

## The C<sup>^</sup>C Remote Care Assist System Trial in Luxembourg: Results of the second wave of data collection – care experts

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# The C^C Remote Care Assist System Trial in Luxembourg:

## Results for the second wave of data collection – care experts

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## List of Abbreviation

CG	Control group
FHWN	University of Applied Science Wiener Neustadt
HCSU	Home Care Service Users
HWN	Hilfswerk Niederösterreich
RCA System	Remote Care Assist System
SHD	Stiftung Hëllef Doheem
TG	Test group
WU	WU Vienna University of Economics and Business

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## 1 Introduction

“The Remote Care Assist system (RCA), developed by University of Applied Science Wiener Neustadt (FHWN) and the “Care about Care” project partners, aimed to support home care workers by facilitating information exchange with care managers and experienced nurses. The RCA was piloted (for interview results see Trukeschitz & Arth, 2022; for Care Glasses results see Trukeschitz & Schermann, 2022a; for Expert Center results see Trukeschitz & Schermann, 2022b) and pre-tested in Luxembourg (field trial) and Luxembourg (internal test only) (Trukeschitz et al., 2023). The final trial in 2023 was planned to gain information on specific outcome indicators affected by the Remote Care Assist system in all three participating countries, Luxembourg, Belgium, and Luxembourg.

The final trial of the RCA took place in Luxembourg and Luxembourg in 2023. Belgium decided to conduct a much smaller explorative testing and own reporting. Due to delays in the recruitment of participants and additional efforts in trial preparations, particularly in Luxembourg and Belgium for both technologies of the C^C project, a detailed analysis of the effects of the Remote Care Assist system on the outcomes for staff and experts was no longer within the scope of this project. Instead, a descriptive analysis of main indicators will be provided for each participating country and each target group (care/nursing staff and care experts). These changes in the description of work have been approved by the national and European funders.” (Trukeschitz & Arth, 2023b)

This deliverable aims to report on the results of the second wave of data collection of the **Remote Care Assist system in Luxembourg**. It covers a broad range of topics relevant for **care experts** (mainly care managers, wound managers) who had access to the RCA system to support their colleagues in the households of home care service users. The topics addressed comprise modes of communication, perceptions of experts on support, self-assessed teamwork and work satisfaction and the assessment of the RCA system by the trial participants acting as care experts. For the RCA trial results in Luxembourg for care experts see (Trukeschitz & Arth, 2023a).

For the RCA trial results from the perspective of care and nursing staff who had access to the Remote Support app on their company smartphone in Luxembourg see Arth and Trukeschitz (2023) and in Luxembourg see Trukeschitz and Arth (2023b).

## 2 The Remote Care Assist system in Luxembourg

A description of the Remote Care Assist system tested in Luxembourg and the web application developed for care experts to see what care workers, nursing assistants and nurses see at their home care service users homes can be found in Trukeschitz and Arth (2023b) and for the versions for Luxembourg see (Arth & Trukeschitz, 2023).

### 3 Methods

For information on the study design, trial changes in Luxembourg, eligibility criteria for participants, data collection and methods of analysis see Trukeschitz and Arth (2023b) and Arth and Trukeschitz (2023).

### 4 Results – part 1: participants in Luxembourg

The map and the flow chart for the participating care units can be found in Arth and Trukeschitz (2023).

### 5 Results – part 2: responses to the surveys and average completion time

From the first to the second survey, in **Luxembourg**, the number of participating **care experts** in the test group reduced by 2 (9.5%) and in the control group by 2 (14%). Drop out was mainly due to staff leaving the care organisation.

**19 care experts** in the TG and **12 care experts** in the CG completed the second wave of data collection in Luxembourg. Their average response time was 21 minutes for CG- and 17 minutes for TG participants. (Table 1)

**Table 1: C^C RCA trial: Second survey: RCA-care expert participants, language and response time in Luxembourg**

	COMPLETED SURVEYS	CANCELLED SURVEYS	DUPLICATE SURVEYS	TOTAL	German	French	AVERAGE TIME TO COMPLETE
<b>TG</b>	19	0	0	19	14	5	17.2
<b>CG</b>	12	0	0	12	5	7	21.4
<b>TOTAL</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>19</b>	<b>12</b>	

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG/CG, 2023

## 6 Results – part 3: sample description for the second wave

### 6.1 Socio-demographic characteristics

Table 2 displays the socio demographic characteristics of all surveyed care experts of the RCA trial in Luxemburg. A total of **31 care experts** completed the second survey, of which 61% were part of the test group and 39% belonged to the control group. In both groups, the **majority were women**, in total 78%. **A third** of all care experts were **care managers**, **another third registered nurses**.

**Table 2: C^C RCA trial: Second survey: care experts characteristics**

Characteristics	LUX- TG		LUX-CG		TOTAL	
	Freq	%	Freq	%	Freq	%
<b>Number of care/nursing staff</b>	19	61.3%	12	38.7%	<b>31</b>	<b>100%</b>
<b>Sex</b>						
Women	16	84.2%	8	66.6%	<b>24</b>	<b>77.4%</b>
Men	3	15.8%	4	33.3%	<b>7</b>	<b>22.6%</b>
Other	-	-	-	-	-	-
<b>Age</b>						
Mean age (SD) in years	42.3 (7.4)		43.8 (8.8)		<b>42.9 (7.9)</b>	
Range (min-max) in years	33 (29-62)		24 (34-58)		<b>33 (29–62)</b>	
<b>Professional group</b>						
Care managers (Cadre)	6	31.6%	5	41.6%	<b>11</b>	<b>35.5%</b>
Deputy care managers (Cadre remplaçant*e)	1	5.3%	-	-	<b>1</b>	<b>3.2%</b>
Wound expert	3	15.8%	5	41.6%	<b>8</b>	<b>25.8%</b>
Registered Nurses (Infirmier*ère)	8	42.1%	2	16.6%	<b>10</b>	<b>32.3%</b>
Nursing assistant – level 1 (Aide-Soignant*e)	1	5.3%	-	-	<b>1</b>	<b>3.2%</b>

Source: WU C^C RCA trial data LUX, care experts staff, 2<sup>nd</sup> survey, TG/CG, 2023

## 6.2 Affiliation with care organisation

Table 3 shows that about **40 % of all care experts** participating in the RCA test group in Luxembourg **had worked** for SHD **more than 10 years**.

**Table 3: C^C RCA care experts: Affiliation von SHD in test and control group**

Characteristics	LUX-TG		LUX-CG		TOTAL	
	Freq	%	Freq	%	Freq	%
<b>Number of care experts</b>	19		12		<b>31</b>	
<b>Affiliation with care organisation</b>						
Less than a year (month)	0	0	1	8.3%	<b>1</b>	<b>3.2%</b>
More than a year	19	100%	11	91.7%	<b>30</b>	<b>96.8%</b>
There of more than 10 years	10	52.6%	3	25%	<b>13</b>	<b>41.9%</b>
Mean (SD) in years	11.0 (6.7)		7.5 (6.6)		<b>9.8 (6.3)</b>	
Range (min-max) in years	20 (2-22)		18 (2-20)		<b>20 (2-22)</b>	

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG/CG, 2023

## 6.3 Working hours per week and working days per week

Table 4 displays the Luxembourgish RCA trial care and nursing staff participants' working hours per week. Participants worked between 24 and 40 hours per week, with about 34 hours per week on average.

**Table 4: C^C RCA care experts: Working hours per week and working days per week**

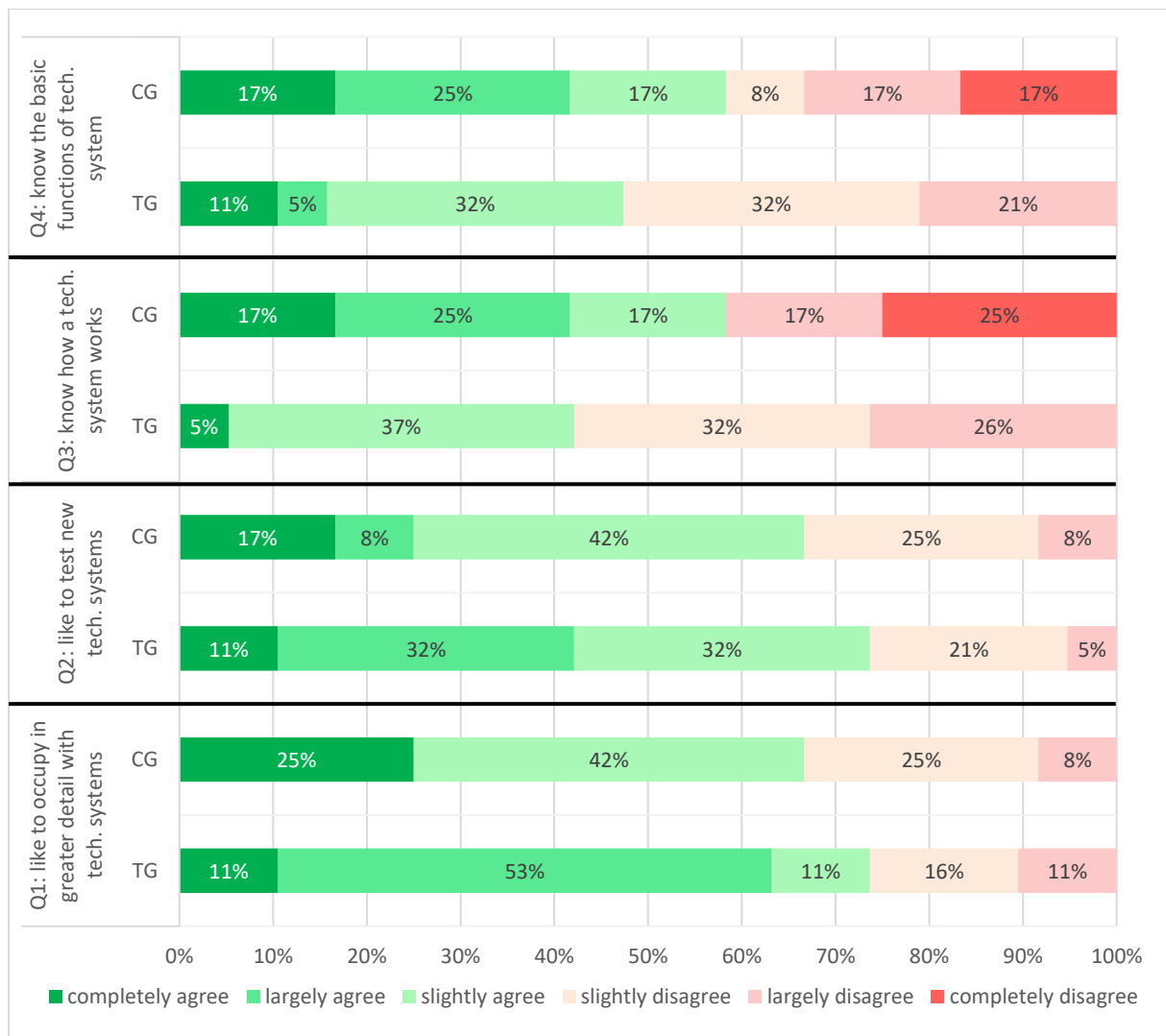
Characteristics	LUX-TG	LUX-CG	TOTAL
	Freq	Freq	Freq
<b>Number of care experts</b>	19	12	<b>31</b>
<b>Working hours per Week</b>			
Mean (SD) in hours	33.6 (6.7)	35.2 (3.6)	<b>34.2 (4.3)</b>
Range (min-max) in hours	16 (24-40)	10 (30-40)	<b>16 (24-40)</b>
<b>Working days per Week</b>			
Mean (SD) in days	4.7 (0.6)	4.4 (0.5)	<b>4.6 (0.6)</b>
Range (min-max) in days	2 (4-6)	1 (4-5)	<b>2 (4-6)</b>

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG/CG, 2023

## 6.4 Tech-savviness

Figure 1 provides a description of the ATI measure (Franke, Attig, & Wessel, 2019) for the care experts participating in the RCA trial in Luxembourg. **16%** in the **test group (TG)** and **more than a third** in the control group (CG) of the care experts in Luxembourg **completely or largely agree that knowing the basic functions of a technical system would be enough**. However, about **21%** in the TG and **34%** in the CG **completely or largely disagree** (Figure 1– panel 1). The results for care experts participants’ ratings on **whether they like testing functions of new systems** in Luxembourg show more experts **being fond of testing new features** (43% TG; 25% CG) than in the control group, where 5% in the test group; 8% in the control group indicated, they are not interested (at all) (Figure 1– panel 3).

**Figure 1: C^C RCA trial care experts test group: ATI scores, Luxembourg**



Notes:

TG = Test group; CG = Control group

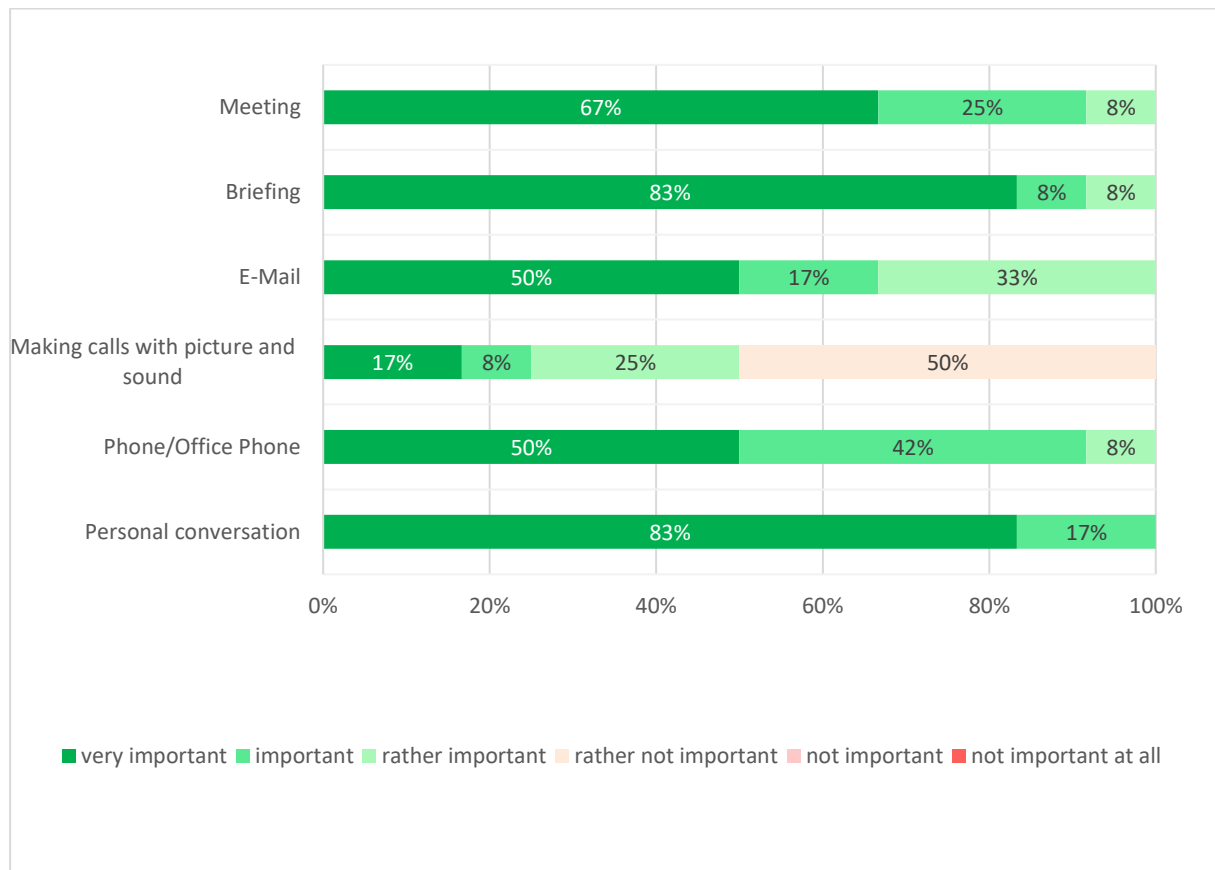
Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG/CG, 2023, n = 31 (TG = 19; CG= 12)

## 7 Results – part 4: channels used for communication with colleagues

### 7.1 Importance of communication channels for all experts excluding care managers

RCA care experts (excluding care managers) test group participants in Luxembourg perceived briefings (83%) and personal conversation (83%) as most important channels for communication (Figure 2). 17% rated video-calls as very important.

**Figure 2: C^C RCA trial care experts test group: Importance of communication channels (excluding care managers), Luxembourg**

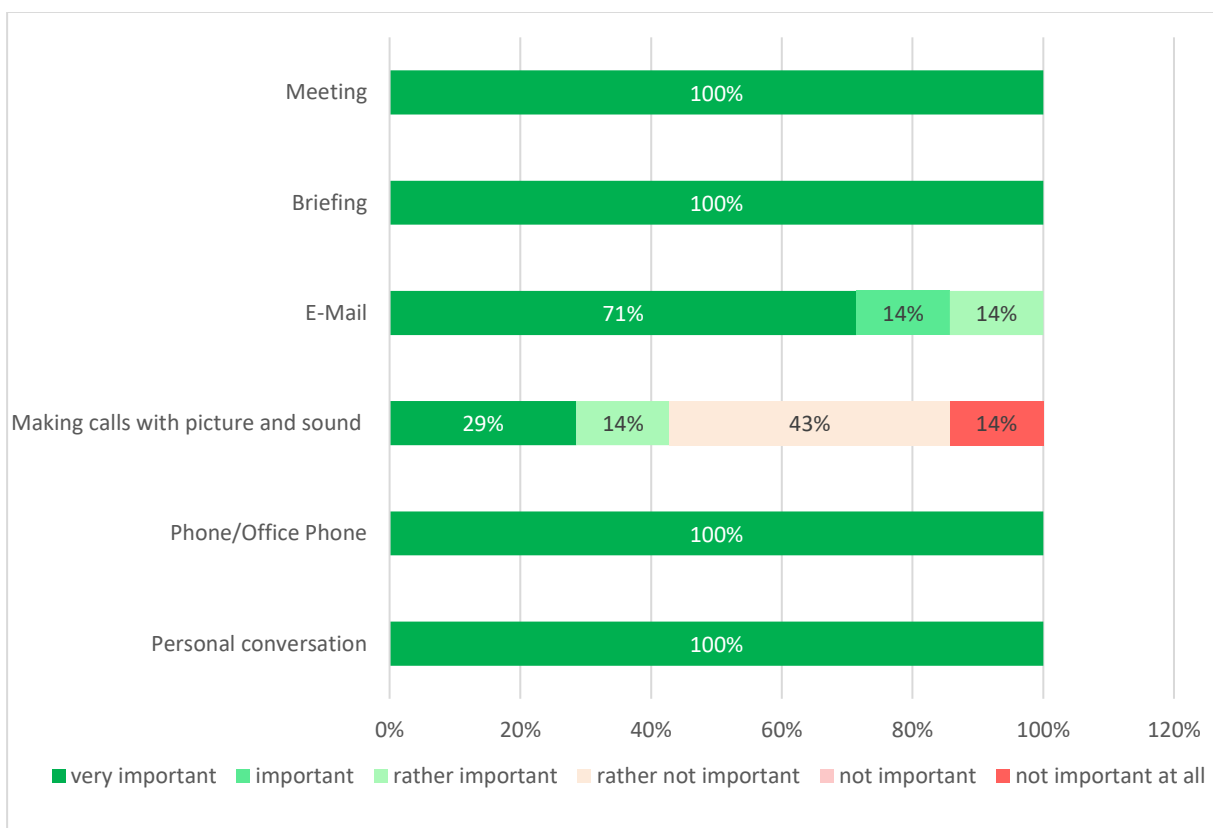


Source: WU C^C RCA trial data LUX, care/nursing staff, 2<sup>nd</sup> survey, TG 2023, n<sub>TG</sub> = 12

## 7.2 Importance of communication channels for care managers

RCA **care experts** (care managers only) test group participants in Luxembourg perceived phone calls (100%) and meetings (100%) and personal conversation (100%) as most important channels for communication (Figure 3). **About 30 %** of care managers testing the RCA rated **video-calls as very important**. Also 14 % rated this as not important at all.

**Figure 3: C^C RCA care expert test group: Importance of communication channels for care manager, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG 2023, n<sub>TG</sub> = 7



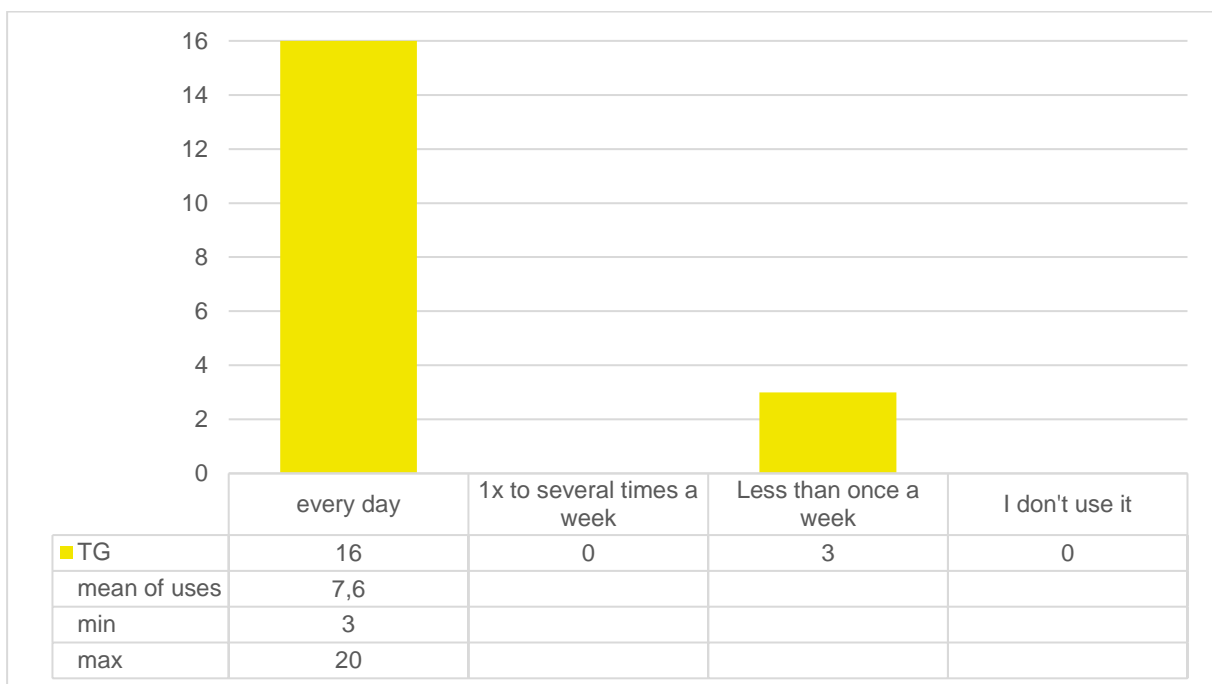
### 7.3 Frequency of communication per communication channel

Figure 4 shows that **almost all** participating care experts in Luxembourg used company phones for **calls every day** – almost 8 times per day on average.

Figure 5 shows that the **smartphone camera** was mostly used **several times a week** in Luxembourg. Two experts indicated to use the camera at least **once or several times a day**.

**Video-calls** were **used** by **21%** of the participating care experts in the Luxembourgish RCA test group (Figure 6), **79%** of the care experts indicated **to not use video-calls**. As the RCA technology builds on video calls, this may reflect the lack of use of the technology in the trial group.

