (hhmm-24hr)	1 0 1 5
7. Time – end of interview (hhmm-24hr)	1 2 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	9 (FG_BK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 3 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 3 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 0 1 5
7. Time – end of interview (hhmm-24hr)	1 2 0 0

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	10 (FG_MK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 9 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 8 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 1 0
7. Time – end of interview (hhmm-24hr)	1 6 2 5

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	11 (FG_MK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 2 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O



4. Interview date (dd/mm/yyyy)	2 8 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 1 0
7. Time – end of interview (hhmm-24hr)	1 6 2 5

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	12 (FG_MK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 7 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 8 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 1 0
7. Time – end of interview (hhmm-24hr)	1 6 2 5

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	13 (FG_MK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 3 2 - Between 18 and 65 Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 8 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 1 0
7. Time – end of interview (hhmm-24hr)	1 6 2 5

1. Interviewer name	Frederick van der Have
2. Participant ID (separated list)	14 (FG_MK)
3. Inclusion criteria (Double-check exclusion criteria)	Age: 4 7 - Between 18 and 65

	Employment: Vol / Prof Type of station: 1 / 2 / 3 Rank: FF – PO – O
4. Interview date (dd/mm/yyyy)	2 8 / 0 4 / 2 0 2 5
5. Participant agrees for interview to be digitally recorded	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
6. Time – start of interview (hhmm-24hr)	1 4 1 0
7. Time – end of interview (hhmm-24hr)	1 6 2 5

Training obligations

Tables from the Royal Decree of November 18th, 2015.

Opleiding tot het behalen van het brevet van basiskader NBO1

Mod.	NBO1	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NBO1/01	Welzijn - Algemeen (verplicht als eerste module te volgen)	18	11	0	29	303,00
NBO1/02	Welzijn - Levensreddend handelen	11	12	0	23	296,00
NBO1/03	Welzijn - Adembescherming (verplicht om te slagen voor deze module vooraleer te starten met de warme praktijk van module NBO1/08)	2	18	0	20	386,00
NBO1/04	Incident gevaarlijke stoffen	7	5	0	12	133,00
NBO1/05	Technische hulpverlening Storm en Instortingen	8	17	0	25	389,00
NBO1/06	Technische hulpverlening Verkeer	7	16	0	23	364,00
NBO1/07	Technische hulpverlening Water, Redding van Personen en Dieren	8	14	0	22	326,00
NBO1/08	Brandbestrijding	21	33	32	86	2.153,00
	Totaal :	82	126	32	240	4.350,00

Opleiding tot het behalen van het brevet van N brandweerkadet

Mod.	N Brandweerkadet	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NBO1/01	Welzijn - Algemeen (verplicht als eerste module te volgen)	18	11	0	29	303,00
NBO1/02	Welzijn - Levensreddend handelen	11	12	0	23	296,00
NBO1/03	Welzijn - Adembescherming (verplicht om te slagen voor deze module vooraleer te starten met de warme praktijk van module AT 108 14)	2	18	0	20	386,00
NBO1/06	Technische hulpverlening Verkeer	7	16	0	23	364,00
NBO1/07	Technische hulpverlening Water, Redding van Personen en Dieren	8	14	0	22	326,00
AT 108 11	Brandbestrijding - hoofdstuk 1: Brand en brandbestrijding	12	0	0	12	48,00
AT 108 12	Brandbestrijding - hoofdstuk 2: Materieel voor brandbestrijding	3	8	0	11	180,00
AT 108 13	Brandbestrijding - hoofdstuk 3: Tactiek en techniek van een interventie	0	12	0	12	252,00
AT 108 14	Brandbestrijding - Hittetraining en binnenbrandbestrijding	0	0	16	16	688,00
	Totaal :	61	91	16	168	2.843,00

