



# Balancing forces of work and life during the crisis

*A Change Management Aspect*

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# About me

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Co-founder & CTO of Lab-on-Fiber GmbH.

Formerly Head of Product Engineering at LEONI Fiber Optics GmbH.

M.Sci. from Middle East Technical University, Ankara/Turkey, PhD from Free University of Berlin/Germany.

2011-2017, 2019-now elected member of the steering comity Working Group for Equal Opportunities of the German Physical Society (DPG).



# The literature to discuss

“Managing work-life balance during the Covid-19 crisis”

Pinar Bilge<sup>1</sup>, Asım Can Alkan<sup>2</sup>, Ruzin Ağanoglu<sup>3</sup>

**1** Technical University of Berlin, Chair of Handling and Assembly Technology Research, **2** Aganer Holding, **3** Working Group for Equal Opportunities of the German Physical Society, Lab-on-Fiber GmbH

Available online

<https://www.dpg-physik.de/vereinigungen/fachuebergreifend/ak/akc/covid-19-survey-results>

“Arbeit und Leben in Balance?

Welche Auswirkungen hat die Covid-19-Pandemie auf die Work-Life-Balance?”

Summary available in German in Physik Journal 20 (2021) Nr. 2

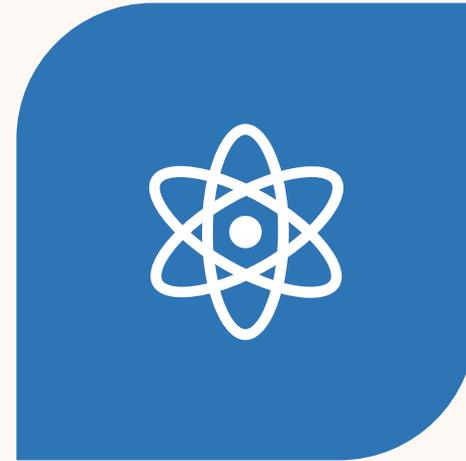
# Layout

- Statistical analysis and limitations
- Outcome of the study – Gender specific
- Outcome of the study – Leadership aspect
- Should / can we ***change***? – A simple change management tool

# Disclaimer



STATISTICS IS A BRANCH  
OF SCIENCE DEALING  
WITH ***RELEVANCE***



PHYSICS & ASTRONOMY  
ARE BRANCHES OF SCIENCE  
DEALING WITH ***RIGOR***

# Basis of the research

A cross-sectional, self-designed online survey conducted between mid-April and end of June 2020 with 1524 participants worldwide has served as the basis.

## **Measurements and covariates**

1. demographic information
2. life-style
3. remote working conditions
4. self-organization & leadership
5. post-pandemic concerns
6. free-text option

# Participant profiles

Table 1: Participants' demographics (age and gender)

	20-29	30-39	40-49	50+	SUM
Male	98 (19%)	144 (27%)	101 (19%)	186 (35%)	529 (35%)
Female	158 (16%)	320 (32%)	234 (24%)	277 (28%)	989 (65%)
Diverse	3 (50%)	1 (16%)	1 (16%)	1 (16%)	6 (0%)

Figure 1: Educational background of the participants

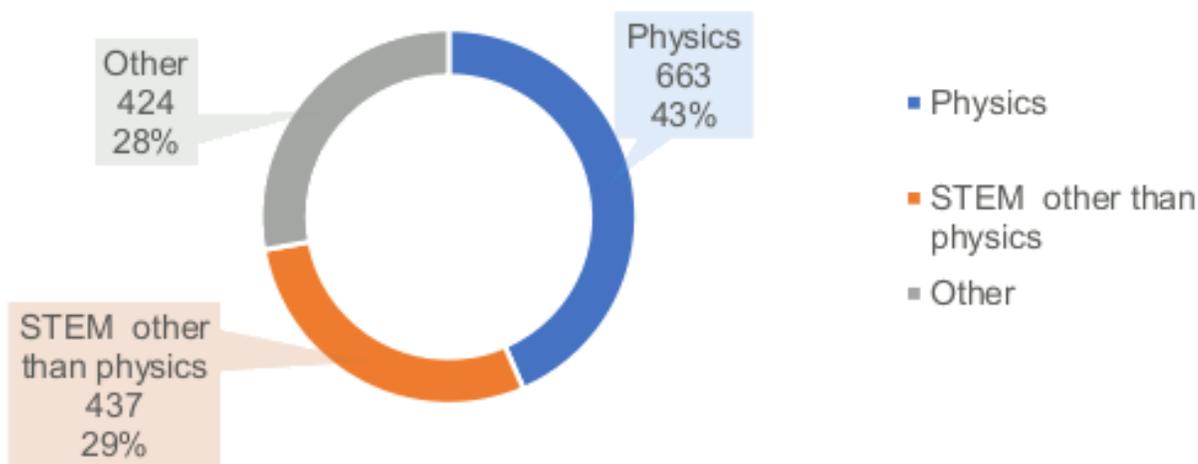
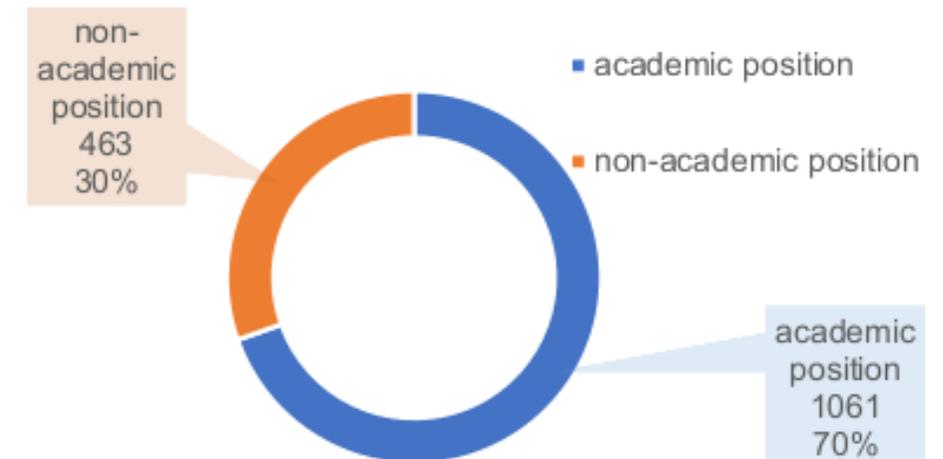


