International Study on Remote Work During the Pandemic

Higher productivity and good mental health for most

Conducted by leading brains 2020-2021







Outline

Leading brains launched an international study in 2020 to compare personality and performance in remote or hybrid contexts during the pandemic. This was matched where possible to organisational culture data. Participants either responded to a request for data through leading brains network or were part of corporate population groups whereby leading brains set up structured projects with the respective corporate. There were four sets of data collected (but not in all cases)

- 1. Self-rated performance rating
- 2. Personality data
- 3. Organisational culture data
- 4. Wellbeing data (satisfaction of emotional needs: SCOAP)

The goal was to explore personality traits and whether any could predict more effective virtual working. The ambition would by that this could inform companies which individuals could perform best and to set up mitigation and assistance to those who were higher at risk.

Executive Summary

The data has come up with some surprising results with high performance consistently reported and high emotional needs satisfaction - which is a very strong predictor of mental health. Personality data proved to be very limited in predicating effectiveness in remote working – most likely due to the variety of individual circumstances.

Key points:

- Very high and consistent self-rated performance
- Higher self-rated performance in comparison to normal pre-pandemic performance
- Limited low correlations with certain personality traits: Risk, Talkativeness, Sensory Sensitivity, Modesty, Rational Experience
- High wellbeing and stable mental health (based on emotional needs satisfaction)
- Lower managerial levels (team leaders, middle managers), reported lower performance and slightly lower fulfilment of emotional needs
- Orientation is the largest unfulfilled need reflecting uncertainty in environment
- Surprisingly, reported levels of emotional needs satisfaction are higher than comparable data collected 2014-17
- In interviews participants reported some fatigue and frustration but this is not reflected in emotional needs data

In this population group, of mostly educated professional workers, mostly employed in large multinationals, and mostly located in Europe, performance has increased during the pandemic, and wellbeing is also high. There is a small population of 5-10% that has reported lower performance and low emotional needs satisfaction, but this is lower than comparable data from 2014-17.

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1.Virtual Performance

Virtual performance was collected with four self-rated items rated on a scale of 0-10, with 0 being worst rating and 10 being best rating. For item 4, a rating of 5 is equivalent to same as standard performance, a rating below 5, worse than standard performance, and a rating over 5, better than standard performance:

- 1. I feel I have performed well in virtual working contexts during the pandemic
- 2. I feel my team has performed well in virtual working contexts during the pandemic
- 3. I feel my organisation has performed well in virtual working contexts during the pandemic
- 4. How do you rate your performance in virtual contexts during the pandemic in contrast to your standard performance levels?



1.1 General Results

Average:	8.31
Median:	8
Max:	10
Min:	3
STD:	1.43

Results show vast majority rating their performance as very good





Average:	8.47
Median:	9
Max:	10
Min:	5
STD:	1.10

Results show vast majority rating their team performance as excellent (and better than their own performance on average).

Average:	8.51
Median:	9
Max:	10
Min:	5
STD:	1.09

Results show vast majority rating their organisational performance as excellent (and better than their own, or team performance on average).



Average:	6.79
Median:	7
Max:	10
Min:	2
STD:	2.01

Performance worse during pandemic:12.6%Performance the same during pandemic:20.4%Performance better during pandemic:67.0%

20.4% 67.0% (better 28.5%, significantly better 38.5%)

Results show only a small minority reporting worse performance during the pandemic and a large majority reporting an improvement (sometimes substantial) in performance. Whereas item 1, performance rating with no comparison, may be affected by self-bias, the rating here is clearly a comparison. Qualitative interviews were conducted with a number of participants and this particular item probed to cross check whether this had been misinterpreted. This appears not to be the case. In those interviews, all clearly stating they found they had improved productivity and hence their ratings were justified.

