



Working conditions and sustainable work
**Understanding the management
challenges in hybrid work:
A literature review**

[Hybrid work in Europe: Concept and practice](#)

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Introduction

The context

The COVID-19 pandemic marked a pivotal moment in the evolution of remote work, as millions of employees were abruptly required to work from home. The initial move to remote work, which was born out of necessity, quickly revealed lasting benefits, leading to the widespread adoption of hybrid work models blending remote and on-site work.

Since the end of the pandemic, debates around hybrid work and its development have continued, even though its potential was theorised much earlier (Halford, 2005). By the fall of 2024 and early 2025, a new wave of media discourse emerged, largely driven by the management of large corporations advocating for the benefits of on-site work and shared office facilities. A landmark of the debate on returning to the office, especially among large corporations, was the letter of Andy Jassy, CEO of Amazon, to its personnel on 16th September 2024:

... being better set up to invent, collaborate, and be connected enough to each other and our culture to deliver the absolute best for customers and the business, we've decided that we're going to return to being in the office the way we were before the onset of COVID.

(Amazon, September 2024)

Amazon's CEO statement challenges organisations using hybrid work models to carefully consider how they can achieve goals like fostering creative innovation, ensuring smooth collaboration, facilitating social interaction and maintaining a strong organisational culture. By emphasising the value of being physically present in the office, Amazon implicitly raised the question of whether hybrid or remote models can fully support these objectives. Amazon's stance on hybrid working was not entirely unexpected, particularly for a company of its size and unique corporate culture. Amazon's directive requiring employees to return to the office has, however, faced pushback, with some employees resigning or considering leaving the organisation (The Irish Times, 2025). Particularly, younger workers resist returning to full-time office arrangements due to commuting expenses and other financial concerns. To date, many employers across industries have been assessing their hybrid work models to identify and implement the most effective strategies for the post-pandemic era.

Another key aspect of Amazon's return-to-office initiative is its goal to streamline the organisational structure by reducing what it deems excessive layers of management (The Irish Times, 2024). This move highlights the challenges hybrid work models can introduce, such as overseeing dispersed teams and maintaining productivity in a flexible environment. Amazon's decision likely reflects not only management's views on hybrid work but also a strategic response to the unique complexities of managing a hybrid workforce.

In an interview study with 50 executives from various sectors in the US on their experiences with leading their organisations during the pandemic, Kane and colleagues (2021) uncovered several management challenges concerning mandatory work-from-home. The interviewed executives reported that managing remote workers weakened innovation capability. In addition, starting new projects relying on virtual collaboration was challenging, and establishing and maintaining an organisational culture was considered difficult, if not impossible, in a virtual setting. Employees,

especially young ones, were seen to receive less mentoring and coaching during the transition to remote work than before the pandemic. It is, however, important to recognise that attitudes toward hybrid work can differ significantly based on the size of an organisation, organisational culture, industry demands, and leadership priorities.

A key topic of debate surrounding hybrid work revolves around the balance between in-office and remote days. A global survey conducted across 34 countries between April and May 2023, shortly after the pandemic, showed that full-time employees (n=42,426) worked from home an average of 0.9 days per week (Aksoy et al, 2023). Work-from-home levels were higher in English-speaking countries. Full-time employees worked an average of 1.4 full-paid days per week from home in Australia, Canada, New Zealand, the United Kingdom, and the United States. In comparison, work-from-home levels average 0.7 days per week across seven Asian countries, 0.8 days in seventeen European countries, and 0.9 days in four Latin American countries and South Africa. A US study conducted in September 2024 reveals that 61% of surveyed employees worked full-time on-site at their primary workplace, 12% were fully remote, and 27% followed a hybrid work arrangement (Barrero et al, 2021).

Overall, efforts to bring employees back to the office since the pandemic have had mixed results. While the number of remote workers remains higher than before the pandemic, it has decreased compared to peak pandemic levels, with some early signs of increased office usage. For example, the European Office Occupier Sentiment Survey published in July 2024, reported that the average building utilisation rate among surveyed companies (n=120) had risen to 47%, placing it within the 41-60% range¹, compared to 36% the previous year (CBRE Research, 2024). The proportion of companies reporting lower building utilisation (at 40% or below) also declined during the same period, with only a third reporting such levels, compared to 48% in the previous year. The survey also revealed that 70% of employees worked from the office for two or three days and only 7% worked from home four days a week.