Table 2: Number of participants by continent

Continent	Count
Asia	77
Europe	1271
North America	128
South America	32
Other	16
Worldwide	1524

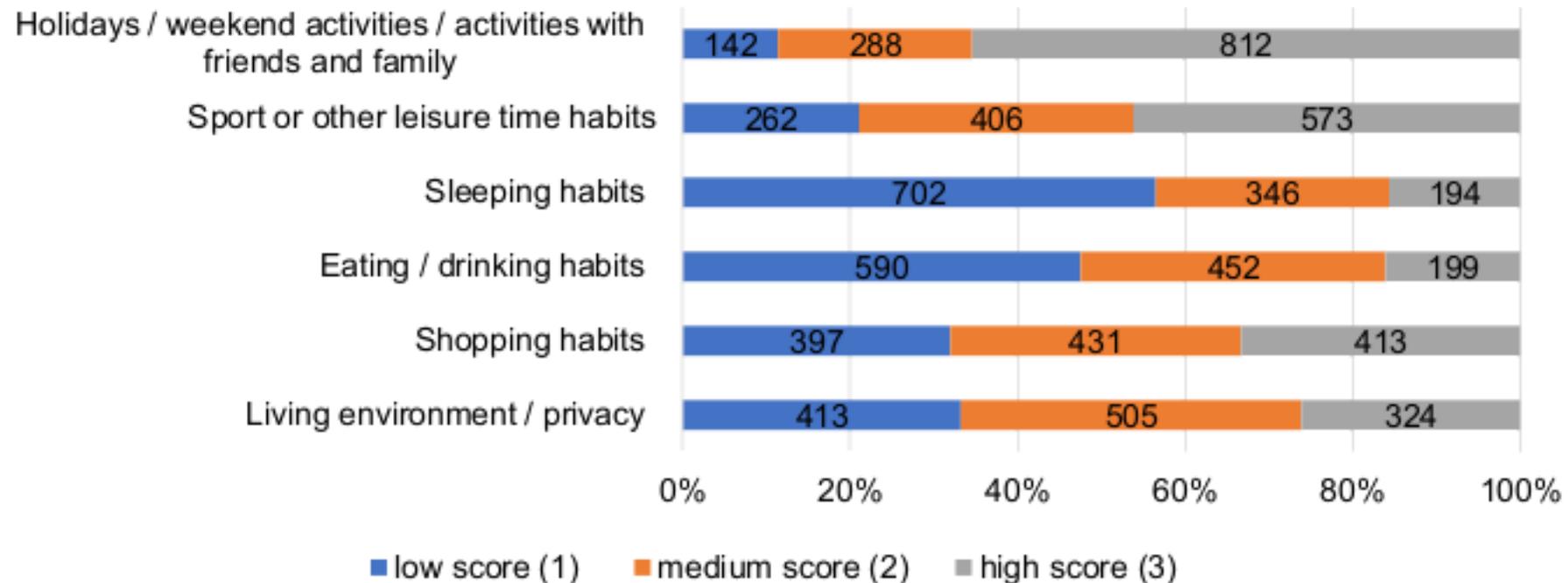
Figure 2: Professional affiliation



# Impact on lifestyle

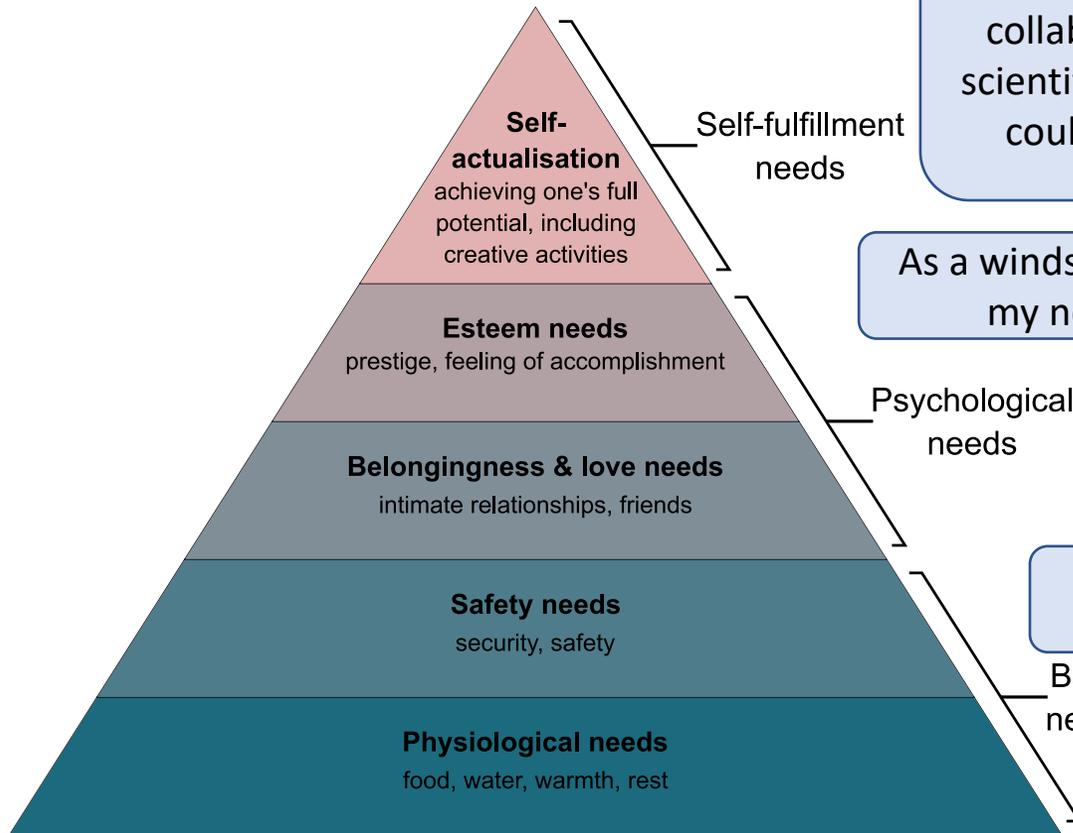
No gender specific disparities.