This gives us the conclusion that self-rated performance **has significantly increased during the pandemic in virtual working contexts.**

Sample Comments

What has contributed, if anything, to you performing well or better than usual?	What has contributed, if anything, to you performing worse than usual?
Fewer distractions. Less time wasted commuting and going to/from external meetings. My own office (no more open plan).	Lack of in-person meetings with the team. This definitely impacted morale and made certain discussions more difficult.
It is easier to concentrate on a special topic if not interrupted by colleagues.	Less informal communication, slower information exchange, much time needed for appointments to align on projects.
Productivity - with no travel and distraction productivity and delivery has doubled - more time, albeit virtually, has been spent with clients, prospects and connections	Creativity was decreased More intense as only faces used, not full body language.
Better equipment, save commuting time, less distractions, more sport, less organizational hassle, saved time through simplified organization and through having lunch & dinner at home. Work hours flexibility, no commute, able to concentrate	contact people for potential sales conversation. Missing personal contact / interaction. Technical issues and delays.

1.2 Leadership Levels and Performance

Participants also self-reported their leadership level. The choices were:

- Individual contributor/specialist
- Leader of individuals
- Leader of teams
- Leader of leaders
- Leader of organisation

Results

Below the ratings for individual performance for each leadership level.



Here we can see that lower-level leaders reporting, on average, slightly lower performance levels.



Here we can see that lower-level leaders reporting, on average, noticeably lower performance levels. Individual contributors and specialists reporting the highest levels.

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1.3 Gender and Performance

The gender split on those that reported gender was: Female 41.5% Male 58.5%



We can see that ratings are almost identical except the comparative performance level which sees men reporting a small difference of 0.42.

1.4 Age and Performance

Average age:43.6Median age:43Age was an optional item and the split of those that reported age was:

Below 20:	0%
20-30:	11.4%
31-39:	22.7%
40-49:	37.5%
50-59:	22.7%
60+:	5.7%



We can see similar ratings with only two statistically significant ratings. 1. That of those 60+ rating organisational performance, but to be interpreted with caution due to population size of 60+, and 2. That those below 30 reported noticeably higher comparative performance ratings, potentially reflecting the comfort of digital natives with virtual working tools and environments.

1.5 Summary & Discussion of Performance Ratings

The performance ratings show increased performance during the pandemic in contrast to standard performance. This, in itself, is surprising, or rather, the consistency of the ratings is. Noticeable is that all participants, of all levels, have also rated not just themselves, but also their teams, and organisations as performing well during the pandemic. More interestingly is that on average team and organisation performance is rated higher than their own self-rated performance. This is consistent across age, gender, and leadership level.

Small differences were noted across demographic groups, but the size was small. Notably lower-level leaders report on average lower performance, those under 30 years old reporting higher performance, and males slightly lower comparative performance to females. Due to population sizes this must be interpreted with some caution but would also follow the feedback we have received from qualitative interviews with participants.

The reasons are multi-fold but mainly revolve around efficiencies gained from less disturbance, reduced commuting, more efficient meetings, and simple being able to get on with work better. Individual circumstances do contribute to this with some reporting troubles, for example with young children, while often also appreciating time with the family.

There is a small group of people, 12.6%, who reported performing worse. This appears to be very individual depending on team cohesion, type of work, and particularly circumstances at home.

The takeaway is that the pandemic has had a positive effect on working leading to increased performance – this has also been in part corroborated with reports from senior leaders who have also reported better performance for their organisations. Whether this is because of remote working or in spite of remote working is not known – the effects have also been multifaceted with different impacts on different industries reported in the media and academic press.

We are conscious that this could be, and most likely is, specific to this demographic of mostly well-educated, professional workers, in Europe.

See discussion in section 4. for further recommendations and considerations.



2.Personality and Performance

As part of the data collection the HBF personality assessment developed by leading brains was given. This reports on 87 personality traits, compound traits, and health related behaviours.

2.1 Results

Using the HBF we measured 87 personality traits*, compound traits, and health related behaviours.