Opleiding tot het behalen van het brevet van basiskader BO2

Mod.	BO2	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
BO2/01	Bevelvoering	2	6	0	8	134,00
BO2/02	Arbeidsveiligheid	2	2	0	4	50,00
BO2/03	Coaching: werken met mensen	12	6	0	18	174,00
	Totaal :	16	14	0	30	358,00

Opleiding tot het behalen van het brevet van middenkader NMO1 via bevordering

Mod.	NMO1 via bevordering	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NMO1/01	Bevelvoering	8	4	0	12	116,00
NMO1/02	Brandbestrijding 1	19	5	0	24	181,00
NMO1/03	Brandbestrijding 2	15	11	0	26	291,00
NMO1/04	Compartment Fire Behaviour Training praktijk	0	0	38	38	1.634,00
NMO1/05	Industriële brandbestrijding	10	6	6	22	424,00
NMO1/06	Hulpverlening	14	18	0	32	434,00
NMO1/07	Gevaarlijke stoffen 1	16	8	0	24	232,00
NMO1/08	Gevaarlijke stoffen 2	18	10	0	28	282,00
NMO1/09	Geïntegreerde praktijkoefeningen (Alle voorgaande modules moeten behaald worden voor deelname)	0	8	16	24	856,00
	Totaal :	100	70	60	230	4.450,00

2. Bijvoorbeeld: Zaken - A.D. Civiele Veiligheid

Opleiding tot het behalen van het brevet van middenkader NMO1 via aanwerving

Mod.	NMO1 via aanwerving	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NBO1/01	Welzijn - Algemeen (verplicht als eerste module te volgen)	18	11	0	29	303,00
NBO1/02	Welzijn - Levensreddend handelen	11	12	0	23	296,00
NBO1/03	Welzijn - Adembescherming (verplicht om te slagen voor deze module vooraleer te starten met de warme praktijk van module NBO1/08)	2	18	0	20	386,00
NBO1/04	Incident gevaarlijke stoffen	7	5	0	12	133,00
NBO1/05	Technische hulpverlening Storm en Instortingen	8	17	0	25	389,00
NBO1/06	Technische hulpverlening Verkeer	7	16	0	23	364,00
NBO1/07	Technische hulpverlening Water, Redding van Personen en Dieren	8	14	0	22	326,00
NBO1/08	Brandbestrijding	21	33	32	86	2.153,00
BO2/01	Bevelvoering	2	6	0	8	134,00
BO2/02	Arbeidsveiligheid	2	2	0	4	50,00
BO2/03	Coaching: werken met mensen	12	6	0	18	174,00
NMO1/01	Bevelvoering	8	4	0	12	116,00
NMO1/02	Brandbestrijding 1	19	5	0	24	181,00
NMO1/03	Brandbestrijding 2	15	11	0	26	291,00
NMO1/04	Compartment Fire Behaviour Training praktijk	0	0	38	38	1.634,00
NMO1/05	Industriële brandbestrijding	10	6	6	22	424,00
NMO1/06	Hulpverlening	14	18	0	32	434,00
NMO1/07	Gevaarlijke stoffen 1	16	8	0	24	232,00
NMO1/08	Gevaarlijke stoffen 2	18	10	0	28	282,00
NMO1/09	Geïntegreerde praktijkoefeningen (Alle voorgaande modules moeten behaald worden voor deelname)	0	8	16	24	856,00
	Totaal :	198	210	92	500	9.158,00

0. Bijvoorbeeld: Zaken - A.D. Civiele Veiligheid



Opleiding tot het behalen van het brevet van middenkader NMO2

Mod.	NMO2	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NMO2/01	Statuut	8	0	0	8	32,00
NMO2/02	Arbeidsveiligheid	6	2	0	8	66,00
NMO2/03	Leiderschapsvaardigheden	4	8	0	12	184,00
NMO2/04	Bevelvoering bij grootschalige interventies	6	6	0	12	150,00
	Totaal :	24	16	0	40	432,00

