

# ORGANISATIONAL RESILIENCE - FINNISH DEFENCE FORCES UNDERGOING STRUCTURAL CHANGE

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## 1. Background

In the beginning of 2012, the Finnish Defence Forces (FDF) was obliged to launch a massive structural change, the Defence Reform, due to the economical-political situation (Table 1).

**Table 1.** The Phases of the Defence Reform

2011	2012	2013	2014	2015
Political guidance Preliminary planning	Administrative decisions of the Minister of Defence	Reformatory measures 1 <sup>st</sup> phase	Reformatory measures 2 <sup>nd</sup> phase	Establishing new structures and models
	The Defence Reform launched	3 units closed Reorganisation of military investigation, research and music branches	New administrative structure 11 units closed or merged Reorganisation of military logistics and supportive actions	

The planning and political guidance started a couple of years prior to the reform itself. The personnel was informed about the upcoming reform in the beginning of year 2012.



**Figure 1.** The Defence Reform (units & personnel)

The number of administrative units decreased by 35 % but the units still cover the whole of Finland. The brigade-level units providing conscript training decreased from 25 to 16: many of these units still operate on several locations. The number of employees decreased with nearly

2 400 persons, most of them civilians. There is an annual natural turnover of several hundreds, so only 126 employees' contracts had to be terminated due to the Defence Reform

## 2. Methods

Since 1997, the FDF employees complete each year a working climate survey, which is especially tailored for the military personnel. The survey consists of 78 items: 11 background items, 38 items put together into 11 sum variables (Table 2) and 29 items that cover other areas of the working climate.

**Table 2.** Finnish Defence Forces' working climate survey 2014, sum variables and their consistency

Sum variable	Items	Description	$\alpha$ (Cronbach)
Work Motivation	4	intrinsic motivation	.88
Lack of Exhaustion	6	MBI * ) (shortened, revised for military personnel)	.89
Work Load	2	time and amount of work	.54
Own Task	3	challenges, independence, overall satisfaction	.80
Awareness of Goals	2	goals of efficiency and outcome	.74
Experienced Leadership	6	assessing one's immediate superior	.93
Communication	3	essential and sufficient information	.76
Work Facilities	2	infrastructure (equipment, premises)	.67
Work Engagement	3	UWES **) (shortened)	.92
Team Spirit	5	one's closest, daily team (work group)	.92
Employer Image	2	comparison to public / private employers	.81

