



STRESS

Well-being and Stress Prevention in Digital Work and Home Office for SMEs **Survey Results**



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Implementation via Questionnaire

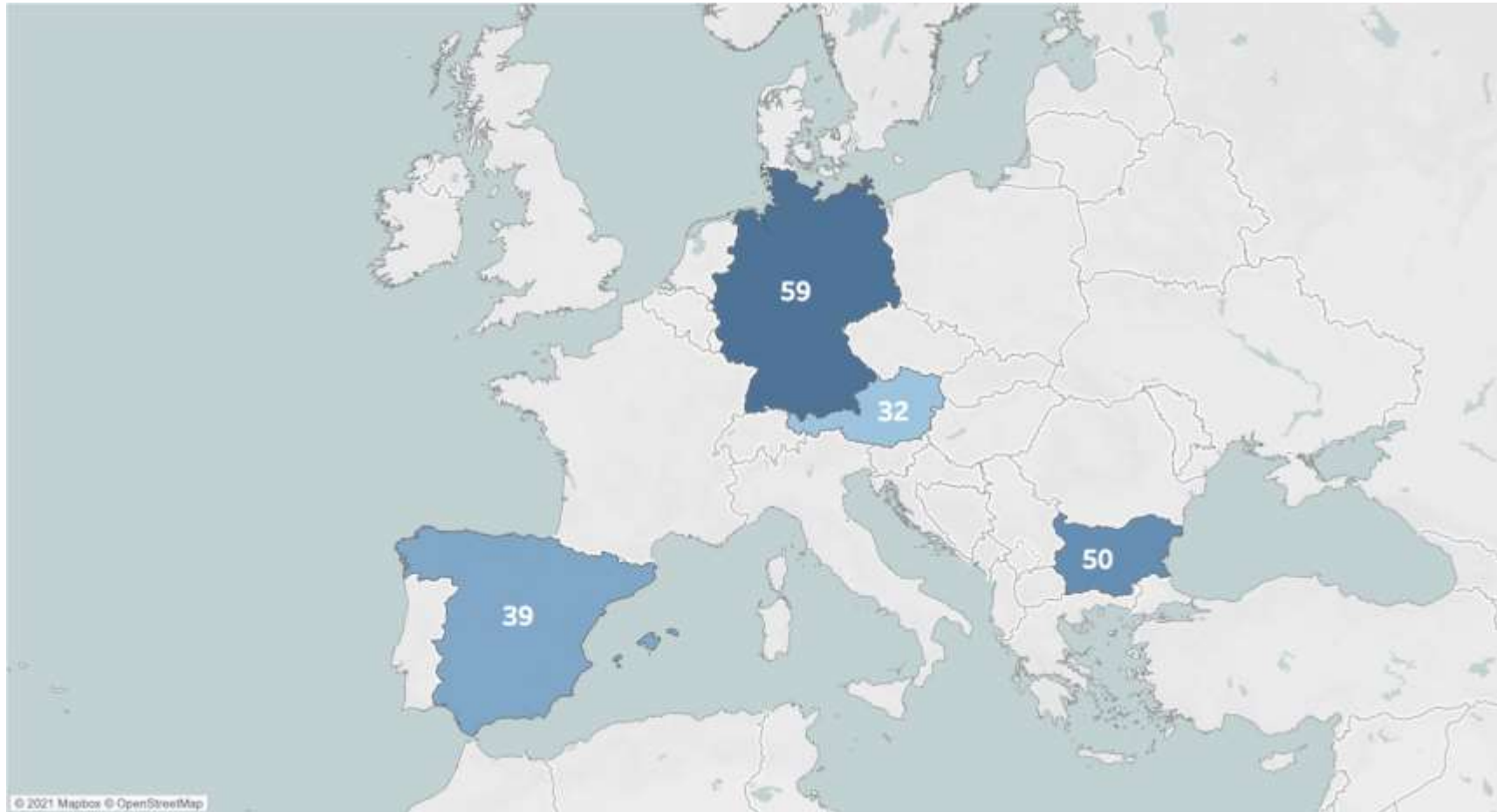


Construct	Sub-items	Items
Control variables		7
Digitalization of the workplace		5
Technology Use		3 x 21
Stressors due to ICT use		12
Strains/Outcomes	Health status	2
	Organizational outcomes	3
Home Office	Degree of home office	1
	Occupational stressors at home office	4
	Private stressors at home office	4
	Equipment	4
Coping		25
Resources	Confidence	1
	Leadership (separate for manager and employee)	6
Implemented Prevention Measures		1
Future Expectations		3

Structure

1. Control Variables
2. Digitalization of the Workplace
3. Technology Use
4. Stressors due to ICT Use
5. Stressors due to Home Office
6. Coping
7. Resources/Strains/Outcomes
8. Prevention Measures
9. Future Expectations
10. Learnings

1. Control variables – Participants



1. Control Variables

Variable	Count	Percent
Sex (n= 182)		
Female	89	49%
Male	89	49%
Diverse	2	1%
Country (n= 182)		
Austria	32	18%
Bulgaria	50	27%
Germany	59	32%
Spain	39	21%
Education (n= 182)		
No degree	0	0%
Primary school	1	1%
Secondary school	4	2%
High school	18	10%
Completed Apprenticeship	13	7%
College degree (bachelor)	43	24%
College degree (master)	89	49%
PhD	14	8%
Age (n= 182)		
18-24 years	22	12%
25-39 years	77	42%
40-59 years	69	38%
60-64 years	12	7%
> 65 years	1	1%

1. Control Variables

Variable	Count	Percent
Size of enterprise (n= 182)		
Micro enterprise (up to 9 employees)	50	27%
Small enterprise (10 to 49 employees)	54	30%
Medium enterprise (up to 249 employees)	31	17%
Large enterprise (more than 250 employees)	41	23%
Type of employment (n = 182)		
Employed	148	81%
Self-employed	32	18%
With management responsibilities (n= 182)		
Yes	96	53%
No	86	47%

Knowledge digital stress	All	Austria	Bulgaria	Germany	Spain
Mean	1,99	1,94	1,84	2,25	1,70

Knowledge digital stress	Employee	Manager
Mean	1,8	2,16

(0) do not agree at all; (1) rather disagree; (2) partly agree ; (3) rather agree (4) fully agree

2. Digitalization of the Workplace

	All	Austria	Bulgaria	Germany	Spain
I depend on digital technologies (e.g. internet, email, specific software) to complete my work tasks.	3,82	3,47	3,86	3,95	3,87
I use hardware provided by my employer (e.g. smartphone, laptop, computer) to complete my work tasks.	3,34	2,87	3,80	3,45	2,95
I frequently use digital technologies during work.	3,83	3,59	3,78	3,95	3,90
I use digital technologies in my daily work that require specific training.	2,96	2,78	3,00	3,07	2,85
Without the use of digital technologies, the performance of my job would be impossible.	3,71	3,31	3,73	3,88	3,72
Mean	3,54	3,23	3,63	3,66	3,45