**Figure 4: C^C RCA care expert test group: Frequency of using smartphones, Luxembourg**



Notes:

TG = Test group

Care experts, who use even less within 6 months were asked to fill in "0"

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG 2023, n<sub>TG</sub> = 19

**Figure 5: C^C RCA care expert test group: Frequency of using the smartphone camera, Luxembourg**



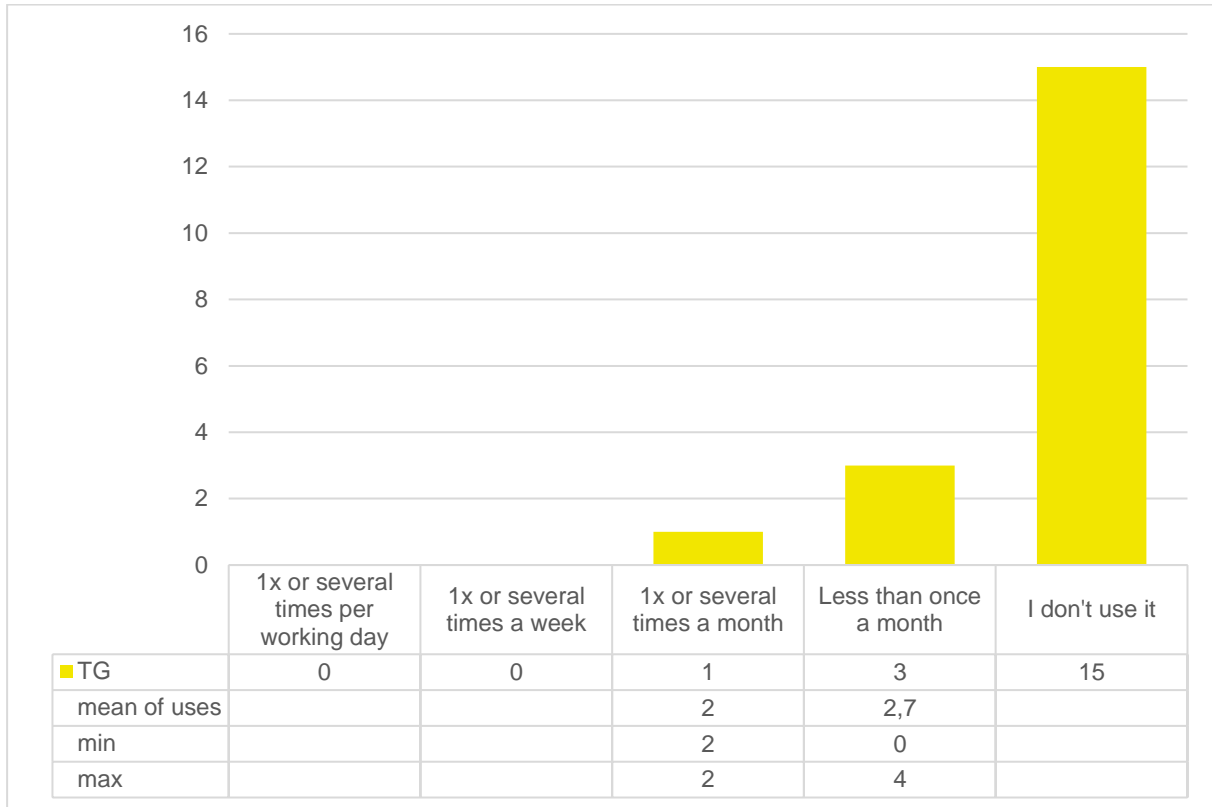
**Notes:**

TG = Test group

Care experts, who use even less within 6 months were asked to fill in "0"

Source: WU C^C RCA trial data LUX, care/nursing staff, 2<sup>nd</sup> survey, TG 2023, n<sub>TG</sub> = 19

**Figure 6: C^C RCA care expert test group: Frequency of using video-calls, Luxembourg**



**Notes:**

TG = Test group

Care experts, who use even less within 6 months were asked to fill in "0"

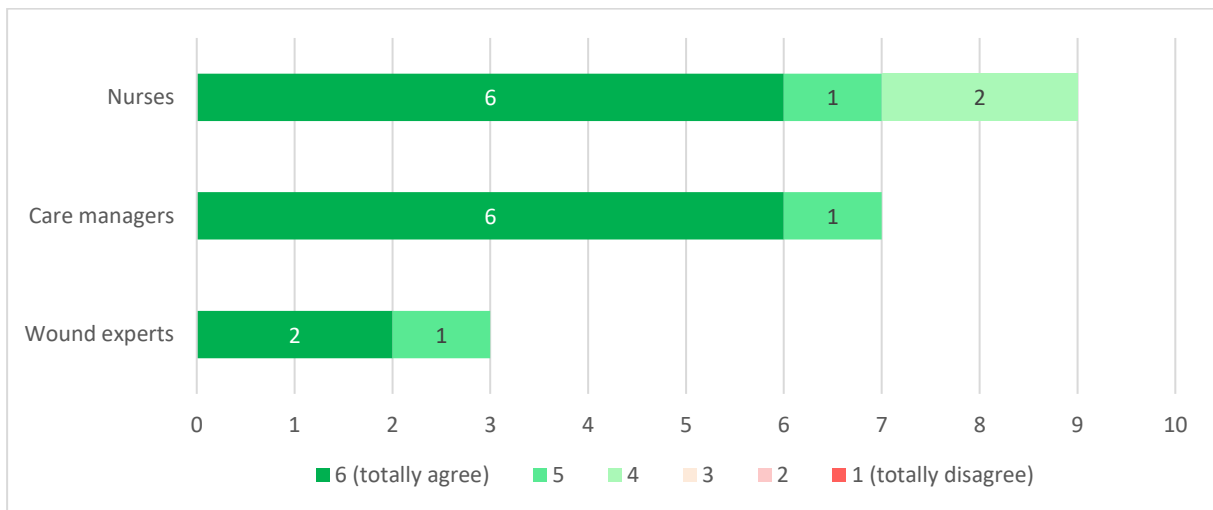
Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG 2023, n<sub>TG</sub> = 19

## 8 Results – part 5: Being informed

### 8.1 Knowing clients

In Luxembourg, all three care expert groups reported to **know home care service users’ names** (Figure 7), be **up to date on the care and support status of HCSU** (Figure 8), have **insights into challenging working conditions** (Figure 9). Care managers and nurses indicated to **know** the home care service users’ **living conditions** (Figure 10).

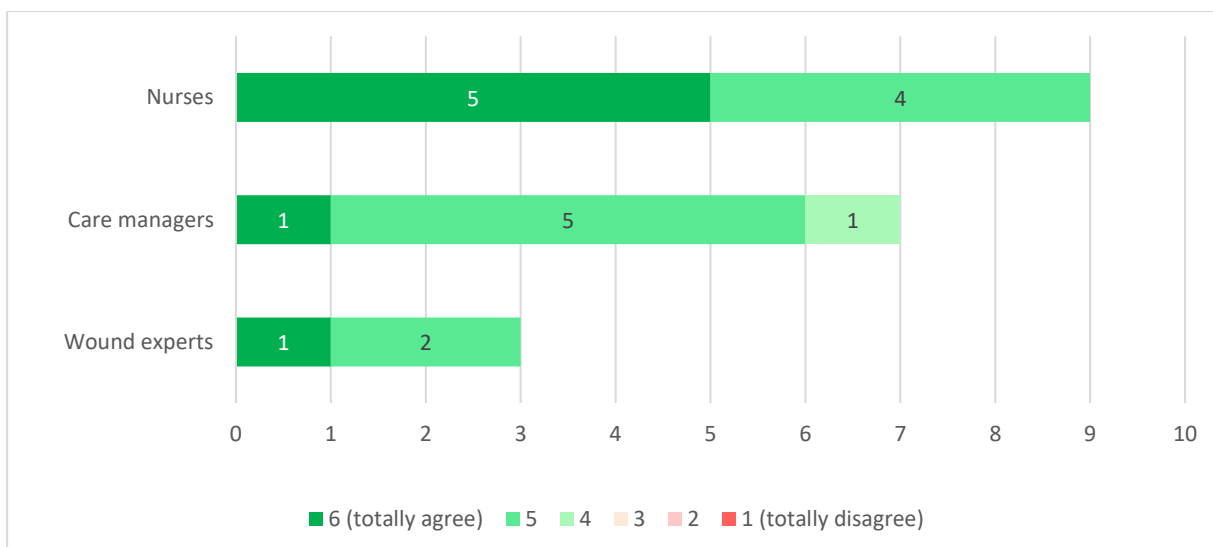
**Figure 7: C^C RCA care expert test group: Knowing the client’s names, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>RG</sub> = 19

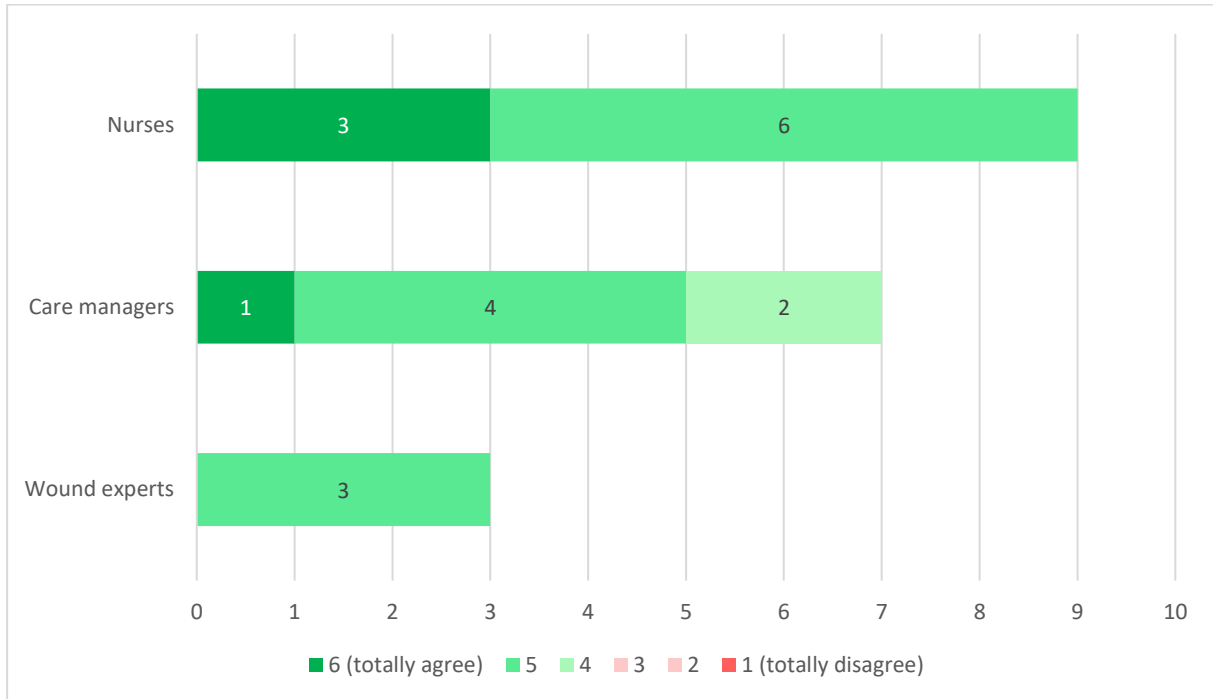
### 8.2 Knowing working conditions in clients’ homes

**Figure 8: C^C RCA care expert test group: Being up to date on the client’s care and support status**



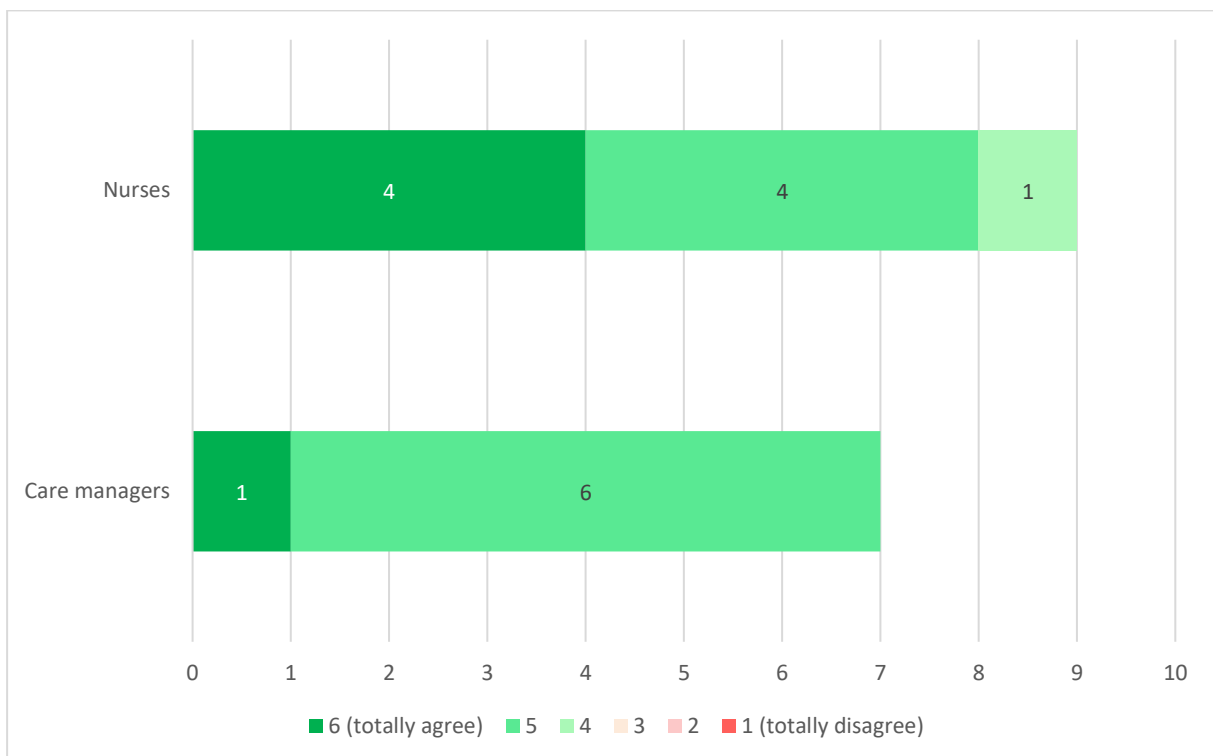
Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>RG</sub> = 19

**Figure 9: C^C RCA care expert test group: Insight into challenges of colleagues/employees, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>RG</sub> = 19

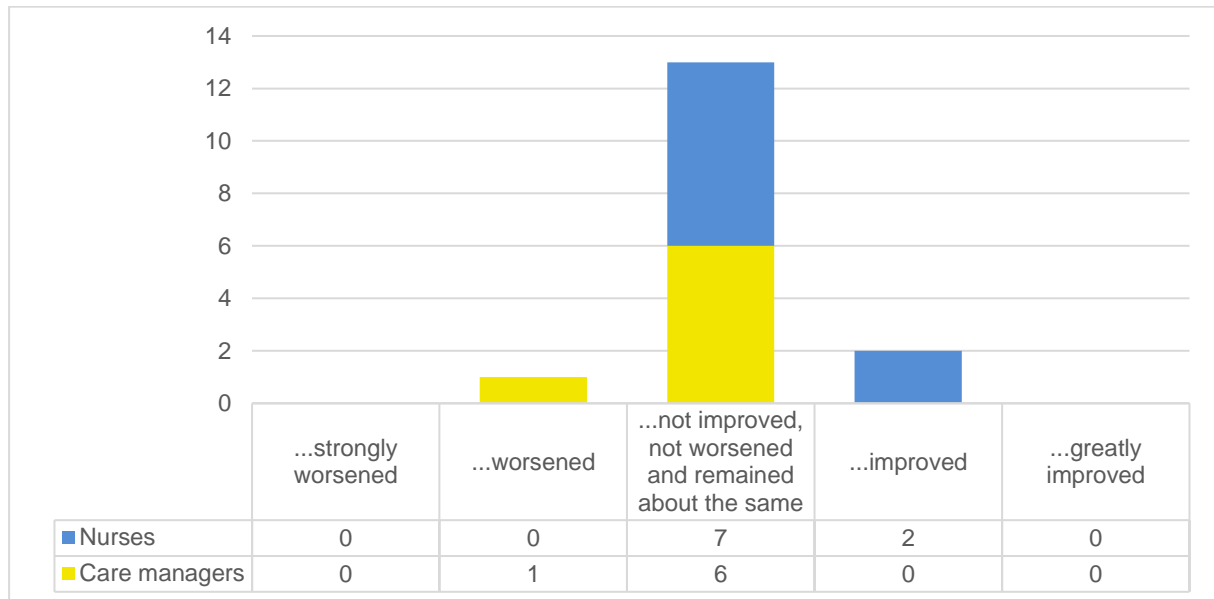
**Figure 10: C^C RCA care expert test group: Informed about the conditions at client's homes, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>RG</sub> = 16

In Luxembourg, **2 of 16 care experts** reported that their **insights into the conditions** in HCSUs' households over the last two month had **improved**. The majority of the care experts pointed out that their insight **had not changed over this time** (Figure 11).

**Figure 11: C^C RCA care expert test group: Change in insight into the conditions in HCSU households over time, Luxembourg**

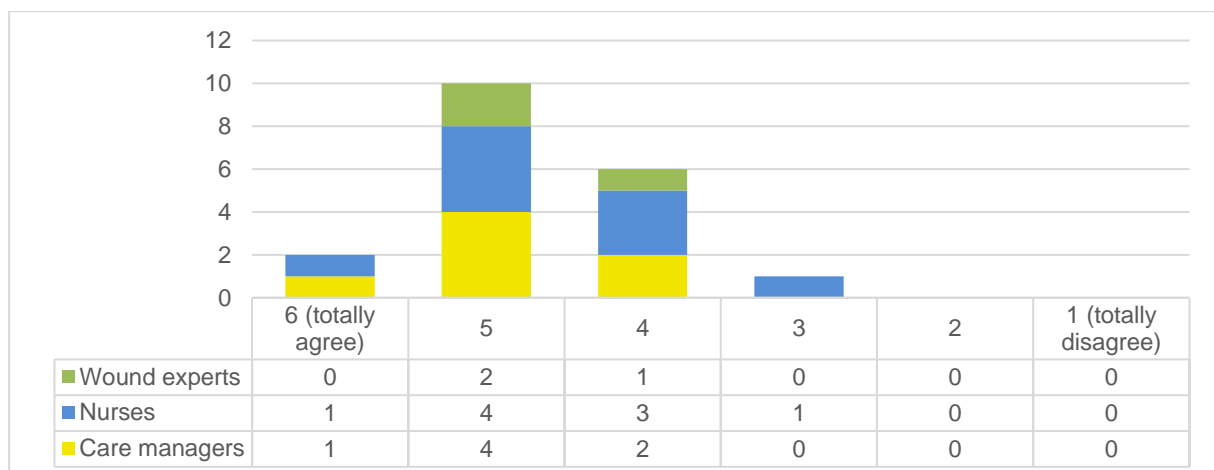


Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>TE</sub> = 16

### 8.3 Knowing status and changes of skin/wounds of clients

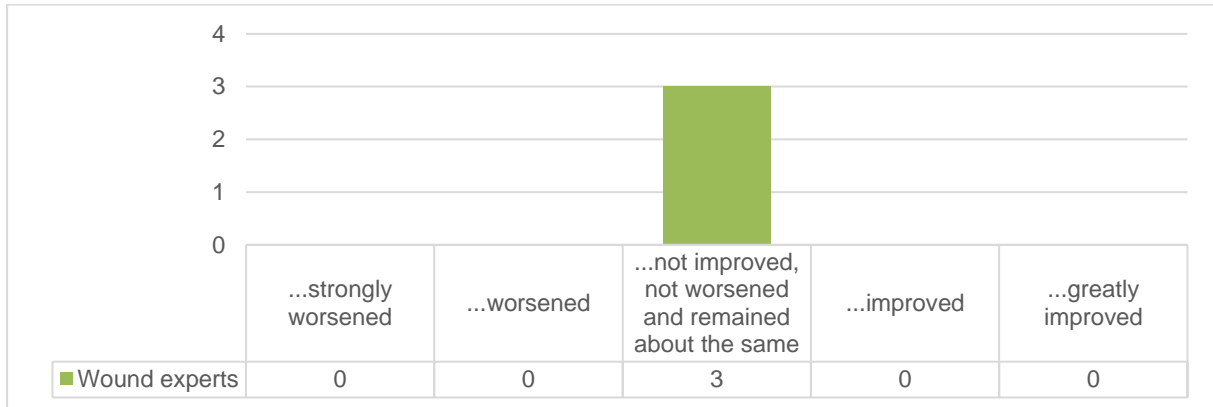
**Most care experts in the Luxembourgish RCA trial test group largely agreed with knowing the status of HCSUs' skin changes or wounds** (Figure 12). Wound managers reported **no changes over time** (Figure 13).

**Figure 12: C^C RCA care expert test group: Knowing the status of clients' skin changes/wounds, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>TE</sub> = 19

**Figure 13: C^C RCA care expert test group: Change in insight of client’s wounds/skin changes, Luxembourg**

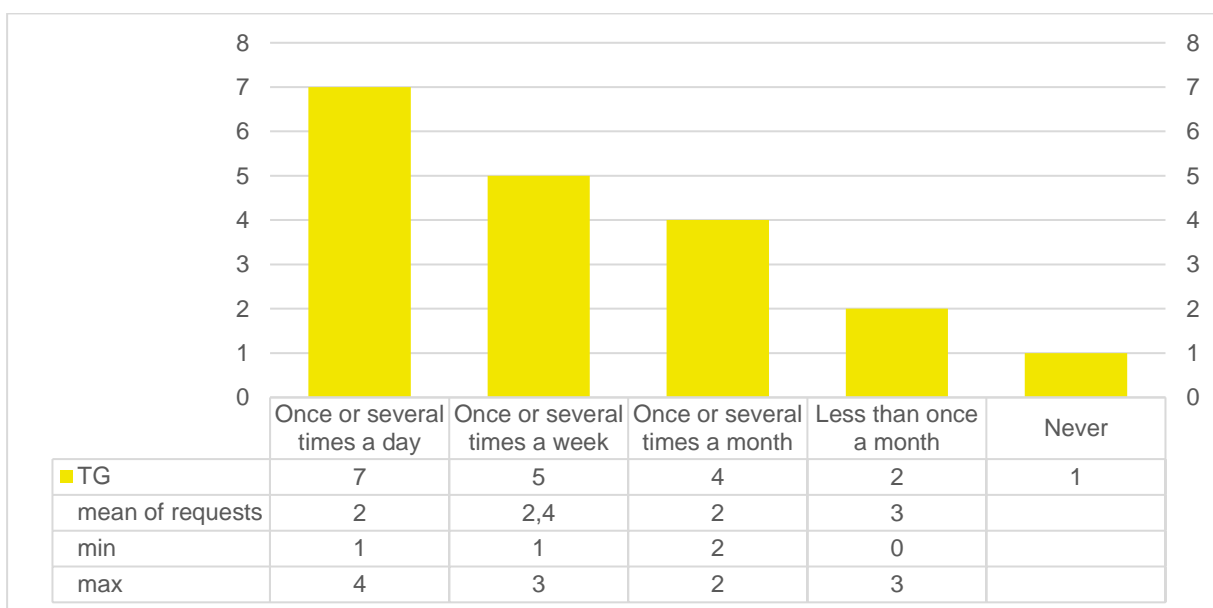


Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 3

## 9 Results – part 6: Support requests from staff & challenges

In Luxembourg, all care experts (but of one) reported to have **received requests from care workers/nursing assistants while these team members were at home care service users’ homes**. Figure 14 shows that such requests happen **very frequently, mostly once or several times a day**. 5 of 19 reported that they receive such requests **once or several times a week**.