Despite evolving debates about hybrid work and some organisations' reluctance to fully adopt it and attempts to roll it back, research indicates that remote and hybrid work have remained significantly more prevalent since the pandemic than before (Sostero et al, 2024). A significant challenge lies in aligning organisational priorities with employees' needs, expectations, and preferences. Striking this balance is essential for creating sustainable and adaptable work practices. Managers play a crucial role in bridging these differences by designing, implementing, and refining flexible work strategies that support organisational goals while accommodating employees' needs for work-life balance, flexibility, and well-being. This literature review specifically examines the role of managers in hybrid work settings and the various challenges they encounter in managing hybrid teams.

Research questions and methodological note

Research questions

This literature review addresses four research questions.

¹ The range of 41-60% refers to the category or band of building utilization rates into which the surveyed companies fall.

1. What hybrid work models are available, grounded in established theoretical frameworks, and which of these are currently being implemented across organisations in different sectors?
2. What are the organisational and management challenges associated with different hybrid work models?
3. What strategies are managers using to overcome the identified challenges of managing hybrid teams?
4. What are the potential pitfalls of not addressing management challenges in hybrid work arrangements, and what strategies can promote positive organisational outcomes?

Sources and methods of analysis

For this review, 104 relevant sources were mapped and analysed in an analysis log. The sources primarily consisted of scientific journals, complemented by grey literature, including publications from social partners and business blogs. Additional literature, not included in the mapping process, was also consulted for general purposes, such as citing specific information and providing contextual background. The methods employed included framework analysis using a matrix, thematic analysis to identify common themes, and comparative analysis for grouping these themes. A brief explanation of the methods is provided in the table below.

Table 1: Qualitative analysis methods used in the literature review

Analysis method	Description	How it was applied
Framework analysis	A systematic and flexible approach to analysing qualitative data	A structured mapping was developed in Excel to categorise data according to predefined themes relevant to the research questions. The data was organised in an analysis matrix about the research questions, with sources classified as 'highly relevant', 'relevant', and 'partially relevant'.
Thematic analysis	A method for identifying, analysing and reporting patterns within data	Following the literature mapping into the matrix, the matrix was used to identify common themes across categories and significant patterns. Regular team discussions supported everyone's understanding of the material
Comparative analysis	A method used to explore differences and similarities between objects of analysis.	The synthesis was supported by contrasting findings across sources, examining whether challenges and strategies were consistently reflected in different sources. This cross-referencing enriched the understanding of the material. However, a significant limitation was the lack of literature linking challenges to specific hybrid work models.

Source: Authors' elaboration based on the desk research

Defining hybrid work

Hybrid work refers to a flexible approach to organising work, characterised by adjustments to its structure - such as the distribution of tasks, workflows, and schedules - and its composition, which includes the mix of in-office, remote, synchronous or asynchronous work modes. Unlike fixed, traditional setups like the standard eight-hour office workday or exclusively working from home (WFH), hybrid work integrates different elements to enhance adaptability (Eurofound, 2023a). According to Eurofound's conceptualisation, the physical element – work at the primary workplace and remote work from anywhere (WFA) – is the most common aspect characterising hybrid work, followed by the temporal element, that is, when, how long and how often work is done in each location. Digital technologies are integral to hybrid work, serving as essential tools for accessing and managing information, facilitating collaboration, and supporting virtual work environments. As a result, the virtual element is a defining characteristic of hybrid work. Communication and interaction, as the social element of hybrid work, are essential for collaboration in hybrid teams, even though work can also be done individually. Social relations play a crucial role in team-based organisational settings, fostering cohesion and shared goals and values.

In a *hybrid team*, one or more members or subgroups work flexibly across locations, schedules, and technologies flexibly to achieve common goals. Depending on these arrangements, various types of *hybrid organisations* emerge. For example, a flexible hybrid organisation organises its activities through hybrid arrangements at both individual and team levels. On the other hand, an all-remote virtual organisation operates with employees working from multiple locations, often globally, while relying heavily on information and communication technologies. Meanwhile, a hybrid network organisation emerges from collaborating with several independent organisations aligned around shared goals. This structure involves crossing organisational boundaries and agreed-upon procedures to achieve mutual interests and goals. One example of such a hybrid network organisation is a social-commercial hybrid, which combines non-profit, for-profit or 'born-hybrid'² organisations. For example, public and private healthcare providers, along with voluntary organisations can collaborate remotely to provide joint mental health services.

