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## Article

# Post-Pandemic Office Work: Perceived Challenges and Opportunities for a Sustainable Work Environment

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**Abstract:** The widespread adoption of remote and hybrid work due to COVID-19 calls for studies that explore the ramifications of these scenarios for office workers from an occupational health and wellbeing perspective. This paper aims to identify the needs and challenges in remote and hybrid work and the potential for a sustainable future work environment. Data collection involved two qualitative studies with a total of 53 participants, who represented employees, staff managers, and service/facility providers at three Swedish public service organisations (primarily healthcare and infrastructure administration). The results describe opportunities and challenges with the adoption of remote and hybrid work from individual, group, and leadership perspectives. The main benefits of remote work were increased flexibility, autonomy, work-life balance and individual performance, while major challenges were social aspects such as lost comradery and isolation. Hybrid work was perceived to provide the best of both worlds of remote and office work, given that employees and managers develop new skills and competencies to adjust to new ways of working. To achieve the expected individual and organisational benefits of hybrid work, employers are expected to provide support and flexibility and re-design the physical and digital workplaces to fit the new and diverse needs of employees.

**Keywords:** office work; flexible work; new ways of working (NWOW); remote work; hybrid work; work-from-home; COVID-19; work environment; occupational health and safety (OHS); sustainable future work



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## 1. Introduction

The shift to remote working and the push towards digitalisation in response to COVID-19 restrictions has had an unprecedented impact on office work with respect to social sustainability, in particular the work environment, organisational innovation capabilities, and the wellbeing and performance of office workers. Previous research on the impact of flexible work arrangements (such as flexible work time, flexible workplace, remote work, etc.) on employees' subjective wellbeing has generally shown positive results but has also highlighted certain challenges of remote and flexible work arrangements from employee and leadership perspectives.

According to a systematic literature review, the main positive effects of remote work are increased flexibility, autonomy, job satisfaction, and a better work-life balance [1]. On the other hand, adverse effects include social and professional isolation, perceived threats to professional advancement, long working hours in an “always-on” culture, increased emotional exhaustion, limited supervision from line managers, greater cognitive stress/overload, and musculoskeletal health problems (ibid.). According to a meta-analytical review, flexible work arrangements have positive (but small) effects with respect to physical health, reduced absenteeism, and somatic symptoms, while no significant relationship was found concerning physical activity [2]. The authors recommend customised

arrangements with respect to flextime and flexplace to meet individual needs. A literature review from a leadership perspective emphasises the role of management in providing support and encouragement and generating group-level safety to ensure occupational health and wellbeing among remote workers [3]. The authors suggest that leadership frameworks that generally build on face-to-face interactions can also work in the context of digital communication, especially if both workers and managers are practicing remote work. The literature reviews mentioned above emphasise that the body of research on remote work is limited and more studies are required to understand the implications of remote work and how to ensure the occupational health and safety of remote workers.

When considering flexible work arrangements such as remote and hybrid work, it is important to understand the distinction between the conditions before, during, and after the COVID-19 pandemic. Before the pandemic, few employees worked from home (approximately 5% in the US), and most did so by their own choice. This occurred in a societal context where remote work was not the norm and was often stigmatised and ridiculed [4,5]. In the EU, 3.2% of employees worked remotely on a regular basis before the pandemic, a group mainly consisting of higher-paid and higher-skilled workers with overrepresentation in northern Europe [6]. During the pandemic, many workers were forced into remote working arrangements: over one-third of employees (39%) in the EU (ibid.) and about one-half of employees in the US [4]. Several studies have been published on remote work during the pandemic.

A study by Microsoft shows that remote work represents obstacles to collaboration and innovation, as workers' networks become more static and siloed, with fewer bridges between disparate parts of an organisation [7]. While asynchronous communication increases, synchronous communication decreases, which makes it harder for workers to exchange more complex information, converge on the meaning of information, and build relationships. By increasing collaboration time with stronger ties and decreasing time with weak ties, workers are less likely to be exposed to new information, which is an obstacle to innovation. The negative effects on collaboration and innovation can be mitigated over the long term, as at the beginning of the pandemic, workers were able to leverage existing network connections, many of which were built in person (ibid.). According to another survey study, remote workers fear having fewer opportunities for career development and promotions as a result of weakened ties [8,9]. Remote workers who were more dependent on others and generally received more feedback had less positive appraisals than those with more independent roles [8]. A study comparing managers' and employees' views of remote work during the pandemic showed that managers have a more negative experience than employees [10,11], which may possibly be due to the supervisory and work environment responsibilities. Other studies show the positive effects of remote work during the pandemic, such as increased productivity among the majority of participants [11,12] and positive health behaviours and outcomes such as more sleep time [13], more work posture variability, and a higher heart rate variability indicating greater relaxation [14]. Identified disadvantages of remote work during the pandemic are a high degree of uncertainty, health risks due to the pandemic, young children at home, constraints of home offices, and insufficient tools and technical support [5,12]. The uncertainties that are highlighted in the literature relate to ambiguities about the work situation and potential financial problems [12].

According to the *teleworkability* index, 36% of the jobs in the EU are feasible for remote working, even after the pandemic restrictions are lifted [6]. Several studies show that the preferred choice for most people is to work at home 1–3 days a week, while there are some that would like to only work from home or the office [4,5], suggesting that employers should keep remote work as an option and not oblige employees into either full-time remote work arrangements or office work. The widespread use of the term “hybrid work” refers to the emerging preference of employees, but also the consequence of having some workers remote and some on-site. This distribution of employees also requires hybrid collaborations (i.e., “collaborative practices that involve simultaneous co-located and remote collaboration

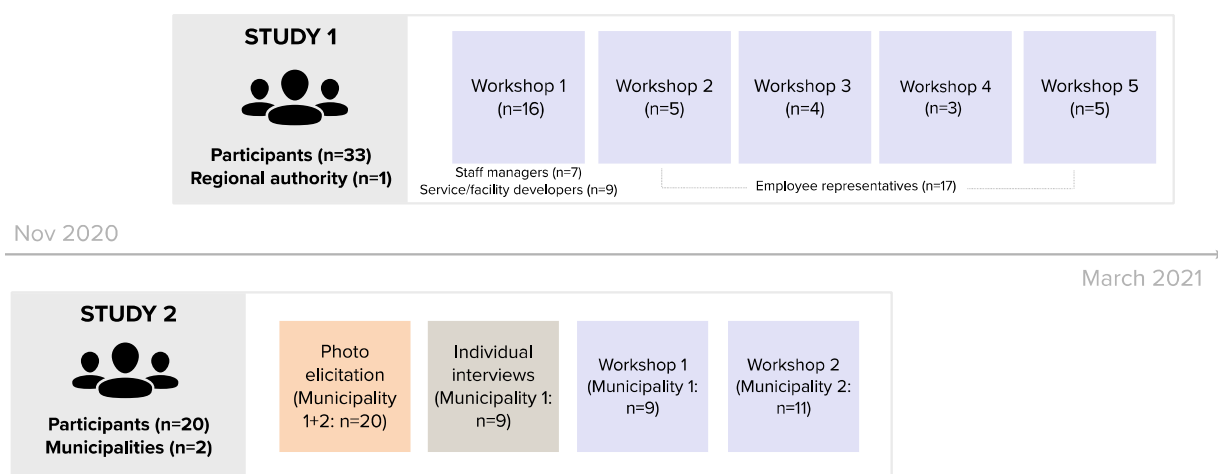
with phases of both synchronous and asynchronous work that spans multiple groupware applications and devices” [15]) and hybrid meetings (i.e., time-limited and synchronous communication sessions among co-located and remote participants [16]). Studies on the implications of hybrid ways of working are still rare.

The full implications of the widespread adoption of hybrid work will emerge over time. The fundamental differences in practising remote work before, during, and after the pandemic and the limited knowledge on the implications of flexible, remote, and hybrid work arrangements call for studies that explore the consequences of different scenarios for office workers. Therefore, this paper aims to:

- Identify the benefits and drawbacks of remote work during the pandemic from employee and leadership perspectives;
- Map expected challenges and potentials of hybrid working scenarios to inform the creation of sustainable future work environments.