(0) do not agree at all; (1) rather disagree; (2) partly agree ; (3) rather agree (4) fully agree

Minimum: red
Maximum: green

3. Technology Use - Items

Label	Item
Printer/Scanner/Fax	Printer / Scanner / Fax
PC	Stationary computer / PC
Laptop	Laptop
Stationary phone	Stationary phone
Smartphone	Smartphone
Mobile Phone (No Smartphone)	Mobile phone (no smartphone)
Headset	Headset
Tablet	Tablet
E-Mail	E-mail programmes
WWW	World Wide Web (e.g. browser, web applications)
Text, Spreadsheet	Text, spreadsheet and presentation software (e.g. MS Office)
Knowledge Systems	Document and knowledge management systems (e.g. intranets, blogs, wikis)
Web Conferences	Real-time communication systems (e.g. web conferences, chat)
Social Interaction	Social interaction and collaboration systems (e.g. social networks, synchronous collaboration)
Content Management	Content management systems (e.g. software for creating websites)
Security	Systems for security through user interaction (e.g. password entry)
Background Security	Background security systems (e.g. firewalls, cryptography, VPN)
Cloud Computing	Cloud computing and virtual machines (e.g. access to computing power or software via the internet)
Speech Interaction	Speech interaction (e.g. voice control, software for converting speech into text)
AI	Artificial intelligence (e.g. machine learning)
VR	Augmented, virtual and mixed reality (e.g. data glasses)

3. Technology Use

Technologies	Before	During	After	Before - During	During - After	Before -After
Printer/Scanner/Fax	2,55	1,83	2,31	-28%	26%	-9%
PC	2,22	1,66	1,87	-25%	13%	-16%
Laptop	3,22	3,63	3,52	13%	-3%	9%
Stationary phone	1,64	0,83	1,37	-49%	65%	-16%
Smartphone	3,1	3,38	3,27	9%	-3%	5%
Mobile Phone (No Smartphone)	0,46	0,45	0,53	-2%	18%	15%
Headset	1,9	2,28	2,44	20%	7%	28%
Tablet	0,97	0,91	1,05	-6%	15%	8%
E-Mail	3,69	3,74	3,72	1%	-1%	1%
WWW	3,81	3,83	3,74	1%	-2%	-2%
Text, Spreadsheet	3,35	3,45	3,4	3%	-1%	1%
Knowledge Systems	2,35	2,51	2,64	7%	5%	12%
Web Conferences	2,37	3,4	3,1	43%	-9%	31%
Social Interaction	2,33	2,69	2,77	15%	3%	19%
Content Management	1,36	1,16	1,59	-15%	37%	17%
Security	2,81	2,73	2,74	-3%	0%	-2%
Background Security	2,21	2,36	2,35	7%	0%	6%
Cloud Computing	2,17	2	2,24	-8%	12%	3%
Speech Interaction	0,61	0,64	0,88	5%	38%	44%
AI	0,65	0,58	0,9	-11%	55%	38%
VR	0,25	0,23	0,43	-8%	87%	72%
Mean	2,10	2,11	2,23	Barely different		

(0) very rarely or never; (1) rarely; (2) sometimes; (3) frequently; (4) very often or constantly

< 1 or < -20%: red
 > 3 or > 20%: green

3. Technology Use - Intensity

Before the pandemic		Number of digital technologies and media in the workplace		
		Low number	High Number	
Intensity of use	Low intensity	59 (37%)	27 (17%)	Median split: Number of dig. Technologies: 15 Intensity of use: 2
	High intensity	16 (10%)	52 (39%)	

During the pandemic		Number of digital technologies and media in the workplace		
		Low number	High Number	
Intensity of use	Low intensity	72 (40%)	20 (11%)	Median split: Number of dig. Technologies: 12 Intensity of use: 2
	High intensity	18 (10%)	71 (39%)	

After the pandemic		Number of digital technologies and media in the workplace		
		Low number	High Number	
Intensity of use	Low intensity	67 (42%)	34 (21%)	Median split: Number of dig. Technologies: 15 Intensity of use: 3
	High intensity	11 (7%)	50 (31%)	

4. Stressors due to ICT Use

Label	Item
Performance	Through the use of digital technologies, the monitoring of my work performance is increasing.
Invasion of Privacy	The use of digital technologies violates my privacy.
Unreliability	The digital technologies I use are unreliable.
Interruptions	Due to the use of digital technologies, I experience frequent interruptions during my work.
Overload	Due to the use of digital technologies, my workload increases.
Uncertainty	My skills need to be developed regularly due to frequent changes and changes in digital technologies.
Non Availability	The digital technologies required for my work are not available.
Role Ambiguity	I have to invest more time in solving problems with digital technologies than in my actual work activity.
Complexity	The high complexity of digital technologies exceeds my abilities.
Invasion	Due to the use of digital technologies, my boundaries between work and private life are increasingly dissolving.
Insecurity	I am at risk of losing my job due to new digital technologies.
No Sense of Achievement	Due to the use of digital technologies, my work progress is hardly perceivable.

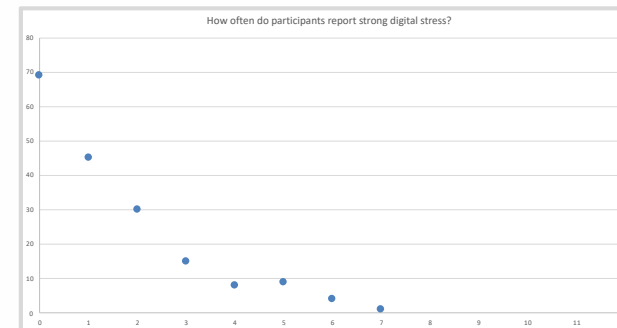
4. Stressors due to ICT Use - Distribution

Stressor (N >= 177)	Do not Agree at All	Rather Disagree	Partly Agree	Rather Agree	Fully Agree
Performance	12%	14%	18%	32%	25%
Invasion of Privacy	18%	28%	24%	21%	8%
Unreliability	25%	38%	25%	8%	4%
Interruptions	16%	27%	21%	18%	17%
Overload	15%	18%	17%	26%	24%
Uncertainty	7%	11%	17%	29%	36%
Non Availability	43%	31%	17%	7%	2%
Role Ambiguity	35%	31%	21%	7%	6%
Complexity	46%	31%	14%	6%	3%
Invasion	9%	14%	29%	24%	24%
Insecurity	64%	26%	7%	2%	1%
No Sense of Achievement	35%	33%	24%	8%	1%