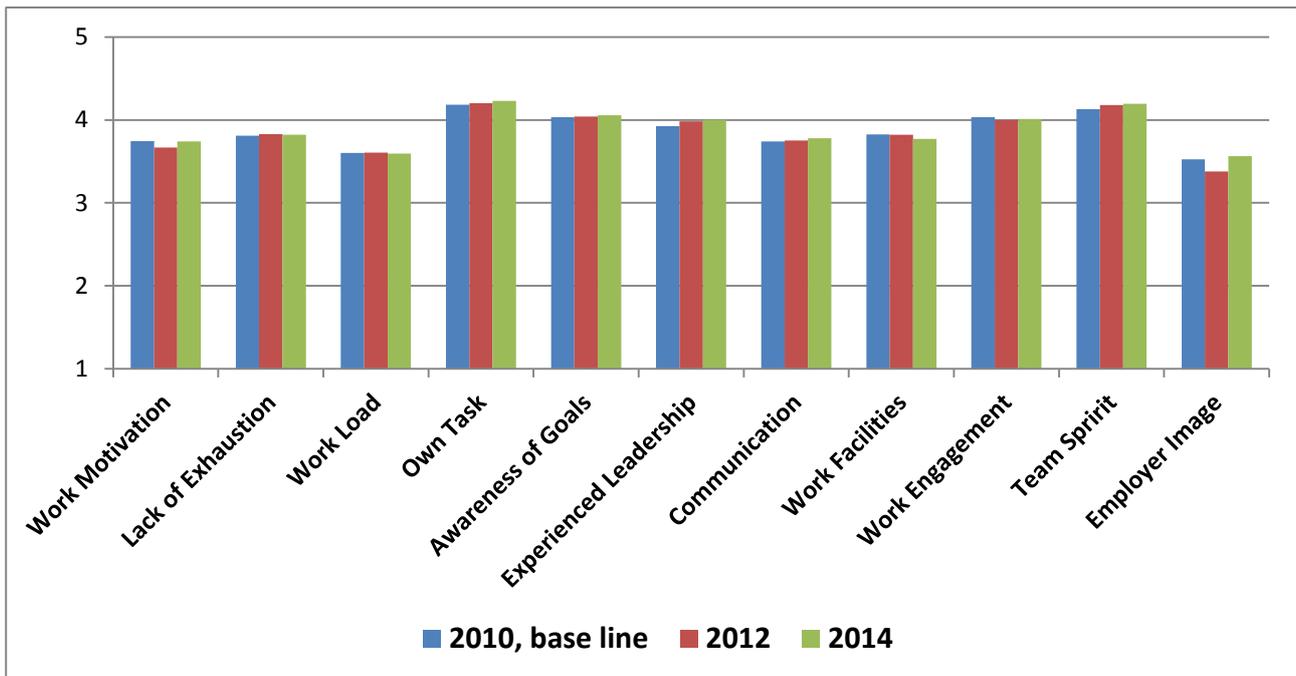
\*) Maslach, Jackson & Leiter 1996

\*\*) Schaufeli & Bakker 2003

The study was carried out by comparing means, standard deviations and results of cross tabulations, both for individual variables and sum variables for the years 2010 to 2014. The differences and relations in yearly results were measured with one-way ANOVA, together with Tukey for post hoc multiple comparisons. The effect sizes were measured using squared eta ( $\eta^2$ ).

## 3. Results

The overall annual response rate for these surveys is app. 75 %. However, the results represent the personnel very well in terms of background variables such as gender, age and group status.



**Figure 2.** Finnish Defence Forces' working climate surveys 2010, 2012 and 2014; means for sum variables, scale 1 - 5. (Source: The Finnish Defence Forces working climate surveys 2010, 2012, 2014)

No significant or major changes in results were found when comparing working climate surveys of 2010 and 2014. In 2012 the changes were statistically significant in some sum variables, but these differences were interpreted as minor due to the number of informants (nearly 10 000 persons). Furthermore, in the long term observation (years 2010 - 2014) it can be noted that, on the average, the differences are not significant.

The working climate survey was conducted in August 2012, despite of the situation and future prospects being still quite unclear and confusing for many.