## 2. Materials and Methods

This paper is based on two qualitative studies performed in collaboration with three public organisations in Sweden. Data collection was conducted between November 2020 and May 2021 (covering the second and third pandemic waves) and involved different research methods. The participating organisations were from the public sector, providing a wide variety of services with some jobs that are mainly onsite and in direct contact with citizens (patients, school pupils, etc.) and some that can be performed remotely (planning, administration, certain meetings, etc.), both during and after the pandemic restrictions were in force. The organisations had not yet devised a post-pandemic strategy for remote and on-site work at the time of data collection. The two studies were triggered by a need to identify work environment challenges and potentials for improvement that emerged as a result of the pandemic. In total, the two studies involved 53 participants (see Figure 1 for an overview) who worked part- or full-time from home due to the pandemic.



**Figure 1.** Data collection and participants in Studies 1 and 2.

### 2.1. Study 1

The participating organisation in Study 1 was a public service provider in one of the 21 regional authorities in Sweden. The organisation had implemented new ways of working and flexible offices one year before the outbreak of the COVID-19 pandemic. They had a voluntary work-from-home recommendation in place since March 2020 and later imposed a strict work-from-home recommendation in November 2020 (the second wave of the pandemic). This case study was nested in an existing project that focused on evaluating new ways of working at the case organisation.

The data collection in Study 1 involved five workshops with focus groups that represented different parts of the organisation. The data was collected in Spring 2021 during the

third wave of the pandemic. The participants were recruited from existing work groups that collaborate on occupational health and work environment issues. In total, 46 employees were invited to participate and 33 agreed. The participants represent staff ( $n = 17$ ) and staff managers ( $n = 7$ ) from different departments, as well as internal and external facility and support service providers ( $n = 9$ ).

All five workshops were held remotely, using MS Teams and a digital facilitation tool called Mural. Each workshop started with information on data gathering and analysis. The discussions focused on (1) identifying scenarios to simulate work after the pandemic using fictive work weeks and personas [17] and (2) exploring new needs, challenges, and potentials coupled with the identified scenarios. The workshops were recorded and the discussions were transcribed and anonymised. The content from the Mural boards was analysed together with the transcriptions. The content analysis was based on a bottom-up coding strategy.

The collected data from the five workshops were analysed and presented for a group of representatives with managerial roles and service providers (some of whom had participated in the data collection sessions). This provided an opportunity to confirm and complement the results. In addition, online presentations were held for all the participants to communicate the findings. These presentations were also open to the remaining employees who did not participate in the workshops.

## 2.2. Study 2

The second study was performed in collaboration with two Swedish municipalities. The data collection was performed through the photo-elicitation method [18]. Participant-generated photo-elicitation was chosen due to its potential for increasing participants' influence over the content of the interviews and generating richer data (ibid.). Few workplace studies have used photo-elicitation and show that the method helps access the participants' sensory and aesthetic perceptions and experiences, their behaviours, activities, values, and assumptions within a workplace [19,20].

In total, 20 employees participated in the study (nine participants from one municipality and 11 from the other municipality), representing different parts of the organisations (construction and environment, procurement, HR, communication, IT, innovation and development, education, culture, social and healthcare services, support services). Due to different work profiles in municipalities (from administration/office workers, education, social work, etc.), a mixed or hybrid work model was implemented during the pandemic. The municipalities chose the participants themselves based on who they thought would be relevant to include. The participants represented the top management team in Municipality 2 and a mix of levels (from top management to operational levels) in Municipality 1.

Data collection involved three steps. First, participants were invited to reflect on their experience of working during the pandemic, changes in their work needs, the main challenges they (individually and their teams) experienced during this period, and the new opportunities for the future of work. They were asked to take three photos to depict the main work challenges and three photos to represent the main opportunities for the future of work that would be important for them personally, for their teams, and for their organisations. They were instructed that the photos did not need to be direct representations of their work processes and environment but could symbolically depict how they feel or what they experienced and could thus show anything (nature, objects, people, places, etc.). They were asked to name each photo and provide a short description.

The second step in the process was the individual interviews with the nine participants from the first municipality, during which the researcher and each participant looked at the photos and the participant was encouraged to share personal reflections, feelings, and experiences of what the photos represented. Interviews were held via Zoom, with recordings and notes taken by the researcher. Since the photos taken and described by participants from the second municipality largely overlapped with the topics raised in the

first municipality, and considering the limited time available to the participants, individual interviews were not performed with participants from the second municipality.

In step three, two interactive workshops (one for each of the municipalities) were conducted via Zoom and a digital facilitation tool called Mural. All the photo material submitted by participants was prepared in Mural before the workshop, which allowed the participants to work with the gathered material during the workshop. The participants were asked to share their reflections on the photos with each other. Through a facilitated process, they analysed and clustered the photos, identifying topics that represented key shared challenges and opportunities for the future of work. In the end, they discussed potential first steps to address the shared challenges and opportunities.

The data from the interviews and workshops were analysed and summarised in a report that was shared and presented to the key contact persons from both municipalities.

### 2.3. Data Analysis

All workshop sessions with the focus groups and the interviews were recorded and transcribed selectively in order to capture the major points. The data from each study were first analysed separately. First, the transcript material, together with the content from the Mural boards and elicited photos, was subjected to a bottom-up thematic analysis [21] to identify emergent themes (e.g., communication challenges or ergonomic problems). Second, these identified themes were brought together and iteratively discussed by the authors and organised under new categories (i.e., adoption of remote work, social aspects of remote work, leadership's views on remote work, returning to offices after the pandemic, and moving towards a hybrid work model).

The results are reported for common themes found in all three cases (exceptions, where differences occur, are noted as such). Selected quotes were translated from Swedish to English by a bilingual author for reporting purposes. Quotes that are used to exemplify our findings are attributed to participant code names (P#) and an identifier that describes the data collection context with WS referring to a specific workshop session and M referring to the specific municipality participating in the study, i.e., "Quote" (P#-WS#) or (P#-M#). The elicited photos are also used to exemplify our identified themes together with an excerpt from the written descriptions that accompanied the photos.

## 3. Results

Our results are divided into four major sections: (i) the adoption of remote work as a new way of working, (ii) the social aspects of remote work, (iii) the leadership perspective of remote working, and (iv) returning to offices and moving towards hybrid work after pandemic restrictions are lifted.

### 3.1. The Adoption of Remote Work As a New Way of Working

The participants in our studies mentioned several positive aspects with respect to adopting new ways of working during the pandemic. Remote working accelerated the development of digital skills as employees were forced to learn how to master different digital work tools and platforms overnight: *"There is a big opportunity for increasing our digital competence. None of us had online meetings until March, and now we are solving everything digitally, seeing its opportunities. As novices, it would have taken much longer if we weren't forced to do so because of COVID-19. We still need to learn much more about digital competencies"* (P7-M1). Suggestions were to have more tools to facilitate collaboration and introduce digital trainers to facilitate learning and the adoption of new tools. Those with managerial roles actively sought and shared information about the newly implemented digital tools and encouraged knowledge exchange and experimentation with new forms of meetings.

One of the most important benefits of remote work expressed by participants was the increased experience of autonomy and flexibility to design and adjust work time and processes to individual needs, which in some ways increased empowerment and work satisfaction. The participants appreciated developing skills and strategies for self-leadership



to deal with the above-mentioned challenges: *“We have now tested and appreciate more self-leadership. To get to plan and have flexibility gives the satisfaction of being able to influence your own work situation”* (P4-WS1).

Remote work also helped increase individual productivity for many (especially those who had well-functioning home offices), due to fewer distractions and a stronger focus on goals and tasks in online collaboration and meetings. Many appreciated the time saved from not having to commute, which they used for things that were usually missing at work, such as (1) time for reflection and (2) integrating physical activities into workdays; for example, walking, jogging, or training during lunch breaks: *“I get a lot of energy from working out at lunch time, and as a result, I can do a better job”* (P5-M1). Other mentioned benefits were (3) spending more work time outdoors, for example for walk-and-talk meetings, and (4) more quality time with family and pets, making their daily routines easier: *“No commuting time gives more quality time for my family and children. I have time to prepare food for the family already during the lunch break. I can be together and more present with my children in a way that I could not be before”* (P2-M1). In addition to personal gains, remote work was mentioned as a contributor to a reduced carbon footprint, due to reduced commuting. The participants hoped that these new behaviours would stick and continue even after the pandemic restrictions ended (e.g., Figure 2a).



(a) *“The wake-up call of pandemic, seeing opportunities to save natural resources”* (P6-M1)



(b) *“Leaving old ways of working behind and starting to work in new ways—it takes time”* (P1-M1)

**Figure 2.** Examples of the participants’ photos and reflections: (a) opportunities for sustainable development; (b) challenges in finding new ways of working.