Fully Agree > 15%: red

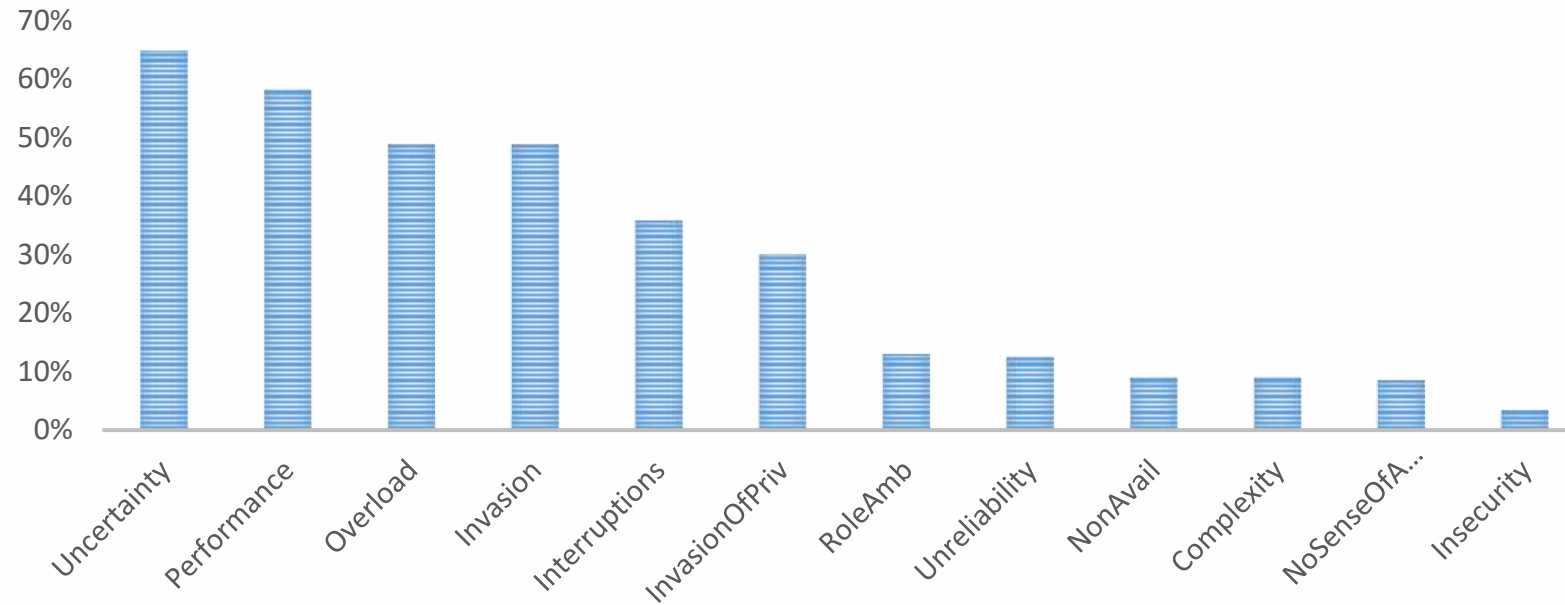


62% of all participants reported at least at one factor severe stress!



4. Stressors due to ICT Use

PROPORTION OF RESPONDENTS WHO RESPONDED EITHER WITH (3) RATHER AGREE OR (4) STRONGLY AGREE



4. Stressors due to ICT Use - Country Level

Stressor	All	Austria	Bulgaria	Germany	Spain
Performance	2,45	2,25	2,71	1,97	2,97
Invasion of Privacy	1,73	1,44	2,34	1,24	1,89
Unreliability	1,29	1,26	1,57	0,95	1,47
Interruptions	1,93	1,72	1,80	2,03	2,11
Overload	2,24	1,84	2,40	2,10	2,58
Uncertainty	2,75	2,25	3,14	2,84	2,53
Non Availability	0,93	0,88	1,22	0,78	0,84
Role Ambiguity	1,19	1,03	1,52	0,88	1,26
Complexity	0,89	1,06	1,22	0,59	0,76
Invasion	2,41	2,44	2,48	2,29	2,47
Insecurity	0,51	0,63	0,92	0,25	0,19
No Sense of Achievement	1,07	1,16	1,08	1,22	0,82
Mean	1,62	1,51	1,87	1,44	1,66

(0) do not agree at all; (1) rather disagree; (2) partly agree ; (3) rather agree (4) fully agree

Minimum: red
Maximum: green

4. Stressors due to ICT Use - Company Level

Stressor	Micro	Small	Medium	Large
Performance	2,56	2,23	2,57	2,44
Invasion of Privacy	1,9	1,54	1,65	1,88
Unreliability	1,51	1,19	1,28	1,2
Interruptions	2,43	1,74	1,87	1,73
Overload	2,35	2,11	2,1	2,34
Uncertainty	2,88	2,48	2,9	2,75
Non Availability	1,08	0,79	1	0,95
Role Ambiguity	1,37	1,09	1,1	1,07
Complexity	1	0,81	0,84	0,88
Invasion	2,58	2,38	2,19	2,44
Insecurity	0,46	0,47	0,52	0,58
No Sense of Achievement	1,12	1,11	1,1	1,07
Mean	1,77	1,5	1,59	1,61

Minimum: red
Maximum: green

4. Stressors due to ICT Use - Country/ Company Level



Stressor	Austria				Bulgaria				Germany				Spain			
	Micro	Small	Med.	Large	Micro	Small	Med.	Large	Micro	Small	Med.	Large	Micro	Small	Med.	Large
Performance	3	2,08	1,67	2	2,64	2,5	2,5	3,09	2,07	1,83	2,36	1,86	2,77	2,89	3,5	2,86
Invasion of Privacy	1,71	1,15	1,67	1,75	2,4	2,17	2,5	2,36	1,57	1,06	1,09	1,36	1,79	2,22	1,29	2,29
Unreliability	1,57	1,08	0	1,75	1,5	1,67	1,7	1,36	1,29	0,84	1	0,71	1,71	1,44	1,43	1,29
Interruptions	2	1,61	2,33	1,5	2,07	1,5	2,1	1,46	2,79	1,79	1,91	1,79	2,64	2,11	1,29	2
Overload	2	1,85	1,5	1,75	2,07	2,58	2,4	2,36	2,31	1,74	2,27	2,29	2,86	2,67	1,57	2,86
Uncertainty	3	1,85	1,67	2,5	2,87	3,08	3,3	3,3	3,36	2,5	3	2,57	2,36	2,56	2,71	2,43
Non Availability	1,14	1,08	1	0,38	1,36	1	1,3	1,36	1,07	0,74	0,91	0,5	0,79	0,22	0,71	1,86
Role Ambiguity	1	1,23	1	0,88	1,47	1,5	1,8	1,27	1,15	0,74	1,09	0,57	1,64	1,11	0,14	1,57
Complexity	1,33	1,23	1,33	0,62	1,27	1,08	1,3	1,18	0,57	0,58	0,73	0,43	1	0,33	0,14	1,43
Invasion	3	2,46	1,67	2	2,33	2,5	2,4	2,82	2,64	2	2,46	2,21	2,57	2,89	1,71	2,57
Insecurity	0,43	0,69	0,67	0,75	0,73	0,75	1	1,18	0,36	0,32	0,36	0	0,29	0,11	0	0,33
No sense of Achievement	1,43	1,08	1,33	1,12	1,13	0,83	1,1	1,36	1,21	1,47	1,46	0,79	0,86	0,78	0,43	1,29
Mean	1,8	1,45	1,32	1,42	1,82	1,76	1,95	1,93	1,7	1,3	1,55	1,26	1,77	1,61	1,24	1,9