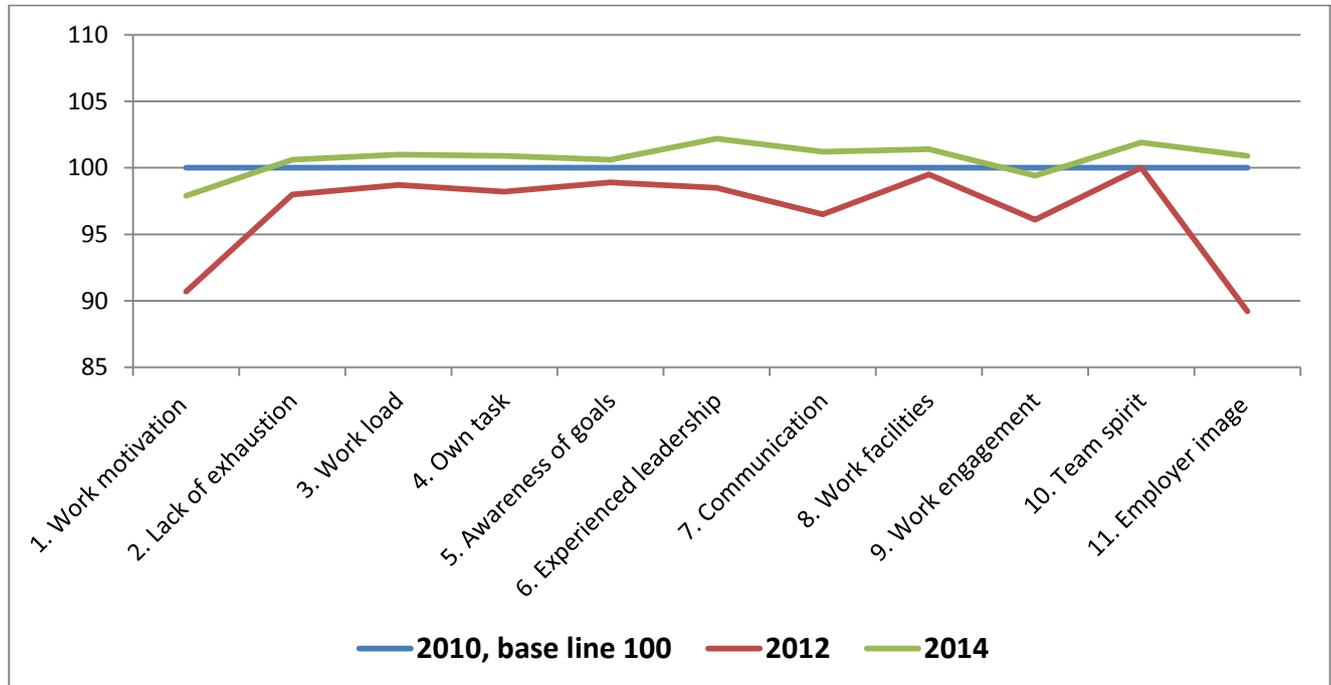
### Categorisation of units

In order to follow up the changes in separate smaller groups, the original 51 units were categorised according to the impact of the Defence Reform. These three categories were:

- **Category 1 = units that were closed or merged in 2015,**
- Category 2 = units that reorganised their core tasks, training and duties moderately,
- Category 3 = units that remained rather stable.

In our studies special attention was paid to the first category in which the consequences of the defence reform were most significant and explicit. The base line is year 2010, which is considered to be the last non-reform year. The results of 2010 the working climate survey were compared with 2012, when the Defence Reform was launched, and furthermore with year 2014, when the latest working climate survey was conducted. The results showed that in 2012 the sum variables weakened moderately. Most significantly weakened scales for work motivation and employer

image. In 2014, in the category 1 units, the sum variables reached the base level of 2010 (Fig. 3). Furthermore, another interesting result was discovered: regarding some main scales such as internal communication, work load and working facilities the units in category 1 scored significantly higher than those in the two other categories. Therefore, it can be interpreted that in the category 1 units, which faced the most dramatic changes the management had succeeded in its task.



**Figure 3.** Periodical, relative changes in category 1 (closed or merged) units (Source: The Finnish Defence Forces working climate surveys 2010 - 2014)

The changes in sum variables were studied quantitatively with one-way ANOVA and effect size calculations.

**Table 3.** Means, F-values, p-values and effect sizes ( $\eta^2$ ) for sum variables in category 1 units (Source: The Finnish Defence Forces working climate surveys 2010 - 2014)

Sum variable	Years	N	Means (scale 1 - 5)	F (df)	$\eta^2$
Work Motivation	2010	1123	3.87	40.23 (2) ***	.03 (small)
	2012	1060	3.51		
	2014	692	3.79		
Lack of Exhaustion	2010		3.89	3.98 (2) *	.00 (small)
	2012		3.81		
	2014		3.88		
Own Task	2010		4.27	7.03 (2) **	.01 (small)
	2012		4.19		
	2014		4.31		
Experienced Leadership	2010		4.06	6.68 (2) **	.01 (small)
	2012		3.99		
	2014		4.15		

<b>Communication</b>	2010	3.95	<b>15.48 (2) ***</b>	<b>.01 (small)</b>
	2012	3.81		
	2014	4.00		
<b>Work Engagement</b>	2010	4.09	<b>9.36 (2) ***</b>	<b>.01 (small)</b>
	2012	3.93		
	2014	4.06		
<b>Team Spirit</b>	2010	4.25	<b>3.36 (2) *</b>	<b>.00 (small)</b>
	2012	4.25		
	2014	4.33		
<b>Employer Image</b>	2010	3.60	<b>75.44 (2) ***</b>	<b>.05 (small)</b>
	2012	3.21		
	2014	3.63		