On the other hand, several challenges were raised with respect to remote work. A primary challenge for both managers and employees was handling the uncertainties around the pandemic restrictions and not knowing how long they would have to work from home. Another major challenge was holding onto the mindset of working in an office and following the office culture in an online format (Figure 2b), for example, by adopting an online meeting culture and learning to raise hands, turn cameras, choose appropriate backgrounds, use a headset, and turn microphones on/off. A lack of access to the right technical support, infrastructure, and tools also created a lot of frustration and impeded the adoption of these new ways of working: *“Our available tools slow us down. People cannot participate because they don’t have the right applications or internet connection, and so everything stops. I am not tech-savvy and get very frustrated when it happens”* (P6-M1). A sudden need to learn many new tools and ways of working in a short time span created stress for some and raised awareness of the lack of digital skills in general.

Remote work required more planned meetings instead of the face-to-face check-ins that used to take place more spontaneously in the office corridors. This, together with the convenience of working from home, led to back-to-back meetings without the natural breaks that were integrated into an office context by having to move between meeting

rooms. Therefore, the participants had difficulties dealing with cognitive overload and exhaustion from back-to-back online meetings. It was also considered hard to switch off in an “always-on” culture, overcoming the fear of missing out and feeling that one has to “be available all the time, always answering e-mails and receiving notifications from early in the morning until night. It creates stress, especially since we are not good at putting the phone on silent mode” (P3-M1). This was linked to the challenge of setting clear boundaries between private life and work life in a situation where work is always within arm’s reach, especially for those who had younger children or did not have functioning home offices. Most of the participants did not have ergonomic workstations at home and had not received support from their organisation to set up a workspace.

Remote work was also experienced as more monotonous, lacking the stimulation and input one receives in the office. Some of the participants also felt alone in everyday decision making and received limited feedback on their work: “Should I call someone and disturb them with my minor questions now? No. I don’t do it. You don’t feel confident in your decision-making when you can’t ask your questions. When you have worked with people for a while, you gain a collective understanding, and it feels we are moving away from it” (P13-WS4). Since seeing the impact of work on other people and the external environment was more difficult for some of the participants when working remotely, this created an experience of a lack of meaning in their work. This was, however, dependent on the type of work the participants were engaged in: those who worked with healthcare administration, dealing with the pandemic crisis, found remote working meaningful as they were, directly and indirectly, contributing to managing the crisis. The continuation of full-time remote work after the pandemic was considered challenging in terms of creating meaning, engagement, and motivation.

To handle the above-mentioned challenges, the participants felt that they had to be more proactive and practice self-leadership to manage their own workload, set good habits, achieve mental and physical wellbeing, and find a sustainable balance between productivity, wellbeing, and learning and development.

The identified opportunities and challenges of remote work as a new way of working are summarised in Table 1.

**Table 1.** Adoption of remote work: identified opportunities and challenges.

Opportunities of Remote Work	Challenges of Remote Work
<ul style="list-style-type: none"> <li>• Use of new digital tools that improve team collaboration</li> <li>• Accelerated development of digital skills</li> <li>• Increased autonomy, flexibility, and empowerment</li> <li>• Accelerated development of self-leadership strategies</li> <li>• Increased individual productivity</li> <li>• Time saved from commuting can be used for more reflection and learning</li> <li>• Easier to integrate physical exercise and walks into the workday</li> <li>• Working outdoors in nature</li> <li>• More quality time with family, pets, friends</li> <li>• Reduced carbon footprint</li> </ul>	<ul style="list-style-type: none"> <li>• Navigating uncertainty</li> <li>• Challenges with changing mindset and culture from office work to remote work</li> <li>• Insufficient technical support, infrastructure, and digital tools due to old IT systems, strict cybersecurity measures and obstacles in procurement of new IT systems</li> <li>• Limited digital skills and too many new tools to learn</li> <li>• Dealing with cognitive overload and exhaustion from back-to-back meetings</li> <li>• Constant availability and notifications</li> <li>• Setting boundaries in terms of work time</li> <li>• Poor workstation ergonomics and preconditions of home offices</li> <li>• Self-motivation in the absence of stimulation and meaningfulness</li> <li>• Lack of support in decision making and feedback on work progression</li> <li>• Establishing good habits (to address lack of breaks and limited physical activity)</li> <li>• Balancing task-specific productivity with creativity, learning and development</li> </ul>

### 3.2. Social Aspects of Remote Work

Several benefits were discussed by the participants with respect to online collaborations. In general, the meetings were perceived as more structured, with clear agendas and



goals. The participants from geographically distributed teams mentioned that they had become closer as a group and had better cohesion as they spent more time together online. Some of the participants mentioned that collaboration with other parts of their organisation, and even with other organisations, was easier than before. Participation in meetings was also easier as everyone took up equal space on the screen and had equal opportunities to contribute to the conversation by raising their hand or writing chat messages. The transition to remote work involved not only learning about new tools but also gaining insights into the different preferences of colleagues for communication and collaboration, which enabled a more customised interaction between team members. To enhance team spirit and knowledge sharing, which otherwise occurred organically at the office, the participants proactively sought ways to gather team members online for team building activities such as coffee breaks, knowledge-sharing sessions, yoga, quizzes, and other ways to enable a more personal connection with colleagues online. Another example was walk-and-talk meetings, which allowed for combining work with socialising in a more relaxed, outdoor environment.

At the same time, the social work environment was one of the aspects that was most negatively affected by remote work. Many participants reported feeling lonely, isolated, and disconnected from colleagues and missed the informal socialising, having fun together, and developing personal relationships with colleagues at the office (Figure 3a). The participants felt that they were losing their connection with their colleagues due to communication challenges, as well as limited spontaneity and informal social interactions: *“Standing by the coffee machine and discussing trivial things. Now you have to book a time for everything. Meeting each other physically helped us mirror each other, provide feedback and reflect together. All these human aspects are missing now”* (P7-M1). This made it more difficult to build trust and relationships and especially to establish a connection with new team members: *“We have a project where there are two of us who knew each other very well, and four new colleagues who support us. We’ve never met them in person. It is very weird to create a stable project group when you never meet each other”* (P15-WS4). The participants also found it difficult to express their feelings, to use the right tone (in video meetings or written communication), or to read the subtle signals in video calls in order to get a sense of what attendees’ nonverbal signals were saying (even more so when cameras were not used, e.g., in larger meetings), which also created a greater sense of disconnection. Many mentioned that it was more difficult to understand what was happening around them, and how colleagues were feeling: *“To see how people are doing, and for them to see how you are doing. Not quite the same digitally”* (P12-WS3). Some also mentioned a decreased understanding and overview of team progression and what others were doing, as well as limited feedback in the team: *“Now, I know less about what everyone else is dealing with. I have lost touch”* (P6-M1).

Despite some efforts, less time was dedicated to team building and fun activities, as remote working was more goal-oriented: *“Our meetings are more structured and efficient now. But the clock is always ticking in the background. You want to get to the point as fast as possible. Meetings take only half the time they used to, and as a result, you get more time for other things, but it is not good for our shared development”* (P7-M1).

Group creativity was also perceived as difficult to achieve in online formats: *“Meetings where you need deeper discussions so that you can take a leap together”* (P8-WS2). The available tools for digital collaboration and the knowledge for digital facilitation were other hindrances, leading to a general lack of creative and dynamic online meetings, as more structure was introduced to the meetings (Figure 3b). Therefore, the participants were concerned that knowledge exchange and learning was limited in comparison with working at the office: *“When you are in the same place, you hear the same sounds, see the body language, smell the same things. It creates a collective feeling that is not possible to achieve digitally. We are on a journey together and need to pause and check in sometimes. We have lost our playfulness. We worked on whiteboards when we met in person and left them there for people to continue building on ideas. It is a process that is difficult to capture and maintain digitally”* (P9-M1).



(a) “Something has been lost—my favourite cup has been lonely” (P7-M1)



(b) “Everything goes in straight lines in online meetings, one always takes the fastest way, so we lose the nuance and simplify complex issues” (P6-M1)

**Figure 3.** Examples of the participants’ photos and reflections on: (a) losing contact with colleagues; (b) work processes becoming more simplified and stricter than on-site collaborations.