4. Stressors due to ICT Use - Gender Level

Stressor	Male	Female
Performance	2,36	2,506
Invasion of Privacy	1,591	1,852
Unreliability	1,172	1,356
Interruptions	1,954	1,932
Overload	2,264	2,216
Uncertainty	2,966	2,54
Non Availability	0,841	1,011
Role Ambiguity	1,092	1,303
Complexity	0,83	0,932
Invasion	2,386	2,483
Insecurity	0,398	0,625
No Sense of Achievement	1,057	1,045
Mean	1,576	1,65

4. Stressors due to ICT Use - Age Level

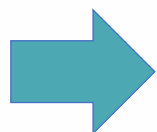
Stressor	18-24 Years	25-39 Years	40-59 Years	60-64 Years
Performance	2,545	2,513	2,446	2
Invasion of Privacy	1,5	1,831	1,701	1,667
Unreliability	1,591	1,276	1,227	1
Interruptions	2,318	1,987	1,882	1,167
Overload	2,136	2,067	2,426	2,417
Uncertainty	2,714	2,5	3,059	2,75
Non Availability	1,091	0,921	0,868	1
Role Ambiguity	1,455	1	1,191	1,667
Complexity	0,591	0,701	1,075	1,333
Invasion	2,864	2,429	2,397	1,917
Insecurity	0,318	0,351	0,676	0,909
No Sense of Achievement	1,091	1,026	1,088	1,167
Mean	1,684	1,55	1,67	1,583

5. Stressors due to Home Office - Items

Label	Item
Limited internal communication	Internal company communication in the home office is only possible to a limited extent.
Limited external communication	External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.
No flexible working hours	My working hours in the home office are not flexible.
Not satisfied with working hours	I am not satisfied with my working hours in the home office.
No time for private care	I do not have time for private care obligations (e.g. school-age children).
Can not separate home working and free time	It is not possible for me to satisfactorily delineate working time and free time in the home office.
No time to relax	I lack time to relax away from the home office.
Do not like to spend time at home	I don't like to spend much time at home.

5. Stressors due to Home Office - Distribution

Stressor	Do not Agree at All	Rather Disagree	Partly Agree	Rather Agree	Fully Agree
Internal company communication in the home office is only possible to a limited extent.	20%	19%	26%	24%	10%
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	22%	29%	20%	18%	12%
My working hours in the home office are not flexible.	33%	27%	16%	16%	9%
I am not satisfied with my working hours in the home office.	38%	29%	12%	12%	9%
I do not have time for private care obligations (e.g. school-age children).	37%	27%	18%	12%	6%
It is not possible for me to satisfactorily delineate working time and free time in the home office.	23%	19%	17%	23%	17%
I lack time to relax away from the home office.	23%	21%	19%	21%	17%
I don't like to spend much time at home.	28%	25%	23%	15%	10%



38% of all participants reported at least at one factor severe stress!

5. Stressors due to Home Office – Country Level

Stressor	All	Austria	Bulgaria	Germany	Spain
Internal company communication in the home office is only possible to a limited extent.	1,85	1,48	2,74	1,47	1,46
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	1,69	1,38	2,16	1,47	1,57
My working hours in the home office are not flexible.	1,42	1,12	1,74	1,38	1,24
I am not satisfied with my working hours in the home office.	1,25	1,33	1,61	0,91	1,24
I do not have time for private care obligations (e.g. school-age children).	1,22	1,47	1,57	0,75	1,22
It is not possible for me to satisfactorily delineate working time and free time in the home office.	1,92	1,92	2,26	1,80	1,59
I lack time to relax away from the home office.	1,88	2,19	2,12	1,42	2,00
I don't like to spend much time at home.	1,53	2,00	1,69	1,22	1,44
Mean	1,60	1,65	1,98	1,17	1,56

(0) do not agree at all; (1) rather disagree; (2) partly agree ; (3) rather agree (4) fully agree

Minimum: red
Maximum: green

5. Stressors due to Home Office – Company Level



Stressor	Micro	Small	Medium	Large
Internal company communication in the home office is only possible to a limited extent.	1,79	1,63	1,69	2,13
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	1,89	1,56	1,69	1,51
My working hours in the home office are not flexible.	1,3	1,69	1,36	1,32
I am not satisfied with my working hours in the home office.	1,28	1,17	1,14	1,47
I do not have time for private care obligations (e.g. school-age children).	1,08	1,29	1,04	1,38
It is not possible for me to satisfactorily delineate working time and free time in the home office.	2,09	1,78	1,63	2,08
I lack time to relax away from the home office.	2,09	1,76	1,7	1,89
I don't like to spend much time at home.	1,44	1,44	1,75	1,55
Mean	1,62	1,54	1,5	1,67

Minimum: red
Maximum: green

Stressors due to Home Office – Gender Level

Stressor	Male	Female
Internal company communication in the home office is only possible to a limited extent.	1,706	1,988
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	1,578	1,795
My working hours in the home office are not flexible.	1,229	1,62
I am not satisfied with my working hours in the home office.	1,229	1,3
I do not have time for private care obligations (e.g. school-age children).	1	1,456
It is not possible for me to satisfactorily delineate working time and free time in the home office.	1,783	2,076
I lack time to relax away from the home office.	1,646	2,127
I don't like to spend much time at home.	1,407	1,695
Mean	1,447	1,757