Figure 3: Scoring of lifestyle stressors by all participants



# A Theory Of Human Motivation – Maslow

*Psychological Review* 50 (4): 370–96, 1943



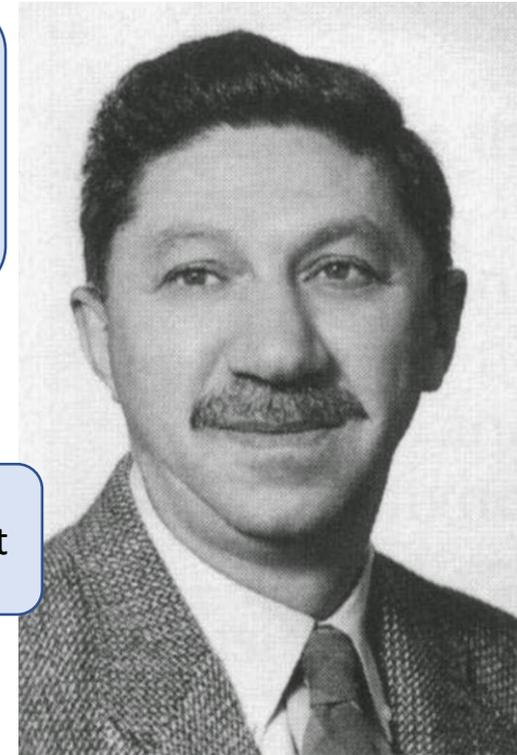
The importance of the small personal contacts at the institute, which always generate new ideas and collaborations, are massively limited, which is bad for scientific work. Ways must be found here how a balance could be created with distance rules and / or home office. *Male, 40-49, Switzerland*

As a windsurfer, I just now miss the opportunity to plan my next windsurf weeks. *Female, 50+, Germany*

Life in isolation is not easy for a solitary person either. Today it is seven weeks from when the last direct conversation... *Female, 40-49, Germany*

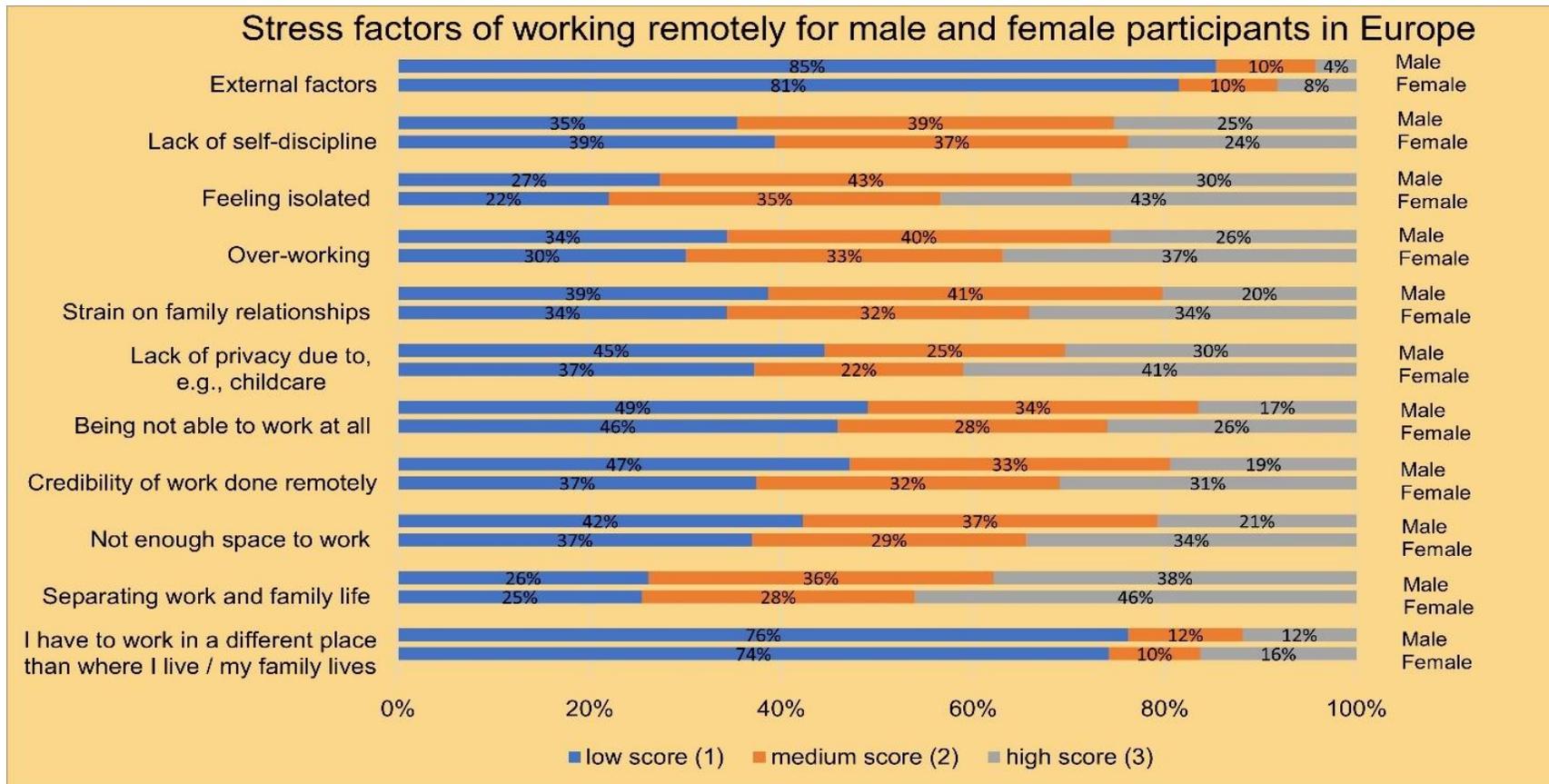
My biggest concern is contracting the virus myself. *Female, 50+, North America*