Opleiding tot het behalen van het brevet van hoger kader NOFF1

Mod.	NOFF1	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NOFF1/01	Operationele benadering: Fire Dynamics	31	12	10	53	806,00
NOFF1/02	Operationele benadering: Incidenten Gevaarlijke Stoffen	24	8	0	32	264,00
NOFF1/03	Crisisbeheer - niveau 1 (CRI-1)	12	12	0	24	300,00
NOFF1/04	Coaching: omgaan met een groep	3	2	0	5	54,00
	Totaal :	70	34	10	114	1.424,00

Opleiding tot het behalen van het brevet van hoger kader NOFF2 via bevordering

Mod.	NOFF2 via bevordering	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NOFF2/01	Operationele benadering: Fire Dynamics	32	0	0	32	128,00
NOFF2/02	Crisisbeheer - niveau 2 (CRI-2)	20	20	0	40	500,00
NOFF2/03	Administratief management	30	0	0	30	120,00
	Totaal :	82	20	0	102	748,00

Opleiding tot het behalen van het brevet van hoger kader NOFF2 via aanwerving

Mod.	OFF2 via aanwerving	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
NBO1/01	Welzijn - Algemeen (verplicht als eerste module te volgen)	18	11	0	29	303,00
NBO1/02	Welzijn - Levensreddend handelen	11	12	0	23	296,00
NBO1/03	Welzijn - Adembescherming (verplicht om te slagen voor deze module vooraleer te starten met de warme praktijk van module NBO1/08)	2	18	0	20	386,00
NBO1/04	Incident gevaarlijke stoffen	7	5	0	12	133,00
NBO1/05	Technische hulpverlening Storm en Instortingen	8	17	0	25	389,00
NBO1/06	Technische hulpverlening Verkeer	7	16	0	23	364,00
NBO1/07	Technische hulpverlening Water, Redding van Personen en Dieren	8	14	0	22	326,00
NBO1/08	Brandbestrijding	21	33	32	86	2.153,00
BO2/02	Arbeidsveiligheid	2	2	0	4	50,00
NMO2/02	Arbeidsveiligheid	6	2	0	8	66,00
NMO1/01	Bevelvoering	8	4	0	12	116,00
NMO1/02	Brandbestrijding 1	19	5	0	24	181,00
NMO1/03	Brandbestrijding 2	15	11	0	26	291,00

NMO1/04	Compartment Fire Behaviour Training praktijk	0	0	38	38	1.634,00
NMO1/05	Industriële brandbestrijding	10	6	6	22	424,00
NMO1/06	Hulpverlening	14	18	0	32	434,00
NMO1/07	Gevaarlijke stoffen 1	16	8	0	24	232,00
NMO1/08	Gevaarlijke stoffen 2	18	10	0	28	282,00
NMO1/09	Geïntegreerde praktijkoefeningen (Alle voorgaande modules moeten behaald worden voor deelname)	0	8	16	24	856,00
NOFF1/01	Operationele benadering: Fire Dynamics	31	12	10	53	806,00
NOFF1/02	Operationele benadering: Incidenten Gevaarlijke Stoffen	24	8	0	32	264,00
NOFF2/01	Operationele benadering: Fire Dynamics	32	0	0	32	128,00
NMO2/01	Statuut	8	0	0	8	32,00
NMO2/03	Leiderschapsvaardigheden	4	8	0	12	184,00
NMO2/04	Bevelvoering bij grootschalige interventies	6	6	0	12	150,00
NOFF2/03	Administratief management	30	0	0	30	120,00
NOFF1/03	Crisisbeheer - niveau 1 (CRI-1)	12	12	0	24	300,00
NOFF2/02	Crisisbeheer - niveau 2 (CRI-2)	20	20	0	40	500,00
NBO2/03	Coaching: werken met mensen	12	6	0	18	174,00
NOFF1/04	Coaching: omgaan met een groep	3	2	0	5	54,00
	totaal :	372	274	102	748	11.628,00