5. Stressors due to Home Office – Age Level



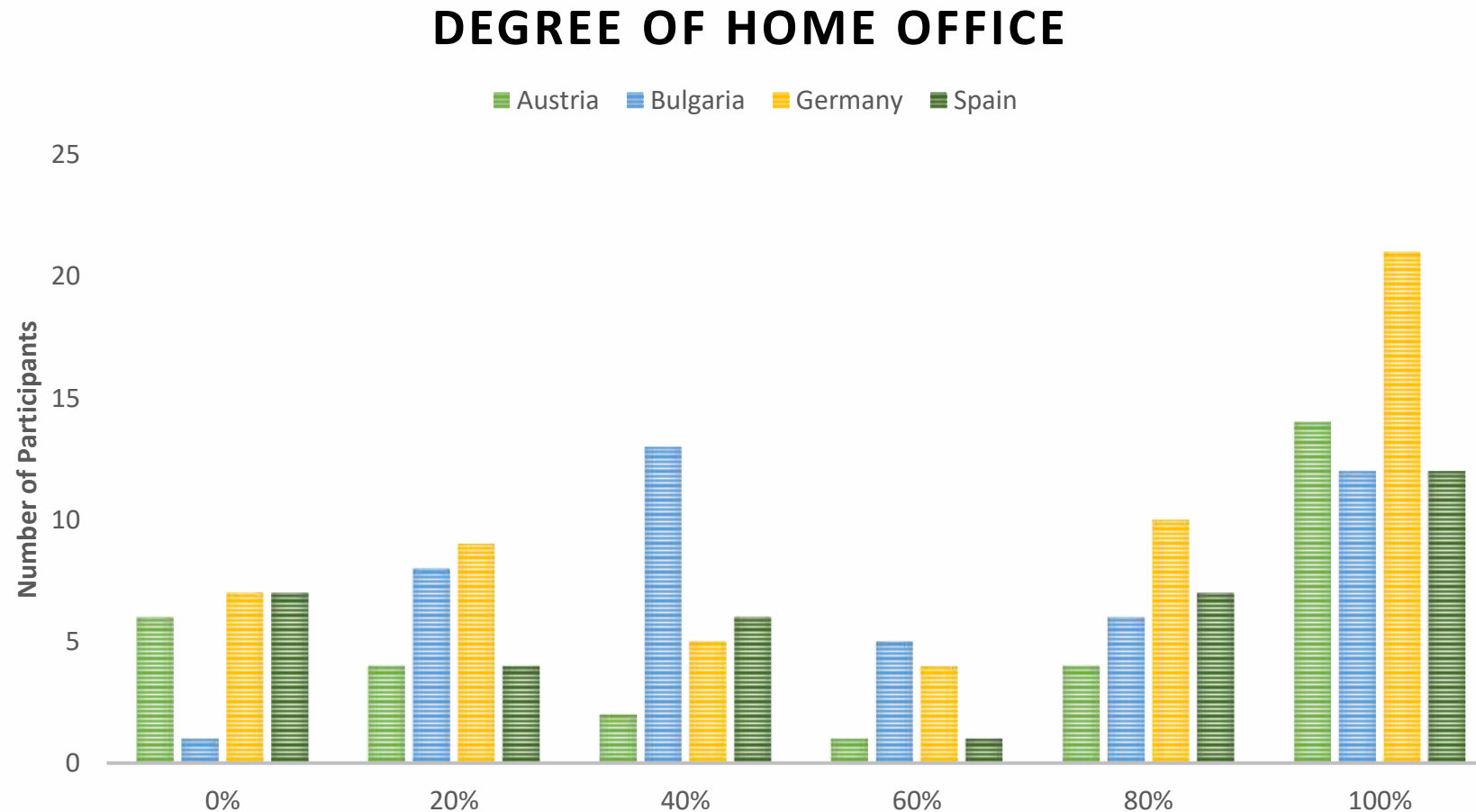
Stressor	18-24 Years	25-39 Years	40-59 Years	60-64 Years
Internal company communication in the home office is only possible to a limited extent.	1,85	1,493	2,188	2,182
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	1,611	1,554	1,781	2
My working hours in the home office are not flexible.	1,211	1,507	1,426	1
I am not satisfied with my working hours in the home office.	1,737	1,162	1,3	0,917
I do not have time for private care obligations (e.g. school-age children).	1,6	1,161	1,283	1,083
It is not possible for me to satisfactorily delineate working time and free time in the home office.	2,368	1,986	1,918	1
I lack time to relax away from the home office.	2,789	1,863	1,8	1,091
I don't like to spend much time at home.	2,474	1,605	1,222	1,25
Mean	1,955	1,541	1,615	1,315

5. Stressors due to Home Office – Degree of Home Office

	0% (n=21)	20% (n=25)	40% (n=26)	60% (n=11)	80% (n=29)	100% (n=64)
Internal company communication in the home office is only possible to a limited extent.	1,85	1,88	2,12	1,64	1,93	1,72
External communication (e.g. with customers, cooperation partners) is only possible to a limited extent in the home office.	1,93	1,68	1,92	1,73	1,86	1,38
My working hours in the home office are not flexible.	2,57	1,48	1,69	1,27	1,28	1,25
I am not satisfied with my working hours in the home office.	1,5	0,92	1,23	1,36	1,17	1,44
I do not have time for private care obligations (e.g. school-age children).	1,43	1,35	1,67	1,5	1,08	1,04
It is not possible for me to satisfactorily delineate working time and free time in the home office.	2,38	1,71	1,73	1,91	1,97	2,08
I lack time to relax away from the home office.	2	1,33	1,68	2,27	1,79	2,16
I don't like to spend much time at home.	1,5	1,44	1,44	1,91	1,24	1,7
Mean	1,90	1,47	1,69	1,70	1,54	1,60

Minimum: red
Maximum: green

5. Stressors due to Home Office – Degree of Home Office



5. Equipment in the Home Office

Equipment	Austria	Bulgaria	Germany	Spain
I have the necessary digital technologies available in my home office.	3,23	3,14	3,26	3,06
If problems arise with digital technologies in the home office, I receive uncomplicated support.	2,4	2,36	2,79	2,33
I have the necessary information available for my work in the home office.	3,04	3,14	3,21	3,34
When I work in home office, the necessary spatial conditions are available (e.g. sufficient space for documents, software, tools).e, tools).	2,58	2,66	2,84	2,81
Mean	2,81	2,83	3,03	2,89

Equipment	Micro	Small	Medium	Large
I have the necessary digital technologies available in my home office.	3,1	3,14	3,39	3,26
If problems arise with digital technologies in the home office, I receive uncomplicated support.	2,53	2,48	2,9	2,29
I have the necessary information available for my work in the home office.	3,38	3,1	3,24	3,08
When I work in home office, the necessary spatial conditions are available (e.g. sufficient space for documents, software, tools).e, tools).	2,89	2,63	2,9	2,58
Mean	2,98	2,84	3,11	2,8