I hope that the food distribution is still given. *Female, 40-49, Canada*



# Remote working stress

## Strong gender disparity in terms of magnitude



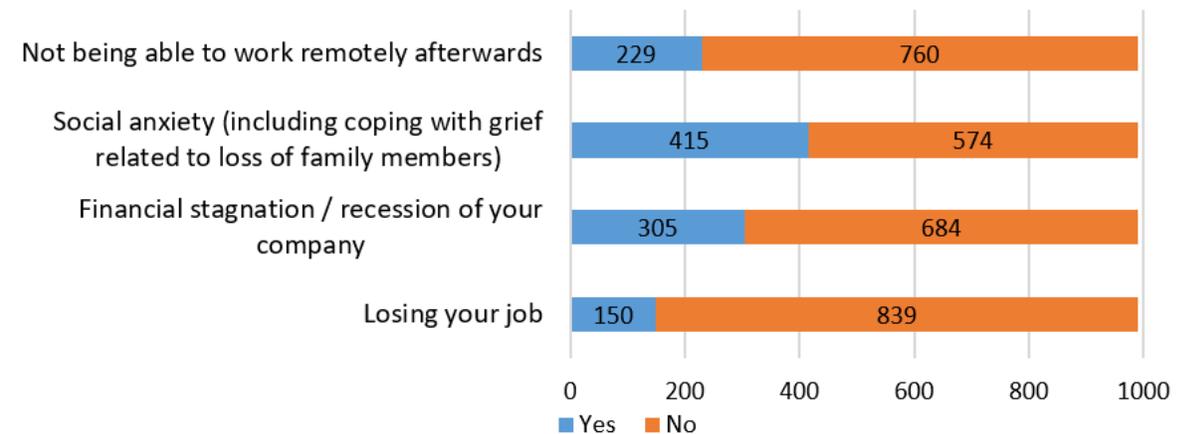