**Figure 14: C^C RCA care expert test group: Requests from employees while they are at client’s homes, Luxembourg**



Notes:

TG = Test group

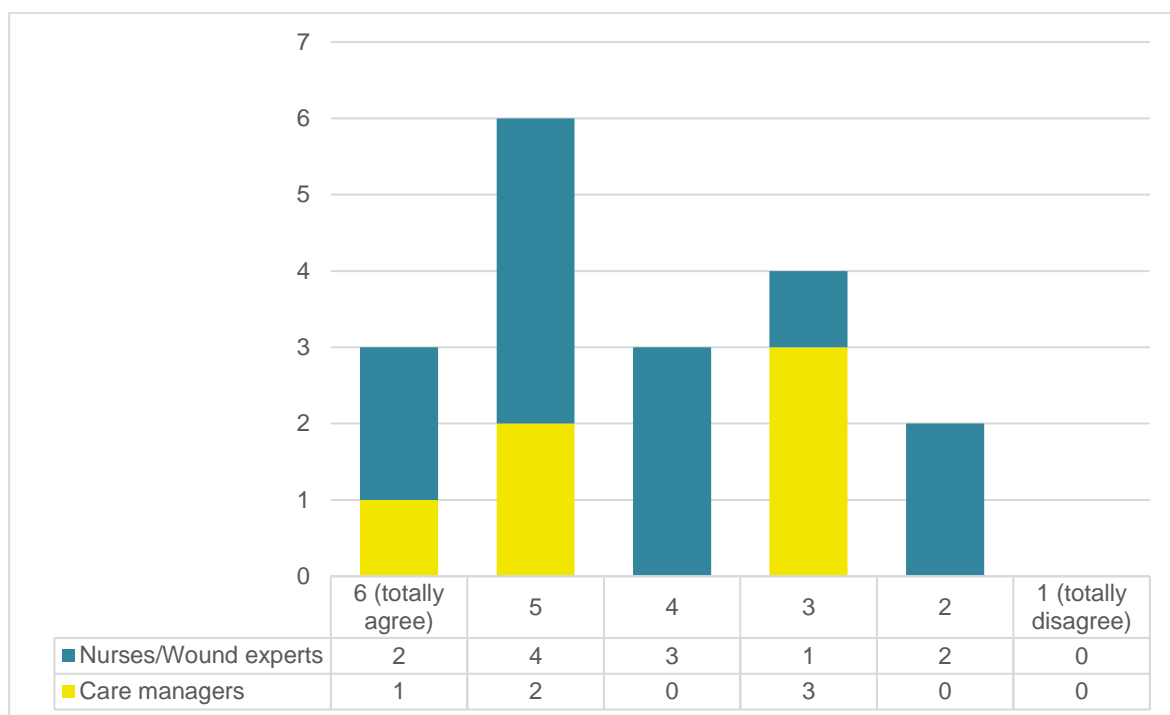
Care experts, who use even less within 6 months were asked to fill in “0”

Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

The following assessments considers only respondents who reported to have received RCA requests from colleagues while they were at home care service users' homes (n=18)

In Luxembourg, 9 of 18 (50%) care experts participating in the RCA system test group, reported to have to double check with colleagues to be able to accurately assess a problem (rating 5 and 6 of 6) (Figure 15).

Figure 15: C^C RCA care expert test group: Double-check necessity to understand the request, Luxembourg

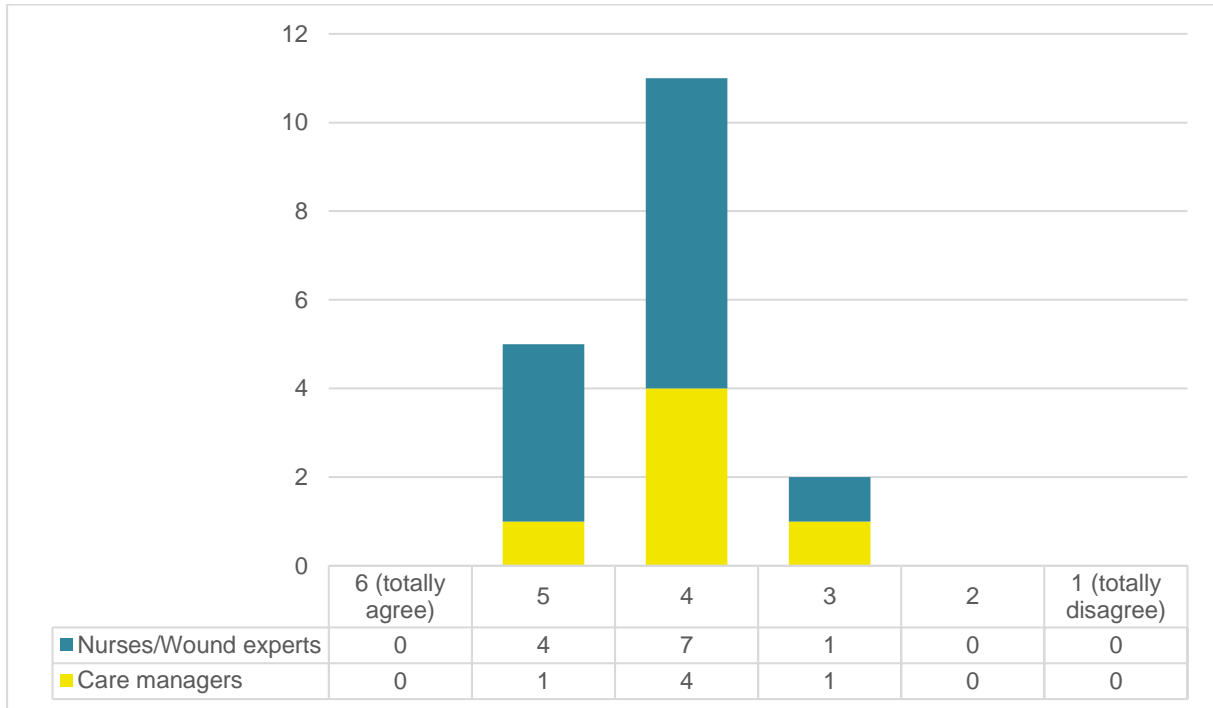


Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 18

5 of 18 care experts in the Luxembourgish RCA test group reported that it is easy for them to obtain a clear picture of the situation described by a colleague (rating 5 of 6) (Figure 16). 1 of the care experts assessed it as challenging to derive further action steps based on the explanations of their colleagues. 1 of 18 expert indicated it as not challenging at all (Figure 17). 8 of 18 completely or largely agreed to have to double-check with colleagues reporting wound or skin change to get a detailed and correct picture of wound of skin changes (Figure 18).

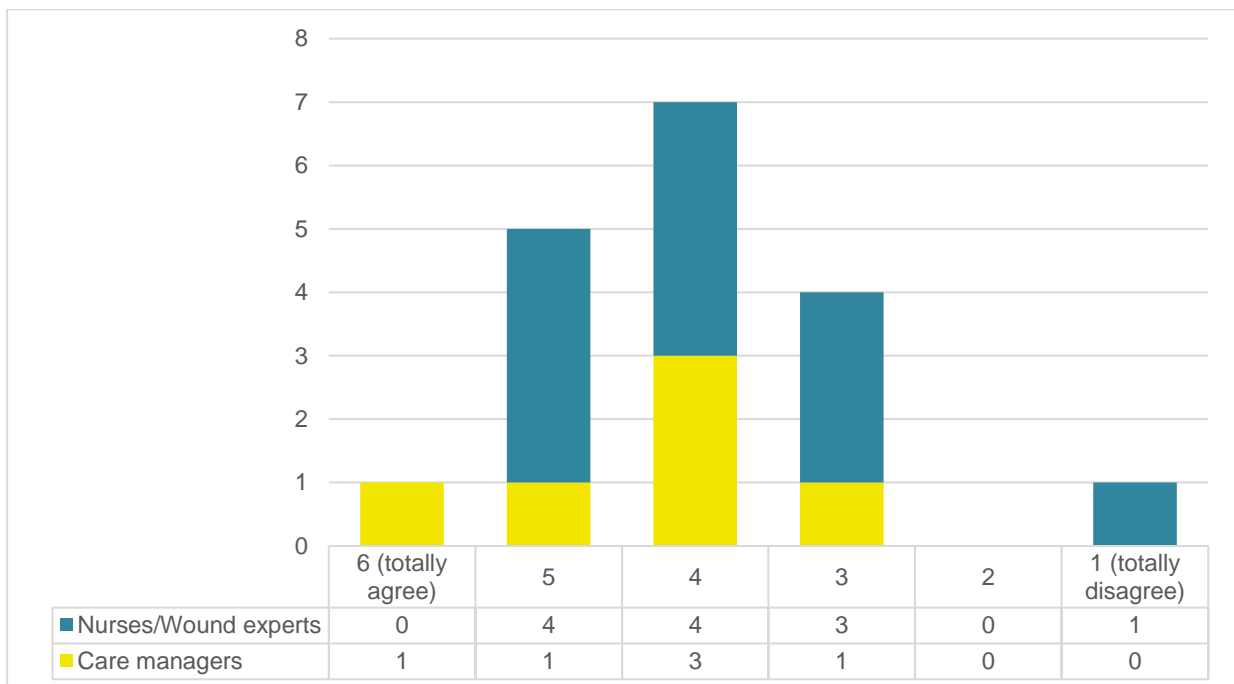


**Figure 16: C^C RCA care expert test group: Obtaining a clear picture of the situation, Luxembourg**



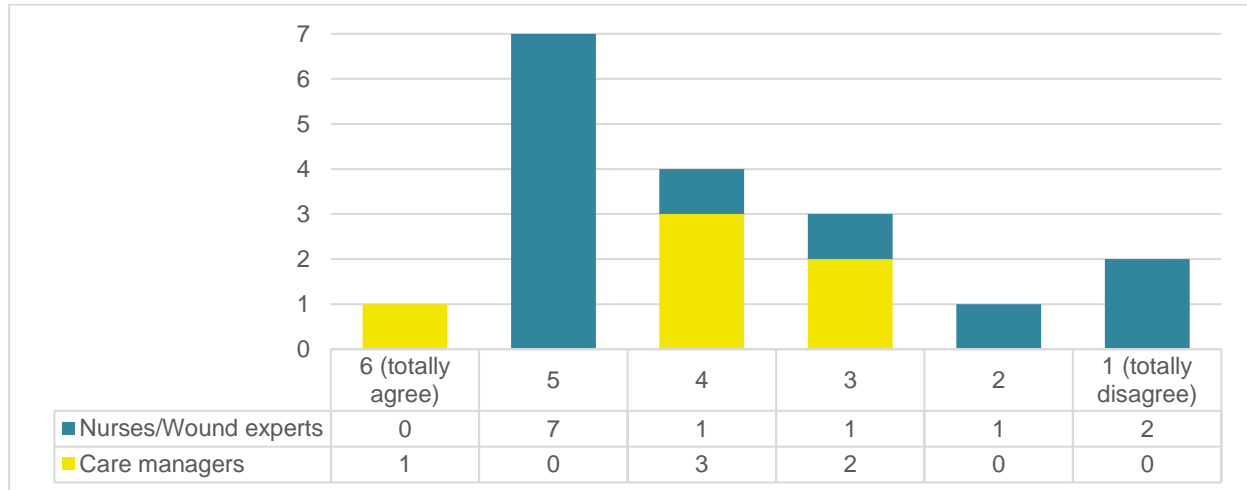
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 18

**Figure 17: C^C RCA care expert test group: Derive further action steps on the basis of explanations, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 18

**Figure 18: C^C RCA care expert test group: Double-check to obtain clear picture of wound or skin change, Luxembourg**



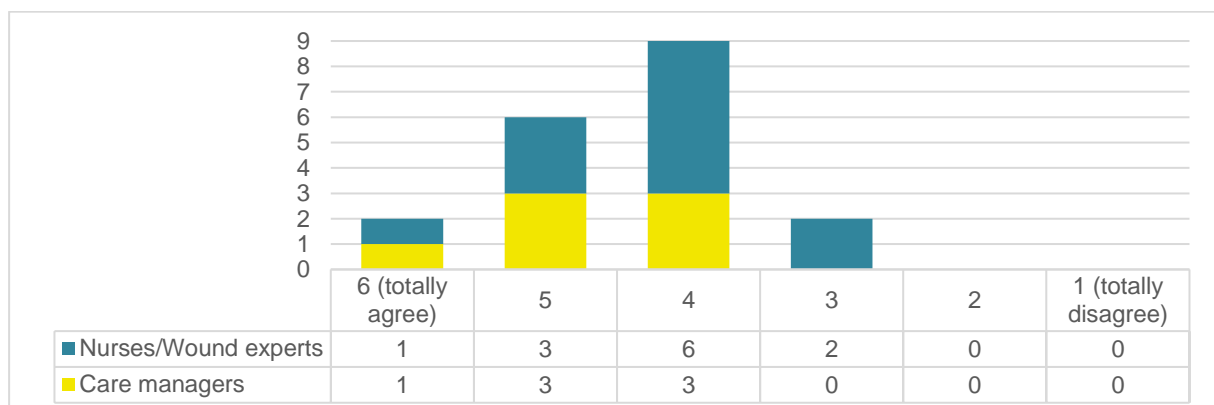
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 18

## 10 Results – part 7: Support modes and knowledge transfer

### 10.1 Supporting colleagues and knowledge transfer

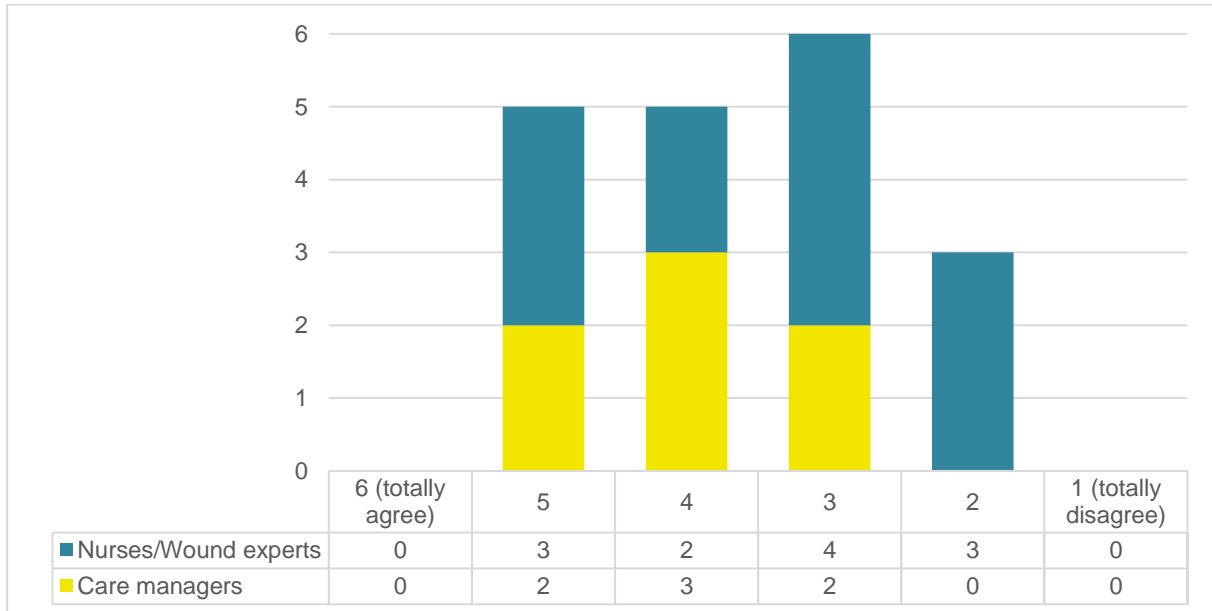
**8 of 19** care experts in the Luxembourgish RCA test group (**totally**) **agreed** to be able to **look at situations at home care service users together with care workers/nursing assistants** of their team. (Figure 19). **5 of 19** care experts in the Luxembourgish RCA test group **agreed with being able to support team members while they were at HCSUs' homes** (rating 5 of 6), while **3 of 19** care experts **disagreed** (rating 2 of 6) with that (Figure 20).

**Figure 19: C^C RCA care expert test group: Assess the situation together with employees/colleagues, Luxembourg**



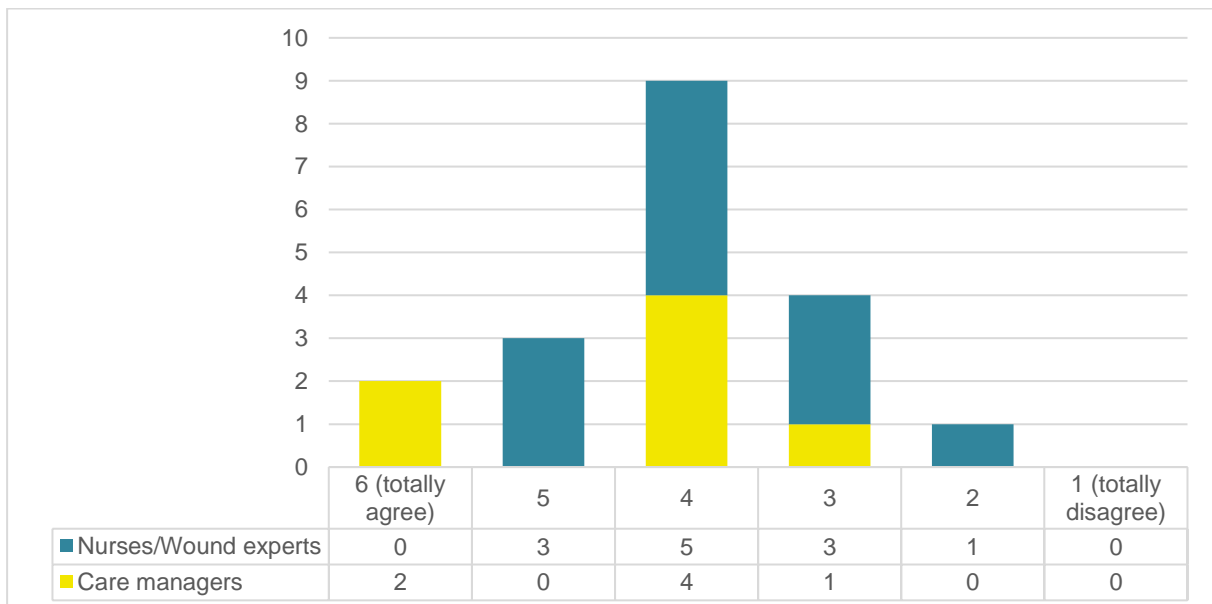
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 20: C^C RCA care expert test group: Support employees/colleagues during their home care & nursing visits, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 21: C^C RCA care expert test group: Enough time to support employees/colleagues during their home care & nursing visits, Luxembourg**

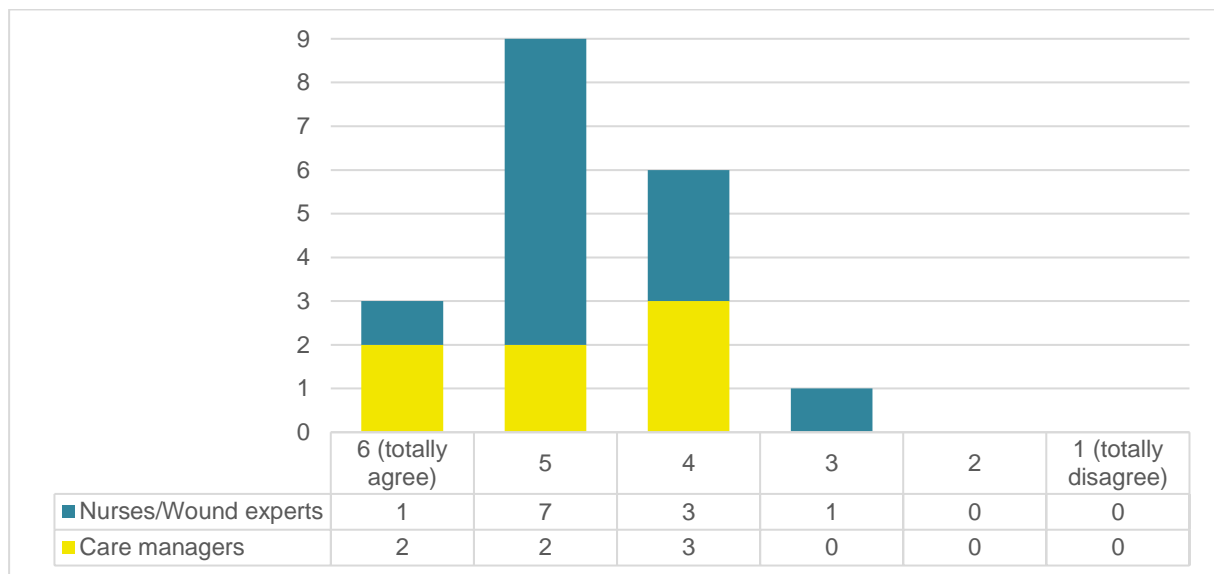


Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**5 of 19 care experts** in the RCA test group in Luxembourg (**totally**) **agreed** that they **have enough time to support their colleagues**. **1 of 19 care expert** could **not agree** with that (Figure 21). Most of the care experts, **63% can apply their knowledge in daily work** (Figure 22), and **74% feel that their knowledge is well used by the organisation** (Figure 23). **7 of**

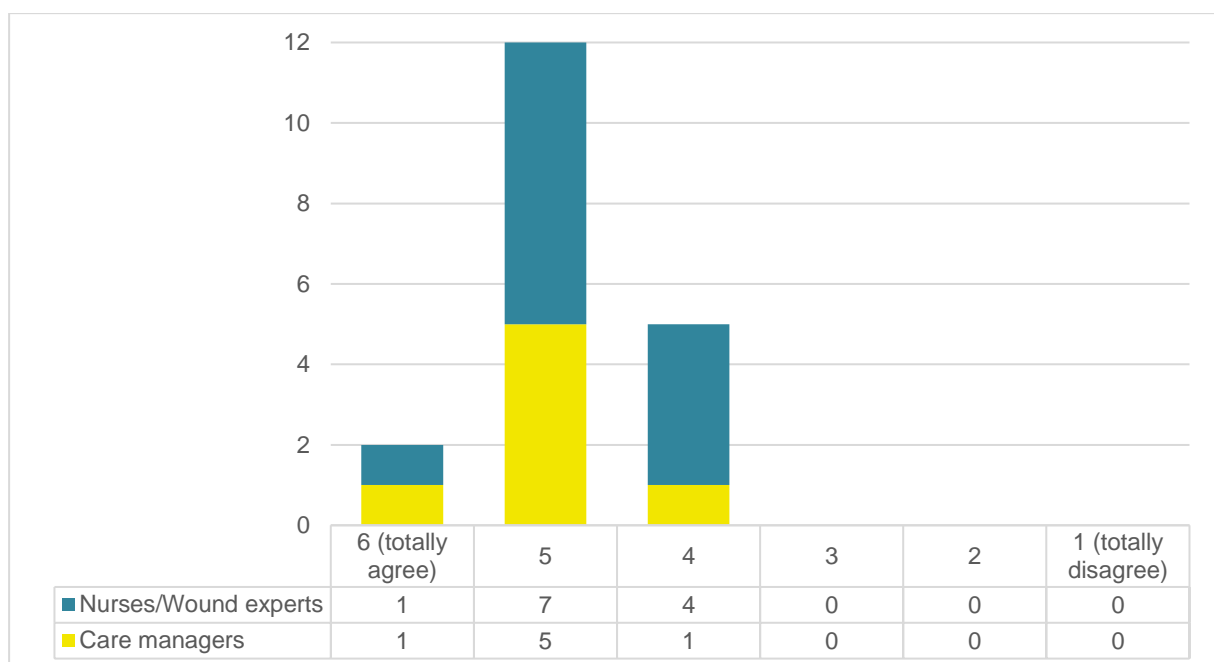
**19 care experts** felt that they had **good opportunities to advise/train employees/colleagues** if they need support with **complex wound care** for clients (Figure 24). Overall, **9 of 19 care experts** in the Luxembourgish RCA trial felt that they **can share expertise** with their colleagues, **one care expert disagreed** with that (Figure 25).