The hybrid work concept builds upon earlier flexible work arrangements, including telecommuting (Nilles, 1975), telework (as defined in the 2002 EU Framework Agreement), remote work, home-based work (ILO, 2020), ICT-based mobile work (Eurofound, 2020a), and digital online telework (Berg et al, 2018). Unlike earlier work models, which preceded the hybrid concept, hybrid work blends temporary on-site and off-site work arrangements, offering flexibility in work locations. This distinguishes it from models like full-time office work, remote work, or ICT-based mobile work, which do not inherently exclude a mix of office-based and remote work but do not emphasise the intentional integration of both. For example, in the European Framework Agreement (ETUC et al, 2002), telework is defined as

A form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employer's premises, is carried out away from those premises on a regular basis.

² Born-hybrid organisations are those designed from the outset to combine non-profit and for-profit elements.

(ETUC et al, 2002)

This definition of telework includes physical space (location), virtual space (ICTs) and time (time-frequency) elements in addition to referring to a feature of an employment contract or relationship. However, this conceptualisation lacks a key element to qualify as hybrid work: the intentional combination of on-site and off-site work arrangements. Hybrid work specifically involves a deliberate blending of these two modes, allowing employees to alternate between working at the employer's premises and other locations, rather than solely focusing on remote work. In principle, hybrid work combines the benefits of both on-site and off-site arrangements, offering varying degrees of flexibility in where and when work is performed and differing levels of interaction and collaboration across work settings, depending on the specific hybrid work arrangement chosen.

Hybridity serves as a flexible framework for organizing work and its underlying conditions to adapt to anticipated changes, such as shifts in products and markets, and unforeseen disruptions, including pandemics, natural disasters, and conflicts. Its primary objective is to enhance organisational resilience (Giustiniano et al, 2018). Achieving this flexibility requires tailoring hybrid work elements and features to the specific needs of individuals, teams, projects, and whole organisations based on their goals, contextual demands, resources, and employee requirements.

Hybrid work can be implemented through **hybrid work models**, which define the overall structure of how work is distributed between on-site and off-site settings, and **hybrid work arrangements**, which are the specific, customised ways in which this model is applied to individuals, teams, or projects. These arrangements can vary based on employee preferences, job functions, and organisational priorities, allowing for both standardised and flexible approaches.

Traditional remote work and telework can be considered precursors to hybrid work, as they incorporate elements of flexibility in when and where work is performed – whether in the office, at home, or elsewhere. The unique feature of hybrid work is a flexible combination of ‘when and where’. For example, engineering and design roles can incorporate hybrid features; an engineer might create and refine product designs using 3D design software on their laptop from home or any remote location. Once the digital model is finalised, they visit their company’s premises to produce the physical prototype using high-end, specialised 3D printers. Even manual work can incorporate hybrid features; an artisan might use 3D design software to conceptualise products and then craft them by hand at home. The potential for variety in hybrid work increases even more when hybridity is applied at team and organisational levels, offering a wide range of configurations to suit diverse work contexts.

All in all, hybrid work combines various elements to organise work flexibly across both the private and public sectors, enabling organisations to achieve their goals while overcoming challenges in their operating environment and effectively utilising available resources.

Structure of the working paper

This working paper is structured into three main chapters, each addressing a specific set of research questions, followed by a concluding chapter that summarizes the key findings of the literature review

Chapter 1 reviews various typologies of hybrid work models identified in the literature and examines the key elements or features that define them. The analysis builds on Eurofound’s conceptual model

of hybrid work (Eurofound, 2023a), which identifies four key defining features of hybrid work: physical, temporal, social and virtual elements. The physical element pertains to the location where work occurs, the temporal element refers to the allocation and distribution of time between remote work and on-site work at the employer's premises. The social element encompasses how communication, collaboration, and interaction are arranged among team members. The virtual element relates to using digital technologies and tools that enable individuals to work independently and collaboratively, both offline and online.

Chapter 2 discusses the general management challenges associated with hybrid work and details the specific challenges related to dimensions identified as particularly relevant in the early stages of this review. These dimensions are collaboration and communication, digital innovation, performance management and managerial control, employee engagement, equity and inclusion, and occupational safety and health.

Chapter 3 analyses management strategies under each of the identified dimensions, supplemented by good practice examples where available. It also identifies the pitfalls of neglecting hybrid work management challenges.

The concluding chapter highlights key findings and draws conclusions, identifying knowledge gaps that can be addressed by employing other research methods. A significant gap identified in the literature review is the lack of research on management challenges specific to particularly hybrid work models. Most existing literature examines these challenges in a broad and generalised manner without differentiating between different hybrid work models.