# Post-pandemic concerns

## Gender disparity in terms of types of concerns

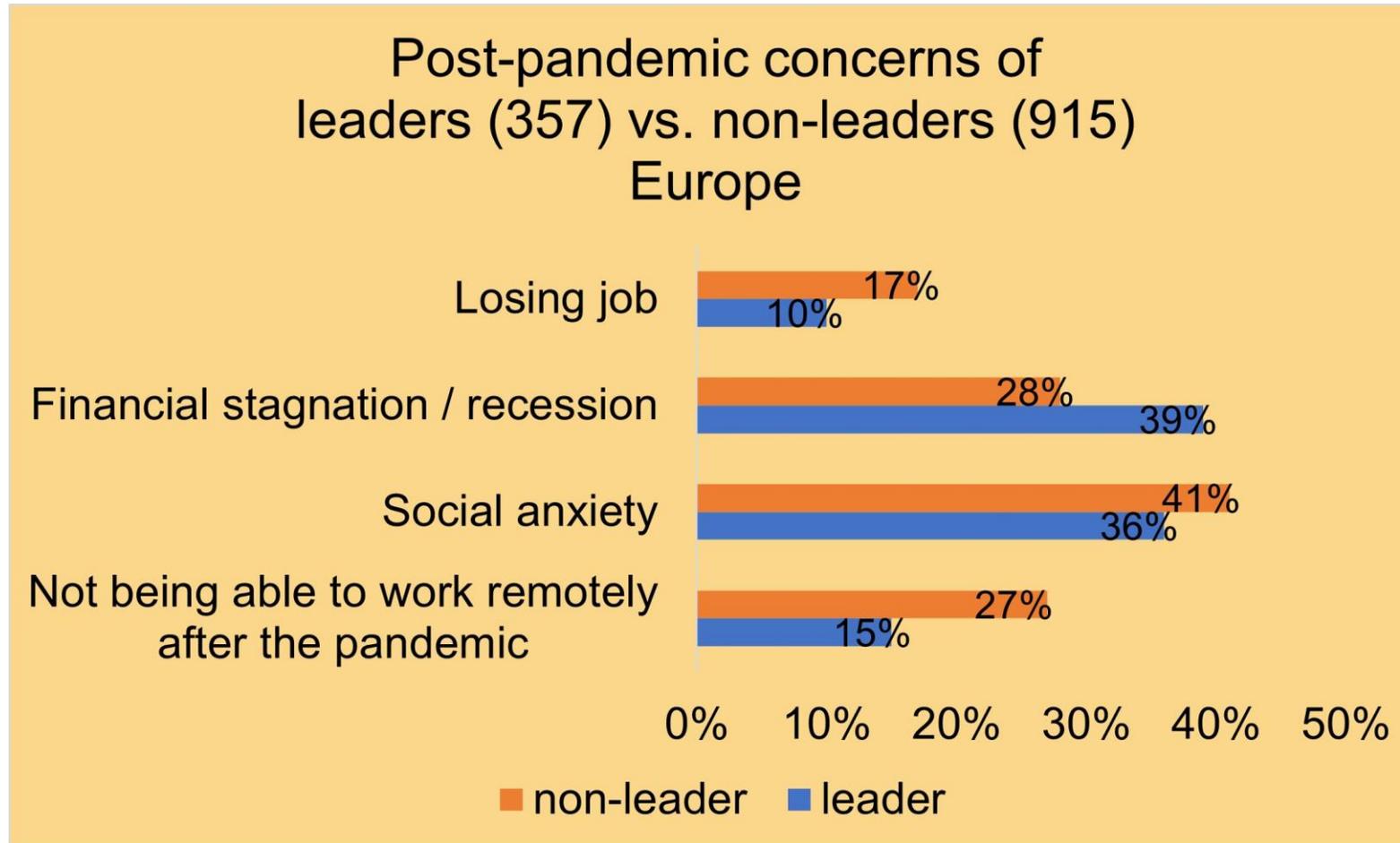
Post-pandemic concerns of **male** participants



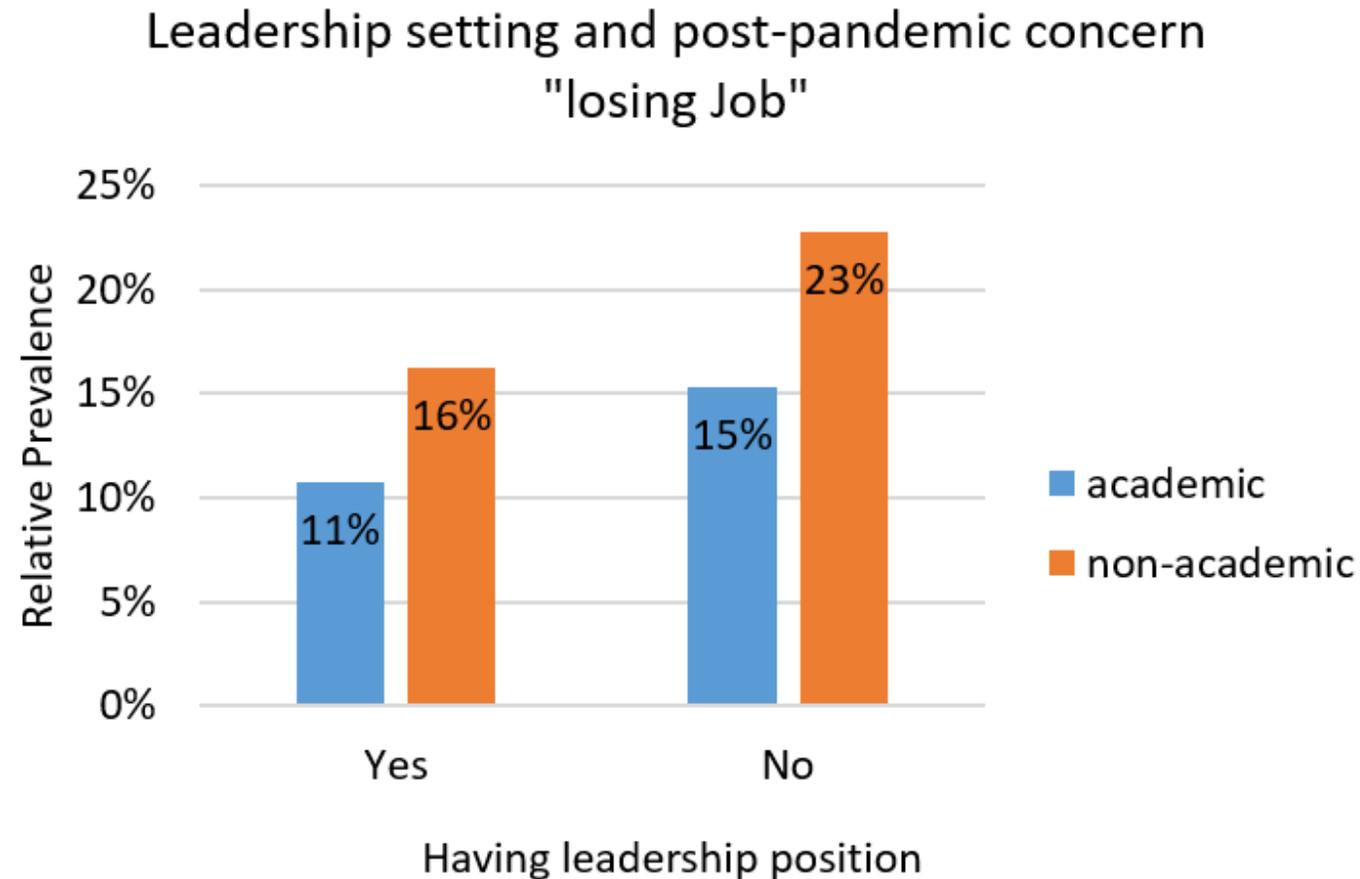
Post-pandemic concerns of **female** participants