**Figure 22: C^C RCA care expert test group: Applying professional knowledge/experience, Luxembourg**



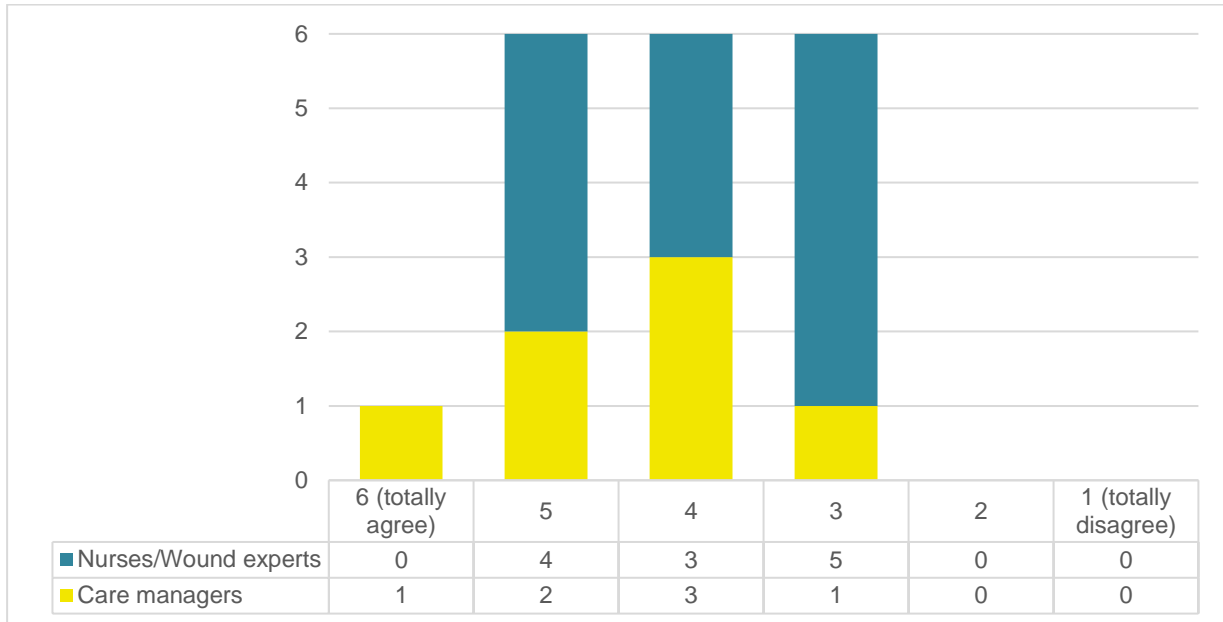
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 23: C^C RCA care expert test group: Implementation of professional knowledge/experience, Luxembourg**



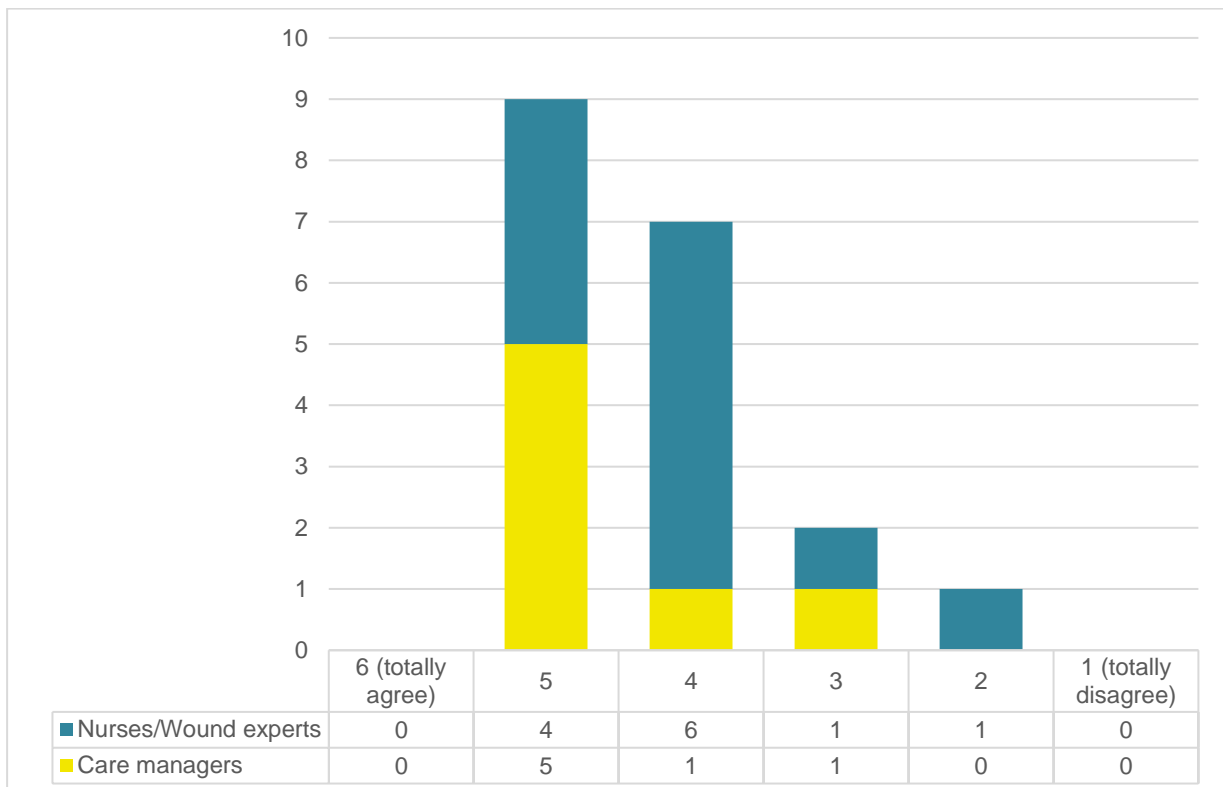
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 24: C^C RCA care expert test group: Opportunities to advise/train employees/colleagues, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 25: C^C RCA care expert test group: Sharing the expertise with employees/colleagues, Luxembourg**

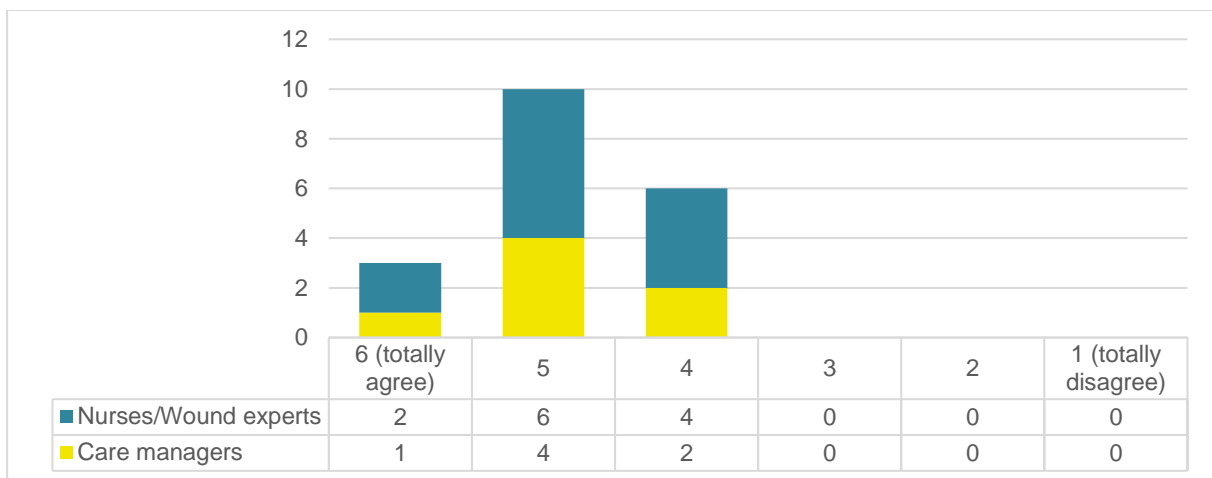


Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

## 10.2 New members of staff

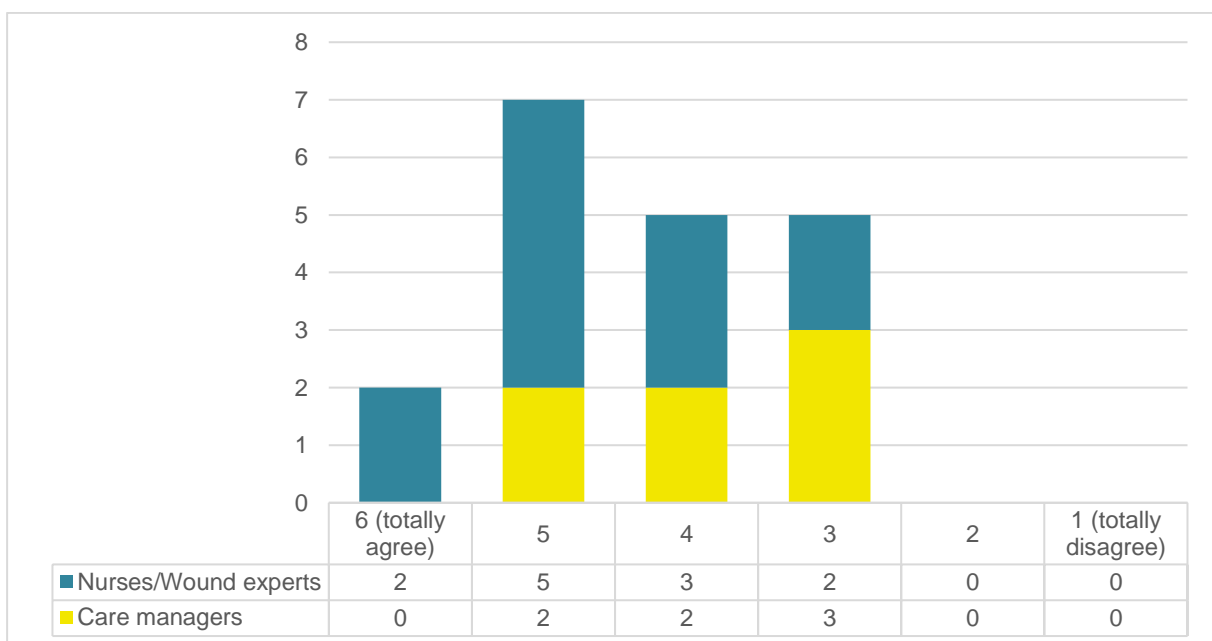
Figure 26 shows that **most care experts** participating in the RCA test group **completely or largely agreed** with **being able to support new members of staff** so that they were not completely on their own (ratings 5 and 6 of 6). A bit more mixed were the results for supporting colleagues who took on new tasks (Figure 27).

**Figure 26: C^C RCA care expert test group: Supporting new members of staff, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 27: C^C RCA care expert test group: Assist employees/colleagues with new working tasks, Luxembourg**

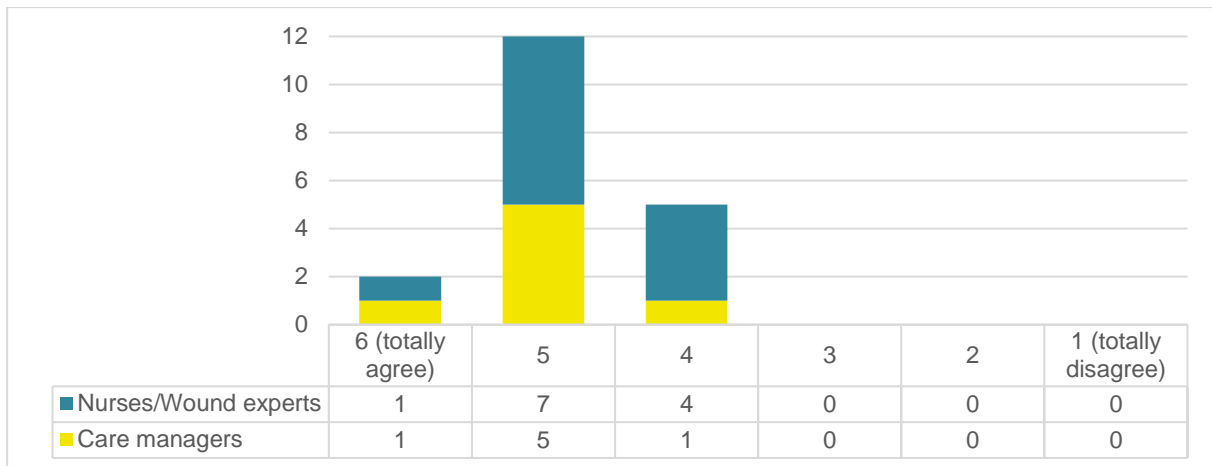


Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

### 10.3 Implications of support for own workflow

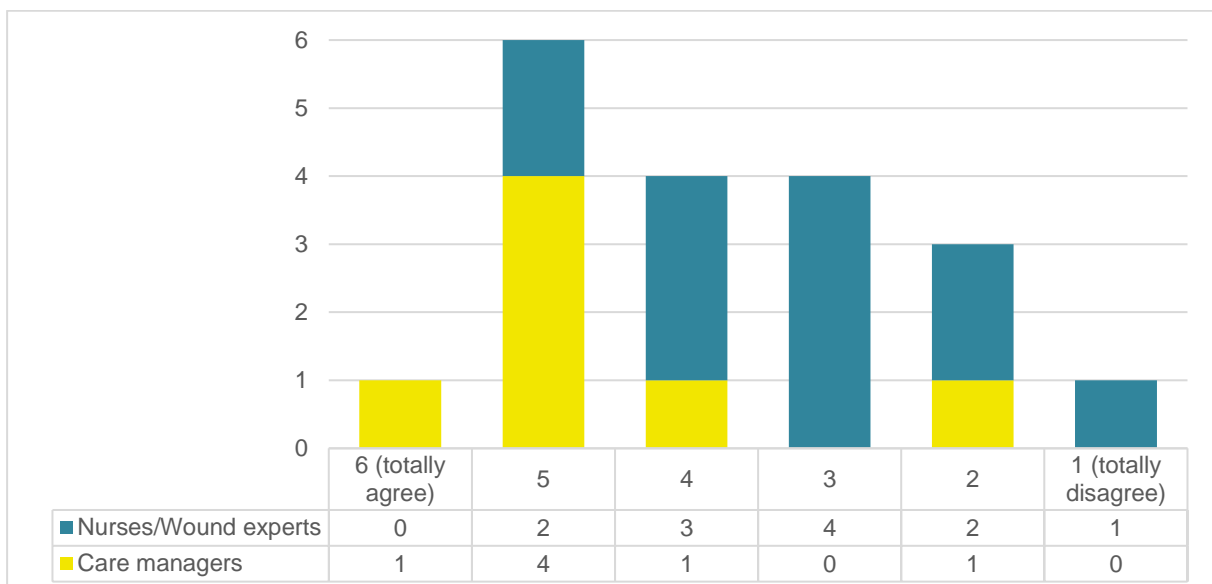
**Most care experts** participating the Luxembourgish RCA test group reported that their colleagues **contacted them for advice in a timely manner** (Figure 28). **7 of 18 care experts** in the Luxembourgish RCA test group reported that **their work is often interrupted by requests by colleagues**, **4 care experts denied** this (Figure 29). **13 of 19 care experts in Luxembourg disagreed** that **requests** of their colleagues could also be **discussed at a later point in time** (Figure 30). **14 care experts disagreed** that **issues should have been better discussed at HCSUs’ households** (rating 1 to 4 of 6) (Figure 31).

**Figure 28: C^C RCA care expert test group: Contacts in timely manner, Luxembourg**



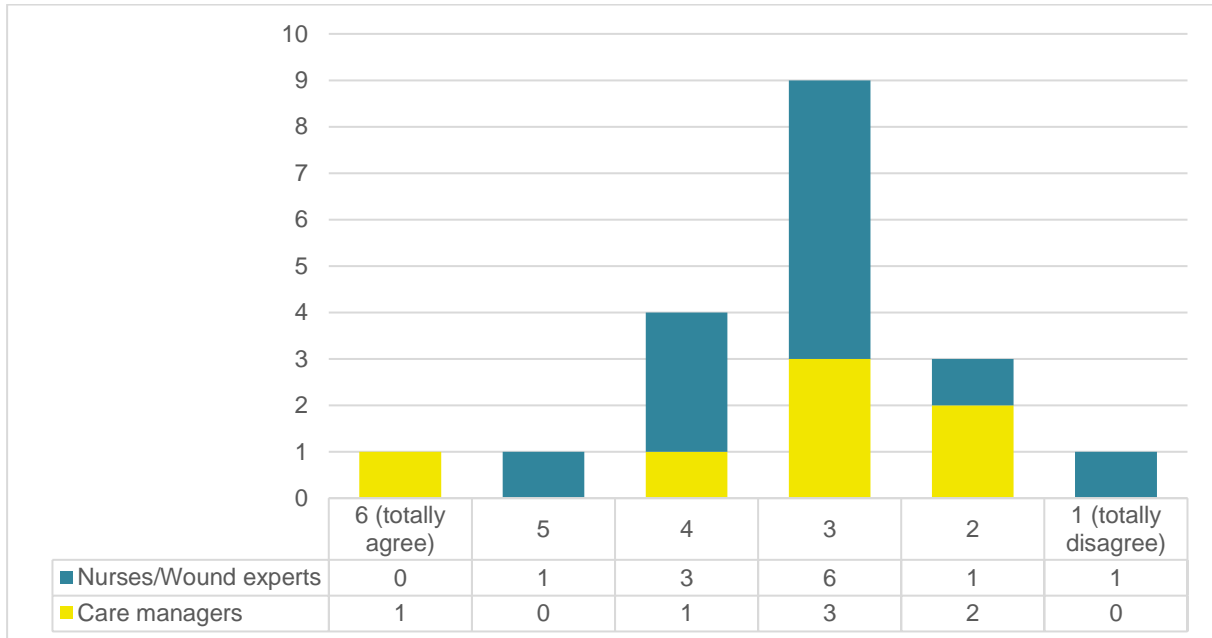
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 29: C^C RCA care expert test group: Interruptions by employees/colleagues, Luxembourg**



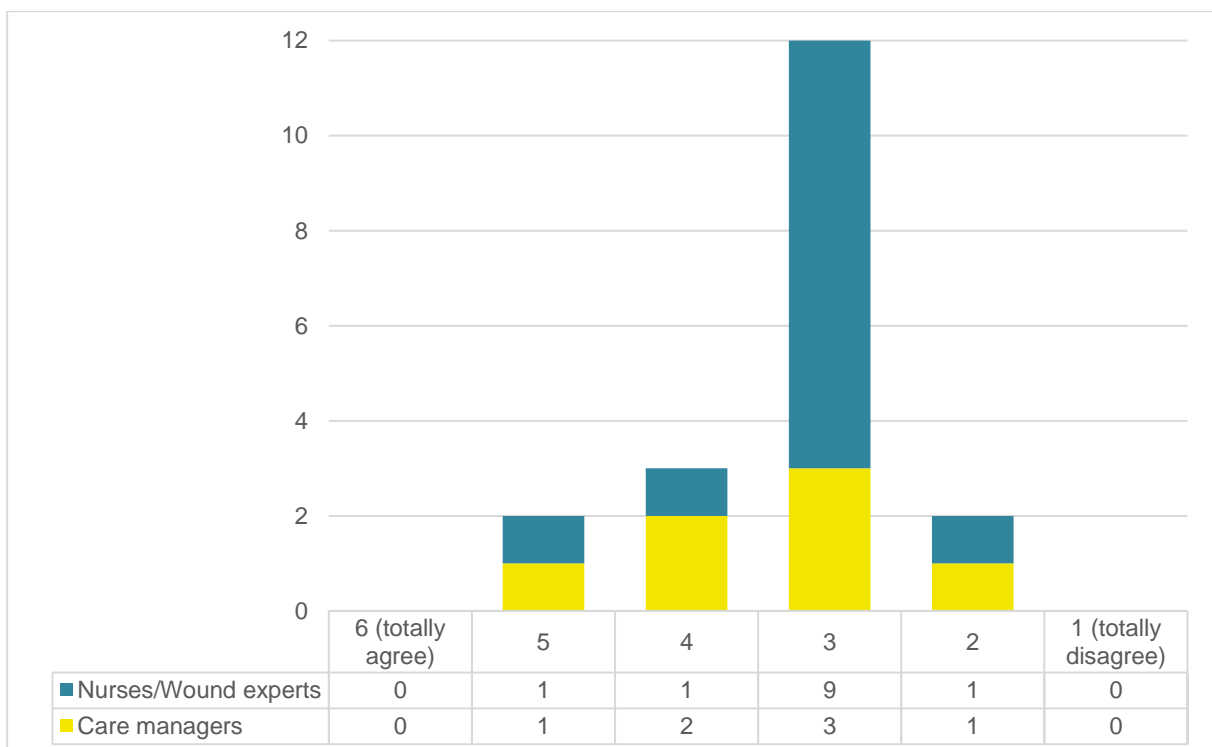
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 30: C^C RCA care expert test group: Interruptions due to non-urgent matters, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 31: C^C RCA care expert test group: Enquiries/concerns from employees/colleagues that should be clarified in the households, Luxembourg**



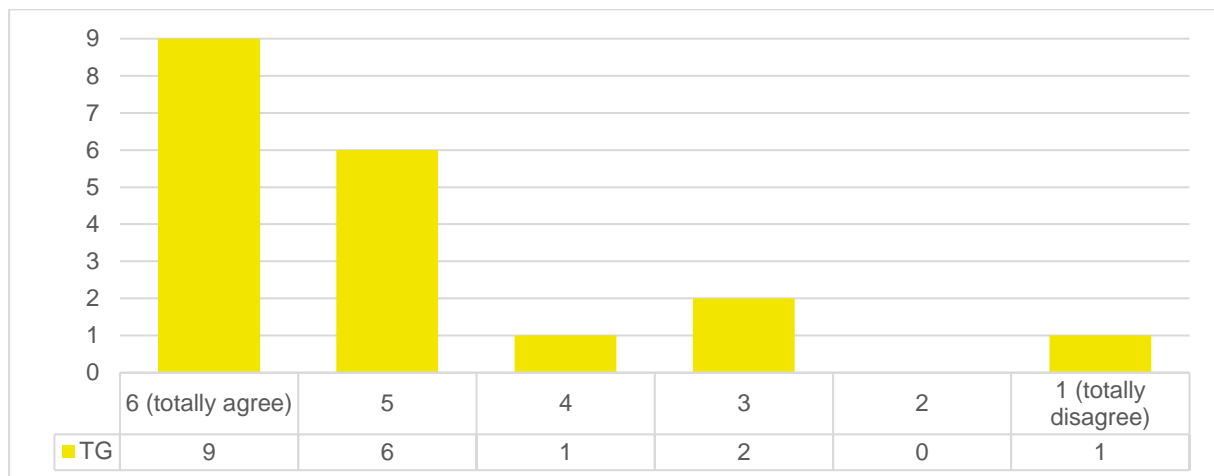
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19



## 11 Results – part 8: Driving time

**Most care experts** in the Luxembourgish RCA test group reported that they **would have to spend more time driving if they wanted to support their colleagues in the HCSUs’ homes** (Figure 32). The result is **mixed for care experts** having to **drive many extra kilometres to clarify situations with HCSU**. However, **26% indicated to not drive extra kilometres**. (Figure 33). **Most care experts** in Luxembourg **did not report changes in kilometres driven**. **3 of 19 care experts stated they had more car journeys in the last two months** (Figure 34). **Most care experts** in the Luxembourgish RCA test group **enjoy driving the car** (Figure 35).