Minimum: red
Maximum: green

6. Coping - Items

Label	Item	Strategy
Distraction1	I kept myself busy with work or other things to get my mind off things.	
AktBewa1	I focused on changing something about my situation.	Active functional
Verleugnung1	I told myself that it wasn't true.	Dysfunctional
Drogen	I have taken alcohol or other substances to make myself feel better.	Dysfunctional
EmoUnt1	I have received pep talks from others.	Active functional
VerhaltensRue1	I have given up dwelling on it.	Cognitive functional
AktBewa2	I took active action to make the situation better.	Active functional
Verleugnung2	I just didn't want to believe this was happening to me.	Dysfunctional
AusEmo1	I gave free rein to my feelings.	Cognitive functional
InstrUnt1	I sought advice from other people.	Active functional
PosUmdeu1	I looked at things from a more positive side.	Cognitive functional
Selbstbeschuldigung	I criticised myself and blamed myself.	Dysfunctional
Planung1	I thought of a plan of what I could do.	Active functional
EmoUnt2	Someone comforted me and showed me understanding.	Active functional
VerhaltensRue2	I didn't even try to take control of the situation anymore.	Cognitive functional
PosUmdeu2	I found something good in what happened to me.	Cognitive functional
Humor1	I made jokes about it.	Cognitive functional
Ablenkung2	I did something to distract myself.	Cognitive functional
Akzeptanz1	I made peace with the fact that it happened.	Cognitive functional
AusEmo2	I have been open about how bad I feel.	Active functional
Religion	I have found support in my faith.	Cognitive functional
InstrUnt2	I have asked other people for help.	Active functional
Akzeptanz2	I have learned to live with it.	Cognitive functional
Planung2	I have thought a lot about what would be the right thing to do here.	Active functional
Humor2	I have taken everything with humour.	Cognitive functional

6. Coping - Strategies

Strategy	Technostress	Homeoffice	Difference
I kept myself busy with work or other things to get my mind off things.	1,98	1,99	-0,01
I focused on changing something about my situation.	2,14	2,22	-0,08
I told myself that it wasn't true.	0,79	0,71	0,08
I have taken alcohol or other substances to make myself feel better.	0,63	0,58	0,04
I have received pep talks from others.	2,02	1,99	0,03
I have given up dwelling on it.	1,26	1,38	-0,11
I took active action to make the situation better.	2,48	2,33	0,15
I just didn't want to believe this was happening to me.	0,69	0,78	-0,09
I gave free rein to my feelings.	1,50	1,59	-0,09
I sought advice from other people.	2,10	1,98	0,12
I looked at things from a more positive side.	2,59	2,46	0,13
I criticised myself and blamed myself.	1,17	1,13	0,04
I thought of a plan of what I could do.	2,51	2,43	0,07
Someone comforted me and showed me understanding.	1,84	1,88	-0,04
I didn't even try to take control of the situation anymore.	0,75	0,99	-0,24
I found something good in what happened to me.	2,32	2,32	0,00
I made jokes about it.	2,18	2,18	0,00
I did something to distract myself.	2,32	2,36	-0,04
I made peace with the fact that it happened.	2,16	2,04	0,13
I have been open about how bad I feel.	1,53	1,54	0,00
I have found support in my faith.	0,74	0,72	0,02
I have asked other people for help.	1,72	1,68	0,04
I have learned to live with it.	2,39	2,28	0,11
I have thought a lot about what would be the right thing to do here.	2,21	2,21	-0,01
I have taken everything with humour.	2,40	2,40	-0,01

(0) very rarely or never ; (1) rarely; (2) sometimes; (3) often; (4) very often or constantly

6. Coping - Strategies

Strategy	Technostress	Homeoffice	Difference
Active functional	2,06	2,03	0,03
Cognitive functional	2,11	2,06	0,05
Dysfunctional	0,82	0,8	0,02

(0) very rarely or never ; (1) rarely; (2) sometimes; (3) often; (4) very often or constantly



There is no difference in coping behaviour between technostress and home office. People use much more active functional and cognitive functional coping than dysfunctional coping.

6. Coping – Country Level

Strategy	Austria		Bulgaria		Germany		Spain	
	Technostress	Homeoffice	Technostress	Homeoffice	Technostress	Homeoffice	Technostress	Homeoffice
(see slide before)								
Distraction1	2	1,79	1,78	1,71	1,93	2,1	2,25	2,36
AktBewa1	1,63	2	2,82	2,6	1,91	2,07	1,89	1,9
Verleugnung1	0,68	0,77	1	0,85	0,47	0,48	1,06	0,76
Drogen	0,96	0,71	0,68	0,57	0,38	0,5	0,67	0,62
EmoUnt1	2,11	2,32	2,24	2,15	1,74	1,76	2,12	1,87
VerhaltensRue1	0,96	1	1,24	1,45	0,84	1,2	2,03	1,86
AktBewa2	2,39	2,16	2,76	2,77	2,54	2,3	2,06	1,81
Verleugnung2	0,81	0,88	0,71	0,82	0,33	0,51	1,06	0,93
AusEmo1	1,41	1,6	1,75	1,71	1,04	1,22	1,82	1,9
InstrUnt1	2,25	2,16	2,3	2,11	1,98	1,86	1,83	1,8
PosUmdeu1	2,93	2,68	2,52	2,62	2,66	2,33	2,26	2,17
Selbstbeschuldigung	1,52	1,32	1,24	1,13	1	1,17	1,11	0,97
Planung1	2,25	2,4	2,79	2,76	2,62	2,26	2,06	2,1
EmoUnt2	1,81	1,84	2,35	2,27	1,4	1,49	1,74	1,84
VerhaltensRue2	0,57	0,62	0,96	1,18	0,52	0,75	1	1,36
PosUmdeu2	2,41	2,62	2,35	2,42	2,26	2,05	2,27	2,2
Humor1	1,86	1,72	2,31	2,33	1,84	1,74	2,73	2,84
Ablenkung2	2,33	2,42	2,35	2,36	1,98	1,98	2,73	2,81
Akzeptanz1	2,19	2,26	2,43	2,06	1,44	1,41	2,79	2,6
AusEmo2	1,52	1,6	1,79	1,51	0,98	1,27	1,97	1,9
Religion	0,46	0,52	1,16	1,18	0,56	0,42	0,53	0,43
InstrUnt2	1,81	1,92	1,98	1,81	1,52	1,42	1,53	1,62
Akzeptanz2	2,56	2,52	2,36	2,28	2,08	1,8	2,73	2,69
Planung2	2,39	2,2	2,39	2,6	1,98	2	2,06	1,83
Humor2	2,07	2,16	2,34	2,44	2,3	2,23	2,89	2,73

(0) very rarely or never ; (1) rarely; (2) sometimes; (3) often; (4) very often or constantly

7. Resources/Strains/Outcomes/

Resource Employee		Resource Manager	
My supervisor(s) understands my professional problems and needs.	2,64	I understand the professional problems and needs of my employee(s).	3,21
My supervisor(s) recognises my development opportunities.	2,71	I recognise the development opportunities of my employees.	3,29
My supervisor(s) uses his/her possibilities to help me with my work problems.	2,57	I use my possibilities to help my employees with their work problems.	3,29
I have enough confidence in my supervisor(s) to defend his/her decisions.	2,79	My employees have enough confidence in me to defend my decisions.	3,27
My supervisor(s) would help me out of a predicament at their expense.	2,28	I would help my employees out of an awkward situation at my own expense.	2,94
I know how my supervisor(s) views me in general.	2,71	My employees know what I think of you in general.	3,29
Mean	2,60	Mean	3,34



Although managers' performance is considered good by employees, it is often overestimated by the managers themselves.