Note 1: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

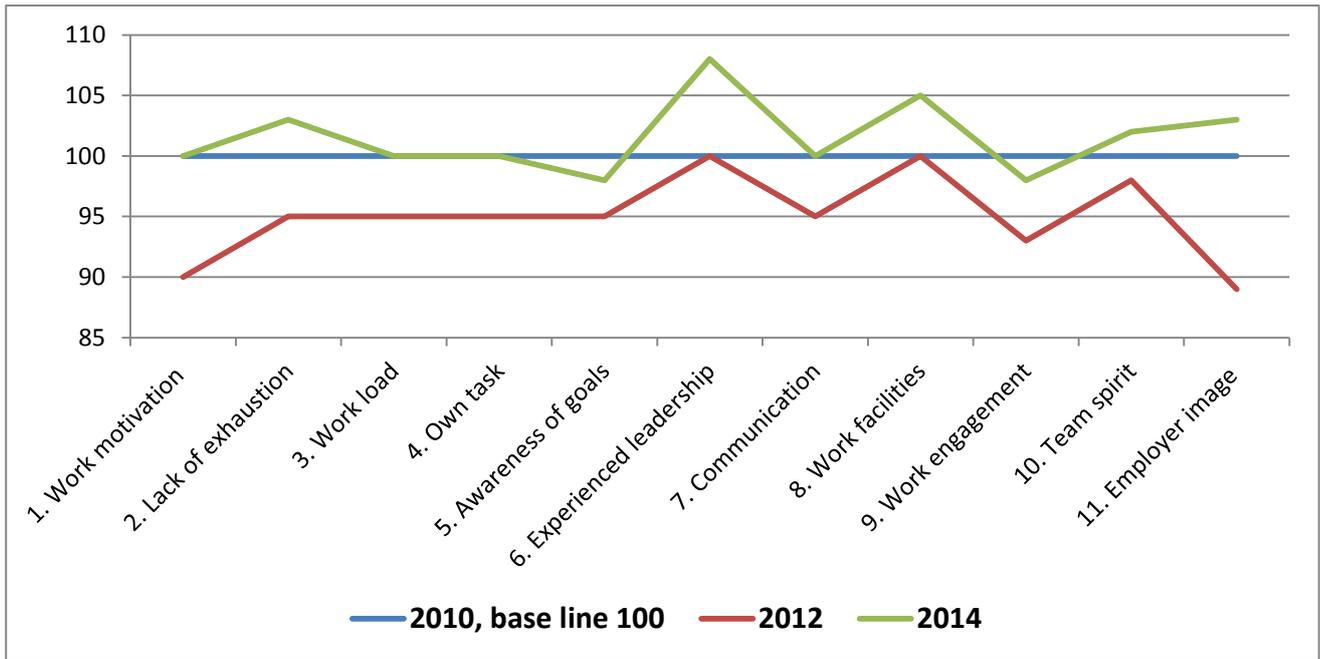
Note 2: Sum variables work load, awareness of goals and work facilities are not shown because the differences are not statistically significant.

The most significant and predictable difference was detected in the scale measuring the employer image. The difference was even more significant in the item which measured the employer image compared to the other public (state & municipal) employers ( $F(df) = 84.42(2)$ ,  $p < .001$ ,  $\text{Eta}^2 = .06$ ). In the work motivation scale the most significant difference was in the item measuring respondent's future, short term motivation ( $F(df) = 62.00$ ,  $p < .001$ ,  $\text{Eta}^2 = .04$ ).

There were reductions in the experienced level of information and in work engagement. The resilience strengths of these category 1 units were team spirit, experienced leadership and own task. Smaller, yet significant differences were in sum variables measuring communication and work engagement: these weakened moderately.

### Micro level, specific unit

Study of the differences on the micro level was carried out by analysing the results of one particular unit. This unit belonged to the Army and was closed in June 2014 (Fig. 4 and Table 4). The weakening of sum variables in 2012 was now even more obvious, especially in motivation and the FDF's employer image. Also the scale for work engagement decreased significantly. These scales are definitely the ones that would be strongly affected by the employees' uncertain and vague future in the FDF. Steadily the respondents' opinions reached level of 2010, and in 2014 some of the scales even exceeded the results of 2010.



**Figure 4.** Periodical, relative changes in one unit (closed in June 2014) (Source: The Finnish Defence Forces working climate surveys 2010 - 2014)

The differences in this unit were studied comparing annual means quantitatively with one-way ANOVA and effect size calculations.

**Table 4.** Means, F-values, p-values and effect sizes (Eta<sup>2</sup>) for sum variables in micro level unit (Source: The Finnish Defence Forces working climate surveys 2010 - 2014)

Sum variables	Years	N	Means (scale 1 - 5)	F (df)	Eta <sup>2</sup>
Work Motivation	2010	168	3.94	10.72 (2) ***	.05 (small)
	2012	153	3.45		
	2014	129	3.88		
Awareness of Goals	2010		4.25	5.38 (2) **	.02 (small)
	2012		3.94		
	2014		4.14		
Work Engagement	2010		4.18	4.63 (2) **	.02 (small)
	2012		3.90		
	2014		4.16		
Team Spirit	2010		4.26	3.18 (2) *	.01 (small)
	2012		4.21		
	2014		4.43		
Employer Image	2010		3.62	16.80 (2) ***	.02 (small)
	2012		3.18		
	2014		3.73		

Note 1: \* p < .05, \*\* p < .01, \*\*\* p < .001

Note 2: Sum variables lack of exhaustion, work load, own task, experienced leadership, communication and work facilities are not shown because the differences are not statistically significant

Noticeable differences were found in scales of work motivation and employer image similar to the category 1 units as a whole. In this particular unit, the variable for short term future motivation decreased considerably ( $F(df) = 12.98, p < .001, \eta^2 = .06$ ) as did the employer image compared to the other public employers ( $F(df) = 17.55, p < .001, \eta^2 = .05$ ).