**Figure 32: C^C RCA care expert test group: Additional driving time, Luxembourg**

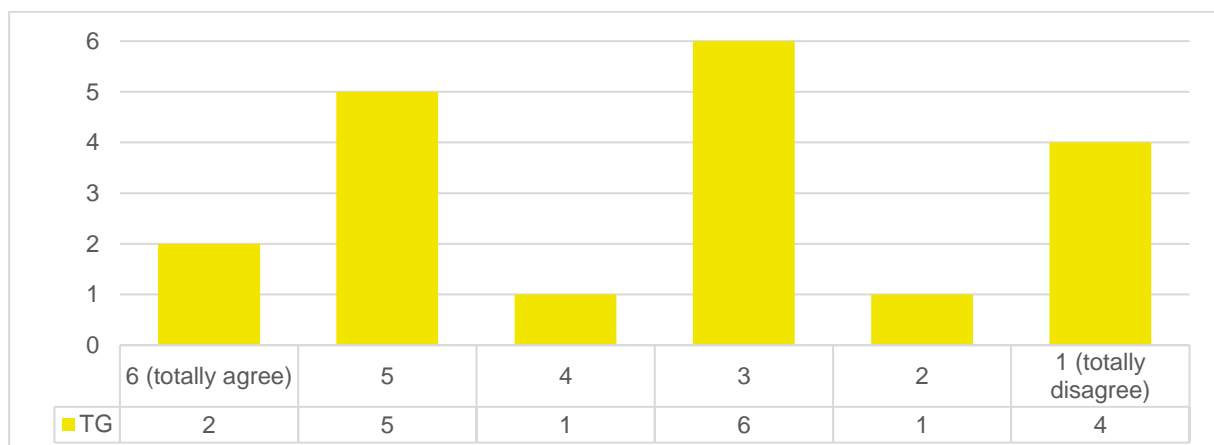


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 33: C^C RCA care expert test group: Additional kilometers to drive, Luxembourg**

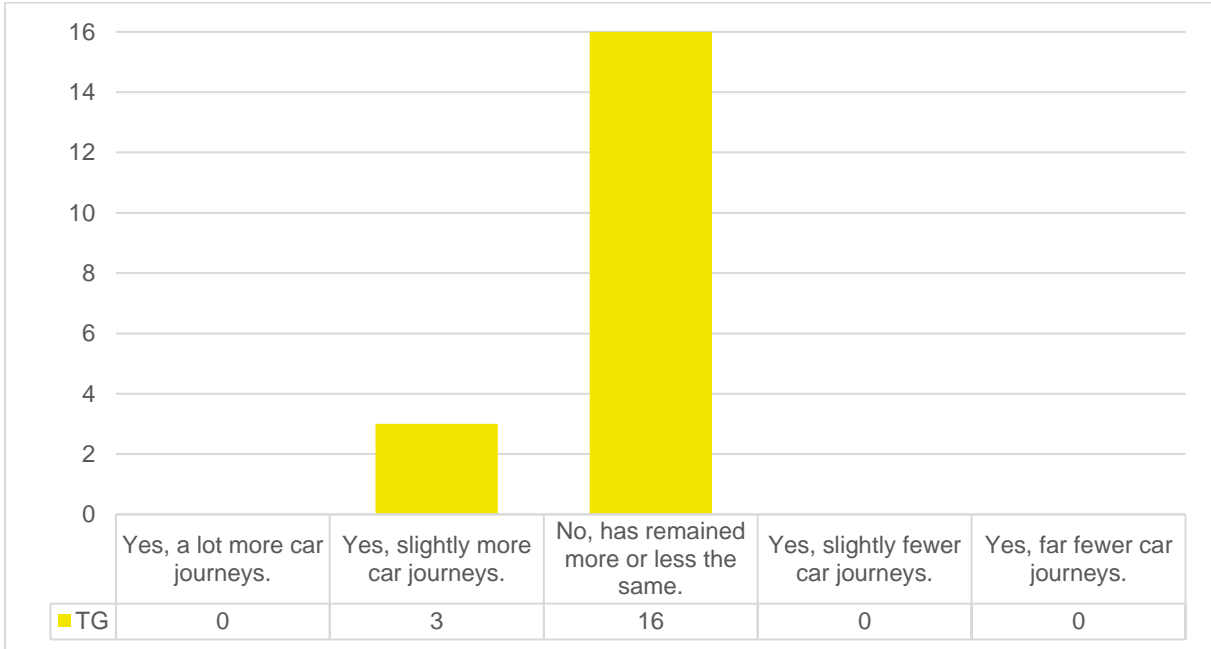


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 34: C^C RCA care expert test group: Change in work-related drives, Luxembourg**

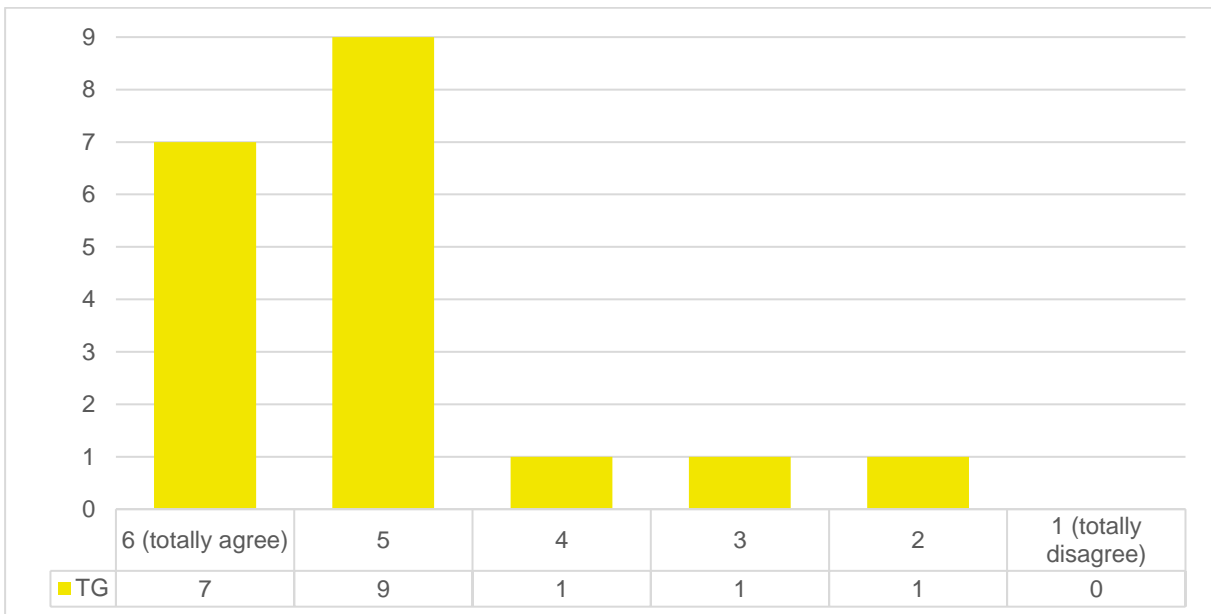


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 35: C^C RCA care expert test group: Affiliation with work-related car trips, Luxembourg**



Notes:

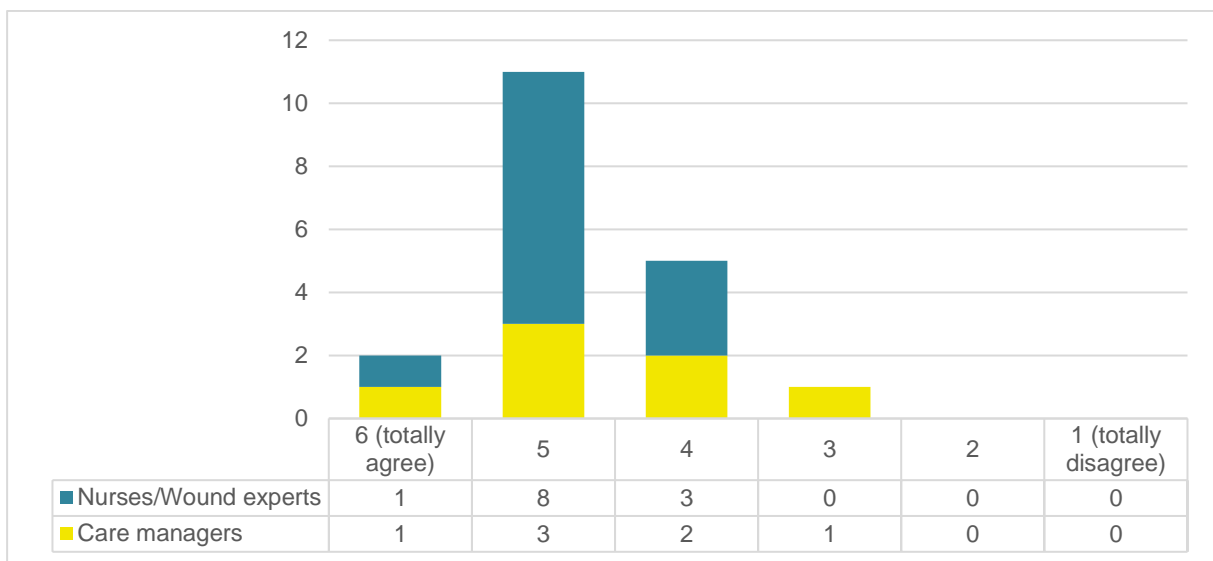
TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

## 12 Results – part 9: Teamwork

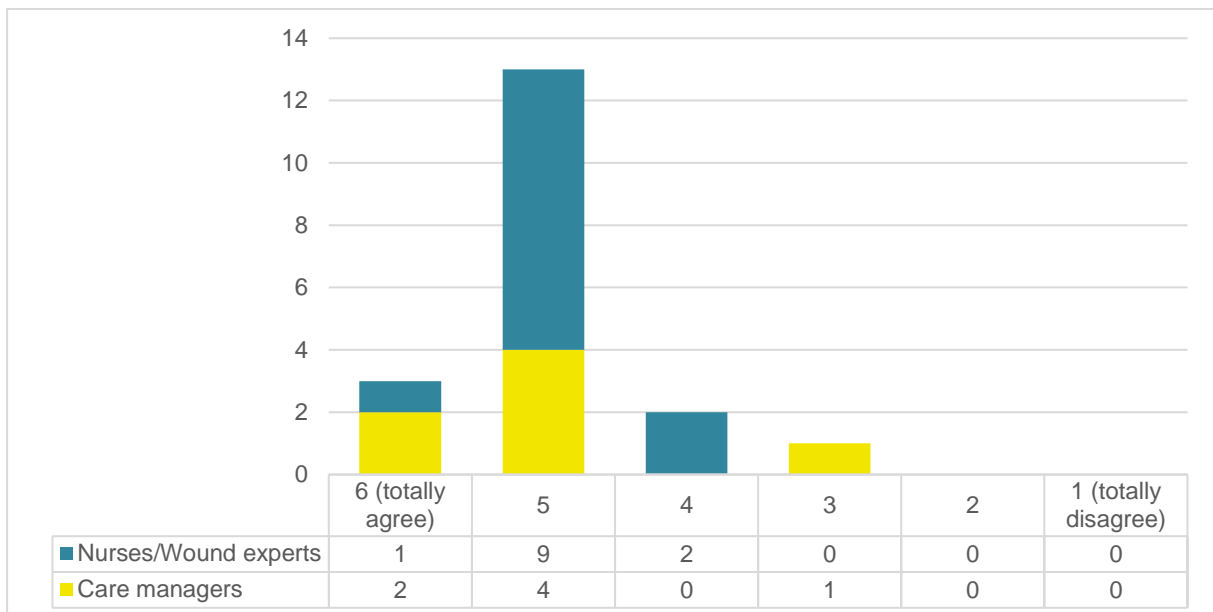
**Interdisciplinary collaboration** was rated by care experts participating in the RCA test group in Luxembourg as **(quite) good** (Figure 37). It helped to **solve home care service users’ issues** quickly (Figure 36). 17 of 19 care experts reported that the interdisciplinary **collaboration has not changed** over time, **2 experts** stated that it **improved** (Figure 38).

**Figure 36: C^C RCA care expert test group: Work efficiency due to teamwork, Luxembourg**



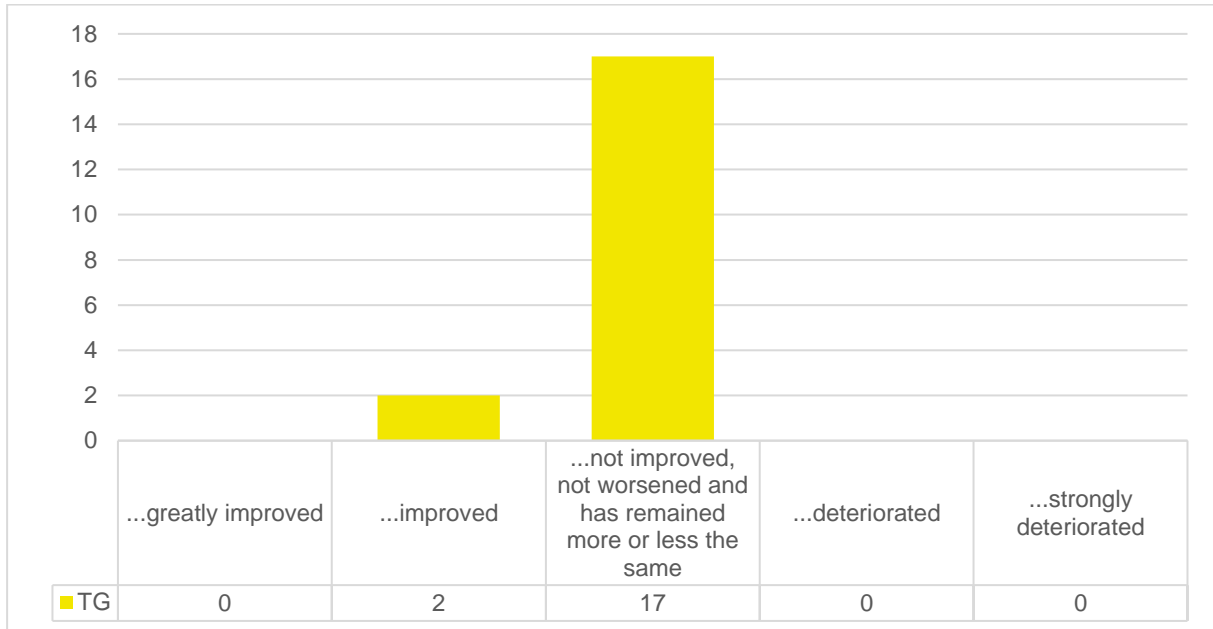
Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 37: C^C RCA care expert test group: Interdisciplinary collaboration, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 38: C^C RCA care expert test group: Change of interdisciplinary collaboration, Luxembourg**



Notes:

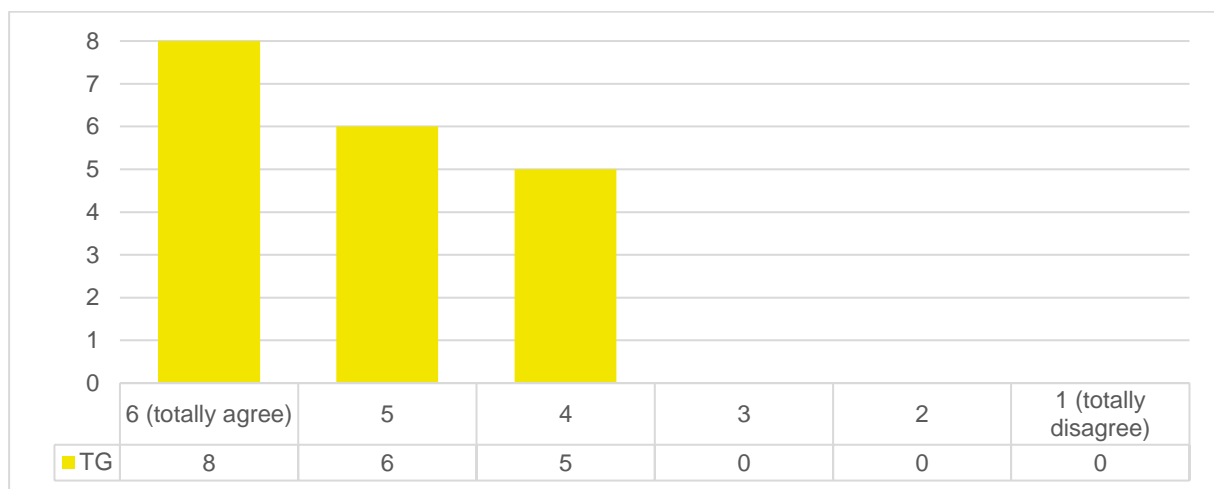
TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

## 13 Results – part 10: Work satisfaction

The care experts participating in the Luxembourgish RCA test group reported **high ratings of work satisfaction** for different domains (Figure 39, Figure 40, Figure 42). **More than a half (63%)** of the care experts **(slightly) disagree** with being under **great time pressure** (Figure 41). The **majority** of the participating care experts in Luxembourg **would choose home care again** (Figure 42).

**Figure 39: C^C RCA care expert test group: work satisfaction I: fulfilment, Luxembourg**

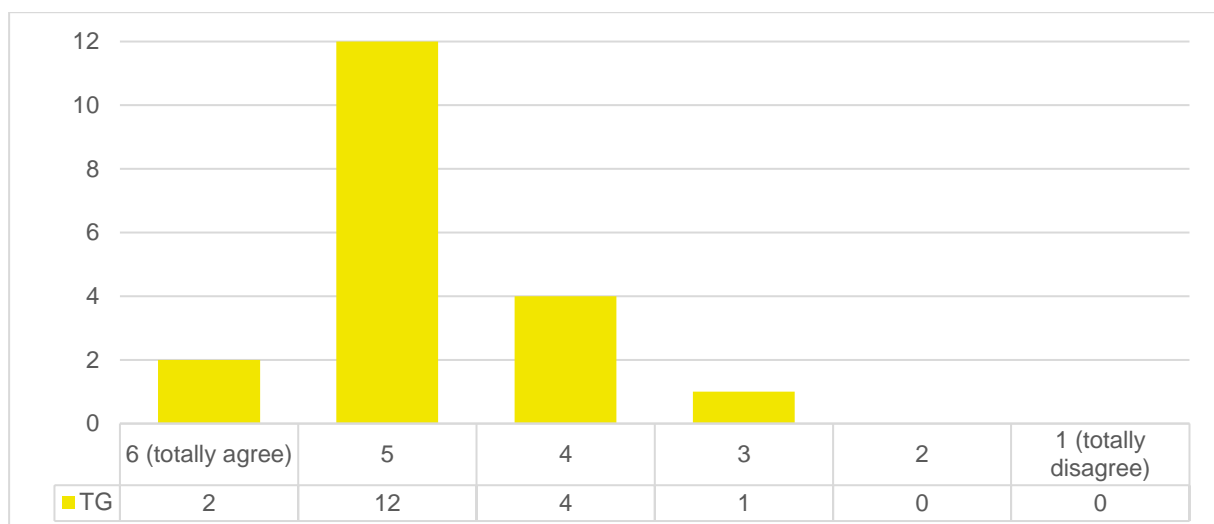


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 40: C^C RCA care expert test group: work satisfaction II: own satisfaction, Luxembourg**

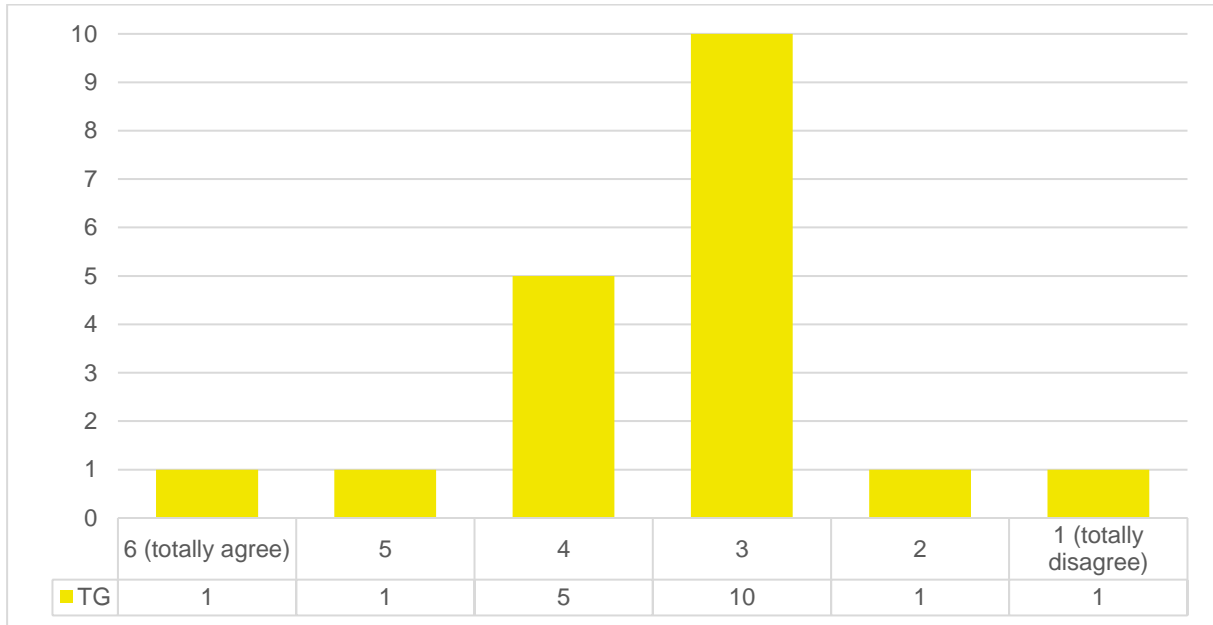


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 41: C^C RCA care expert test group: work satisfaction III: great time pressure, Luxembourg**

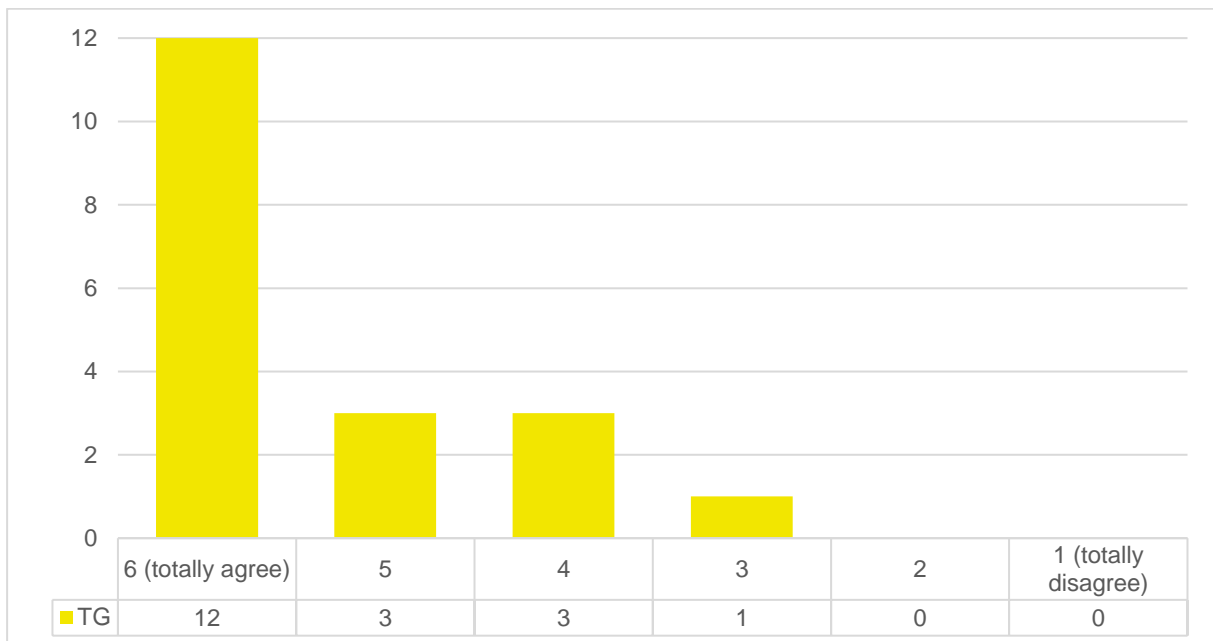


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 42: C^C RCA care expert test group: work satisfaction IV: choosing home care again, Luxembourg**



Notes:

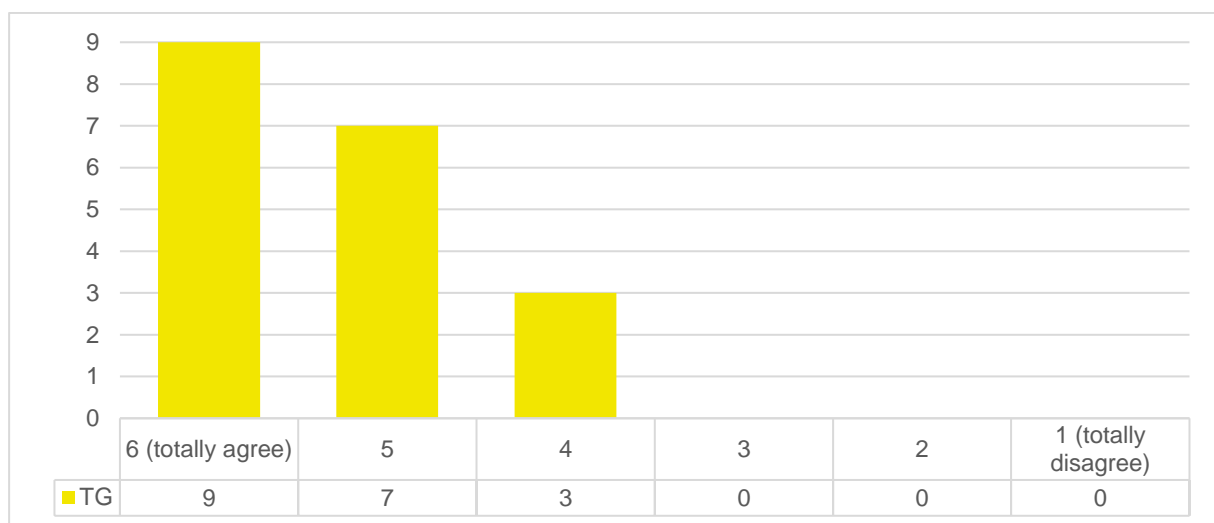
TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

## 14 Results – part 11: Future and digitalisation

**Most** care experts in the Luxembourgish RCA test group are aware that they are **expected to learn new things** (Figure 43). **Most, 10 of 19, care workers** were **optimistic that digitalisation will make future work easier** (ratings 5 and 6 of 6) (Figure 44). However, **some of the care experts** in the Luxembourgish RCA test group also **expected that digitalisation will contribute to make future work more complex** (ratings 5 of 6) (Figure 45).