Of these 87 only five showed statistically significant correlations to better performance (in comparison to standard performance). These were:

Risk	negative correlation	Eta squared, 0.121
Talkativeness	negative correlation	Eta squared, 0.087
Sensory Sensitivity	positive correlation	Eta squared, 0.083
Modesty	positive correlation	Eta squared, 0.065
Rational Experience	negative correlation	Eta squared, 0.046

None of these showed strong correlations, with Risk being the most robust with a moderate effect size. The reasons for those lower in *Risk* seeking, or higher in risk aversion, working better in virtual contexts are not clear. The correlations with *Talkativeness* and *Sensory Sensitivity* can be attributed to lower need for social contact and avoidance of sensory disturbances through colleagues or noisy office spaces. *Modesty* can be attributed to feeling a lower desire to "put oneself out there", common in corporate environments. The relationship to rational experience – applying rationality in everyday life - is also unclear.

*The HBF classes separable personality measures as traits (often called facets in personality literature), and compound traits as clusters of traits (often called traits in personality literature). For example, *Talkativeness* would be classed as a trait and *Extraversion* as a compound trait including *Talkativeness*.

2.2 Discussion

To our disappointment there was only small correlations with limited traits. Though introversion itself did not show any significant relationships, facets of introversion such as talkativeness did, as did sensory sensitivity. This follows other research that has shown that those higher on introversion have been able to better cope with virtual working for obvious reasons such as being happier working alone and having less disturbances than in the office, particularly face-to-face.

However, our qualitative interviews have shown that individual circumstances can vary widely, and this is likely to have much larger effect than personality traits. Contextual variables can be: size of living space and suitability to set up remote office; how many people an individual lives with; whether there are young children in the household and whether these are also at home during lockdown. Other technical issues include technology of company, suitability to working virtually, and size of team, not to mention nature of work which may be better suited to individual attention or need more collaboration and brainstorming.

Therefore, it appears that contextual circumstances will be more important than personality traits. We recommend further research and that organisations to capture and take these other variables into account.

That being said, the easiest way to gauge suitability to working from home is, likely, simply to ask each individual their preference. Those with suitable circumstances and suitable roles will likely self-select to work from home or alternatively the office.

3. Emotional Needs Satisfaction

Well-being and Mental Health

Emotional needs satisfaction data has been collected in two different ways

1. Through the organisational culture questionnaire which measures to what degree the organisation fulfils (or violates) the emotional needs of employees,

2. Through the leading brains Balanced Brains Assessment which measures satisfaction of emotional needs in the workplace.

Emotional (or psychological) needs have been shown to have very strong links to wellbeing and mental health. The leading brains questionnaire used is built on the work and research of Grawe [1], Ghadiri [2], and Habermacher et a [3], [4].

The emotional needs measured are:

- Self-esteem feelings of self-worth, appreciation, and performance
- Control feeling of autonomy, being in control, and influence
- Orientation feeling of knowing where you are going, learning, and career
- Attachment feelings of bonding, relationships, and social contact
- Pleasure feelings around pleasure, fun, variety

Additionally, Safety was also measured

It is important to stress that the imbalance ratings (also called incongruence in the SCOAP theory) are ratings of a mismatch between what an individual rates as ideal for themselves and the current level of fulfilment. It therefore manages to capture the personal level of dissatisfaction - not according to an ideal level or average level.

So, if a person has the relationships that satisfies them, they have no imbalance irrespective of how many and how close those relationships are, because it is their subjective feeling that counts.

3.1 Overall Results



S=Self-Esteem, C=Control, O=Orientation; A=Attachment, P=Pleasure, Saf.=Safety

Here we can see that overall imbalance is 11.6% but that Orientation is significantly higher and also control is significantly lower. This would match the observations that there is a lot of uncertainty but personal control, autonomy, is higher with remote working.