Typology of hybrid work models

This chapter addresses the first research question: *What hybrid work models are available, grounded in established theoretical frameworks, and which of these are currently being implemented across organisations in different sectors?*

Organisations refine, develop, implement, adapt, and use hybrid work models at the individual, team, and organisational levels. Many of these models are flexible and adaptive, evolving in response to time-related changes in work tasks, contextual demands, available resources, and desired outcomes. Since organisations are focused on achieving specific outcomes, their goals and strategic priorities guide decisions on where employees need to be, when they should be on-site, and what type of collaboration is required. Management directs whether employees work in person or virtually based on task requirements, the work environment, and available job, personal, and social resources. This direction may involve issuing direct instructions, reaching mutual agreements, or allowing employees or teams to decide independently. For example, tasks and roles focused on developing innovative solutions often benefit from in-person meetings. This is reflected in management's preference for face-to-face office meetings to stimulate creativity and drive innovation, rather than relying solely on online meetings.

On the other hand, employees' needs and desire for autonomy and flexibility play a significant role in shaping their willingness to engage in hybrid work arrangements. A study conducted during the pandemic at an Indian IT services firm, measuring the innovation activity of over 48,000 employees, found that while the volume of ideas generated during the mandatory work-from-home period remained consistent with pre-pandemic levels, the quality of those ideas declined (Gibbs et al, 2024). In the following hybrid period, the number of submitted ideas declined even further. Innovation suffered particularly in teams that lacked coordination in terms of when they worked at the office or from home. Based on the results, the researchers suggested that fully remote and hybrid work modes may pose challenges to collaboration and innovation.

Some scenarios regarding hybrid work and its future development needs have emerged post-pandemic. Kauffeld et al (2022) explored the future of mobile and virtual work through a Delphi study, which involved 460 experts over four rounds to evaluate the desirability and likelihood of 35 potential scenarios. This investigation sought to answer questions about the evolution of work after the COVID-19 pandemic, including the desirability of different work scenarios, their probability of occurrence by 2030, and how these align with broader goals for the workplace of the future.

Positive developments at the organisational level were expected under certain conditions, including advancements in technology such as virtual environments and artificial intelligence, as well as changes in leadership structures. The study emphasised the growing importance of shared leadership and enhanced employee participation. On an individual level, maintaining a healthy work-life balance was seen as a critical factor, supported by flexibility, autonomy, and self-management. These conditions were identified as essential for the successful implementation of hybrid work, highlighting the need for organisations to provide the necessary technological and managerial infrastructure.

Several prerequisites must be addressed for hybrid work to thrive. Organisations need to equip employees with self-management skills while also offering robust support systems to prevent

psychological stress and burnout. The study also called for transforming workspaces to facilitate social interaction and collaboration, complementing remote work arrangements. Leadership must shift toward result-oriented practices, emphasising shared responsibility while ensuring that autonomy does not lead to constant availability or overwork.

The study revealed that hybrid work offers substantial benefits. By enabling employees to arrange their schedules flexibly, it promotes better work-life integration. This increased autonomy can boost productivity and enhance job satisfaction. Hybrid work models contribute to environmental sustainability by reducing commuting and business travel and lowering overall carbon emissions. Furthermore, organisations stand to gain from cost optimisations, such as savings on office space and related expenditures.

However, challenges were also identified, particularly in maintaining team cohesion and fostering social exchange in hybrid settings. To address these issues, intentional work design and innovative to virtual and in-person collaboration approaches are essential

Interplay of physical and temporal elements in hybrid work

Available models at the individual job level mostly describe hybrid work as a work arrangement in which employees divide their time (temporal element) between working at a traditional primary workplace and working remotely from one or several locations (physical element). However, the literature often gives less attention to other aspects of hybrid work such as its virtual and social elements (Eurofound, 2023a). The virtual element, referring to the availability and use of digital tools, has a role to play in accessing and managing information and knowledge as well as facilitating collaboration with others. The social element affects work in every workplace as a community context, including superiors and colleagues in the office, family members at home, or, for example, clients in other places. Overall, it is most common to characterise individual hybrid work by defining how often (frequency), when (timing) and how long (duration) work is performed across different locations. Most standard hybrid work models assume the presence of a physical workplace that employees travel to and from. Available models vary, as the examples below show.

The hybrid work model described by Alasoini et al (2025) highlights a strong interplay between physical (spatial) and temporal (time-based) elements. The effectiveness of hybrid work depends on how organisations balance these two factors to create a productive, engaging, and sustainable work environment. The authors discuss the emergence of a **self-directed hybrid work model**, which evolved from the pre-pandemic norm of occasional remote work and the widespread remote work experience during the pandemic. In this model, employees or teams determine when to work remotely and when to be on-site, leading to significant shifts in work practices, workplace culture, and management approaches.