#### 4. Conclusions

In order to follow and to measure organisational changes the time covered has to be long enough: in our study the 5-year period was quite sufficient. Changes in organisations, especially in the organisation culture take place moderately and resilience becomes obvious very slowly. Some weakenings can be seen on short term but the organisation should be patient enough to await the improvements, too. Resilience is something that can be realised only afterwards (Coutu 2002) and it is not about responding to a onetime crisis. Resilience is about continuously adjusting to deep, secular trends (Hamel & Välikangas 2003), sometimes it may even be even impossible to set the base line in order to follow up the changes.

The working climate survey itself does not contain any items that would measure the level of resilience in the Finnish Defence Forces. The results are nevertheless interpreted with the help of the measuring tool developed by Lee, Vargo and Seville (2013). The tool there consists of 13 indicators for organizational resilience covering areas such as adaptive capacity and planning. Most of their indicators are useful in this study's context.

The working climate dimensions which were supposed to be affected immediately, were work motivation and employer image. These weakened significantly in both levels of this study. It is very obvious that these are the first dimensions to react rapidly to organisational changes. Reflecting employees' poorer commitment to the employer, the figures of employer image decreased in 2012. Nowadays the employees of the FDF appreciate their employer almost as much as in 2010. In the category 1 units, the considerably reorganised or closed ones, also remarkable drops were found in the scales of communication and work engagement.

According to Lee et al. (2013) and the ResOrgs -studies in New Zealand (Resilient Organisations Research Programme: [www.resorgs.org.nz](http://www.resorgs.org.nz)), there are several indicators with which to assess the resilience of an organisation: for instance leadership, staff engagement, and unity of purpose. The most important indicators of resilience in the Finnish Defence Forces were connected with leadership, culture and readiness to change. The results for leadership showed that during the reform the employees did not lose faith in the management, by contrast quite the opposite: the results for experienced leadership exceeded the base line of 2010 in the latest 2014 survey. Management, especially on the mid-level, have succeeded both in management and decision making. The FDF leaders – especially officers – have gained experience on every level of the

organisation. These leaders are educated and trained in the field of transformative leadership strengthening their adaptability.

Staff engagement in the context of resilience can be interpreted so that they understand the link between their own work, the organisation's resilience and its long term success. The better the staff is empowered and encouraged to use their skills to solve problems, the more successful and positive the outcome will be. (Lee et al. 2013) In the FDF working climate surveys this staff engagement is measured via work engagement and team spirit. As expected, the work engagement was reduced in 2012, but has reached its' 2010 base line in 2014. Work motivation as an indicator of the staff's involvement decreased very significantly in 2012, but has returned to the 2010 base line level in the latest survey.

The lack of motivation can be interpreted as lessened staff engagement. Despite the dramatic organisational change the team spirit was at a very satisfactory level for the whole period of 2010 - 2014. The mean was over 4 (scale 1 - 5) and the excellent team spirit can be recognised as the resiliency strength of the personnel at every level. Teamwork and camaraderie have probably acted as a buffer and a smoother during the reform.

An organisation's ability to adapt is at the heart of its ability to display resilience characteristics: the present organisations are forced to struggle between stability and change. An organisation must have wide awareness of what its priorities would be following the crisis, clearly defined on each level. (Lee et al. 2013) Scales depicting one's own task and awareness of the mutual goals remained on a very satisfactory level – means exceeding 4 (scale 1 - 5) - despite the change. This reflects the importance of connectivity and situation awareness: knowing the organisation's operating priorities and how one's work is connected to them via one's own tasks. The organisational norms and values that the personnel have recognised and adapted in their work, are very important as buffers during the change.

Resilience is not just about getting through crises. A truly resilient organisation has two capabilities: foresight and situation awareness to prevent potential crises from emerging and an ability to turn crises into a source of strategic opportunity. (ResOrgs 2015.)

## References:

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