3.2 Compared to 2014-2017

Data can be compared to the SCOAP-Profile developed by Habermacher, Ghadiri, and Peters [2]. They collected data over a period to validate the SCOAP-Profile. These are across the same needs and facets of needs as used in the Brain Balance. The SCOAP-Profile does however measure with more items and measure six facets of each need in contrast to the Brain Balance which only measures four facets. However, this data is comparable. With the same facets measured and similar items. Similarly, population groups are similar with a majority of well-educated corporate professionals in multinationals. Safety is not measured separately in the SCOAP-Profile.



This is surprising because this shows **significantly lower needs imbalance in 2020-21 during the pandemic**. This contradicts multiple other studies, for example [5]–[8]. However, many of these studies have been targeted at specific population groups that have had severe disruptions e.g. students, with cancellation of classes, and exams, health workers, and many professions where working virtually is not an option or difficult, and lower income groups which may be at greater existential threat. This existential threat is probably greatly mitigated with majority of respondents living in Switzerland which has only a moderate rise in unemployment and strong social support services from the government. Similarly medical care is of high quality, the majority have good insurance, notice periods are long and there is no "hire and fire" culture as in the USA. These society factors could be mitigating this. Similarly, Switzerland, though having lockdowns, did not have rest at home orders, with free movement always possible, for example to go for a walk or a jog, during the pandemic (but not always recommended).

This notwithstanding we do still find this data surprising that needs imbalance is on average so low and this is hard to explain. Some factors can be explained by lower stress due to less commuting and more freedom in structuring workday but that this is consistently lower across all needs is still surprising.

There are obviously individuals who exhibit high imbalances and imbalances that could be considered severe. 6.1% show an average imbalance of over 35% which can be considered severe, and these individuals will be suffering noticeable levels of stress and potential mental health disruptions.

Rating	Imbalance Range	%
Optimal-Good	0%-7%	39.9%
Mild	8%-19%	42.6%
Moderate	20%-35%	11.5%
Significant	35%+	6.1%

3.3 By Leadership Level



The most obvious pattern is that leaders of organisations seem to be suffering the lowest imbalances. This must be interpreted with caution because this is a small population group. In addition, leaders of organisation in our study may not mean the CEO for an organisation, but rather of a business unit. Noticeable also is that leaders of individuals report the most imbalance with safety – significantly higher than other leadership levels.

Average Imbalance

11.6%
13.6%
12.8%
14.0%
6.0%

3.4 By Gender



This shows that males are showing slightly higher levels of imbalance in general and across a number of needs. Notably control and safety. The reasons for this are unclear but could be due to a higher proportion of males in this population group being in leadership positions, which have reported higher imbalances, and also that a higher proportion of women have reported part-time working.



3.5 By Age

The noticeable pattern here is that those the youngest and oldest in this population reporting significantly lower levels of imbalance. This could be a life-stage factor with those in the middle age ranges with more leadership responsibility but also more family responsibilities.

3.6 Summary and Discussion Emotional Needs imbalance

The low ratings are pointing to good brain balance and therefore lower stress and good mental health. This is all the more surprising when we consider that the data was collected during the second and third wave respectively – Autumn 2020 and also in the early stages of 2021. This is when we could have expected virtual working and pandemic fatigue to be at its highest. Indeed, colloquially it seems to be, with many expressing a desire for some return to "normality".

But the most surprising is that when we compare to data collected in 2014-17, with similar demographics, we see much better ratings, suggesting much higher brain balance and much lower levels of stress, and higher mental health. This requires some explanation, and we see multiple potential reasons for this.