In addition, the participants mentioned either an increased sense of distance between themselves and their managers or a feeling of being micro-managed through intensified attempts at control: “It has been more or less up to our managers to interpret the recommendations and to what extent they allow flexibility” (P8-WS2). They also felt an increased distance and a disconnect from colleagues from other parts of the organisation, as they had fewer opportunities for spontaneous interactions with colleagues outside their own groups, which risked creating information silos: “Collaboration between groups is almost non-existent now. You bumped into each other at the coffee breaks. Our digital breaks are only within our group” (P9-WS2). In general, the overall “we-feeling” of a shared culture and purpose was weakened: “You can forget that you are a part of something larger. Sometimes, you almost forget your purpose and function. The sense of belonging to a context is strengthened when you are at the workplace” (P16-WS4). The participants felt that they no longer had a nuanced and thorough grasp of organisational aspects, as most information was shared in written forms or presented formally, adding to the general feeling of disconnection from the organisation. These findings are summarised in Table 2.

**Table 2.** Social aspects of remote work.

Work Environment Opportunities	Work Environment Challenges
<ul style="list-style-type: none"> <li>• New forms of socialising (online social activities, working outdoors, etc.)</li> <li>• Collaborating with people from other parts of the organisation, which was harder before due to geographic distance</li> <li>• More structured meetings</li> <li>• Cohesion in geographically distributed groups and increased inclusion and participation</li> <li>• Becoming more pro-active in booking time for collective knowledge sharing and online coffee-breaks (things that happened spontaneously at the office)</li> <li>• More possibility to adjust different ways of collaborating to different needs of team members</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to grasp what is happening to colleagues, how they feel</li> <li>• Disconnection from own team, other groups and the organisation due to limited spontaneous interactions</li> <li>• Feeling disconnected from manager or overly micro-managed (depending on the manager)</li> <li>• Grasping nuanced insights about the organisational aspects due to an increased use of written communication</li> <li>• Less time dedicated to team building and doing fun things together (remote work is more goal and task oriented)</li> <li>• Building trust and relationships is harder, especially with new employees</li> <li>• Lower understanding and overview of what others in the team are doing</li> <li>• Limited feedback in the team</li> <li>• Insufficient tools and skills for online collaborations and creative activities</li> <li>• Limited knowledge sharing, which happened organically at the office</li> <li>• Getting a sense of the audience/attendees (especially in larger meetings)</li> <li>• Frustrations with online meetings: poor internet connections, meeting hygiene or limited familiarity with the tools</li> </ul>

### 3.3. Leadership Perspective on Remote Work and Managers' Work Environment Responsibilities

The staff managers' ways of working and work conditions changed in a similar manner in comparison to their employees. The positive changes included (i) having more time for reflection and strategic work due to reduced commuting and (ii) possibilities for collaborations and knowledge exchange with other managers across physical borders: *"It has been more peaceful for me. I have more structure, more time for reflection and for strategic planning. I also have had more time for networking, for example, with other financial offices. If everyone takes advantage of this situation with more time for reflecting and networking, we should improve our organisation with a better understanding of our surrounding context"* (P8-M1).

The identified negative changes were: (1) having longer working hours due to the convenience of remote working and the "always-on" culture imposed by digital tools; (2) increased screen time and having back-to-back online meetings without breaks; (3) limited exchanges with colleagues outside one's own work group, specifically among the participants who had on-site collaborations with other groups; and, **most importantly**, (4) the challenges in fulfilling their work environment responsibilities in a remote work context, i.e., identifying and addressing employees' work environment issues. The latter challenges are described below and summarised in Table 3.

**Table 3.** Managers' responsibility for employees' remote work environment.

Opportunities	Challenges
<ul style="list-style-type: none"> <li>Increased autonomy and development of self-leadership skills among employees</li> <li>More regular and planned follow-ups with employees</li> <li>Improved meeting culture, structure and inclusivity in distributed teams</li> </ul>	<ul style="list-style-type: none"> <li>Supporting the diverse needs of employees</li> <li>Reading subtle signals and sensing how employees really feel</li> <li>Increased manager-employee distance</li> <li>Identifying and supporting employees who experience anxiety, stress, isolation, overwork, etc.</li> <li>Letting go of control/oversight and practicing trust-based leadership</li> <li>Finding new ways to motivate employees</li> <li>Creating a 'we-feeling', a sense of belonging and a shared culture</li> <li>Providing employees with an understanding of the bigger picture of the organisation</li> <li>Navigating increased uncertainty and complexity (not always having answers)</li> </ul>

According to the participants with managerial roles, the widespread implementation of remote work had led to increased autonomy for employees but posed new demands in terms of supporting employees' adoption of self-leadership strategies. Remote work entailed an increased distance between managers and employees, requiring managers to adopt a trust-based leadership style and let go of control and traditional oversight: *"I think many managers will have to operate with trust and move away from traditions. There has been a lot of talk about flexibility and trust, but it is only now that we have started practising it"* (P2-M1). The participating employees had similar comments: *"There is an increased demand on us to be flexible with self-leadership, and this in turn demands a lot from our managers. To both give us the space and catch up on us when we need it"* (P11-WS3). While this was generally seen as a positive development, the staff managers pointed to various challenges with respect to their work environment responsibilities when employees work remotely for a sustained period:

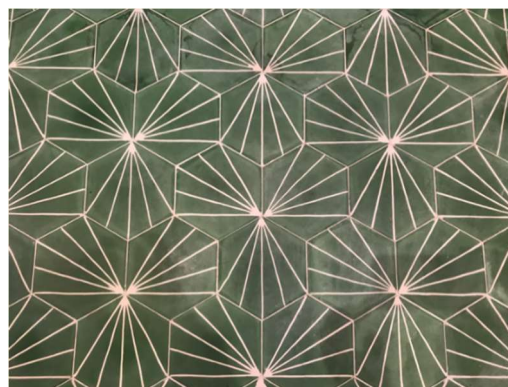
- Reading and interpreting subtle signals in online meetings and phone calls and getting a sense of how employees really feel.
- Identifying and supporting those employees who experience anxiety, stress, isolation, overload, overload, etc., despite difficulties with reading subtle signals in video calls.
- Creating group cohesion, for example, in Figure 4a: *"Our major need is now to care for our community and create situations for play and fun, so that we don't only focus on our Excel files. There is no slack in online meetings. You 'cut the crap'. In face-to-face meetings,*

anything can happen. We have to find such nuances and the ‘we-feeling’ when working online” (P6-M1).

- Navigating increased complexity and personalising leadership styles to support the diversity of individual employees depending on their needs, tasks, and preferences.
- Finding strategies to motivate employees.
- Ensuring employees feel a shared sense of purpose and understanding of the bigger picture in relation to the organisation: *“It feels quite lonely when you sit alone in a wardrobe and work, like I do. [ . . . ] We have to learn to collaborate better and focus on the main goals of our work. Many don’t know that they work with similar tasks and contribute to a larger purpose”* (P9-M1).
- Developing new leadership skills that allow one to adapt quickly to constant changes and find innovative solutions: *“Flexibility, responsiveness and creativity are leadership qualities of the future”* (P4-M1).



(a) *“We have to strengthen the team and the ‘we feeling’ of shared culture and purpose”* (P9-M1)



(b) *“We have more short follow-up meetings which are useful and create a systematic follow up of goals that we set”* (P6-M1)

**Figure 4.** Examples of the participants’ photos and reflections: (a) creating a sense of belonging and strengthening team cohesion; (b) leading the group towards organisational goals.

Some staff managers mentioned having more regular follow-ups, by phone or virtually, to fulfil their responsibilities for their employees’ work environment: *“You have the responsibility to follow-up as a manager. Before, I went around the office and had an overview of how things were going. Now, I need more control and have to be more clear about my responsibilities and purpose as a manager. It is mutual. They also expect me to follow up and have a need to be seen. The communication will have to be more flawless now, as we rely more on e-mails and phone conversations”* (P8-M1). These online check-ins were perceived as effective (Figure 4b), but since they replaced the spontaneous office follow-ups, the managers *“had to plan much more than you had to before”* (KR-WSL). Those managers who had semi-distributed teams prior to the pandemic appreciated these developments, as remote work required every group member to participate from their own device; the social environment of these semi-distributed teams had improved both in terms of structure and inclusivity. However, concerns were raised about employee turnover and challenges with creating loyalty when groups are distributed and lose their ties with each other.

### 3.4. Return to Offices after the Pandemic and Moving towards the Hybrid Work Model

The participants mostly expected a transition into some form of hybrid work model, working a few days per week remotely and a few days onsite at an office depending on their work tasks: *“I think we will work at a variety of locations in future. We will need smaller offices in general but larger meeting rooms. We will evaluate more what works better at home and at the office”* (P1-M1). They expect that learning from the pandemic will enable them to



take advantage of a more expanded idea of the workplace in the future; for example, as described in Figure 5a: “We will use nature more as a room to work. We should create more flexibility, and work in the car, or in the parks, seeing the workplace as ever changing” (P4-M1).