**Figure 43: C^C RCA care expert test group: Learn new things at work, Luxembourg**

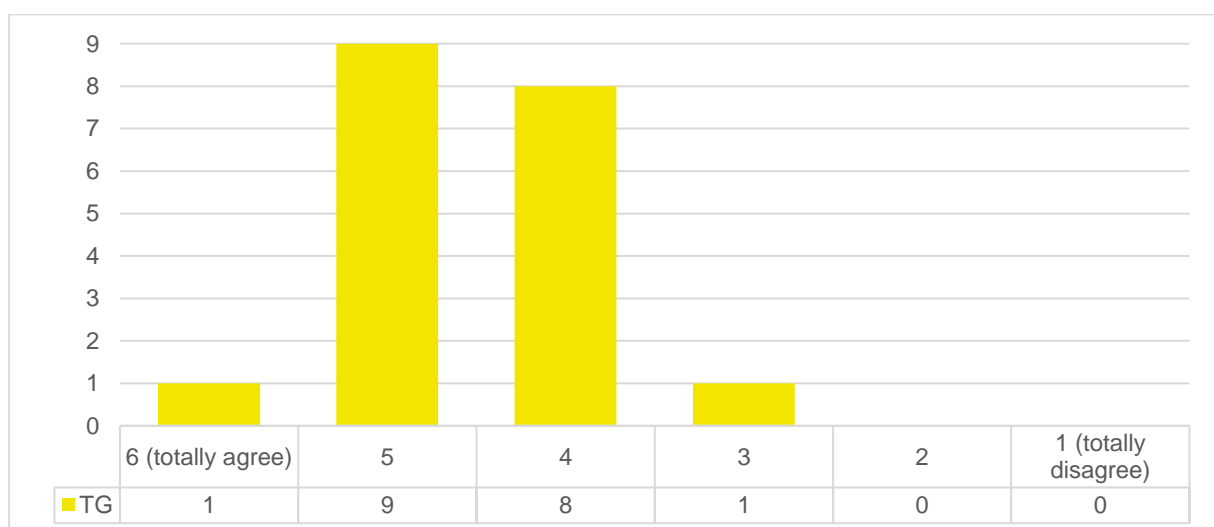


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 44: C^C RCA care expert test group: Digitalisation makes future work easier, Luxembourg**

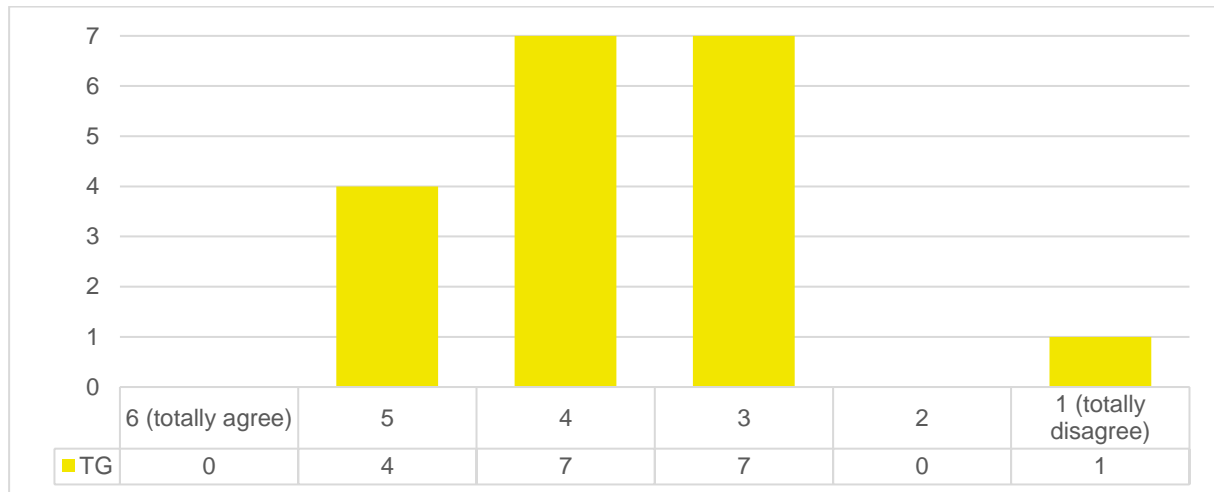


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts 2nd survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 45: C^C RCA care expert test group: More complexity at work through digitalisation, Luxembourg**



Notes:

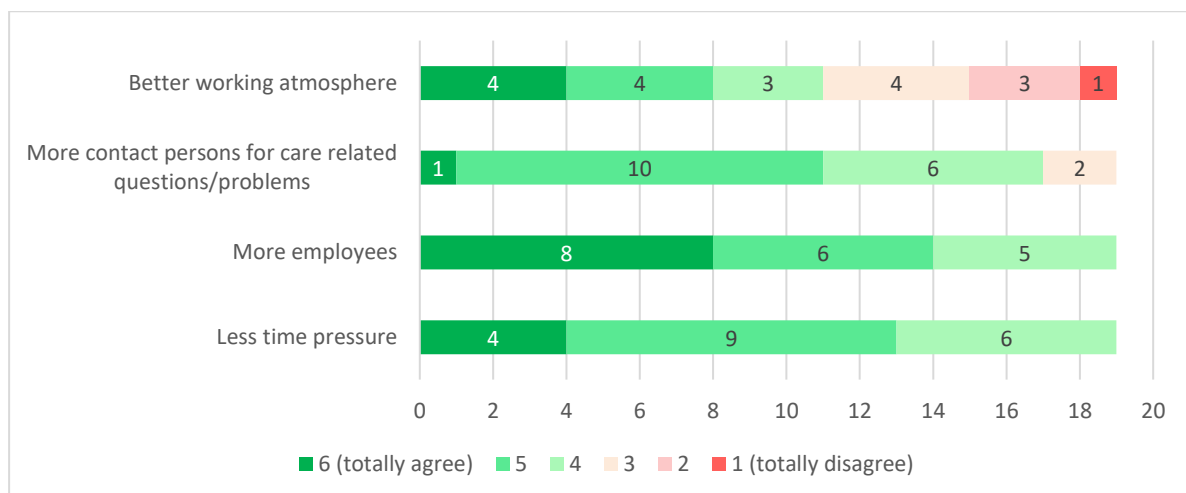
TG = Test group

Source: WU C^C RCA trial data LUX, care/nursing staff, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

## 15 Results – part 12: How working conditions in home care should be changed

The ratings of the care experts in Luxembourg reflect the current staff shortage. Most importantly, **care experts in the Luxembourgish** RCA test group requested **more employees**. Interestingly, they also wanted to have more persons to contact for care-related questions and less time pressure (rating 5 of 6) (Figure 46).

**Figure 46: C^C RCA care expert test group: Importance of future developments in work, Luxembourg**



Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

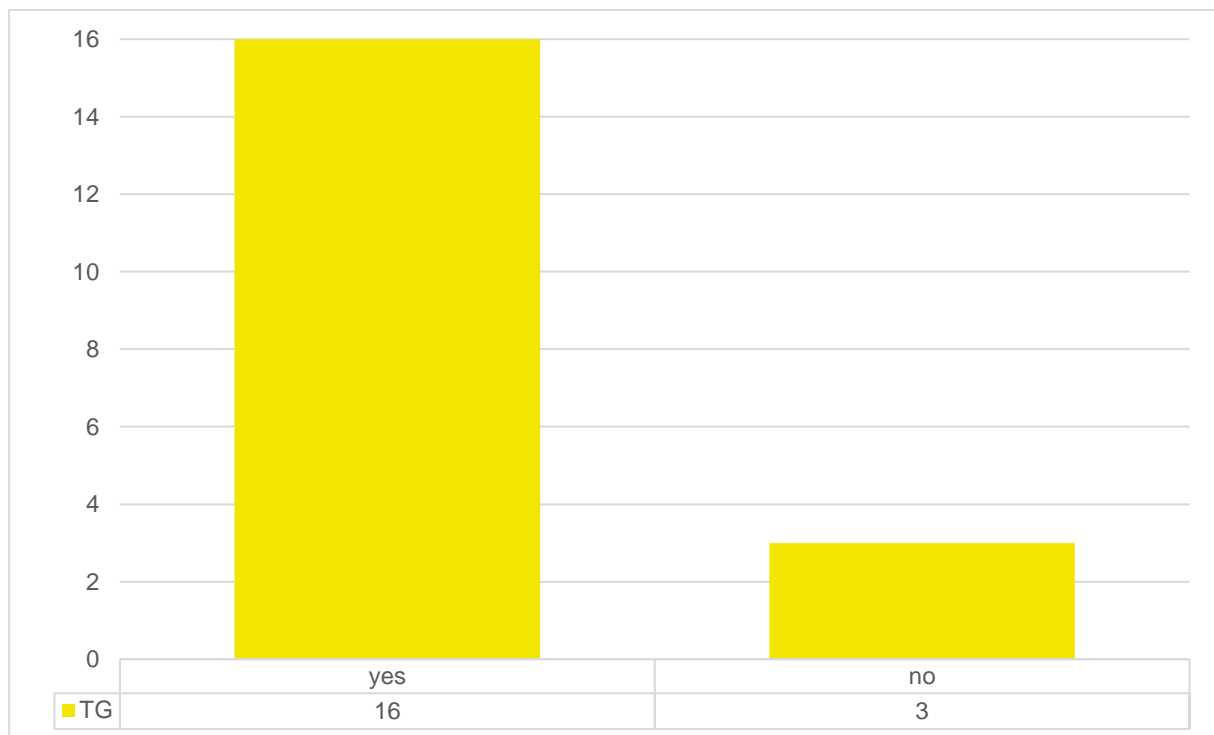


## 16 Results – part 13: Care experts’ assessments of the RCA

### 16.1 Using RCA

Care experts had two access points for the RCA system – the web application on their PC or Laptop and the mobile application on their company smartphones. **Almost all** of the care experts who had access to RCA reported to **have the RS app on their company smartphones** (Figure 47).

**Figure 47: C^C RCA care expert test group: RS app on home screen of mobile phones, Luxembourg**



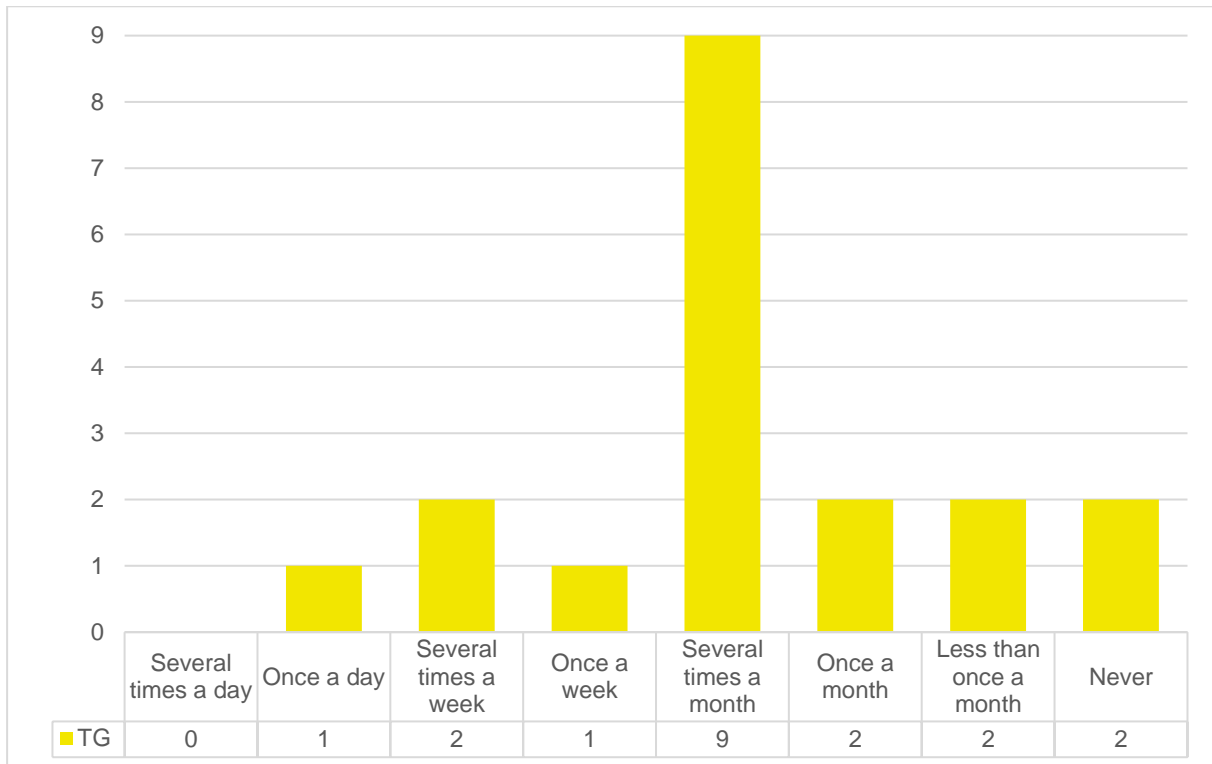
Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

Figure 48 shows the self-assessed frequency of **RCA system use by care experts** within the testing period of almost 5 months in **Luxembourg**. **17 of 19 (89%)** of all participating care experts reported to **have used the RCA system** within this testing period. Of these, 1 care expert used the RCA once a day, 3 had used it once or several times a week, 9 of 19 reported to have used the RCA system not weekly but several times a month. 4 reported to have used the RCA system less once or less than once a month. **2 care experts never used** the RCA system.

**Figure 48: C^C RCA care expert test group: Frequency of using the RCA system, Luxembourg**



Notes:

TG = Test group

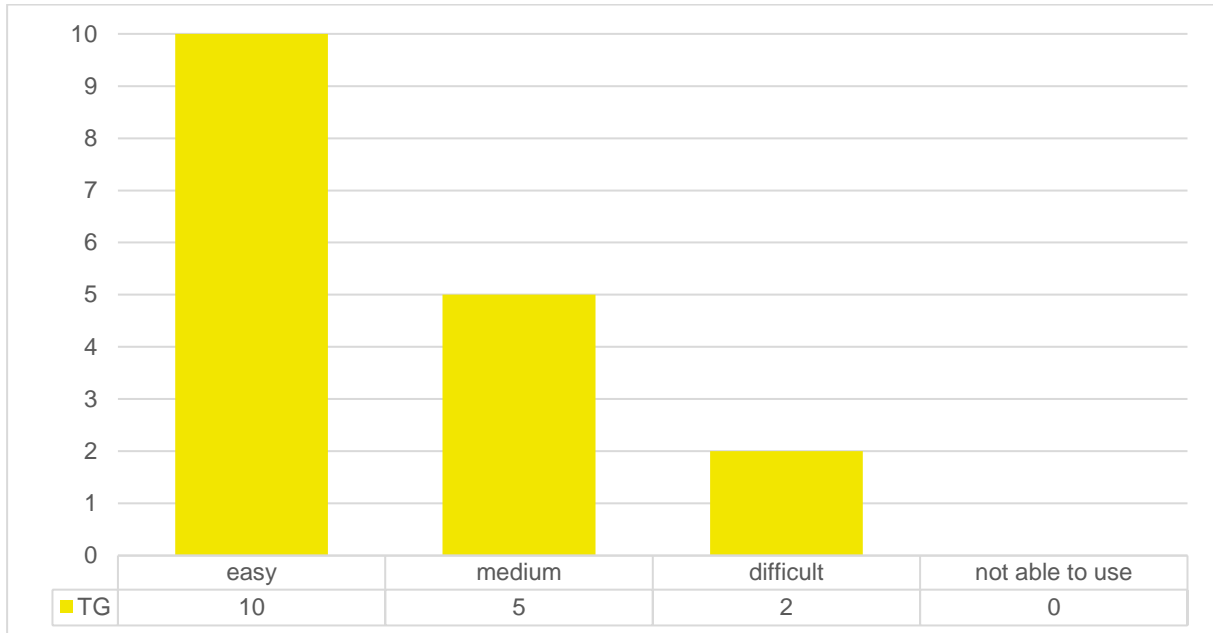
Source: WU C^C RCA trial data LUX, care experts 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

**For the detailed results on care experts' experiences with the RCA system in Luxembourg, we considered only users who have reported to have used the RS app at least less than once a month or more often (n=17).**

## 16.2 User experience of the RCA

In Luxembourg, **10 of 17 care experts** who had tested the RCA system reported that the **RCA system is easy to use**, **two experts** rated the RCA to be **difficult in usage**. **None** of the care experts **was not able to use** the RCA system (Figure 49). **More than half of the care experts** in Luxembourg who had tested the RCA system agreed that the RCA system is **(very) easy to learn**. **2** of the care experts **did not find** the RCA system **easy to learn** (at all) (Figure 50). In Luxembourg, **7 of 17 care experts** who had tested the RCA system were (highly) convinced that the **RCA system was easy to use** (ratings 5 and 6 of 6), **1** of the care experts **disagreed** (Figure 51). **11 of 17 care experts in Luxembourg** who had tested the RCA system felt **capable of using the RCA system**, **1** of the **care experts did not** (Figure 52).

**Figure 49: C^C RCA care expert test group: Difficulty to use the RCA system, Luxembourg**

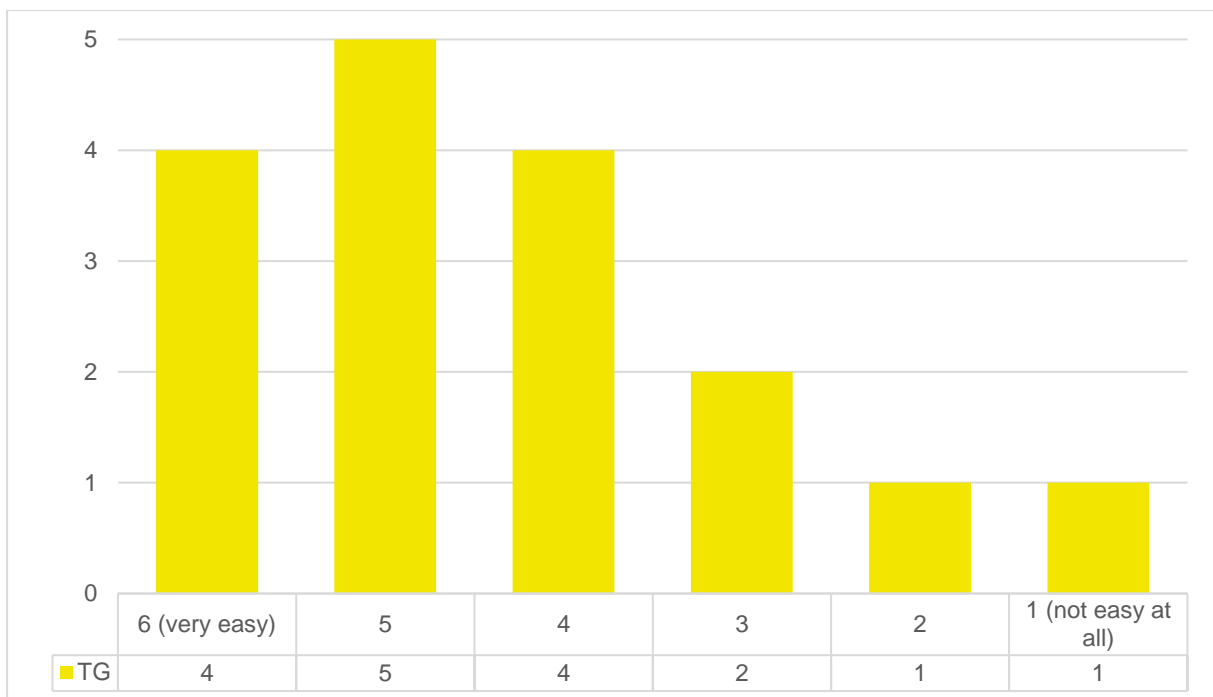


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 50: C^C RCA care expert test group: Difficulty to learn the handling of the RCA system, Luxembourg**

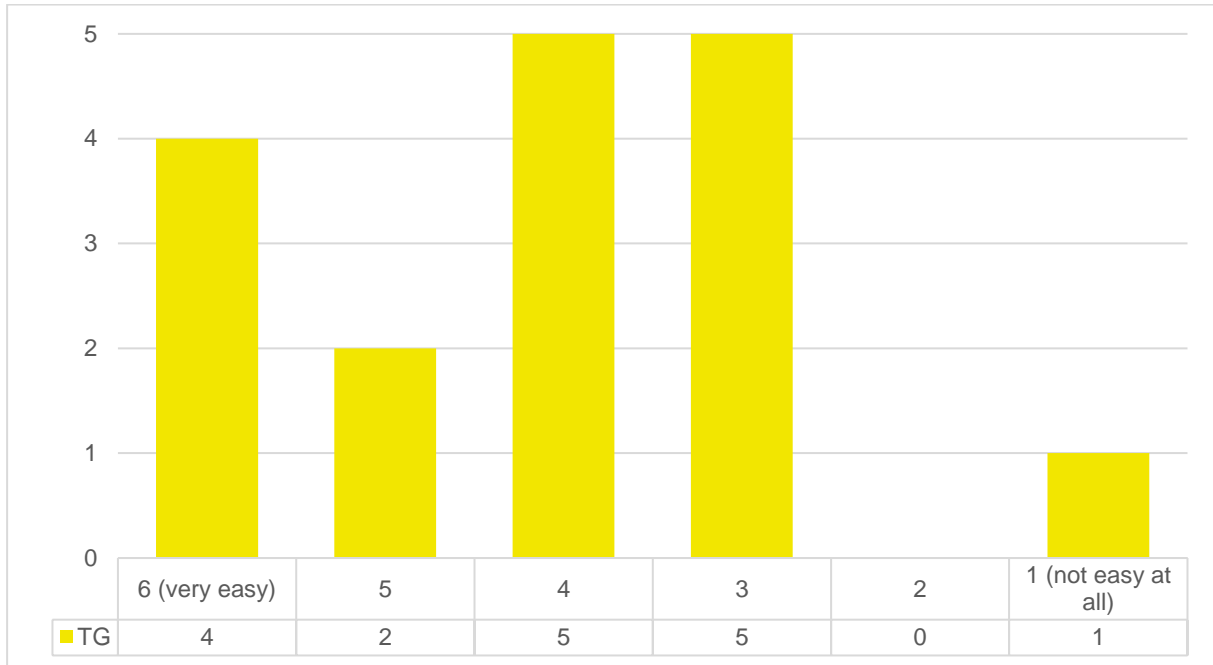


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 51: C^C RCA care expert test group: Difficulty to use the RCA system, Luxembourg**