- **Reason 1, comparatively good place**: this population group is in a relatively good place. This in terms of how hard they have been hit with the pandemic, mostly located in a country with excellent infrastructure, and strong social and governmental support. Job security with many of these is high, and though this may have been the case in the 2014-17 data, this becomes a more important factor when compared with reports of mass unemployment in other areas of the world and therefore increases appreciation for one's own situation. So, this could be an implicit relative rating improving subjective current ratings.
- **Reason 2, cognitive load** a theory of cognitive load is that increased cognitive load can lead to depressed emotional activation [9], [10]. So, counter-intuitively the increased cognitive load of virtual work which some seem to be reporting can lead to depressed activity of emotional centres. This can lead to that feeling of general apathy or "blah" which has been colloquially reported.
- **Reason 3, removal of multiple stressors** virtual work has also removed multiple stressors. The most obvious of which is reduced commuting. Research shows that commuting time is consistently rating as time when induvial mood is lowest [11] simply it's the most miserable time of the day. Removing this removes the negativity of this but also saves time and energy for other factors, such as work. Other stressors would be disruptions, dealing with unpleasant people fact-to-face, and a lack of refreshments. The comfort of the home is also likely to provide a low stress environment and easy access to other factor such as favourite refreshments. The sum of these small and large stressors, many unconscious, could be large and underrated.
- **Reason 4, bubble -** a further reason could be the concept of a home bubble. When an individual is at home, they generally feel less threatened and exposed and even if they have an unpleasant meeting, for example, when finished they find themselves in a pleasant and comforting environment and therefore the negative impacts may be moderated. This dissociation from other individuals may lower stress responses as we are likely constantly comparing and rating ourselves with others.
- **Reason 5, productivity** the fact that there has been consistent reporting of higher performance also points to higher productivity in general, this itself raises the value and feelings of self-worth with a positive knock-on effect. Similarly, autonomy has increased which in itself reduces stress. This increased productivity likely increases self-esteem and lowers stress.
- **Reason 6, proactive organisations** we do know that at least two of the organisations we worked with in this study showed a very positive and proactive approach to helping their employees and being conscious of the challenges and issues they were facing hence why they also took part in this study. So, this population may also be skewed towards those organisations that have been particularly good at managing the pandemic but also of looking after their employees.
- **Reason 7, private factors** this study did not explicitly measure factors outside of the workplace or working context. It could also be that some of the individuals have experienced challenging situations in private such as sick relatives, worry for elderly members of the family, or family losses, so, as a general measure of mental health, this will likely be skewed to work experiences only. This may explain the mismatch to some current studies on stress during the pandemic, but not to the 2014-17 SCOAP data which similarly only collected data in the work context.

4. Closing Discussion and Comments

So, the summary is: higher performance and good mental health for the large majority in this population of older professionals in multinationals

Correlations

We have discussed some of the differences in demographics and personality and this must be stressed again that these effects are statistically small:

- Lower-level leaders report lower performance and higher brain imbalance
- Small but significant personality corelations with **Risk**, **Talkativeness**, **Sensory Sensitivity**, **Modesty**, **Rational Experience** and performance in remote working
- Slightly lower performance reported by males
- Higher performance reported by those under 30
- High brain balance in comparison to comparable data from 2014-17
- Despite reports of fatigue, wellbeing in work contexts seems to be very high

Hybrid and Remote Working - Into the Unknown

On the face of it, it could be that our data supports transitioning to remote working as standard because of the increased performance levels and high emotional well-being. This has numerous caveats. Though many people reported in comments lower stress, many also reported in interviews wanting to return to some form of normality and face-to-face meetings and office environment. Most agree, however, that more home work would be appreciated and expect this to become the norm.

There are a number of factors to consider in the pandemic,

Stable relationships

One is that many of these teams and companies had already worked together in the past. They therefore already had built personal relationships with one another. Transitioning this to virtual working is less likely to cause disruptions and reduces any need to form relationships. This in a hybrid or fully remote working context could change this and provide other challenges such as team cohesion and openness of communication when no previous face-to-face bonding has occurred. Though it must also be said that many multinationals already have dispersed project teams with team members that have rarely, if ever, met face-to-face.