(a) “The possibility of working from anywhere—even from our family house in India” (P2-M1)



(b) “Ergonomic challenges with the home office” (P2-M1)

**Figure 5.** Examples of the participants’ photos and reflections on: (a) work from anywhere; (b) physical ergonomics of working from anywhere.

From an *individual perspective*, returning to the office is expected to (i) provide a more ergonomic workplace in contrast to the home office, for example, as depicted in Figure 4b; (ii) re-introduce variation in the workday; and (iii) increase physical activity in a natural way as employees move between different parts of the office and travel/walk to and from the office. More importantly, meeting colleagues at the office, informal socialisation, and spontaneous interactions were what the participants looked forward to the most. With the right support and flexibility to combine remote work and time with colleagues in the office, the participants expect to find a better work-life balance in future.

On the other hand, some participants were concerned that going back to the office would lower their autonomy and productivity, as they had developed new, well-functioning routines and become accustomed to the convenience and efficiency and enjoyed a home office free from distractions, despite the limited ergonomic support. Here, the specifics of the Swedish model should be highlighted, as kindergartens and schools in Sweden have been open during the pandemic, which enabled most people to work without distractions, as long as their children did not have symptoms of illness. The participants also mentioned that finding a balance between work at home and at the office may be challenging, as changing routines and finding a new structure for work can be demanding for some. It was also mentioned that an initial eagerness to meet colleagues may be experienced as overwhelming and counterproductive, triggering a recoil effect, and requiring new boundary-setting strategies to ensure work gets done. What further lowers the motivation of participants to go back to the office are the limitations in the design of the physical work environment. To summarise the individual views, the employers are expected to provide more flexibility, autonomy, ergonomic support for the home office, and improve the physical work environment at offices to achieve a well-functioning hybrid solution. The following issues were raised as things that need to be addressed to improve the hybrid work environment:

- **Worries about potential infection risks**, which will put pressure on the employers to ensure a safe workplace where distancing will be possible: “It is not appropriate to have a flexible office, where everyone moves around and can sit anywhere. We should have dedicated spaces for different groups to minimise the risk of having one group that infects everyone else” (P6- WS2). Otherwise, the organisation would be more vulnerable and at risk of having more employees on sick leave than what is ideal.



- **The ergonomics of home offices:** *“Home offices are never as good as the ergonomically designed workplace. I have had pain in my hand, forearm, back and shoulders because of the mouse I use. I try to have different postures and use a smaller mouse”* (P2-M1). Employers are therefore expected to take a more proactive approach to support employees with guidance and a means to ensure better home office ergonomics: *“Many of us need better ergonomics, if we are to work from home* (P15-WS4).
- **The design shortcomings of offices,** such as limited spaces for uninterrupted online meetings at offices due to few individual rooms, open spaces with unwanted distractions, spaces that are perceived as more sterile than the home environment, and (for some) the inconvenience of clean-desking as opposed to working from home.

From a *group perspective*, the main benefits of going back to the office are increased opportunities for spontaneous and planned forms of socialising, which strengthens group cohesion and facilitates knowledge exchange, collective learning, and creative collaboration with colleagues: *“I think we will use the office for things we can’t do at home, like thinking and creating together”* (P9-M1). The participants reflect that spending face-to-face time provides better conditions for building the social fabric, understanding and connecting with each other, and creating a sense of belonging: *“To get back to more creativity, as the online meetings feel a bit robotic. I miss the co-creation”* (P13-WS4). Building relationships, especially with new colleagues, is also expected to improve.

The main challenge from a group perspective was about finding ways to coordinate; for example, deciding on days for everyone to meet at the office or agreeing on what tasks are better suited for office or remote work despite individual differences and preferences. Another issue was dealing with asynchronisation and creating a culture that unites people, despite the physical place of work, and ensures that people are not excluded from corridor decisions and announcements when they work from home: *“There may be a fear of missing out, when people go back to the office. What will everyone talk about? And what info will be exchanged? You don’t have the FOMO when everyone works from home”* (P17-WS1). One of the situations that can lead to the exclusion of colleagues is the so-called “hybrid meeting”, as participants in online meetings where everyone connects via their own laptops perceived them to be more inclusive. The participants expected that office design and provided technologies would need to improve to meet the needs of mixed participation and the creation of a social hub for collaboration and creativity: *“We need more small rooms and more open spaces for working, creating and thinking together”* (P3-M1).

From a *leadership perspective*, the benefits of returning to offices mainly concerned communication and social aspects; that is, solving problems on the go instead of having back-to-back meetings: *“Being at the workplace results in having fewer meetings”* (RS-WSL), and *“you can address those smaller questions in between meetings”* (KR-WSL). Those with managerial roles felt that they can fulfil their work environment responsibilities better on-site, as they can see and sense how employees feel and detect problems that are difficult to communicate online. Returning to the office was also considered a way to make the onboarding of new employees easier, as participants experienced challenges with integrating new hires during the pandemic. The participants found the hybrid format effective, as it allows them to choose a way of working that fits the purpose, instead of following old routines: *“We used to book a meeting for everything and travelled around in the city even when unnecessary. Now, you can make more active choices, and think about why we should meet”* (P6-M1). The location of work was seen as a secondary question: *“It is better to focus on the tasks one should do to get paid. If you do it at home, at the office, at a café or in a bathtub is a secondary question”* (DS-WSL). This, over time, would turn offices into social hubs for meetings and group activities, while also providing opportunities to recruit from other locations, and by extension, access to a larger talent pool. In general, a hybrid format was considered to contribute to the social and environmental sustainability goals better than fully remote or fully on-site work.

According to the managers, the main challenges of the hybrid model would be (i) ambiguities concerning whether there would be organisational policies; (ii) addressing worries, frustrations, and disappointments due to, for example, distractions or colleagues

not showing up at offices when one does; (iii) clarifying when employees should be at the office or not despite different individual preferences; (iv) implementing guidelines and expectations for the use of the office, especially among those who had shared solutions; (v) handling the logistics of having an uncertain number of employees for meetings at offices; and, most importantly, (vi) ensuring inclusion and equality by giving everyone similar opportunities and support regardless of their work location. Several variations on hybrid policies were discussed, such as providing employees with the opportunity to choose depending on their tasks and preferences or having a certain number of office days per week, despite employee preferences. The ideas for the latter included fixed days to ensure that group members meet in person, flexible days that employees can choose from, and rotating days for different groups to avoid crowding at offices. This also raised discussions about payment models for facilities and services, namely, whether the groups that predominantly work remotely should have to use their budget for facilities to the same extent as those who are mainly at offices. One suggestion was to provide limited access for remote groups for their social activities. These suggestions, in combination with suggested areas of improvement from individual and group perspectives, provide opportunities to transform and adapt office spaces to meet the new, diverse, and emergent needs of hybrid work.

Table 4 summarises the opportunities and challenges with respect to returning to offices and hybrid working from individual, group, and leadership perspectives.

**Table 4.** Return to offices after the pandemic and moving towards the hybrid work model.

Work Environment Opportunities	Work Environment Challenges
<b>Individual and group level</b> <ul style="list-style-type: none"> <li>Expanded and diverse workplaces and spaces to support different tasks</li> <li>Better ergonomics at offices</li> <li>Increased physical activity at work</li> <li>Getting collegial support in a more spontaneous manner</li> <li>Work-life balance</li> </ul>	<b>Individual and group level</b> <ul style="list-style-type: none"> <li>Risk for a decreased autonomy</li> <li>Decreased individual productivity and a lack of motivation to go back to the office</li> <li>Finding the right balance between work from home and the office</li> <li>Feeling excluded if one is not in the office</li> <li>Sub-optimal office design</li> <li>Worries for infection risks</li> <li>Limited ergonomic support at home</li> </ul>
<b>Group level</b> <ul style="list-style-type: none"> <li>Better conditions for spontaneous meetings, socialising, in-depth discussions, creativity, knowledge exchange, and collective learning</li> <li>Better conditions for building the social fabric, understanding of and connection with each other, and creating a sense of belonging</li> </ul>	<b>Group level</b> <ul style="list-style-type: none"> <li>Can be difficult to coordinate</li> <li>Difficult to agree on ways of working</li> <li>A-synchronised communication can have a negative impact on information flow</li> <li>Invisible groupings between office and remote workers</li> <li>Office designs and meeting culture not adjusted for inclusivity in hybrid formats</li> </ul>
<b>Leadership level</b> <ul style="list-style-type: none"> <li>Spontaneity and variation instead of back-to-back online meetings; better communication</li> <li>Seeing/detecting what is not seen and can be a challenge in remote work</li> <li>Easier onboarding of new employees</li> <li>Better work conditions and easier to fulfil work environment responsibilities</li> <li>Focus on performance and tasks despite place of work</li> <li>Office becoming a social hub</li> <li>Easier to recruit new employees from other locations</li> <li>Contributing to social and environmental sustainability by combining office and remote work possibilities</li> </ul>	<b>Leadership level</b> <ul style="list-style-type: none"> <li>Ambiguities and lack of organisational guidelines and policies on hybrid work</li> <li>Addressing employees' worries, providing support for finding new routines and handling frustrations</li> <li>Clarifying when employees should be at the office</li> <li>Implementing rules and guidelines for usage of offices to ensure safety and productivity of employees</li> <li>Handling logistics of an uncertain number of employees at offices</li> <li>Inclusion and equality (ensuring equal opportunities despite place of work)</li> <li>Creating attractive and cost-efficient solutions for the hybrid work environment</li> </ul>