Opleiding tot het behalen van het brevet van hoger kader OFF3

Mod.	OFF3	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
OFF3/01	Bestuurlijk recht	30	0	0	30	120,00
OFF3/02	Crisisbeheer – niveau 3 (CRI-3)	20	20	0	40	500,00
OFF3/03	Financieel management	30	0	0	30	120,00
OFF3/04	HRM	30	0	0	30	120,00
OFF3/05	Kwaliteitsmanagement	30	0	0	30	120,00
OFF3/06	Strategie en organisatie	30	0	0	30	120,00
OFF3/07	Leadership	30	0	0	30	120,00
OFF3/08	Innovatie en change management	30	0	0	30	120,00
OFF3/09	Communicatiemanagement	10	10	0	20	250,00
OFF3/10	Proces- en projectmanagement	30	0	0	30	120,00
	Totaal :	270	30	0	300	1.710,00

Opleiding tot het behalen van het brevet van hoger kader OFF4

Mod.	OFF4	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
OFF4/01	Strategie en Leiderschap	40	0	0	40	160,00
OFF4/02	Communicatie, onderhandeling en syndicaal statuut	32	0	0	32	128,00
OFF4/03	Management van processen, kwaliteit en risico	32	0	0	32	128,00
OFF4/04	Diversiteit, veiligheid en welzijn op het werk	16	0	0	16	64,00
OFF4/05	Stage – activiteiten – en analyseverslag (Alle voorgaande modules moeten behaald worden voor deelname)	0	100	0	100	2.100,00
	Totaal :	120	100	0	220	2.580,00

Opleiding tot het behalen van het brevet B Delta bestemd voor de titularissen van het brevet van brandweerman, voorafgaand aan de toegang tot de opleiding tot het behalen van het brevet BO2, bedoeld in artikel 26

Mod.	Oud brevet brandweerman → BO2	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
1	Hulpverlening	21	40	0	61	924,00
	Totaal :	21	40	0	61	924,00

Opleiding tot het behalen van het brevet NM Delta bestemd voor de titularissen van het brevet van sergeant, voorafgaand aan de toegang tot de opleiding tot het behalen van het brevet NMO2, bedoeld in artikel 28 en 29

Mod.	Oud brevet sergeant → NMO2	Theorie	Koude praktijk	Warme praktijk	Totaal	Subsidie
DMO2/01	Binnenbrandbestrijding	12	1	5	18	284,00
DMO2/02	Technische hulpverlening	3	12	0	15	264,00
NMO1/07	Gevaarlijke stoffen 1	16	8	0	24	232,00
NMO1/08	Gevaarlijke stoffen 2	18	10	0	28	282,00
	Totaal :	49	31	5	85	1062,00