One of the key challenges in this model is synchronising work rhythms to maximise the effectiveness of physical spaces. Without intentional coordination, teams may rarely be in the office at the same time, diminishing the social and collaborative benefits of in-person work. This challenge aligns with the discussion by Hopkins and Bardoel (2023), who propose a spectrum of work arrangements that highlight varying levels of flexibility in terms of both physical place and time: (1) **full-time remote**; (2) **full-time office workers**; (3) **office frequency and days both fixed**; (4) **fixed office frequency, but attendance days flexible**; and (5) **fully flexible** whereby workers choose the location where and when they work. While the first two types - full-time remote and full-time office - are not hybrid

arrangements in the strict sense, they are included to illustrate the continuum of post-pandemic work models and provide context for understanding hybrid work. These types emphasise by whom and how flexibility in terms of location and time use is decided between the organisation and the employees. The options are the management decides ('fixed'), the arrangements are agreed upon, or the employee can decide ('flexible'). The authors also state that whatever work arrangement is adopted, it must align with and support the organisation's mission and operational goals, ensuring that employees' work contributes meaningfully to organisational objectives. Additionally, establishing and maintaining an aligned workplace culture is essential, with clear and effective communication strategies tailored to hybrid settings. Furthermore, prioritising the health and well-being of employees, as well as fostering the development of their skills and competencies, is critical for sustaining successful hybrid work arrangements.

Hinds (2021) suggests similar distinctions. In an **office-centric hybrid model**, employees are required to come into the office most of the time, and on one or two days each week, employees are allowed to work from another location. In a **fully flexible hybrid model** employees choose when they would like to work from an office and when they would like to work from another location. In contrast to fully flexible hybrid work, **remote-ish (or remote-friendly) hybrid work** sets a framework for when employees can work remotely, but excludes certain days, such as Mondays and Fridays. A **hybrid remote office model** involves giving employees a 'menu' of options to choose from, which typically includes a remote option, a flexible work option (employees work from an office two to three days per week), and an in-office option. In a **remote or virtual first model**, most employees work remotely by default - either from their homes or from anywhere.

In the flexible work categorisation offered by the Flex Index report (2024), the **full-time in-office model** is included as a benchmark to illustrate the spectrum of work flexibility. This model, which requires employees to work exclusively from the office, serves as a point of contrast against more adaptable arrangements. The **structured hybrid model**, by comparison, offers varying degrees of flexibility, such as requiring employees to work a minimum number of days in the office, specific days each week, a combination of minimum and specific days, or a minimum percentage of their working time in the office. The fully flexible model provides the highest level of autonomy, empowering employees to choose when and if they work from an office. These models may include fully remote setups, where organisations forego physical office spaces entirely, or arrangements where employees have complete control over their in-office presence.

All hybrid work models mentioned above vary depending on who decides on the location and time use, reflecting flexibility in decision-making. Lake (2024) refers to 'smart working' instead of 'flexible working' when talking about new ways of working in general. He considers flexible working an umbrella term for time-based variations such as flexitime and compressed working weeks. Key features of smart working are

... management by results, a trust-based culture, high levels of autonomy, flexibility in the time and location of work, new tools and work environments, reduced reliance on physical resources and openness to continuing change.

(Lake, 2024, p.2)

According to Lake, a key distinction between flexible working and smart working is that smart working provides flexibility without the need to ask a manager for permission. In addition, smart

working is about transformation, meaning actively pursuing smarter ways of working rather than being solely driven by employees' individual choices.

According to Lake (2024), a key distinction lies in the balance between employer control and the autonomy of employees or teams to determine the best way to work. This perspective is characterised by four categories of hybrid work models.

- The **unreconstructed model** is presence-focused, emphasising office-based work at assigned seating, with flexibility granted only as an exception. The office serves as the primary collective workplace, and physical premises are static.
- The **controlled hybrid model** mandates in-office days based on employees' role profiles, such as fixed, mobile, or home-based workers. Flexibility is limited to request-based arrangements, and the office remains the primary workspace.
- The **flexible hybrid model** shifts away from rigid rules and definitions, instead offering guidelines and a broader framework, allowing individuals and teams to decide where and when to work.
- The **smart maturity model** aligns with the smart working concept, focusing on designing work practices based on the benefits they deliver. These benefits determine the location of work, the technologies to be used, and the types of premises required. A virtual-first approach is identified as a key indicator of smart working maturity, along with management by results, a culture of trust, high autonomy tailored to the needs of the business, individuals, and teams, employee well-being, and sustainability.