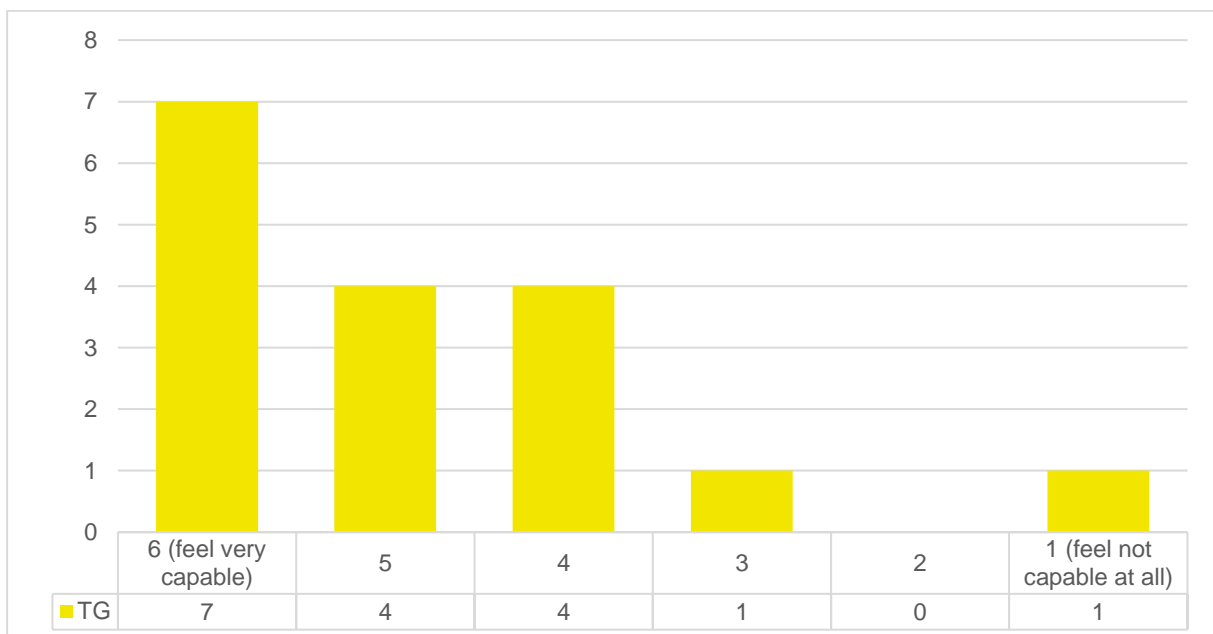


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 52: C^C RCA care expert test group: Capability to use the RCA system, Luxembourg**



Notes:

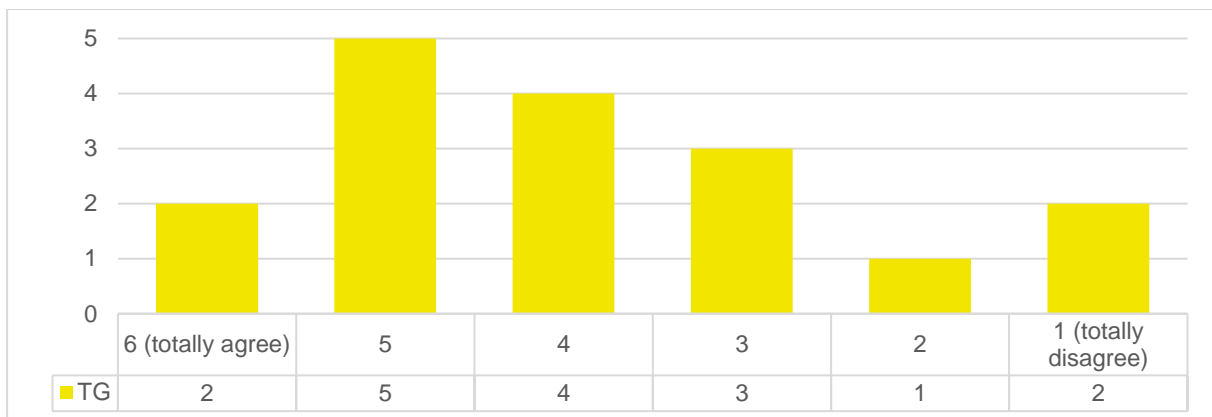
TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

### 16.3 Self-assessed usefulness of the RCA

7 of 17 care experts in Luxembourg who had tested the RCA system rated the RCA system as useful (ratings 5 and 6 of 6). 3 care experts were not convinced of the RCA systems' usefulness (Figure 53)

**Figure 53: C^C RCA care expert test group: Usefulness of the RCA system for the job, Luxembourg**



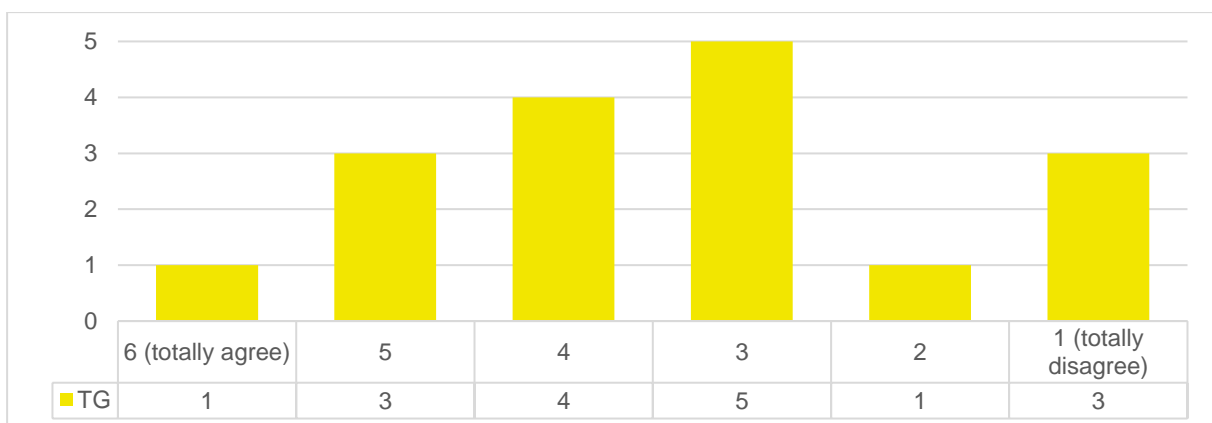
Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

In Luxembourg, 24% of care experts who have tested the RCA system, rated the RCA system as helpful to complete tasks more quickly (ratings 5 and 6 of 6). 24% did not find the RCA system helpful (at all) (Figure 54). 5 of 17 care experts found completing work tasks with the RCA system more convenient (ratings 5 and 6 of 6), 3 care experts did not (Figure 55). Also, 5 care experts found that the RCA system facilitated their work (ratings 5 and 6 of 6), 3 care experts did not (Figure 56).

**Figure 54: C^C RCA care expert test group: RCA system for work efficiency, Luxembourg**

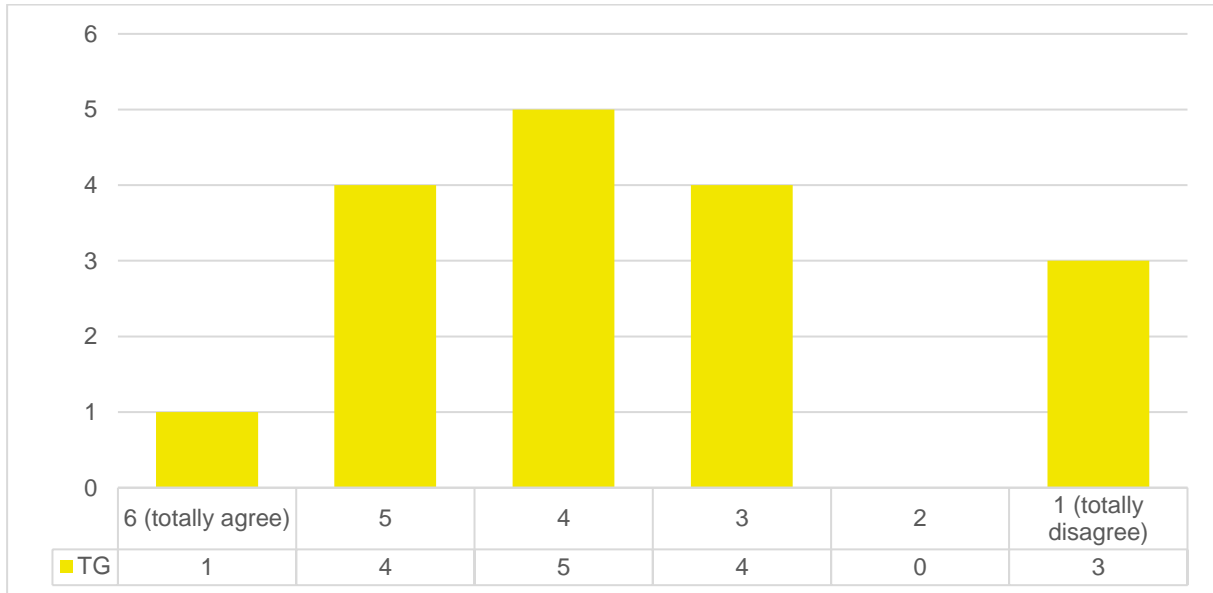


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 55: C^C RCA care expert test group: RCA system for work convenience, Luxembourg**

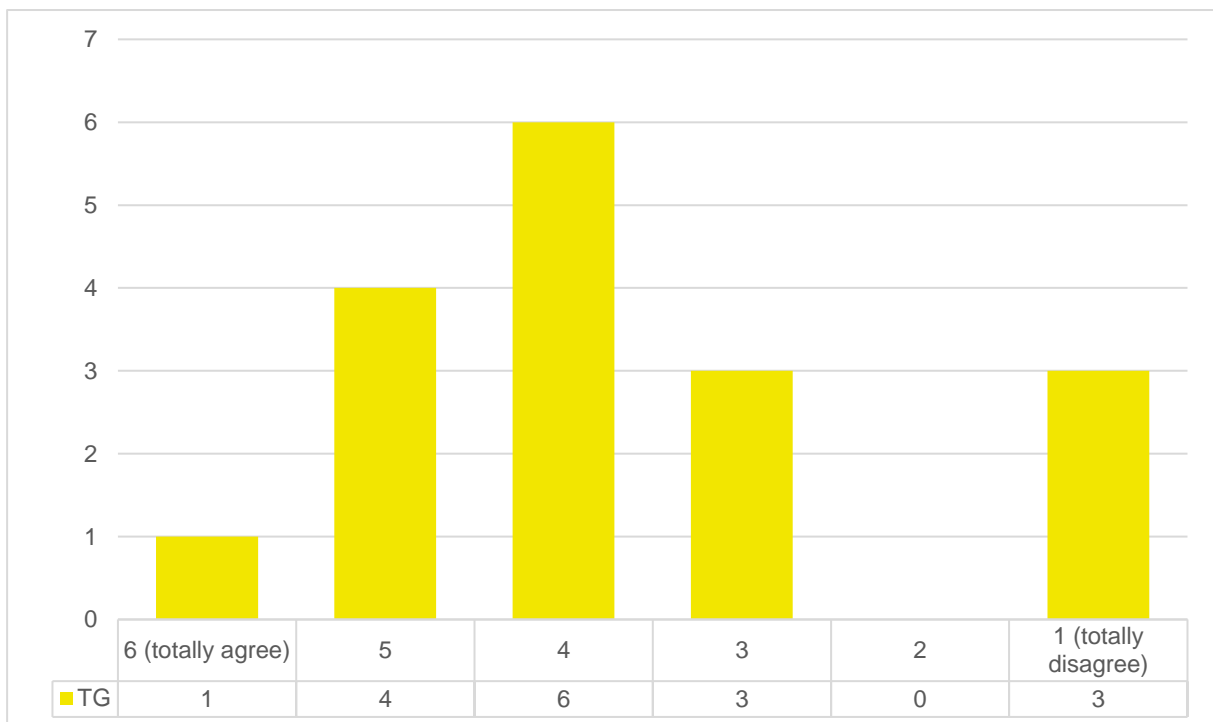


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 56: C^C RCA care expert test group: RCA system to facilitate work, Luxembourg**



Notes:

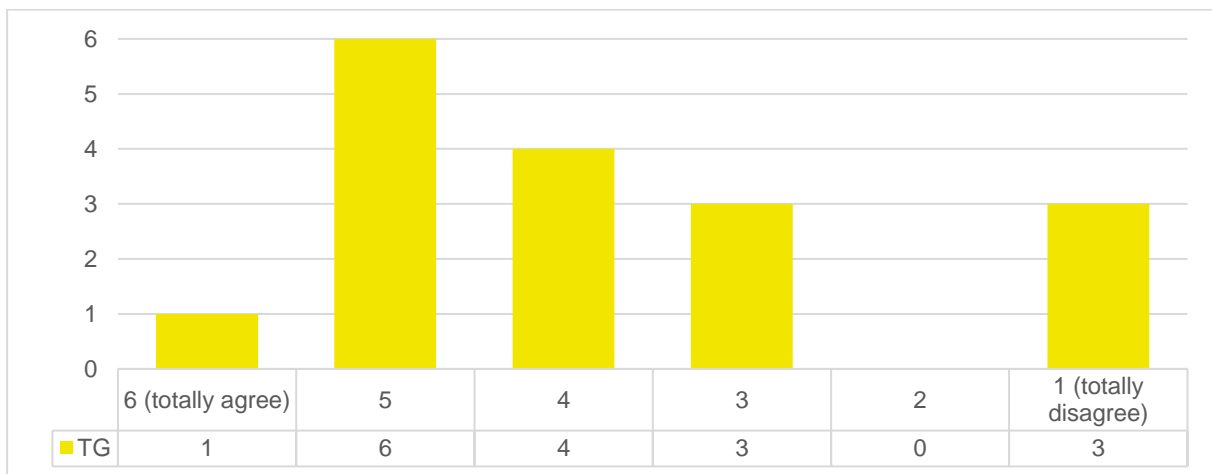
TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

## 16.4 Self-assessed usefulness of the RCA for clients

41% of care experts in Luxembourg who have tested the RCA system at least less than once a month rated the RCA system as **useful for their home care service users (HCSU)** (ratings 5 and 6 of 6) (Figure 57) as **supportive for HCSU** (ratings 5 and 6 of 6), **3 of the care experts disagreed** with that (Figure 58). **8 of 17** of the care experts are **convinced** that the RCA is **bringing advantages for HCSU** (ratings 5 and 6 of 6), **2** of the care experts **disagreed** with that (Figure 59).

**Figure 57: C^C RCA care expert test group: Usefulness of the RCA system for the clients, Luxembourg**

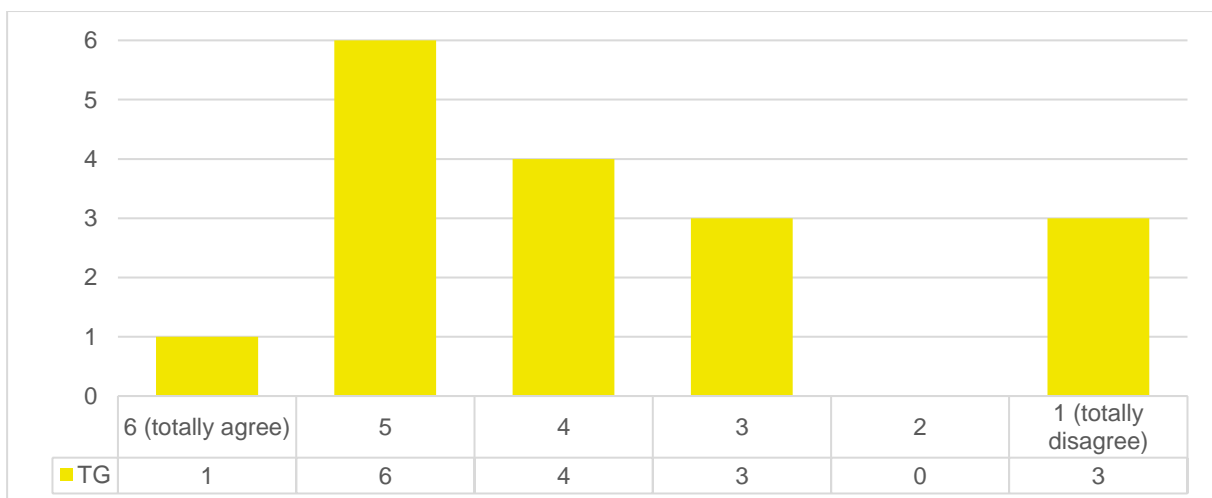


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 58: C^C RCA care expert test group: RCA system to support the clients, Luxembourg**

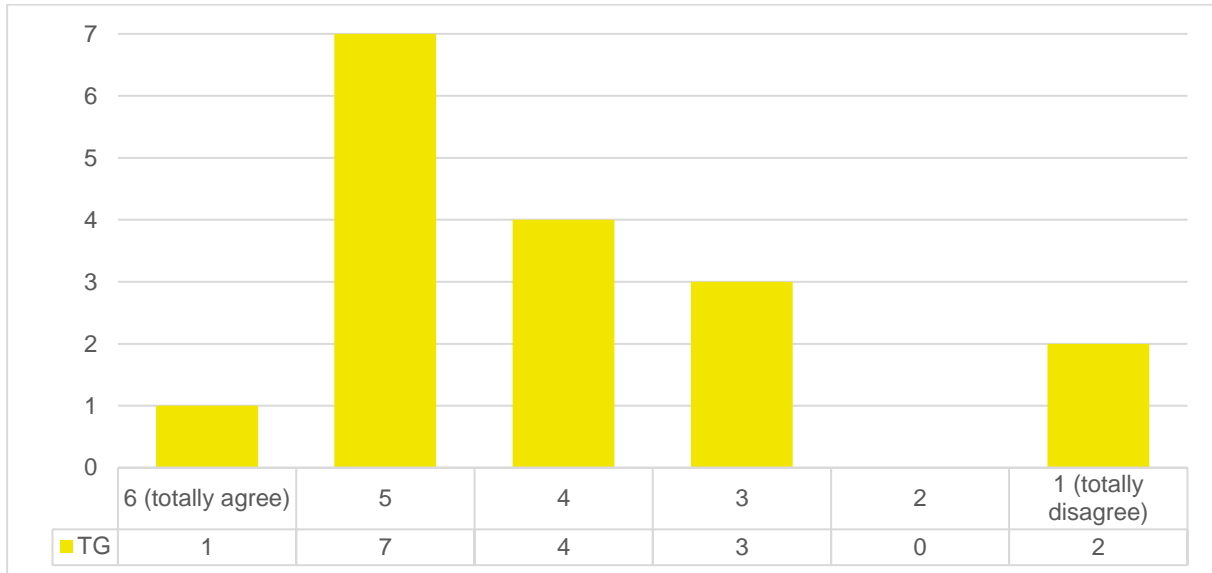


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 59: C^C RCA care expert test group: The RCA system brings advantages for the clients, Luxembourg**



Notes:

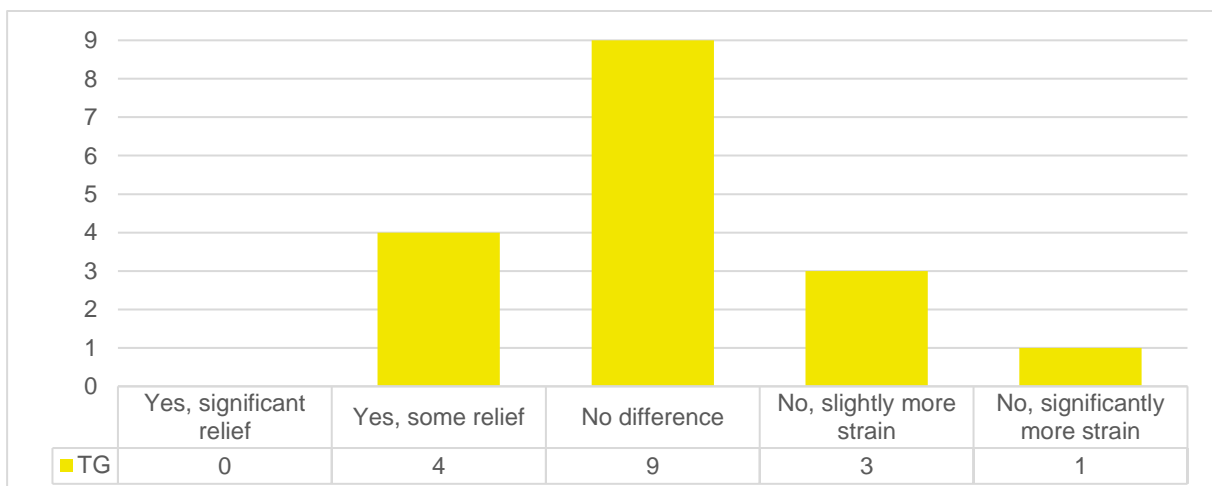
TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

## 16.5 RCA and relief/strain assessments

**4 of 17 (about 24%)** of care experts in Luxembourg who have tested the RCA system at least less than once a month or more often assessed the **RCA system to contribute to at least some relief at work**. **9** participants **did not report any change**. **4** participants in Luxembourg reported to experience at **slightly or significantly more strain** (Figure 60).

**Figure 60: C^C RCA care expert test group: The RCA system brings relief/strain in work, Luxembourg**



Notes:

TG = Test group

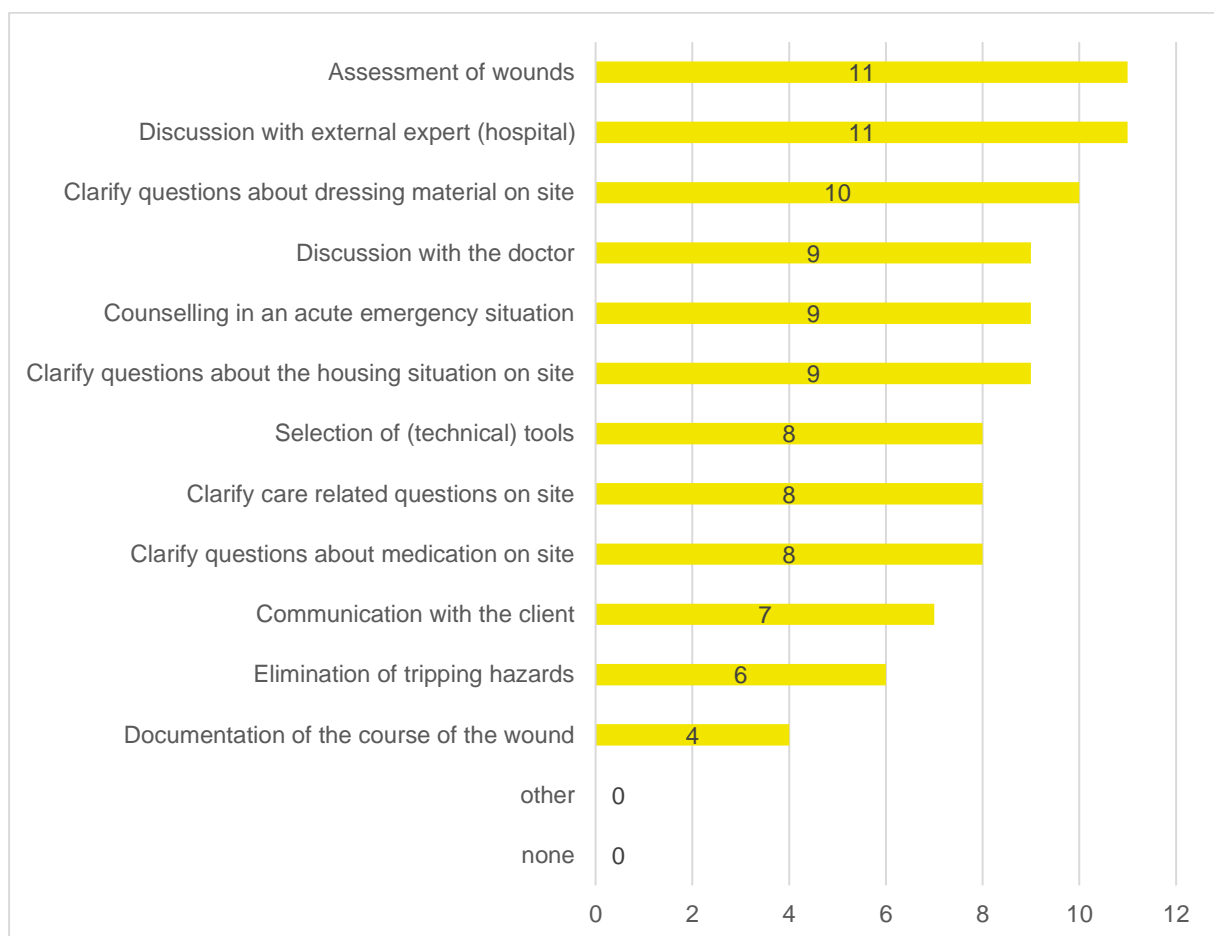
Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17



## 16.6 Useful use cases for the RCA system

As Figure 61 shows, from the **perspective of care experts**, the **most interesting use cases** for the RCA system in Luxembourg are related to **“assessment of wounds”**, **“discussion with external expert (hospital)”**, **“clarification of dressing materials for wounds on site”**, **“discussion with the doctor”**, **“counselling in acute emergency situations”** and **“clarification of questions about the housing on site”**.