Bibliography & references

- Alexiev, A. S., Jansen, J. J. P., Van den Bosch, F. A. J., & Volberda, H. W. (2010). Top Management Team Advice Seeking and Exploratory Innovation: The Moderating Role of TMT Heterogeneity. *Journal of Management Studies*, 47(7), 1343–1364.
- Andriopoulos, C., & Lewis, M. W. (2009). Exploitation-exploration tensions and organizational ambidexterity: Managing paradoxes of innovation. *Organization science*, 20(4), 696-717.
- Babakus, E., Yavas, U., Karatepe, O. M., & Avci, T. (2003). The effect of management commitment to service quality on employees' affective and performance outcomes. *Journal of the Academy of Marketing Science*, 31(3), 272–286.
- Benner, M. J., & Tushman, M. L. (2003). Exploitation, exploration, and process management: The productivity dilemma revisited. *Academy of management review*, 28(2), 238-256.
- Berx, C. (2014). Brandweer en Dringende Geneeskundige Hulpverlening: partners in integrale civiele veiligheid.
- Blatt, R., Christianson, M. K., Sutcliffe, K. M., & Rosenthal, M. M. (2006). A sensemaking lens on reliability. *Journal of Organizational Behavior*, 27(7), 897–917.
- Birken, S. A., Lee, S. Y. D., & Weiner, B. J. (2012). Uncovering middle managers' role in healthcare innovation implementation. *Implementation Science*, 7, 1-12.
- Boukamel O., Emery Y. (2017). *Evolution of organizational ambidexterity in the public sector and current challenges of innovation capabilities*. The Innovation Journal: The Public Sector Innovation Journal, Volume 22(2), 2017, article 2.
- Brand, T., Goetjes, E., & Blankart, K. (2023). To seek program accreditation, innovation, or both? Examining the interdependencies in high-reliability health care organizations. *Schmalenbach Journal of Business Research*, 75(3), 281–302.
- Carvalho, J., Fernandes, M., Lambert, V., & Lapsley, I. (2006). *Measuring fire service performance: a comparative study*. The International Journal of Public Sector Management, 19(2), 165–179.
- Clausen, T. H., Demircioglu, M. A., & Alsos, G. A. (2020). Intensity of innovation in public sector organizations: The role of push and pull factors. *Public administration*, 98(1), 159-176.
- Derbyshire, J. (2014). The impact of ambidexterity on enterprise performance: Evidence from 15 countries and 14 sectors. *Technovation*, 34(10), 574-581.
- De Vries, H., Bekkers, V., & Tummers, L. (2016). Innovation in the public sector: A systematic review and future research agenda. *Public administration*, 94(1), 146-166.
- Directorate-General Civil Security, collection of all relevant regulations (Royal Decree and others) on fire and rescue zones in Belgium: <https://www.securitecivile.be/nl/regelgeving>
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Sage.
- Christianson, M.K., Sutcliffe, K.M., Miller, M.A. et al. Becoming a high reliability organization. *Crit Care* 15, 314 (2011).
- Duncan, R.B. (1976) *The Ambidextrous Organization: Designing Dual Structures for Innovation*. The Management of Organization, 1, 167-188.
- Engle, R. L., Lopez, E. R., Gormley, K. E., Chan, J. A., Charns, M. P., & Lukas, C. V. (2017). What roles do middle managers play in implementation of innovative practices? *Health care management review*, 42(1), 14-27.
- Falck AVD (2014) – Rapport met mogelijke organisatiestructuren voor een toekomstige brandweerzone, *Internal document*
- FOD BiZa – ADCV (2018) – Inspectierapport HVZ Zuid-West Limburg, *Internal document*
- Folger, N., Brosi, P., & Stumpf-Wollersheim, J. (2022). Perceived technological turbulence and individual ambidexterity–The moderating role of formalization. *European Management Journal*, 40(5), 718-728.