Similarly, going through a whole employee lifecycle remotely may raise other challenges and these human connections may have multiple impacts, from loyalty, to trust, to general bonding, and therefore pleasurable working experiences. Extraverts may thrive more being better able to build bonds even in remote working scenarios.

Context, context, context

A second point to consider is that of contexts – the variety of roles and functions is large and some of these will be more suited to remote working than others. Though this study included mostly well-educated professional workers, even here there are a variety of roles. Similarly, home situations may also be contextually different.

Hotspots

A third point is that in some companies that were involved, some hotspots were clear, i.e. areas and teams that were clearly not performing to the same standard as everybody else. This highlights that some individuals in teams have not transitioned so well to remote working. Companies should therefore find ways to measure this and intervene quickly to keep performance levels high and wellbeing also.

The commute

Though research into commuting, as we have already mentioned, shows this is the time when mood is at its lowest [11]–[14], it is also for many a key transitional period. A time to wake up and get ready for the workday and transition into work mode. Some have reported missing this transition and whether the benefits of skipping commuting with missing this transitional period are unclear. Particularly in the long-term. Those with long commutes may benefit the most. From a society perspective there could by many changes positive and negative – certainly the morning rituals may change but this will also impact many of those businesses that serve those rituals such as the coffee takeaway in transit hubs. Whether increased homeworking will have a dramatic impact on this across society remains to be seen. We do not envisage train stations becoming barren wastelands at any time in the near future. Indeed, a reduction in commuters could ironically make commuting a more pleasant experience with less congestion and more efficiency.

Separation of work and home

Another key factor to consider is the separation of work life and home life. Although many have argued technology has been constantly encroaching into what has been termed the work-life balance this has become more extreme with worked fully incorporate into the home environment. The risk of being constantly on are therefore very high. A number of interviewees have seen little difference but some of these are in roles where high levels of engagement has been the norm and the benefit of working from home are greater than business life encroaching on home life, which for some of this has always been the case. An interesting side note is that this concept of work-life balance and strict separation of work and private life is a recent phenomenon and only in certain professions.

Social contact

Missing social contact has been a recurring theme amongst many commentators on the pandemic. This certainly seems to be the case but the severity of this is depend on which country one lives in. Similarly, this depends also on personality, not to mention culture. Nevertheless, that personal contact is a big part of office life is also clear and some demographic may rely on and appreciate this more. People form bonds, close relationships, in and out of work social activities, and build friendships in the workplace. This social contact can be very important in the long-term and a contributor to mental health. Arguably this is not the role of business, but business provides a key way for people to engage with others and form bonds. In a hybrid or completely remote working scenarios these bonds may not form so tightly, if at all. The long-term impacts may be weaker bonds between individuals in the workplace. This is important for numerous reasons aside from mental health namely that trust is also built with relationships - so building trusting supportive relationships, which can contribute to team and individual performance, may be missing in remote and hybrid working contexts.

Ritual of work

Another factor around work is its ritualistic qualities. Rituals give comfort and lower stress [15]–[17] and come a part of one's life for better or worse. The workplace provides a place for numerous rituals and daily behaviours, which may include the commuting ritual as outlined already, the coffee break, the lunch break, and numerous others many of which may be idiosyncratic. Similarly, celebrations that happen with team members and others in the organisation have strong bonding and life satisfaction impacts. These range from birthday celebrations, celebrating clinching a big deal, local festivals and holidays, and even sports events. Many of these will change in nature as hybrid and remote working becomes the standard.

How is work seen

Another change that will take place is that of how work and performance is seen. Some may argue this is always dependent on output, but it is also clear to many that how you "turn up" for work impacts many factors such as reputation. Arguably this will remove many biases from the workplace and shift the focus to output and true work performance. Alternatively, it may also attenuate some of these biases with those tending to sit in the background now sitting in the background even more or becoming almost invisible. So, hybrid working may moderate some biases but also attenuate others. Care must be taken to manage these.