Digital nomadism represents a more 'extreme' form of **anywhere-anytime hybrid work**, compared to standard hybrid models (Aroles et al, 2023). In this model, the individual flexibly decides on their working time and location by offering services to a client. This form of work is particularly common among self-employed individuals, freelancers, and entrepreneurs, as they are not typically bound by traditional employment contracts. It leverages digital communication and collaboration tools, such as online platforms, to enable individuals, teams, and organisations to connect with others from anywhere at any time to solve problems or provide services in exchange for payment (Berg et al, 2018).

Cook underlines mobility and multilocality in his baseline definition of a digital nomad (2023, pp. 271-272): 'Digital nomads use digital technologies to work remotely, they have the ability to work and travel simultaneously, have autonomy over frequency and choice of location, and visit at least three locations a year that are not their own or a friend's or family home'. Aroles et al (2023) describe digital nomads as a specific type of location-independent workers situated within the 'Working from Anywhere' (WFA) paradigm. WFA enables complete flexibility in both time and location. For digital nomads, the quest for temporal and location independence is complemented by global and continuous mobility. Appropriate technology and infrastructure are needed to support these activities properly and effectively.

Cook (2023) presents a taxonomy that categorises the digital nomad model into five distinct types.

- **Freelance digital nomads** are individual knowledge workers, such as journalists, who work on a freelance basis while travelling, offering their services without a permanent employment relationship.
- **Digital nomad business owners** operate registered businesses, which involve greater complexity compared to the freelance model.

- **Salaried digital nomads** are employees in traditional full-time roles who travel extensively. Their numbers have increased significantly since the pandemic, and they maintain a relatively stable employment relationship with their employers.
- Both **experimental digital nomads** and **armchair digital nomads** can be considered aspiring digital workers. Experimental digital nomads are defined by their work context; they are actively preparing for a digital nomad lifestyle by learning new skills, attending courses, or setting up businesses but have not yet begun earning an income. Armchair digital nomads, on the other hand, are in the planning phase, intending to adopt the digital nomad lifestyle in the near future.

Furthermore, Cook (2023) identifies six key variable themes that characterise digital nomads and should inform their classification. The core theme is autonomy over mobility, referring to the freedom to choose where to live, work, and travel. Homebase practice, or the absence of a fixed home base, is often regarded as a marker of digital nomad authenticity. Domestic versus transnational travel highlights the ability of digital nomads to travel both locally and globally. The required frequency of travel is defined as a minimum of ‘three non-home or friend’s or family home locations per year’, which Cook considers a reasonable baseline to distinguish remote workers from digital nomads (p. 264). Legal legitimacy addresses the legal status of digital nomads to work in different countries while adhering to local visa and passport regulations. Work-life integration, as opposed to work-life balance, describes how digital nomads strive to blend work and personal life seamlessly. Finally, Cook emphasises that coworking spaces are a vital component of digital nomad infrastructure.

The hybrid teamwork perspective

The earlier sections of this review outlined the concept of hybrid work from the perspective of individuals who often actively engage in the activities of hybrid teams and organisations as participating members. Bell et al (2023, p. 350) define a hybrid team as ‘[a team] that regularly switches between having all members co-located and having one or more members working remotely’. In their conceptual paper, Handke and colleagues (2024, p. 3) argue that ‘... due to the idiosyncratic nature of individuals’ hybrid work practices, it is also possible that team members are never co-located all at once’. They state that two things uniquely characterise hybrid teams. First, the structural features, that is, geographic dispersion and use of technology, which are also influenced by temporal dynamics. Second, individuals’ work practices, for example, when and how often they work remotely, change the configuration of a team. They underline that these configurations can change over time, as team members switch working at the office and remotely.

The hybrid teamwork perspective increases the complexity of hybrid work. For example, in addition to the timing (when?), frequency (how often?), and duration (how long?) of working in each location, the temporal element of hybrid teams includes the synchronicity versus the asynchronicity of cooperation with other team members as an additional temporal and virtual variable. Synchronicity (online) and asynchronicity (offline) are strongly related to the social and virtual elements (Eurofound, 2023a). In a hybrid team, virtual connections are not just for work but also a social necessity when some team members work online in the same place with dispersed remote workers. Virtuality, therefore, has a strong social component in addition to technology as a work tool for searching information and knowledge and enabling interaction between team members.