- Frankel, L.P. and Picascia, S. (2008), *Workplace legacy: Making the most of the final five*. *Empl. Rel. Today*, 35: 1-7.
- Gianzina, O., & Paroutis, S. (2025). Ambidextrous leadership: A systematic review and roadmap for future research. *Journal of Business Research*, 189, 115151.
- Glaser, B., and A. Strauss. (2017). *Discovery of Grounded Theory. Strategies for Qualitative Research*. 1st ed. London: Routledge.
- Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of management journal*, 49(4), 693-706.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of occupational and organizational psychology*, 76(3), 347-364.
- Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of management Journal*, 47(2), 209-226.
- He, Z. L., & Wong, P. K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, 15(4), 481-494.
- HVZ Zuid-West Limburg – Meerjarenbeleidsplan 2015-2020 & 2020-2025, *internal document*
- HVZ Zuid-West Limburg – Operationeel organisatieschema 2015-2020 & 2020-2025, *internal document*
- HVZ Zuid-West Limburg – Jaarverslag 2023, *public document*
- Jahn, J. L., & Black, A. E. (2017). A model of communicative and hierarchical foundations of high reliability organizing in wildland firefighting teams. *Management Communication Quarterly*, 31(3), 356-379.
- Junni, P., Sarala, R. M., Taras, V. A. S., & Tarba, S. Y. (2013). Organizational ambidexterity and performance: A meta-analysis. *Academy of Management Perspectives*, 27(4), 299-312.
- Kafetzopoulos, P., Psomas, E., & Katou, A. A. (2023). Promoting strategic flexibility and business performance through organizational ambidexterity. *Sustainability*, 15(17), 12997.
- Kassotaki, O. (2017). *Ambidexterity and leadership: a multilevel analysis of the aerospace and defense organizations* (Doctoral dissertation, University of Warwick).
- Kassotaki, O. (2022). Review of organizational ambidexterity research. *Sage Open*, 12(1).
- Kelloway, E. K., & Barling, J. (2010). Leadership development as an intervention in occupational health psychology. *Work & Stress*, 24(3), 260-279.
- Kortmann, S., Gelhard, C., Zimmermann, C., & Piller, F. T. (2014). Linking strategic flexibility and operational efficiency: The mediating role of ambidextrous operational capabilities. *Journal of Operations Management*, 32(7-8), 475-490.
- Kousina, E., & Voudouris, I. (2023). The ambidextrous leadership-innovative work behavior relationship in the public sector: The mediating role of psychological ownership. *Public Administration Review*, 83(6), 1478-1495.
- Kraner, J., Kraner, J., & Mahagaonkar. (2018). *Innovation in High Reliability Ambidextrous Organizations*. springer.
- Langley, A. (1999). Strategies for theorizing from process data. *Academy of Management review*, 24(4), 691-710.
- Le Bris, S., Madrid-Guijarro, A., & Martin, D. P. (2019). Decision-making in complex environments under time pressure and risk of critical irreversibility: The role of meta rules. *Management*, 22(1), 1-29.
- Lethbridge, J. (2009). Privatisation of ambulance, emergency and firefighting services in Europe—a growing threat?
- Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic management journal*, 14(S2), 95-112.
- Lincoln, Y. S. (1985). *Naturalistic inquiry* (Vol. 75). sage.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization science*, 2(1), 71-87.