Visibility of individuals and leaders

Another interesting aspect is what can be termed visibility. Leaders have positions of high visibility, and this can be in terms of meetings or just walking along corridors. The same applies to individuals. In an office space everybody will encounter multiple individuals in formal and informal settings and often in just passing by. When this is absent, this can impact many aspects: knowledge of others, awareness of who does what, status, respect, but also promotional chances, and politicising, for better or worse. Psychological research also shows that simple exposure increases trust. So, this is another aspect of trust that could, unbeknownst to organisations, be slowly eroding.

Good 'ole gossip

Though gossip is seen as a negative side of work and certain individuals, some recent research [18] has shown that gossip serves a social, information, and bonding function. This is, and we presume there are many others, the sort of underestimated function of social spaces in physical offices where information is exchanged, relationships built, and bonding occurs. This is also hard to replicate in remote working contexts.

Collaboration and innovation

One area that seem so have had a negative impact with remote work is that of collaboration and innovation: though there are tools that are available, there is a real concern that virtual tools can't replicate innovative workplaces that focus on collaboration. In fact, many of these workplaces are intentionally designed to promote chance meetings and interactions with individuals as this has been shown to promote idea sharing, idea generation, and general innovation in many ways, which are hard to quantify. These types of workplaces are likely to struggle most within remote and hybrid working scenarios and it is hard to see how this can be truly replicated in virtual environments. This is also likely to have a low-level and long-term impact on an organisation's ability to share information, collaborate, generate novel ideas, and keep innovation high.

Will there be longer-term implications?

Though we have clearly reported higher performance in remote working contexts this is obviously over a shortperiod of time with teams and individuals who had already forged strong working relationships in-person. Though virtual and distributed teams are not a new thing in many multinationals the shift to large scale hybrid and remote working may have many long-term implications that may be hard to quantify and predict. For example, a general and slow drop in team cohesion, collaboration, and innovation could be the case. It could also be the case that this is the future of work anyhow and this was always the trajectory, and the pandemic has simply accelerated this.

Our own work in the neuro and behavioural science shows that there are many aspects that need and can be taken into account in remote or hybrid working contexts. This therefore highlights that organisations should be conscious of what they are trying to achieve and understanding some of the limitations of hybrid working and setting up ways to manage and mitigate some of the downsides, while keeping as many of the upsides as possible. Proposals that are now common are the three-day office week with many companies proposing three-days in the office and two-days from the home office as the standard model with variations from this depending on personal preferences and circumstances. Some people may prefer full-time in the office, others may prefer less than three days. However, some reports from corporates we have been in contact with have already reported some challenges in implementing this with some supervisors seeing this as a fixed strategy and others being more flexible, and variations of how to ensure that the teams are together e.g. implementing a day when everybody should be in the office. This could increase the complexities of managing teams (but underscores our comments of giving low-level leaders more support and guidance during this transition).

General Recommendations

• Transition to a hybrid working model

The benefits of home working seem to be clear but so do positive factors in a physical workplace. Clear thought needs to go into how this could look for each individual business to create enough clarity and stability to make it feasible and beneficial to the majority of employees.

• **Support lower-level leaders** Lower-levels leaders seem to be struggling more from a performance and stress level and therefore these need to be supported in transitioning to a hybrid or remote working model.

• Understand contextual differences

Within the hybrid or remote working discussion it seems clear that a one-size-fits-all approach is unlikely to be effective. Being able to offer flexibility at the same time as structure is important. Each organisation may need to investigate further of what will work for them and/or in different parts of the business or within different roles in each company.

• Regular touchpoints

It is also clear that personal contact physically and virtually is important so organisations will need to think of how to create these touchpoints and potentially give more effort to plan and manage these.

Monitor mental wellbeing

Well-being is rarely monitored in consistent and suitable ways. Monitoring this can give early warning sign of risks in a busines and pre-empt more serious situations which can range from lack of engagement, absenteeism, to mental health issues, and burnout.