#### 4. Discussion

The two studies presented here provoke some interesting practical and theoretical questions for future research about employee wellbeing and organisational outcomes. *How much remote work is healthy and creates good conditions for balancing productivity with wellbeing, social connection, and learning and development?* Consistent with other studies on remote work during the pandemic, our results suggest that some employees thrive in a fully remote work environment while others do not [11,22]. Our results are indeed coloured by the pandemic restrictions in contrast with earlier studies on remote work, where employees had opportunities to meet with their colleagues. The disruption caused by the pandemic has certainly challenged the era of a one-size-fits-all, 9 AM–5 PM work time at the office, with increased expectations among employees for greater flexibility. This new era will have implications from human factors and occupational health and work organisation perspectives [23]. As more organisations implement some form of hybrid work model in response to these expectations, there will be more data to understand what works best for different groups of people with different working conditions in order to achieve well-functioning work environments. Below, we discuss our results and the questions for future research from a health promotion perspective.

##### 4.1. Sense of Coherence in Remote and Hybrid Work Models

From a health promotion perspective, three factors are essential for achieving a sense of coherence. These factors relate to the basic psychological needs, namely comprehensibility, meaningfulness, and manageability [24,25], and are relevant to consider in the context of hybrid work. **Comprehensibility** refers to how well a work situation is perceived as structured, consistent, and clear. Workers may perceive hybrid models as unstructured, inconsistent, and ambiguous, especially in comparison to full-time remote or on-site work. This can pose new work demands, such as additional coordination tasks and constantly having to interpret and decide what to do, where, and when. In addition, between and/or within-group differences in terms of flexibility may be interpreted as organisational injustice and even create friction. This friction will be interesting to explore in order to find a balance between individuals' needs and organisational outcomes. As remote working options can provide competitive advantages, it is likely that organisations will provide greater flexibility and customisation to attract top talents and to win the global "war on talent". Earlier studies on work-from-anywhere show that geographical flexibility benefits both individuals and organisations [26]. On the other hand, organisational injustice can lead to decreased loyalty and increased turnover. *How can organisations create structured, clear, consistent, and fair hybrid solutions, preventing potential friction that might arise between those working more from the office and those working more from home/elsewhere?*

**Meaningfulness** refers to the extent to which one feels that a work situation is worthy of commitment and engagement [24,25]. Our results indicate that remote workers risk losing the big picture of what is going on in the wider organisation and how their work contributes to the overall organisational outcomes, as they can be enclosed in their individual bubbles at home for a sustained period. Instead, they focus on specific tasks, projects, and the immediate team context. As studies indicate, full-time and sustained remote work can also weaken social ties [7]. This can, over time, lead to loneliness, isolation and disengagement. In a study by Bloom and colleagues [27], about 50% of the experimental work-from-home group refused the offer to work from home permanently due to their concerns over loneliness and a lack of social contact at home. It is important to note that loneliness is found to be a significant negative predictor for task, team role, and relational performance [28], and remote workers experience anxiety about being forgotten [29]. The risks of negative health consequences also increase if workers continue to experience loneliness and disconnection at work. A key question to explore in future research is *how can organisations provide support for a fulfilling social life, connection, and belonging and meaningfulness in a hybrid work model?*

**Manageability** describes the extent to which individuals feel in control of their work situation and are able to make decisions that allow them to cope with work demands, according to their preferences and available resources [24,25]. Our results highlight several aspects that relate to manageability. First, the participants in our studies—as well as in other studies [11,12]—appreciated the flexibility with respect to time and place of work and generally reported an increase in their individual productivity. It can be argued that reducing flexibility may have a negative impact on both productivity and wellbeing. Here, it is relevant to mention the study by Bloom and colleagues [27], which showed (1) a 13% increase in productivity among a randomly selected work-from-home group, relative to an office control group, and (2) a 22% increase in productivity when employees chose whether they wanted to work from home or in the office. A relevant question to explore is *whether the positive effects of increased autonomy with respect to the time and place of work are long-lasting, and how would employees respond to decreased autonomy if organisations limit remote working options?*

Manageability also refers to one's own competence, abilities, and the drive to challenge oneself in coping with work demands. Full-time remote work presents challenges for the development of (a sense of) competence, due to limited opportunities to receive feedback on task performance, reduced support and guidance, and limited exchanges with supervisors and co-workers in comparison with on-site office work. While hybrid models can provide a trade-off between the desired flexibility and social resources, it poses new cognitive demands that require additional attention, information processing, decision making and problem-solving; examples include information overload across digital channels, back-to-back online meetings, the “always-on” culture, handling distractions at home and at offices, and finding new ways to ensure effective solitary work and fruitful collaborations. According to the Job Demands-Resources model by Bakker and Demerouti [30], an imbalance between the demands and resources that employees are subjected to causes occupational strain and health impairment, while a balance creates motivation. Autonomy, effective communication, and work-life balance are found as important job resources in flexible ways of working, for example in [31]. However, in order to manage the additional demands of remote work and benefit from the increased flexibility, employers will have to provide support and help employees to develop self-leadership skills and boundary-setting strategies. *Whether these strategies are enough to create a balance between work demands and resources remains unclear.*

The physical and digital work environments are other aspects that influence manageability in remote and hybrid work models. Our results suggest that shortcomings in the design of office environments discourage employees from returning to offices. These shortcomings relate to trends in office design such as open-plan and flexible offices with non-assigned workstations, which generally fail to provide workspaces for concentration and uninterrupted work [32], especially as remote workers have become accustomed to the peace and quiet of home offices during the pandemic. Various studies on office environments show the importance of design for the wellbeing and health outcomes of office workers [33–37]. Design improvements to office environments will be necessary to meet the needs of hybrid workers. Similar to another study [29], our participants adjusted their living spaces for remote working depending on the conditions and affordances of their homes. Remote and hybrid work models pose new questions with respect to the design of future homes, namely, the location, lighting conditions, ergonomics, and the dedication of a space for a home office. Digitally mediated remote and hybrid work also poses new cognitive demands on workers, such as difficulties interpreting body language and facial cues, or seeing oneself and others in a close-up view, which can act as a stressor [38]. Recent developments, such as the metaverse and the general potential that VR-based environments can provide, are highlighted as potential solutions for generating a sense of presence and team belonging in comparison with traditional video meetings [39]. The design of physical, digital and virtual work environments in remote and hybrid settings will have to meet the different needs of employees and ensure inclusivity, as employees

will, by default, have different pre-conditions, preferences, and abilities. Organisations that get this right may be able to reap the greatest benefits from both remote and office work. The overarching question to address in future research concerns creating a manageable work environment for employees: *what individual, group, and organisational strategies and resources are required to promote health and wellbeing and cope with the demands of hybrid work models?*

#### 4.2. Implications from a Leadership Perspective

From a leadership perspective, a challenging question to tackle is whether increased flexibility and increased individual performance benefit the overall organisational performance, as the *“whole may indeed be greater than the sum of the parts”*. Our results and most previous studies on remote work focus on individual productivity outcomes, while the effect of remote and hybrid work on team and organisational performance remains unclear. More research will be needed to determine *how increased flexibility and different hybrid models affect team/organisational performance*.