7. Resources/Strains/Outcomes/

Outcomes	All	Austria	Bulgaria	Germany	Spain
General state of health	2,58	2,59	2,6	2,64	2,43
Emotional exhaustion	1,71	2,13	1,7	1,39	1,84
Job satisfaction	2,56	2,59	2,35	2,8	2,43
Intention to quit	0,74	0,81	0,86	0,62	0,7
Performance / Productivity	2,71	2,81	2,62	2,9	2,42

Minimum: red
Maximum: green

7. Regression: Outcomes and Stressors due to ICT Use

	General state of health	Emotional exhaustion (reversed)	Job satisfaction	Intention to quit (reversed)	Performance / Productivity
Performance	.093	-.057	.079	-.003	.046
Invasion of Privacy	-.018	.035	.005	-.026	.093
Unreliability	-.081	-.037	.012	.042	-.149
Interruptions	-.093	.070	-.037	.117	.076
Overload	.092	.039	-.051	.042	-.113
Uncertainty	.045	-.071	.104	-.027	.095
Non Availability	.047	.020	-.236***	.092	-.062
Role Ambiguity	.081	-.043	-.152	.058	.032
Complexity	-.198*	.105	-.041	-.039	-.121
Invasion	-.026	.278***	-.090	.003	-.056
Insecurity	.122	.140	-.311*	.219	-.265*
No Sense of Achievement	-.189*	.114	.131	-.029	.080
Control Variables	Yes	Yes	Yes	Yes	Yes
R ²	.193	.337	.348	.235	.213

P values: *p < 0.1; **p < 0.05; ***p < 0.01

7. Regression: Outcomes and Stressors due to Home Office



	General state of health	Emotional exhaustion (reversed)	Job satisfaction	Intention to quit (reversed)	Performance / Productivity
Limited internal communication	.015	.055	-.089	.182**	-.083
Limited external communication	.017	.116	-.088	-.003	.056
No flexilbe working hours	-.092	.087	.052	.013	.060
Not satisfied with working hours	.143	.065	-.186**	-.028	-.002
No time for private care	-.062	-.130	.099	.077	-.073
Cant seperate home working and free time	-.134	.128	-.010	-.062	-.081
No time to relax	-.191*	.378***	-.254**	.174*	-.092
Don't like to spend time at home	.084	-.003	.059	-.114	.032
Control Variables	Yes	Yes	Yes	Yes	Yes
R ²	.222	.414	.312	.269	.172