In summary we have seen in this small study clear evidence for the benefits of remote working with increased performance and high wellbeing reported. However, the long-term impacts of hybrid and remote working are unclear and there are likely also large benefits from physical office-based work. So, hybrid working seems to be the logical step, but careful consideration must be given to its suitability and how flexibility can be combined with stability, social contact, work performance, performance rating, career development, and wellbeing.



Appendix

- Demographics
- References
- HBF
- SCOAP

Demographics

Total participants: 342 Male: 58.5% Female: 41.5% Median Age: 43

Leadership levels

Self-reported leadership levels		
Individual contributor / specialist	59.90%	
Leader of individuals	14.40%	
Leader of teams	9.40%	
Leader of leaders	6.40%	
Leader of organisation	9.90%	

Company size:

10'000+	84.8%
1'000-10'000	2.1%
251-1'000	2.1%
51-250	1.4%
11-50	0.7%
2-10	4.8%
Self-employed	4.1%

Nationalities

24 nationalities reported - the most common of which were:

	Switzerland	22.2%
	United Kingdom	11.4%
	Austria	10.8%
	France	8.7%
	India	7.0%
	Germany	6.5%
	Macedonia	5.9%
	USA	4.9%
Sectors		
	Food	27.2%
	Telecommunications	25.9%
	Professional services	12.9%
	Financial services	11.0%
	Manufacturing	7.9%
	Health care	7.6%
	Software	5.2%

Note that functions were often corporate HQ functions so though the sector, for example, may be manufacturing, it may be a corporate finance function. We did not collect data on functions.

References

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HBF

The HBF was developed from the SCOAP evolutionary framework whereby personality is considered a part of the evolutionary development of the brain. Habermacher proposed a 6-level model for personality and mapped 278 personality traits from an international database to this model to give a comprehensive and coherent view of personality.

The six levels are

- 1. Vital Personality
- 2. Primal Personality
- 3. Emotional Personality
- 4. Higher Personality
- 5. Integrated Personality
- 6. Contextual Personality

The full HBF assessment reports on 87 personality traits, compound traits, and health related behaviours.

SCOAP

SCOAP is built on the work of Klaus Grawe. Klaus Grawe proposed in his book on Neuropsychotherapy [1] that psychological needs of Self-Esteem, Control and Orientation, Attachment, and Pleasure form the basis of human motivation, well-being, and mental health. If these needs are violated, they cause disruption and if fulfilled, cause fulfilment and life satisfaction. His research shows quote:

"This suggests that well-being depends almost entirely on the degree to which individuals manage to attain their motivational goals"

By motivational goals Grawe is referring to the motivational goal of achieving or protecting one's psychological, or emotional, needs.

Ghadiri et al. proposed this model as a basis for neuroleadership and workforce engagement in their book on neuroleadership [19]. They further developed this forming the SCOAP model and refining this over the years [2]–[4], [20].

Ghadiri showed strong correlations to well-being and vitality in the workplace in 2017 [2] and in 2020 they published an updated version of the SCOAP theory [4] taking into account evolutionary principles to give a full model of behaviour, motivation, and wellbeing.

The needs of SCOAP are:

- Self-esteem feelings of self-worth, appreciation, and performance
- Control feeling of autonomy, being in control, and influence
- **Orientation** feeling of knowing where you are going, learning, and career
- Attachment feelings of bonding, relationships, and social contact
- Pleasure feelings around pleasure, fun, variety

The SCOAP-Profile was developed by Habermacher et al. to measure SCOAP needs in the workplace measuring fulfilment *and* violation of needs. Importantly this methodology does not map to an idealised level, as many engagement, or health assessments do, but gives an imbalance rating – the imbalance between an individual's desires and level of fulfilment.

The Brain Balance assessment matches SCOAP needs in abbreviated form and also matches this to certain personality traits which can help to moderate or amplify needs imbalances.





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