Accordingly, the team's location can be the same or vary to the extent that all or some team members work in different locations.

One of the arguments in the debate on returning to the office is how to foster creative innovation in hybrid teams and organisations. Arena et al (2022) propose the **adaptive hybrid model** as a strategy to mitigate potential innovation losses when face-to-face interactions are decreased. Their model encourages leaders to recognise a company's or team's specific stage of innovation (ideation, incubation, or scaling), and then direct employees to work in-person or virtually according to the requirements of that stage. The model helps to strengthen the needed social network connections, whether bonding or bridging, for each specific innovation stage. **Bonding social capital** facilitates interactions within a group while **bridging social capital** creates connections with those outside the group. According to Arena and colleagues (2022), the mapping of organisational networks shows that bonding capital arises from strong network ties, relationships that are characterised by frequent close and reciprocal interactions. Bridging social capital, meanwhile, is often the result of weak ties and casual relationships with infrequent interactions and helps workers coordinate actions across groups. This model underlines the strategic use of hybrid work by managers who use locations, timing and virtual working modes in a flexible but intentional way and bring people together face-to-face when needed. In this model, managers decide deliberately how employees should work, virtually or in person.

A survey of two thousand leaders from 13 countries across the Asia-Pacific region, complemented by interviews with 27 leaders, presents hybrid work as a continuum based on the synchronicity vs. asynchronicity model (CCL, 2022). This continuum begins with everyone (100%) working in an office synchronously. Next comes the **short work week model**, which is when work is done four days a week. In the **hybrid-office first model**, most employees work onsite, but some may work remotely sometimes. In the **hybrid-remote first model**, most staff work remotely, but some work in the office onsite. The **remote-synchronous model** occurs when everyone works remotely but operates within core working hours. In the **remote-asynchronous model**, everyone works remotely, but the work does not happen at the same time. And finally, the **complete flexibility model** is a mix of all the options.

Another example of a hybrid team model is the one by Smite et al (2023), which was introduced within the context of software development. A hybrid team is defined in their model (Ibid, p. 36): as one where members alternate between office days and working from anywhere (WFA) days in an unpredictable manner, leading to a spectrum of partially aligned options. In such teams, not all members consistently share the same work experiences. The authors identify two core dimensions for understanding individual work arrangements in future workplaces: the location (where the work is performed) and work schedule (when the work is performed). They add a third important dimension that distinguishes flexible work arrangements in the team context: the degree of alignment of the individual arrangements among the team members.

Based on the above dimensions, Smite et al propose a team typology that includes:

- **Traditional on-site teams** with aligned work schedules, expected to continue in the future.
- **Permanent multilocational remote teams**, with members working from different geographically distant offices of the same or collaborating companies.

- **Variegated teams** that change their team's work arrangement between the office and remote locations. These teams have predefined but changing work locations with varying degrees of office presence.
- **Partially aligned teams** where members' arrangements are not fully synchronised or consistently aligned.

Hybrid teams are related to distributed teams, which typically consist of members who are spread across different office locations or geographical areas. However, hybrid teams differ in that their members can work from anywhere, often with irregular or occasional office presence rather than being tied to specific office locations. Additionally, they can be partially aligned (or partially hybrid) teams. When it comes to the work schedule, teams have three options: (1) overlapping work hours, for example, 9 a.m.–5 p.m.; (2) flexible mode with potentially irregular work schedule; and (3) partially aligned work schedules: either core hours mode with designed time overlaps, in which members choose a synchronisation window and have otherwise flexible schedules; or core meeting mode organised around scheduled meetings or designed events, which members agree to attend planned meetings, gatherings and events, but otherwise keep work schedules flexible (Smite et al, 2023).

A question arises: how are hybrid teams different from traditional dispersed virtual teams? Bell et al (2023) suggest three main differences. First, in a hybrid team individuals and teams alternate between working in a physical location and working remotely rather than being confined to one hybrid work model or the other. Work locations are multiple and flexible, rather than singular and fixed as often in traditional dispersed virtual teams. Second, the members of a work unit or team are regularly and frequently collocated. Although physically distributed virtual teams may occasionally meet in person, frequent in-person interactions are uncommon. Finally, hybrid teams are likely to prove more dynamic over time. A team and its individual members may adjust how they allocate their time between the physical and virtual environments based on fluctuations in work demands. The authors also claim that the dynamic structure of hybrid teams also redefines the leadership functions making the leadership more challenging. For example, when team members' working context varies from office to home, the availability of work resources such as technology and infrastructure in each location can create challenges in doing tasks in a qualified manner.