Our results show that managers struggled to find a balance between letting go of control while simultaneously providing support and fulfilling their work environment responsibilities. To ensure the occupational health and wellbeing of remote workers, managers play a critical role in providing support, encouragement, and generating group-level safety [3]. Recent studies show that destructive leadership—for example, excessive requests or unethical monitoring—in remote work has a negative effect on employee wellbeing and job satisfaction, reducing the positive effects of remote work [40]. Therefore, more research is needed to help develop trust-based leadership strategies in remote work to ensure employee wellbeing, performance, and output quality, as also mentioned by [41], while providing supportive resources to promote the health and safety of remote and hybrid workers. Previous studies show that remote workers feel a need to make their contributions visible in order to earn their managers' trust [29], which should be acknowledged in the feedback provided by managers and supervisors. In line with other studies, our results show that managers need more support handling the additional tasks, increased complexities, and new demands that hybrid and remote work imply [10], in order to adjust their leadership style.

#### 4.3. Implications for Achieving Sustainability Goals

In addition to the above-mentioned social and organisational aspects, sustainability issues related to the consumption of energy and resources will be central in the hybrid work model. On one hand, continued remote work or a shift to hybrid work is likely to contribute to carbon emission reductions as a result of reduced commuting [42]. These reductions may, however, be negated as a result of new work and living trends. Hybrid work may also encourage the increased consumption of office furniture and equipment in order to maintain functioning workspaces both at home and at the office. It also requires more energy consumption at home (ibid.). Another indirect negative consequence is a potential increase in car ownership and usage among the large number of workers that are moving away from cities to the countryside. Long-haul flights for on-site team-building activities for distributed teams who work from anywhere may be another negative consequence. It is important to identify potential conflicts, synergies, and trade-offs in implementing sustainability goals [43]. *How can organisations take responsibility for social and environmental sustainability goals when planning for future ways of working, instead of merely focusing on their production emissions?*

#### 4.4. Study Context and Limitations

The results of the two studies presented in this article to a large extent show a polarised view of remote work, confirming results from other studies about remote work during the pandemic, for example [11,12,22], but the results may, to a certain extent, be specific to the Swedish public sector. First of all, the public sector, in general, includes a wide variety



of professions—some that primarily require direct contact with citizens (patients, school pupils, etc.) with certain administrative tasks that can be performed remotely. On the other hand, there is a large portion of administrative staff and knowledge workers in the public sector that will likely work according to a hybrid model after the pandemic, mixing remote and on-site work. This is further facilitated by a high level of digitalisation in Sweden, given that the country has the third-highest score in the Digital Economy and Society Index measured by the EU Commission [44]. The rather non-hierarchical organisational culture and the new trust-based public management in Sweden is also worth mentioning, as it promotes trust-based leadership [45] instead of control-based leadership, which is more conducive to remote and hybrid work models.

Some limitations of our study are discussed here. First, we used a case study approach (1) to understand complex interrelations between studied phenomena, (2) to develop thick descriptions that represent different perspectives, and (3) in a setting where the research had little control over the studied events but was interested in naturally occurring variability [46,47]. Second, our multiple-case studies enabled comparisons and allowed for propositions based on varied situations, contexts, and perspectives, preventing the idiosyncrasies of findings from single cases [45]. Third, we relied on interview-based qualitative studies with the purpose of providing deeply context-specific, rich accounts of the participants' perspectives of a situation [48]. Therefore, subjectivity was inherent in our data collection [47]. Fourth, our qualitative data-collection methods involved generative activities and digital facilitation. These generative activities encourage participants to reflect on a deeper level and talk about what they feel and desire [49]. While different generative methods were utilised in the two studies (fictive scenario creation in Study 1 and photo-elicitation in Study 2), the depth and variation of participants' reflections were similar between cases.

## 5. Conclusions

Our results on the perceptions of employees and managers with respect to new ways of working during and after the COVID-19 restrictions indicate that the era of a one-size-fits-all office-based work structure is over, giving rise to more customised and hybrid work models in the future. Employees with jobs that can be performed remotely have increased expectations about flexibility with respect to time and place of work. Our results present a mixed picture of new ways of working, exemplifying both a range of new possibilities and challenges that remote and hybrid work models pose from employee, managerial, and organisational perspectives. Social aspects of work are among the major challenges of remote work, which is why we can expect that the offices of the future will focus more on filling that gap, becoming places for building relationships, creative forms of collaboration, and strengthening a sense of shared purpose and culture. Both employees and managers will have to develop new skills and competencies to adjust to the new ways of working and to find the best way to utilise the opportunities of hybrid work. Organisations will have to consider sustainability implications when developing guidelines for hybrid work, both in terms of social and ecological aspects. They will also have to re-design both physical and digital workplaces to fit the new and emergent needs of employees in hybrid work models.

Our discussions pose several questions and lay out several potential paths for future research. One is concerned with finding a balance between the amount of remote and office-based work for employees, depending on a variety of work-related and individual pre-conditions. Another important question is the trade-off between organisational goals and individuals' needs and preferences for sustained remote work, but also whether and how increased flexibility actually affects team and organisational performance.

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**Informed Consent Statement:** Informed consent was obtained verbally from all subjects who participated in this collaborative study.

**Data Availability Statement:** Data are available upon reasonable request.

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## References

- Charalampous, M.; Grant, C.A.; Tramontano, C.; Michailidis, E. Systematically reviewing remote e-workers' well-being at work: A multidimensional approach. *Eur. J. Work Organ. Psychol.* **2018**, *28*, 51–73. [CrossRef]
- Shifrin, N.V.; Michel, J.S. Flexible work arrangements and employee health: A meta-analytic review. *Work Stress* **2021**, 1–26. [CrossRef]
- Nayani, R.J.; Nielsen, K.; Daniels, K.; Donaldson-Feilder, E.J.; Lewis, R.C. Out of sight and out of mind? A literature review of occupational safety and health leadership and management of distributed workers. *Work Stress* **2017**, *32*, 124–146. [CrossRef]
- Barrero, J.M.; Bloom, N.; Davis, S. *Why Working from Home Will Stick*; National Bureau of Economic Research: Cambridge, MA, USA, 2021; Available online: <https://www.nber.org/papers/w28731> (accessed on 12 December 2021).
- Bloom, N. How Working from Home Works Out. 2020. Available online: <https://api.includere.co/uploads/StanfordResearch-Howworkingfromhomeworksout-June2020.pdf> (accessed on 12 December 2021).
- Sostero, M.; Milasi, S.; Hurley, J.; Fernandez-Macias, E.; Bisello, M. Teleworkability and the COVID-19 Crisis: A New Digital Divide? No. 2020/05, Seville, 2020. Available online: <https://creativecommons.org/licenses/by/4.0/www.econstor.eu> (accessed on 12 December 2021).
- Yang, L.; Holtz, D.; Jaffe, S.; Suri, S.; Sinha, S.; Weston, J.; Joyce, C.; Shah, N.; Sherman, K.; Hecht, B.; et al. The effects of remote work on collaboration among information workers. *Nat. Hum. Behav.* **2021**, 1–12. [CrossRef]
- Baert, S.; Lippens, L.; Moens, E.; Weytjens, J.; Sterkens, P. The COVID-19 Crisis and Telework: A Research Survey on Experiences, Expectations and Hopes. *SSRN Electron J.* **2020**. Available online: <https://www.ssrn.com/abstract=3596696> (accessed on 12 December 2021). [CrossRef]
- Lippens, L.; Moens, E.; Sterkens, P.; Weytjens, J.; Baert, S. How do employees think the COVID-19 crisis will affect their careers? *PLoS ONE* **2021**, *16*. [CrossRef] [PubMed]
- Kirchner, K.; Ipsen, C.; Hansen, J.P. COVID-19 leadership challenges in knowledge work. *Knowl. Manag. Res. Pract.* **2021**, *19*, 1–8. [CrossRef]
- Bolisani, E.; Scarso, E.; Ipsen, C.; Kirchner, K.; Hansen, J.P. Working from home during COVID-19 pandemic: Lessons learned and issues. *Manag. Mark. Challenges Knowl. Soc.* **2020**, *15*, 458–476. [CrossRef]
- Ipsen, C.; van Veldhoven, M.; Kirchner, K.; Hansen, J.P. Six Key Advantages and Disadvantages of Working from Home in Europe during COVID-19. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1826. [CrossRef]
- Hallman, D.M.; Januario, L.B.; Mathiassen, S.E.; Heiden, M.; Svensson, S.; Bergström, G. Working from home during the COVID-19 outbreak in Sweden: Effects on 24-h time-use in office workers. *BMC Public Health* **2021**, *21*, 1–10. [CrossRef]
- Widar, L.; Wiitavaara, B.; Boman, E.; Heiden, M. Psychophysiological Reactivity, Postures and Movements among Academic Staff: A Comparison between Teleworking Days and Office Days. *Int. J. Environ. Res. Public Health* **2021**, *18*, 9537. [CrossRef]
- Neumayr, T.; Jetter, H.-C.; Augstein, M.; Friedl, J.; Luger, T. Domino. Domino: A Descriptive Framework for Hybrid Collaboration and Coupling Styles in Partially Distributed Teams. *Proc. ACM Hum.-Comput. Interact* **2018**, *2*, 1–24. [CrossRef]
- Neumayr, T.; Saatci, B.; Rintel, S.; Klokmose, C.N.; Augstein, M. What was Hybrid? A Systematic Review of Hybrid Collaboration and Meetings Re-search. *ACM Trans. Comput. Interact* **2021**. [CrossRef]
- Andersen, S.N. Participatory Simulation in Hospital Work System Design. DTU Management Engineering. 2016. Available online: [https://backend.orbit.dtu.dk/ws/portalfiles/portal/128050417/Thesis\\_FINAL\\_Simone\\_Nyholm\\_Andersen.pdf](https://backend.orbit.dtu.dk/ws/portalfiles/portal/128050417/Thesis_FINAL_Simone_Nyholm_Andersen.pdf) (accessed on 12 December 2021).
- Raby, R.; Lehmann, W.; Helleiner, J.; Easterbrook, R.; Easterbrook, R. Reflections on Using Participant-Generated, Digital Photo-Elicitation in Research With Young Canadians About Their First Part-Time Jobs. *Int. J. Qual. Methods* **2018**, *17*. [CrossRef]