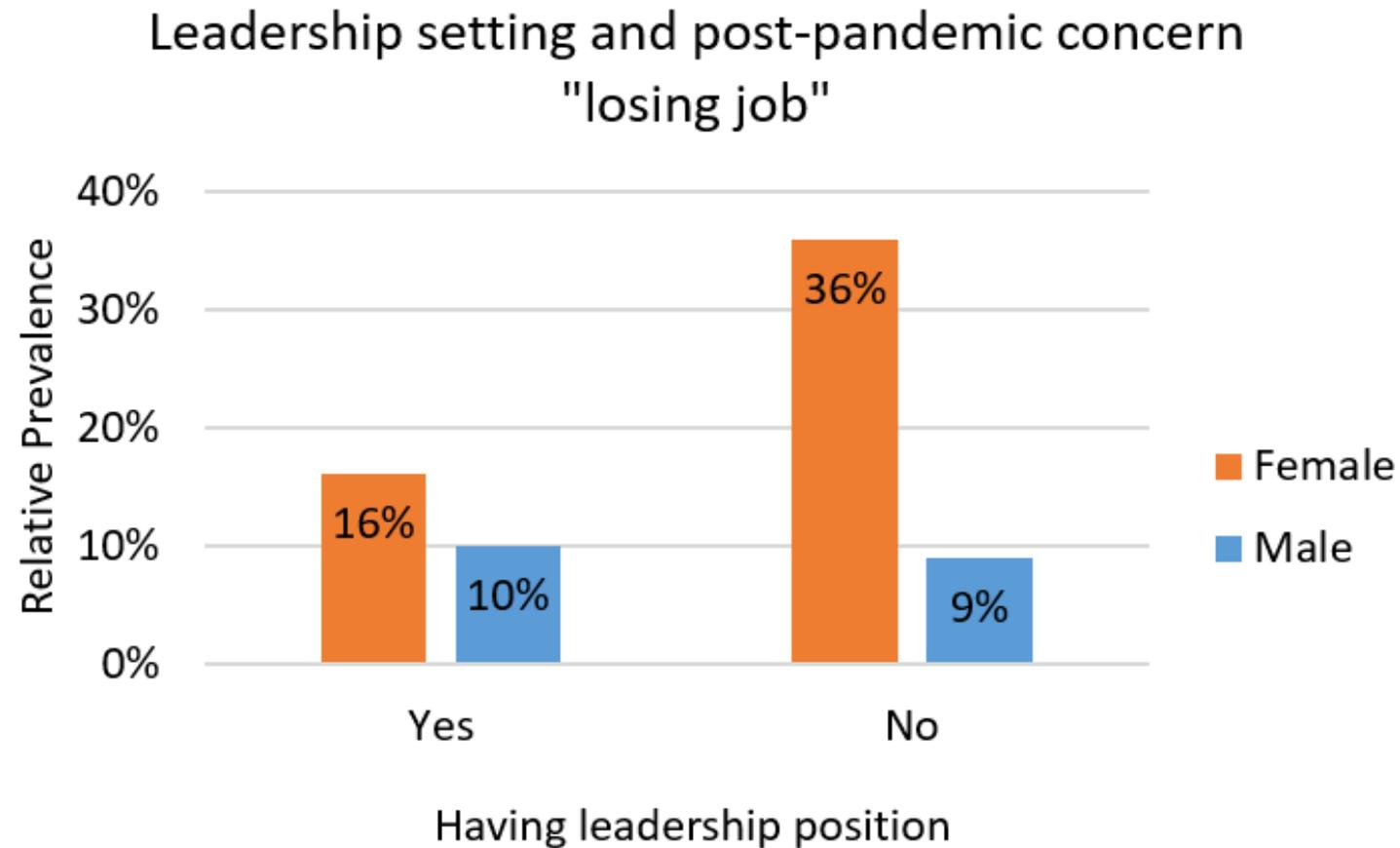
# Post-pandemic concerns



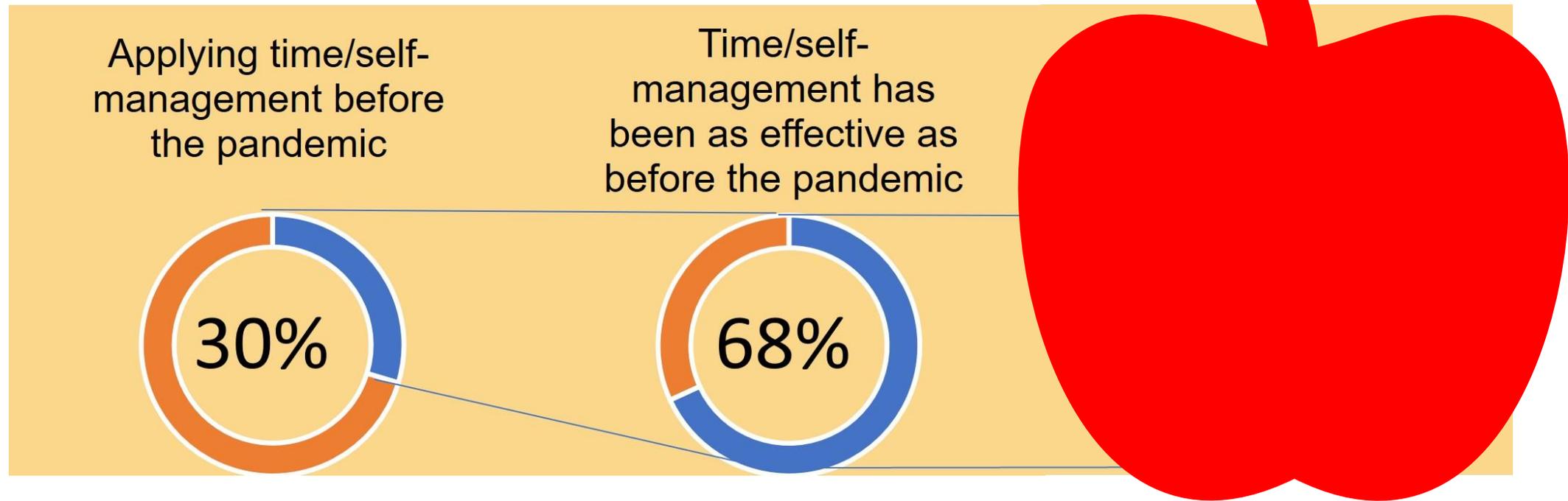
# Post-pandemic concerns



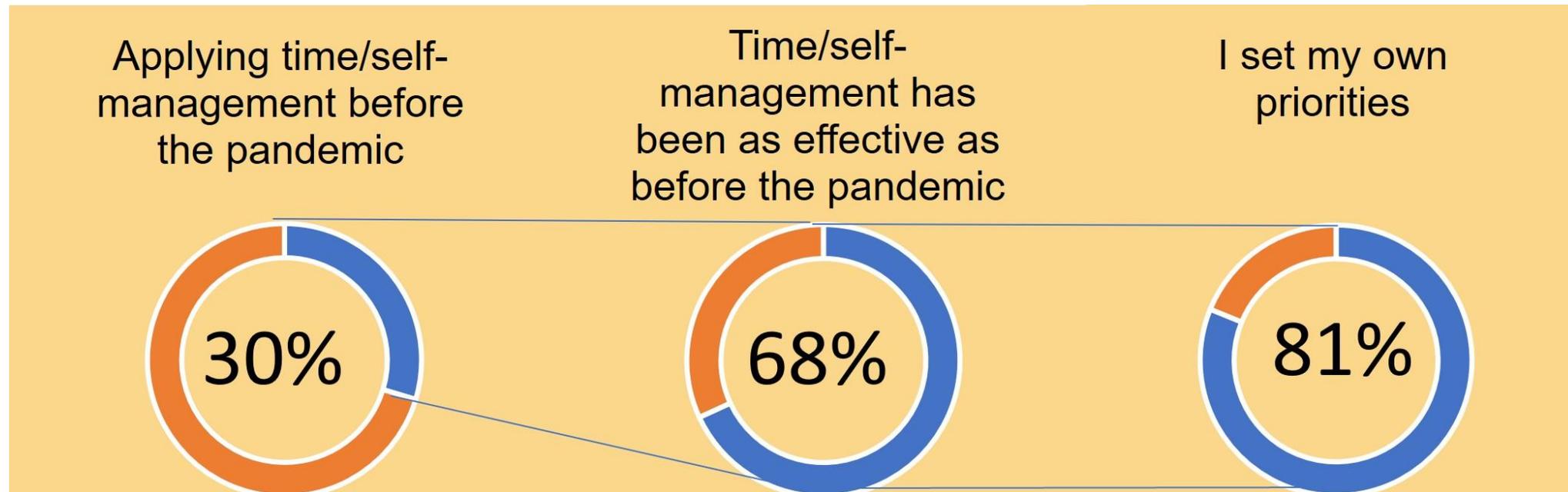
# Post-pandemic concerns



# Leadership attitudes



# Leadership attitudes



# Defining the Field at a Given Time – Lewin

*Psychological Review* 50 (4): 370–96, 1943



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The equivalent to  $(dx/dy)$  in physics is the concept '**behavior**' in psychology, if we understand the term behavior to cover any **change** in the psychological field. The field theoretical principle of contemporaneity in psychology then means that the behavior  $b$  at the time  $t$  is a function of the situation  $S$  at the time  $t$  only ( $S$  is meant to include both the person and his psychological environment) ... and not, in addition, a function of past or future situations ... (Fig. 2).