- McClean, E., & Collins, C. J. (2011). High-commitment HR practices, employee effort, and firm performance: Investigating the effects of HR practices across employee groups within professional services firms. *Human resource management*, 50(3), 341-363.
- Millar, C. C., Groth, O., & Mahon, J. F. (2018). Management innovation in a VUCA world: Challenges and recommendations. *California management review*, 61(1), 5-14.
- Mintzberg, H. (1989). *Mintzberg on management: Inside our strange world of organizations*. Simon and Schuster.
- Mom, T., Van Den Bosch, F., & Volberda, H. (2009). Understanding variation in managers' ambidexterity: Investigating direct and interaction effects of formal structural and personal coordination mechanisms. *Organization Science*, 20(4), 812-828.
- Moussa, M., McMurray, A., & Muenjohn, N. (2018). A conceptual framework of the factors influencing innovation in public sector organizations. *The Journal of Developing Areas*, 52(3), 231-240.
- Murphy, L., Huybrechts, J., & Lambrechts, F. (2019). The origins and development of socioemotional wealth within next-generation family members: An interpretive grounded theory study. *Family Business Review*, 32(4), 396-424.
- Murphy, P., & Greenhalgh, K. (Eds.). (2017). *Fire and rescue services: Leadership and management perspectives*. Springer.
- Offord, M., Gill, R., & Kendal, J. (2019). The effects of prestige on collective performance and information flow in a strictly hierarchical institution. *Palgrave Communications*, 5(1), 1-11.
- Oppen, M. (2024). Exploring Innovation in the Public Sector: Study of direct and indirect effects of psychological safety, learning behaviour, transformational leadership and learning attitudes on innovation climate. *Innovation Journal*, 29(3).
- O'Reilly, C. A., & Tushman, M. L. (2004). The ambidextrous organization. *Harvard business review*, 82(4), 74-83.
- O'Reilly III, C. A., & Tushman, M. L. (2011). Organizational ambidexterity in action: How managers explore and exploit. *California management review*, 53(4), 5-22.
- O'Reilly III, C. A., & Tushman, M. L. (2013). Organizational ambidexterity: Past, present, and future. *Academy of management Perspectives*, 27(4), 324-338.
- Pickerden, A. (2017). Older Firefighters: A Problem to Be Managed or a Resource to Be Valued?. In *Fire and Rescue Services: Leadership and Management Perspectives* (pp. 131-144). Cham: Springer International Publishing.
- Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of management*, 34(3), 375-409.
- Suddaby, R. (2006). From the editors: What grounded theory is not. *Academy of management journal*, 49(4), 633-642.
- Scott, C., Allen, J. A., Bonilla, D. L., Baran, B. E., & Murphy, D. (2013). Ambiguity and freedom of dissent in post-incident discussion. *The Journal of Business Communication* (1973), 50(4), 383-402.
- Tushman, M. L., & O'Reilly III, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California management review*, 38(4), 8-29.
- Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for managing ambidexterity: A review and research agenda. *International journal of management reviews*, 15(3), 317-332.
- Vogus, T. J., & Rerup, C. (2018). Sweating the "small stuff": High reliability organizing as a foundation for sustained superior performance. *Strategic organization*, 16(2), 227-238.
- Weick, K. E., & Sutcliffe, K. M. (2011). *Managing the unexpected: Resilient performance in an age of uncertainty* (Vol. 8). John Wiley & Sons.
- Volberda, H. W. (1999). *Building the Flexible Firm: How to Remain Competitive*. Oxford University Press.
- VVSG & Netwerk Brandweer (2024). *Beleidsvisie 2024-2028 van Netwerk Brandweer, "Vijf speerpunten voor een moderne brandweer"*.



Executive summary

Objective: The purpose of this thesis is to analyze the first decade of reformation from local, municipal organized fire brigades to emergency rescue zones in Belgium. This analysis, focused on human aspects-management, is employed to give insight into the key factors in people management to become an ambidextrous organization combining both exploitative and explorative activities. The region South-Western Limburg is chosen as the use-case for the author's relevance and accessibility of information.

Approach & methodology: A literature review of organizational ambidexterity within the context of a high-reliability and public service organization is conducted first. These insights are compared to qualitative research within the region of South-Western Limburg started combining individual interviews with focus groups.

Key findings: This thesis underscores the importance of balancing formalization with flexibility. Secondly, the simultaneous pursuit of both exploitative and exploratory goals is supported by an elaborate use of after-action reviews, targeted training and flexibility in providing resources. Finally, fostering top-down and bottom-up information inflow of knowledge while avoiding silo-thinking is essential.

Practical implications: The findings offer opportunities for emergency rescue zones to implement or adjust certain practices in their pursuit of becoming an ambidextrous organization. To support this, a concrete framework has been provided.

Contribution: The field of organizational ambidexterity is ambiguous in its nature. This thesis adds knowledge within the specific context of a high-reliability organization in the public service sector, which is rather unique. Most findings align with those from earlier research however some nuances are made. The role of training for exploratory goals was striking and underexposed in existing literature.

Future directions: Several suggestions for future research are made. From the importance of a clear mission as a driver for combining exploitation and innovation over the role to the impact of more diversity in top-management teams. More specifically for emergency rescue zones, more research on the role of non-uniformed staff for organizational ambidexterity could deliver valuable insight.

Keywords: Ambidexterity, high-reliability organization, governmental, public service organization, fire and rescue services, exploration, innovation, exploitation, people management.

Word count: 21,797