19. Warren, S. 'Show Me How It Feels to Work Here': Using Photography to Research Organizational Aesthetics. *Crit. Dialogues Organ.* **2002**, *2*, 224–245.
20. Warren, S. Photography in Qualitative Organizational Research: Conceptual, Analytical and Ethical Issues in Photo-elicitation Inspired Methods. In *The SAGE Handbook of Qualitative Business and Management Research Methods*; SAGE: London, UK, 2018.
21. Schwandt, T.A. Qualitative data analysis: An expanded sourcebook. *Eval. Program Plann.* **1996**, *19*, 106–107. [[CrossRef](#)]
22. Fredriksson, A.; Wolf-Watz, O. Mapping and Analysis of Conditions for Working from Home during the Covid-19 Pandemic. Gävle, Sweden. 2021. Available online: <https://sawee.se/publications/mapping-and-analysis-of-conditions-for-working-from-home-during-the-covid-19-pandemic/> (accessed on 12 December 2021).
23. Bentley, T.; Green, N.; Tappin, D.; Haslam, R. State of science: The future of work—Ergonomics and human factors contributions to the field. *Ergonomics* **2021**, *64*, 427–439. [[CrossRef](#)]
24. Antonovsky, A. *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*; Jossey-Bass: San Francisco, CA, USA, 1987.
25. Antonovsky, A. The salutogenic model as a theory to guide health promotion. *Health Promot. Int.* **1996**, *11*, 11–18. [[CrossRef](#)]
26. Choudhury, P.; Foroughi, C.; Larson, B. Work-from-anywhere: The productivity effects of geographic flexibility. *Strat. Manag. J.* **2021**, *42*, 655–683. [[CrossRef](#)]
27. Bloom, N.; Liang, J.; Roberts, J.; Ying, Z.J. Does Working from Home Work? Evidence from a Chinese Experiment \*. *Q. J. Econ.* **2015**, *130*, 165–218. [[CrossRef](#)]
28. Ozelik, H.; Barsade, S. Work loneliness and employee performance. *Acad. Manag. Proc.* **2011**, *2011*, 1–6. [[CrossRef](#)]
29. Richardson, J.; McKenna, S. Reordering Spatial and Social Relations: A Case Study of Professional and Managerial Flexworkers. *Br. J. Manag.* **2013**, *25*, 724–736. [[CrossRef](#)]
30. Bakker, A.; Demerouti, E. The Job Demands-Resources model: State of the art. *J. Manag. Psychol.* **2007**, *22*, 309–328. [[CrossRef](#)]
31. Ter Hoeven, C.L.; van Zoonen, W. Flexible work designs and employee well-being: Examining the effects of resources and demands. *New Technol. Work Employ* **2015**, *30*, 237–255. [[CrossRef](#)]
32. Chafi, M.B.; Harder, M.; Danielsson, C.B. Workspace preferences and non-preferences in Activity-based Flexible Offices: Two case studies. *Appl. Ergon.* **2020**, *83*, 102971. [[CrossRef](#)] [[PubMed](#)]
33. Danielsson, C.B.; Chungkham, H.S.; Wulff, C.; Westerlund, H. Office design's impact on sick leave rates. *Ergonomics* **2014**, *57*, 139–147. [[CrossRef](#)] [[PubMed](#)]
34. De Croon, E.M.; Sluiter, J.K.; Kuijer, P.P.F.; Frings-Dresen, M.H.W. The effect of office concepts on worker health and performance: A systematic review of the literature. *Ergonomics* **2005**, *48*, 119–134. [[CrossRef](#)]
35. Engelen, L.; Chau, J.; Young, S.; Mackey, M.; Jeyapalan, D.; Bauman, A. Is activity-based working impacting health, work performance and perceptions? A systematic review. *Build. Res. Inf.* **2019**, *47*, 468–479. [[CrossRef](#)]
36. Cordero, A.C.; Babapour, M.; Karlsson, M. Feel well and do well at work. *J. Corp. Real Estate* **2019**, *22*, 113–137. [[CrossRef](#)]
37. Forooraghi, M.; Cobaleda-Cordero, A.; Chafi, M.B. A healthy office and healthy employees: A longitudinal case study with a salutogenic perspective in the context of the physical office environment. *Build. Res. Inf.* **2021**, 1–18. [[CrossRef](#)]
38. Bailenson, J.N. Nonverbal overload: A theoretical argument for the causes of Zoom fatigue. *Technol. Mind Behav.* **2021**, *2*. [[CrossRef](#)]
39. Oprean, D.; Simpson, M.; Klippel, A. Collaborating remotely: An evaluation of immersive capabilities on spatial experiences and team membership. *Int. J. Digit. Earth* **2017**, *11*, 420–436. [[CrossRef](#)]
40. Dolce, V.; Vayre, E.; Molino, M.; Ghislieri, C. Far Away, So Close? The Role of Destructive Leadership in the Job Demands–Resources and Recovery Model in Emergency Telework. *Soc. Sci.* **2020**, *9*, 196. [[CrossRef](#)]
41. Schoorman, F.D.; Mayer, R.C.; Davis, J.H. An Integrative Model of Organizational Trust: Past, Present, and Future. *Acad. Manag. Rev.* **2007**, *32*, 344–354. [[CrossRef](#)]
42. Hook, A.; Court, V.; Sovacool, B.K.; Sorrell, S. A systematic review of the energy and climate impacts of teleworking. *Environ. Res. Lett.* **2020**, *15*, 093003. [[CrossRef](#)]
43. Weitz, N.; Carlsen, H.; Nilsson, M.; Skånberg, K. Towards systemic and contextual priority setting for implementing the 2030 Agenda. *Sustain. Sci.* **2018**, *13*, 531–548. [[CrossRef](#)] [[PubMed](#)]
44. EU Commition. Digital Economy and Society Index 2021: Overall Progress in Digital Transition but Need for New EU-Wide Efforts Main Findings of the 2021 DESI in the Four Areas. Brussels. 2021. Available online: [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_21\\_5481](https://ec.europa.eu/commission/presscorner/detail/en/ip_21_5481) (accessed on 12 December 2021).
45. Bringselius, L. Vad är tillitsbaserad styrning och ledning? In *Styra Och Leda Med Tillit: Forskning Och Praktik*; Regeringskansliet, Norstedts Juridik AB: Stockholm, Sweden, 2018.
46. Yin, R.K. A (very) brief refresher on the case study method. *Appl. Case Study Res.* **2012**, *3*, 3–20.
47. Eisenhardt, K.M.; Graebner, M.E. Theory Building From Cases: Opportunities And Challenges. *Acad. Manag. J.* **2007**, *50*, 25–32. [[CrossRef](#)]
48. Yin, R.K. *Case Study Research: Design and Methods*; Sage: Thousand Oaks, CA, USA, 2009.
49. Stappers, P.; Sleeswijk-Visser, F.; Keller, I. Mapping the Experiential Context of Product Use: Generative techniques beyond questions and observations. In *Proceedings of the 6th Asian Design International Conference*, Tsukuba, Japan, 14–17 October 2003.