P values: *p < 0.1; **p < 0.05; ***p < 0.01

7. Employment Status – Stress due to ICT Use

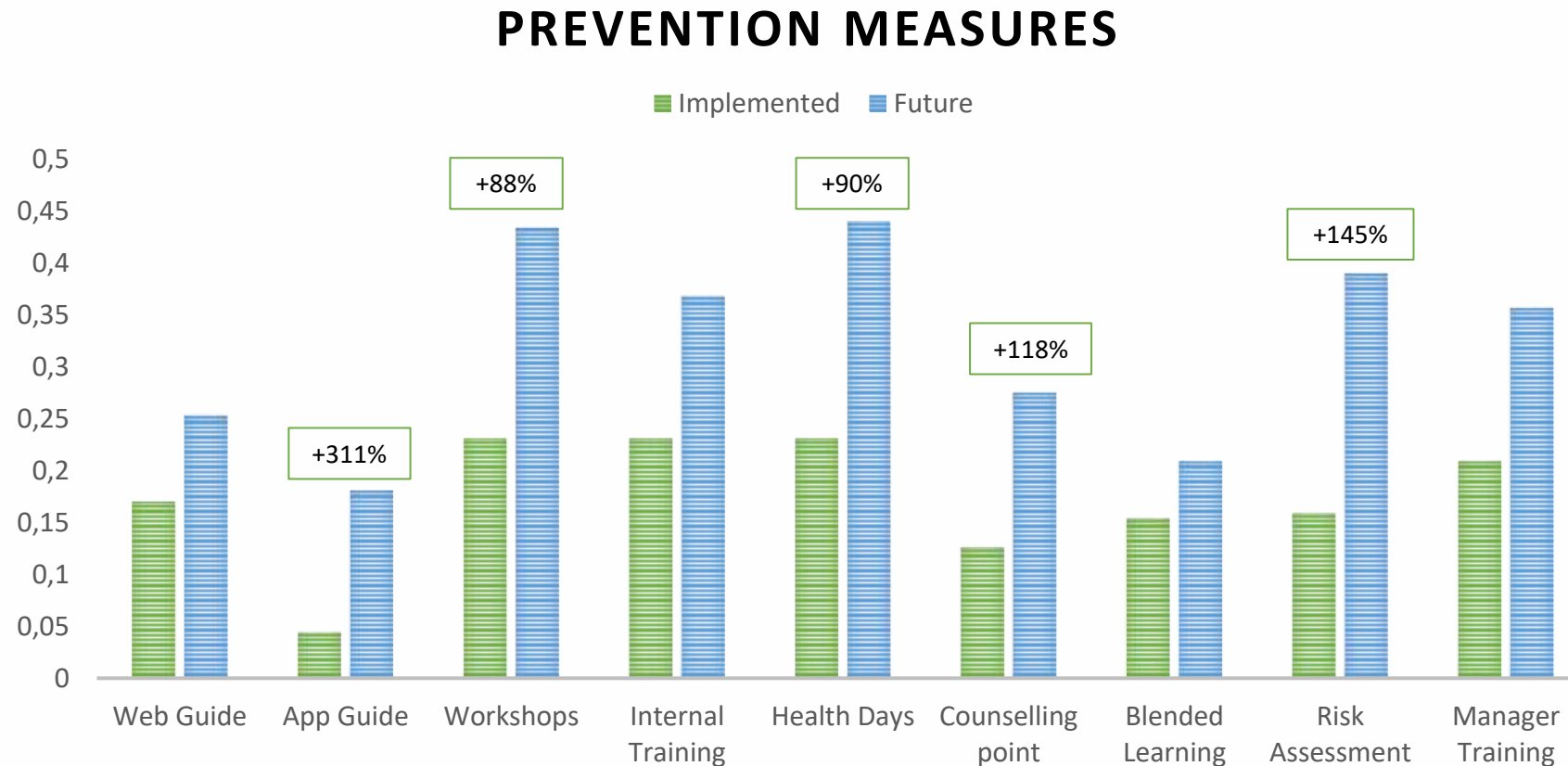


	All		Austria		Bulgaria		Germany		Spain	
	Employee	Manager	Employee	Manager	Employee	Manager	Employee	Manager	Employee	Manager
Performance	2,33	2,55	2,14	2,45	2,47	2,84	1,96	1,97	2,95	3
Invasion of Privacy	1,52	1,92	1,1	2,09	2,18	2,42	1,19	1,29	1,85	1,94
Unreliability	1,23	1,34	1,19	1,4	1,41	1,66	1,14	0,77	1,25	1,72
Interruptions	1,93	1,92	1,76	1,64	1,82	1,78	2,11	1,97	1,95	2,29
Overload	1,96	2,49	1,43	2,7	2,35	2,42	1,93	2,26	2,25	2,94
Uncertainty	2,56	2,93	1,86	3	3,38	3,03	2,63	3,03	2,55	2,5
Non Availability	0,93	0,93	0,81	1	1,24	1,22	1,04	0,55	0,65	1,06
Role Ambiguity	1,01	1,35	0,86	1,36	1,35	1,61	0,81	0,94	1,15	1,39
Complexity	0,71	1,05	0,75	1,64	1,06	1,3	0,5	0,68	0,65	0,89
Invasion	2,36	2,46	2,29	2,73	2,71	2,36	2,14	2,42	2,45	2,5
Insecurity	0,36	0,63	0,43	1	0,76	1	0,21	0,29	0,16	0,22
No sense of Achievement	1,1	1,04	1	1,45	0,94	1,15	1,36	1,1	1	0,61
Mean	1,5	1,72	1,3	1,87	1,81	1,9	1,42	1,44	1,57	1,75

7. Employment Status – Stress due to Home Office

	All		Austria		Bulgaria		Germany		Spain	
	Employee	Manager	Employee	Manager	Employee	Manager	Employee	Manager	Employee	Manager
Limited internal communication	1,72	1,96	1,5	1,45	2,76	2,73	1,37	1,55	1,47	1,44
Limited external communication	1,5	1,84	1,27	1,55	1,94	2,27	1,29	1,61	1,55	1,59
No flexilbe working hours	1,48	1,36	0,81	1,6	1,47	1,88	1,74	1,04	1,71	0,75
Not satisfied with working hours	1,28	1,22	1,25	1,45	1,47	1,69	1,15	0,68	1,33	1,12
No time for private care	1,02	1,38	1,2	1,78	1,38	1,67	0,41	1	1,17	1,29
Cant seperate home working and free time	1,8	2,02	1,88	2	2,12	2,33	1,78	1,83	1,44	1,75
No time to relax	1,77	1,97	1,94	2,55	2	2,18	1,46	1,38	1,87	2,12
Dont like to spend time at home	1,87	1,26	2,31	1,55	1,88	1,59	1,59	0,9	1,89	1
Mean	1,55	1,63	1,52	1,74	1,88	2,04	1,35	1,25	1,55	1,38

8. Prevention Measures



8. Prevention Measures

	Austria		Bulgaria		Germany		Spain	
	Implemented	Desired	Implemented	Desired	Implemented	Desired	Implemented	Desired
Web Guide	25%	25%	6%	24%	20%	32%	18%	13%
App Guide	9%	22%	4%	16%	2%	17%	5%	15%
Workshops	31%	47%	18%	46%	32%	49%	8%	28%
Internal Training	28%	38%	22%	32%	24%	37%	18%	41%
Health Days	25%	47%	26%	62%	27%	34%	8%	31%
Counselling Point	9%	22%	22%	30%	12%	29%	3%	26%
Blended Learning	28%	22%	12%	30%	12%	19%	10%	10%
Risk Assessment	12%	28%	12%	38%	27%	32%	3%	59%
Manager Training	19%	44%	22%	34%	30%	44%	3%	18%
Mean	21%	33%	16%	35%	21%	33%	8%	27%

9. Future Expectations

Expectations	All	Austria	Bulgaria	Germany	Spain
I expect my personal stress in relation to digital stress to reduce after the pandemic.	2,33	2,14	2,08	1,7	2,75
I expect my personal stress in relation to home office to reduce after the pandemic.	2,12	2,5	2,24	2	2,79



Spain expects that stress will reduce after the pandemic.
Germany, on the other hand, is rather pessimistic that stress will decrease.

10. Learnings

1. Control Variables

- Knowledge of digital stress is not particularly strong; Germany has more knowledge than Spain; Managers more knowledge than employees

2. Digitalization of the Workplace

- Companies across all countries are well equipped with digital technologies and use them frequently

3. Technology Use

- Overall technology use does not really change over the different timestamps
- At the level of the individual technologies, there are sometimes major differences.
- Before the pandemic: 39% of workers using 15 or more technologies with a high intensity
- During the pandemic: 39% of workers using 12 or more technologies with a high intensity
- After the pandemic: 31% of workers using 15 or more technologies with a high intensity

4. Stressors due to ICT Use

- **62%** of all participants reported **at least at one factor severe stress**. Most important stress factors are **Uncertainty, Performance, Overload, Invasion and Interruptions**
- Bulgaria has the strongest digital stress; Germany the lowest -> Germany also has the highest knowledge about digital stress -> incentive to provide knowledge
- The overall technostress level is quite balanced between men and women. However, men report a considerably higher level of techno-uncertainty.
- For different age groups, the overall technostress level does not differ plainly. Techno-Complexity and Techno-Insecurity are strictly increasing with age, Techno-Invasion and Techno Interruptions are strictly decreasing with age.

10. Learnings

5. Stressors due to Home Office

- **38%** of all participants reported **at least at one factor severe stress**. Most pronounced are “**Can't separate home working and free time**” and “**No time to relax**”
- Bulgaria has the strongest stress in the home office; Germany the lowest
- Equipment in the home office: People are capable of work regarding technical equipment and necessary information in all four countries
- Women report a higher level of home office stress, especially the lack of time to relax away from the home office is a major issue for women.
- Stress due to home office is strictly decreasing with higher age. Besides internal and external communication, each home office stressor is more pronounced among younger people.

6. Coping

- Active functional and cognitive functional coping are more pronounced than dysfunctional coping. No major difference in coping behaviour between technostress and home office

7. Resources / Strains / Outcomes

- Leadership: **managers** report **slightly higher stress** due to ICT and home office. Especially Overload and Uncertainty, as well as no time for private care are major stress factors for leaders

8. Prevention Measures

- **Workshops** and **Health Days** are the most implemented and desired prevention measures. Beside that, **Risk Assessment**, **Counselling Point** and **App Guide** see the strongest increase
- Often large differences in preferences between countries

9. Future Expectations

- Expectations are ambiguous: Spain expects that stress will reduce after the pandemic, Germany on the other hand is rather pessimistic



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