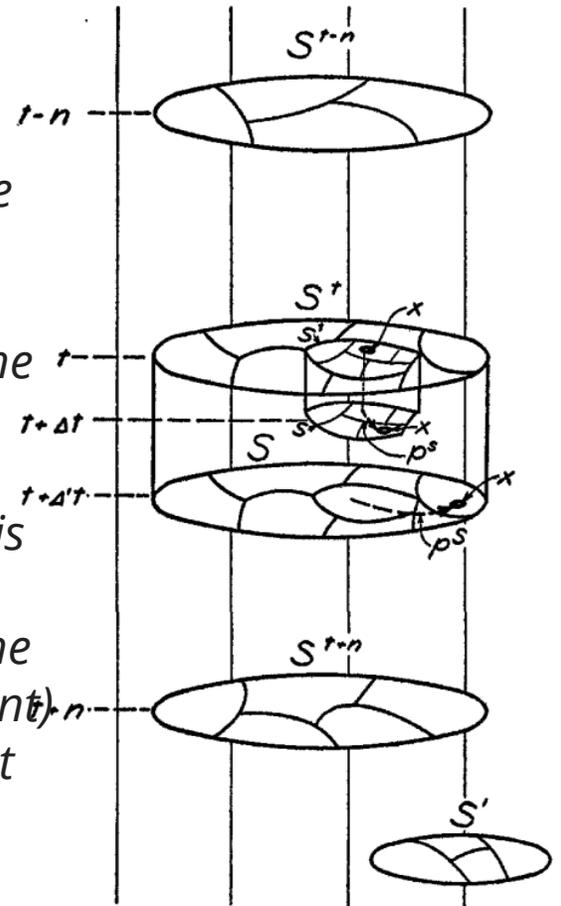


FIG. 2.  $S$  during  $t - n$  until  $t + n$  is a 'closed system'; but  $S$  is not genidentical with  $S'$ .  $S^t, t+\Delta t$  is a small time-field-unit which extends over a relatively small area and includes the relatively small time-period  $t$  until  $t + \Delta t$ .  $S^{t+\Delta t}$  is a larger time-field-unit covering a larger area and including the longer period  $t$  until  $t + \Delta t$ .  $p^s$  and  $p^S$  indicate the change in position of  $x$  during the small and the large time unit.

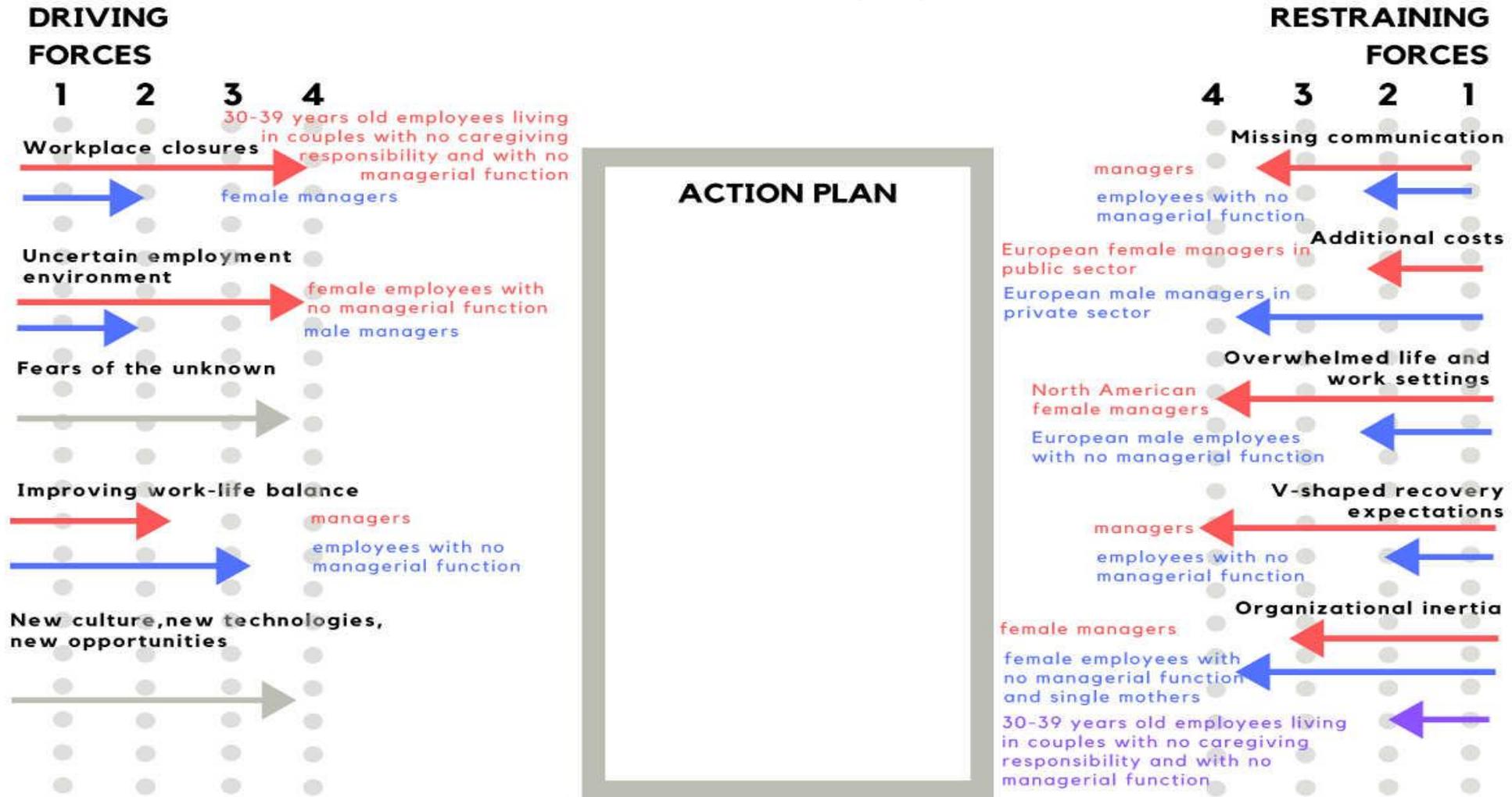


# Force – Field Analysis



# Force – Field Analysis

Force-Field Analysis for implementation of further remote working  
*with a work-life balance perspective*



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***“Change is the law of life and those who look only to the past or present are certain to miss the future.”***

John F. Kennedy, 1963