**Figure 61: C^C RCA care expert test group: Useful use cases for the RCA system, Luxembourg**



Notes:

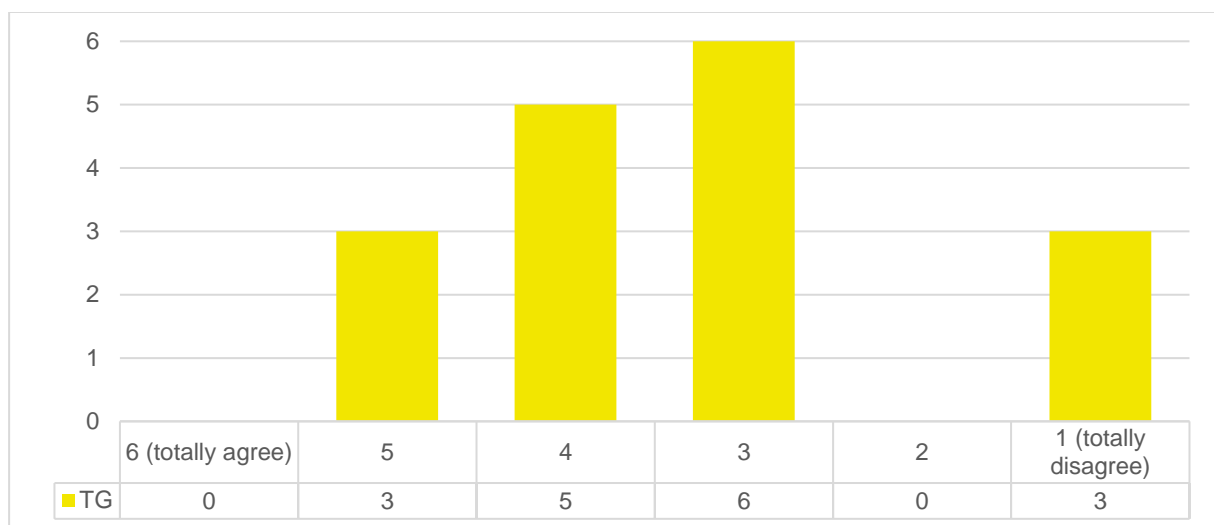
Multiple answers possible

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

## 16.7 Functionality of the RCA

The ratings of the **care experts indicated functional issues of the RCA** (Figure 62). **3 of 17** reported **not to be convinced** that the RCA system **worked flawlessly** (rating 1 of 6). **3** of the care experts agreed that the RCA system **worked without flaws** (rating 5 of 6). **3 of 17 care experts in Luxembourg** reported that the **RCA system worked reliably** (rating 5 of 6), **2** care experts indicating that the RCA system is **not reliable at all** (Figure 63).

**Figure 62: Flawless functionality of the RCA system**

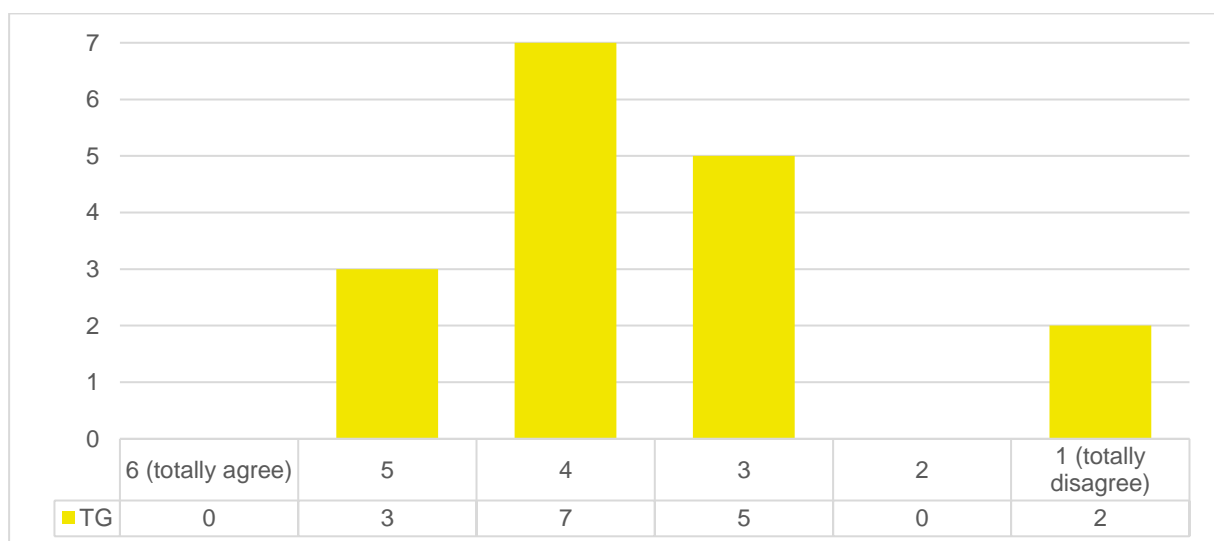


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 63: C^C RCA care expert test group: Reliable functionality of the RCA system, Luxembourg**



Notes:

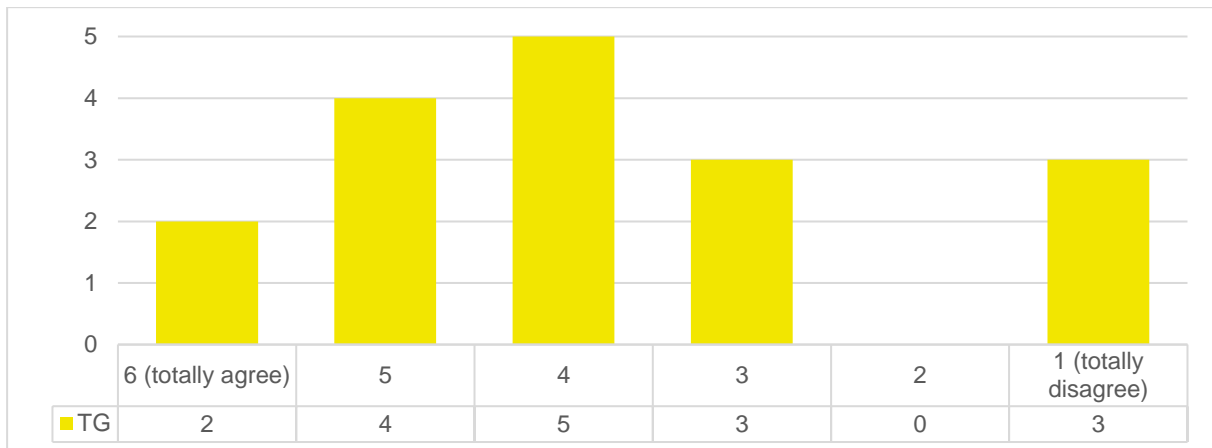
TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

## 16.8 Acceptance – future use of RCA & recommendation

35% of the care experts in Luxembourg who have tested the RCA system at least less than once a month or more often reported that they **would like to use the RCA system in the future** (ratings 5 and 6 of 6) However, **3** of the care experts stated **to not like to continue using it** (Figure 64). **6 of the 17** care experts would like to **communicate with colleagues** via the RCA system **in the future** (ratings 5 and 6 of 6), **3 would not like that (at all)** (rating 1 and 2 of 6) (Figure 65). **6 care experts wanted the care organisation to provide the RCA system in the future** (ratings 5 and 6 of 6) (Figure 66) and roll it out to as many as colleagues as possible, **2 did not agree** (Figure 67).

**Figure 64: C^C RCA care expert test group: Future use of the RCA system, Luxembourg**

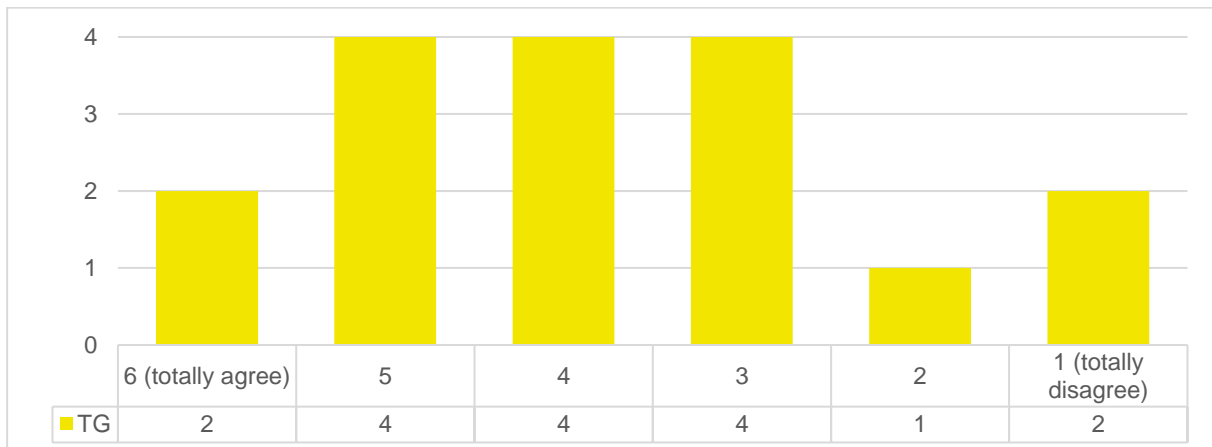


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 65: C^C RCA care expert test group: Future use of RCA system for communication with the colleagues, Luxembourg**

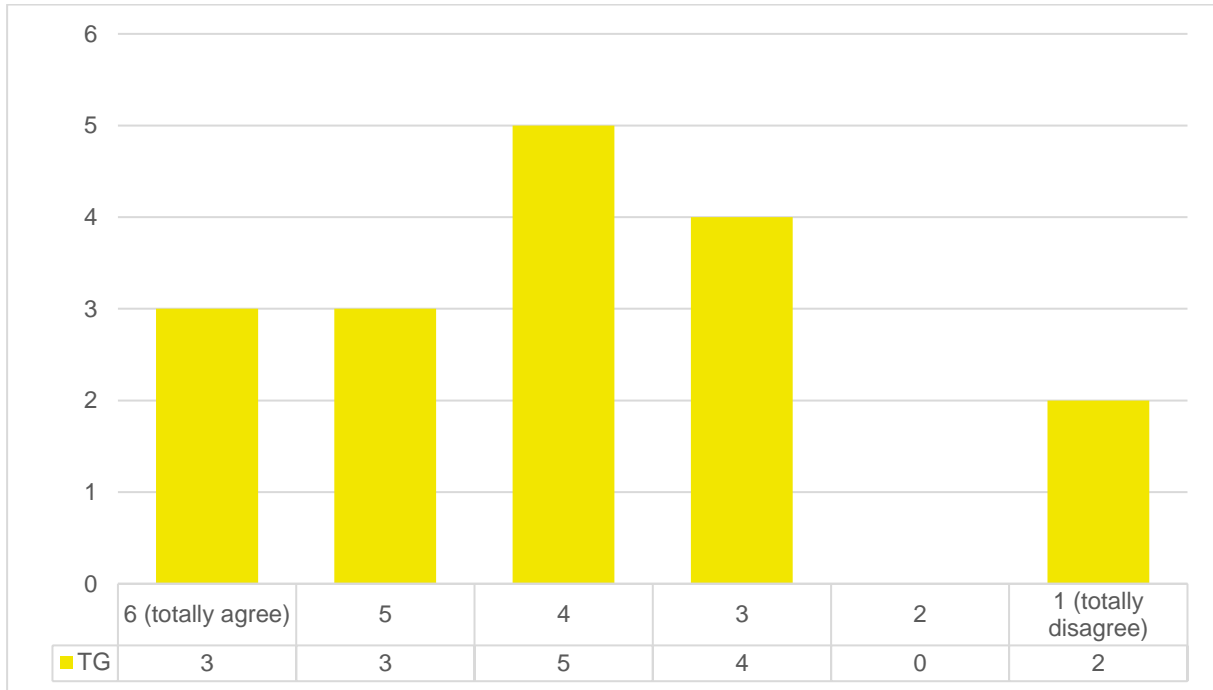


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 66: C^C RCA care expert test group: SHD continue to provide the RCA system, Luxembourg**

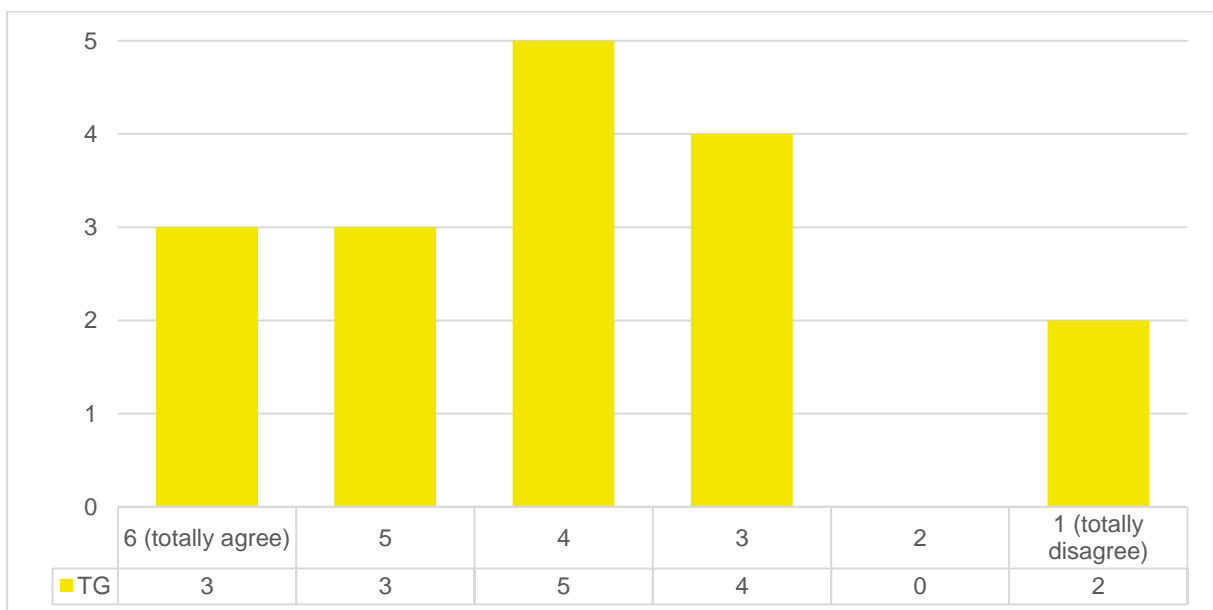


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

**Figure 67: C^C RCA care expert test group: Far-reaching usage of RCA among the employees, Luxembourg**



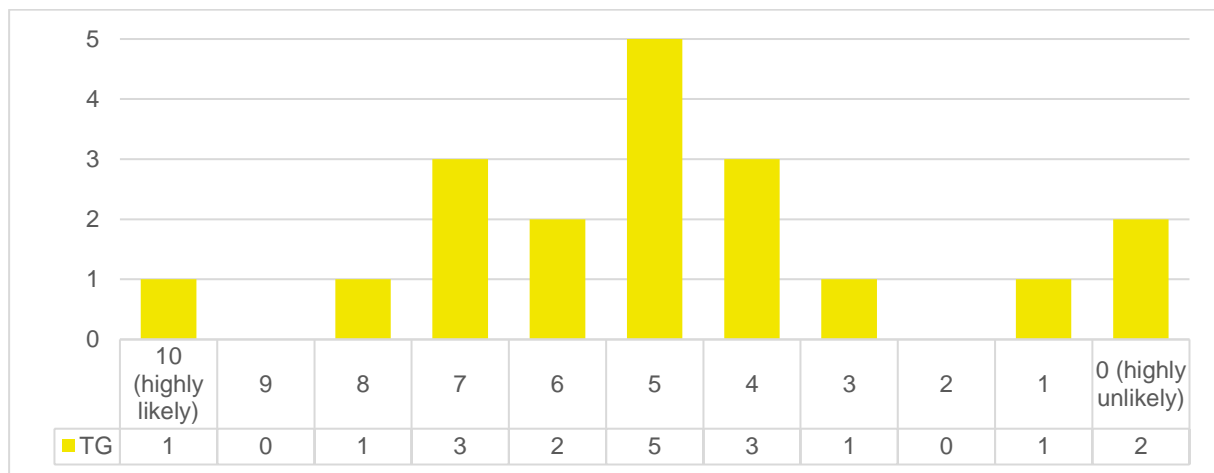
Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

Figure 68 shows the ratings of **all test group participating care experts in Luxembourg**, irrespective of actual use of the RCA or not, on whether they would recommend the RCA system to colleagues or not. In Luxembourg, **1 of 19** care experts would **recommend** the RCA system (rating 9 to 10 of 10), **10** would be **indifferent** (rating 4 to 6 of 10) and **3 would rather or very likely not recommending RCA** (rating 0 to 1 of 10). It is important to recall that these ratings have been made by care experts who may or may not have any experience using the RCA system. Figure 69 shows the **recommendation ratings** of participants who reported to **have used the RCA**.

**Figure 68: C^C RCA care expert test group: All experts recommending RCA, Luxembourg**

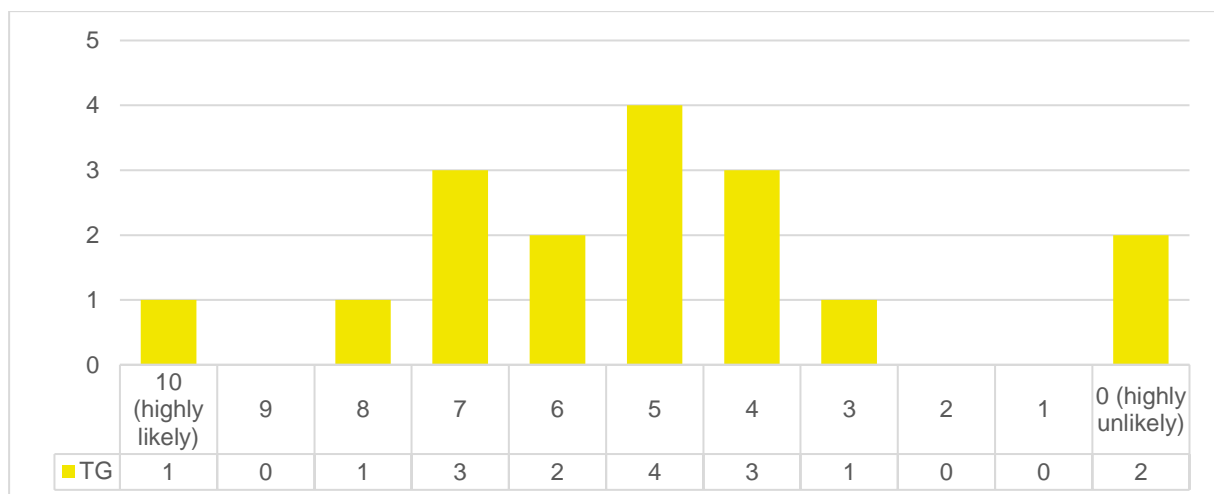


Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 19

**Figure 69: C^C RCA care expert test group: Actual users recommending RCA, Luxembourg**



Notes:

TG = Test group

Source: WU C^C RCA trial data LUX, care experts, 2<sup>nd</sup> survey, TG, 2023, n<sub>TG</sub> = 17

## 16.9 Comments on the RCA system

### Reception/Connectivity problems, data protection

- “During the test phase, reception did not usually work well. For me in the area where I work, a short phone call with colleagues has always been enough because we work together very competently. I find video communication very questionable and unpleasant for clients in terms of data protection. I would prefer a direct telephone. I would be in favour of a direct telephone option for consultations with experts (e.g., for problematic wounds) during the service. Otherwise, I found it very awkward to communicate, first calling, then logging into the laptop, then the reception usually didn't work...that didn't convince me.”
- “Due to network connection problems, it is not possible to use remote support in all regions of the country”

### Usability

- “User procedure too complicated (having to make an appointment while waiting for the other person to connect”

### Broad access to the technology

- “Would be good if everyone had access, it would be possible for every client to call up the app directly and not make an appointment beforehand so that you can be reached!”

## 17 Discussion

In this Deliverable of the European AAL-project “Care about Care”, we reported on the results of the second survey for the **Remote Care Assist system** made accessible to test group participants in Luxembourg, i.e., the Stéftung Hëllef Doheem (SHD) **care experts** (comprising (deputy) care managers, registered nurses and wound managers). The RCA system aimed to support communication between nursing experts/care managers and their members of care and nursing staff by providing an app for video-streaming to clarify issues in the households of home care service users using audio and video submission. In Luxembourg, the second survey was the survey sent to care experts **after 20 weeks** of having access to the RCA system.

Overall, 19 care experts participated in the Luxembourgish RCA test group, with 17 reporting to have used the RCA system at least less once a month or more often. This implies that **89% of all care expert having access to the RCA system have used it** (according to their reporting).

**Most care experts in Luxembourg** assessed the RCA system **as easy to use**. However, **they reported functionality issues** – the reasons for these issues are not completely clear. Some may relate to **internet connectivity issues** in the office or in the households of their home care service users, others to **organisational issues**.

**35% of the actual care expert users in Luxembourg would like to continue using the RCA system and agree with rolling-out the RCA to as many colleagues as possible.**

**About 26% of all participating care and nursing staff in Luxembourg, irrespective of user experience or not, would recommend the RCA system to colleagues.**

For strengths and limitations of this study see Trukeschitz and Arth (2023b).

**“Future use of the RCA system** should (i) build on **updated versions** of the tested system to increase user experiences, (ii) be aware that **not all** the care workers and nursing staff in home care **can or want to make use of the RCA**, (iii) requires **organizational decisions** on how to assure that Expert Center support is available when needed, (iv) and **explanation and training** will be needed to support care and nursing staff to use the RCA system.” (Trukeschitz & Arth, 2023b)

## 18 References

- Arth, L., & Trukeschitz, B. (2023). The C^C Remote Care Assist System Trial in Luxembourg: Results of the second wave of data collection – care/nursing staff, Deliverable 19 – part trial, care app, care/nursing staff LUX, WU Vienna University of Economics and Business.
- Franke, T., Attig, C., & Wessel, D. (2019). A Personal Resource for Technology Interaction: Development and Validation of the Affinity for Technology Interaction (ATI) Scale. *International Journal of Human–Computer Interaction*, 35(6), 456-467, DOI: 410.1080/10447318.10442018.11456150.
- Trukeschitz, B., & Arth, L. (2022). The C^C Remote Care Assist System pilot: interview results, Deliverable D19-part pilot RCA (interviews) of the “Care about Care” Project, WU Vienna University of Economics and Business.
- Trukeschitz, B., & Arth, L. (2023a). *The C^C Remote Care Assist System Trial in Luxembourg: Results of the second wave of data collection – care experts, Deliverable 19 – part trial, RCA, care experts AUT, WU Vienna University of Economics and Business.*
- Trukeschitz, B., & Arth, L. (2023b). *The C^C Remote Care Assist System Trial in Luxembourg: Results of the second wave of data collection – care/nursing staff, Deliverable 19 – part trial, RCA, care/nursing staff AUT, WU Vienna University of Economics and Business.*
- Trukeschitz, B., Arth, L., Schermann, D., Bourkel, E., Schierhuber, M., & Schneider, C. (2023). *The C^C Remote Care Assist System Pre-Trial in Luxembourg and Luxembourg: Evaluation Results, Deliverable 19 (pre-trial results AUT & LUX) of the “Care about Care” project, WU Vienna University of Economics and Business.*
- Trukeschitz, B., & Schermann, D. (2022a). *The C^C Remote Care Assist System pilot: observation results for the Care Assist Glasses, Deliverable D19-part pilot RCA-CG (observation) of the “Care about Care” Project, WU Vienna University of Economics and Business.*



Trukeschitz, B., & Schermann, D. (2022b). *The C^C Remote Care Assist System pilot: observation results for the Care Expert Center, Deliverable D19 of the “Care about Care” Project, WU Vienna University of Economics and Business.*