Types and varieties of hybrid organisations

At the organisational level, hybrid configurations appear to take three forms. First is the **flexible hybrid organisation**, which combines the individual and team-level arrangements, as described earlier, to achieve its vision, goals, products, and requirements. This type of hybrid organisation is considered the most common to date, as both private companies and public organisations use flexible or smart structures (Lake, 2024). These are often negotiated and implemented within organisational units and teams.

Second, the **all-remote virtual organisation** relies entirely on hybrid work's physical and virtual elements with employees and management working from several locations and using information and communication technologies (ICTs) to facilitate communication and collaboration. In this kind of organisation, its members and units operate dispersed in separate physical locations, and when collaboration is needed, they communicate digitally. These kinds of completely virtual organisations have no premises of their own (Lake, 2024); there is no physical 'main workplace'. In this model, the

work-related social element is fully or mainly realised through virtual interactions, with colleagues and management who work from their own locations. In addition, the social element of employees and management consists of people in their local working and family context. These hybrid organisations are very prone to time elements when scheduling collaborative tasks and overcoming time zone differences.

In the context of all-remote, dispersed, location-independent organisations, employees are fully distributed, with each individual working from a unique location and interacting virtually (Rhymer, 2023). For example, GitLab, as described by Choudhury et al (2020), is an 'all-remote' company where over 1,000 employees across more than 60 countries work remotely, typically asynchronously, often without ever meeting in person. GitLab operates within the software development tools industry. Choudhury et al (2020) highlight both the organisational benefits and challenges of all-remote models. The identified benefits include increased employee engagement, higher productivity, reduced space requirements and real estate costs, an expanded talent pool, and lower attrition rates. However, several challenges were also noted: synchronous communication becomes more difficult, even with enhanced online tools, necessitating a greater emphasis on asynchronous communication; knowledge sharing is more challenging; employees may experience social and professional isolation, feeling disconnected from colleagues and the organisation; assessing employees who are never physically present - especially on 'soft' yet critical metrics like interpersonal skills - poses difficulties; setting equitable compensation for workers in varied locations can be complex; and protecting employee, corporate, and customer data becomes more challenging.

Third, a **hybrid network organisation** may emerge to address the collaboration needs of multiple independent organisations. Discussions on hybrid organisations often centre on the collaborative demands of networked entities and the key considerations they must address when implementing, organising, and managing work, particularly from the perspectives of organisational performance and employee engagement. A common example of a boundary-spanning hybrid organisation is the social-commercial hybrid, which combines non-profit, for-profit, or born-hybrid entities to integrate social and commercial goals and identities, catering to the needs of a shared customer base (Radoynovska and Ruttan, 2021). For example, mental health care often involves voluntary mental health organisations, municipal social support, and state-funded psychiatric care, working together to help patients with mental challenges. Besharov and Mitzinneck (2020, p. 4) propose that when 'complex, intractable social problems continue to intensify, organisations increasingly respond with novel approaches that bridge multiple institutional spheres and combine forms, identities, and logics that would conventionally not go together', and organisational hybridity is created. Essentially, hybridity happens as a response to external hindrances and challenges and the need for new actions and collaboration from diverse actors. Besharov and Mitzinneck also note that the configuration of organisational hybridity can vary but also persist, evolving over time. This evolution both shapes and is shaped by the surrounding institutional environment. Hybrid organisations are inherently heterogeneous in nature. Besharov and Mitzinneck suggest that the configuration of organisational hybridity can vary along the following dimensions (ibid, pp. 5–8), which are applied here in a hybrid work context (Vartiainen, 2024, pp.23-24):

- **Compatibility** of a hybrid's constituent elements: it refers to how effectively the various components or aspects of a hybrid organisation function together. Compatibility can involve consistent actions or ideas, but it may also expose contradictions. For instance, while ICTs

enable communication in an organisation, they can also increase fixed costs. Compatibility influences whether hybridity creates tensions between constituent elements—such as conflicting goals or practices - or fosters opportunities for synergy, where different elements align to produce positive outcomes.

- **Centrality:** defined as the extent to which constituent elements are considered equally important, or whether one element dominates while others play a peripheral role. For instance, time is a critical factor in 'swift' or ad hoc temporary teams of an organisation, such as concept design teams, which must achieve their goals within a limited timeframe to support an organisation's strategy. These goals may not be met if other elements, such as working across different time zones, do not adequately support scheduling.
- **Multiplicity:** denotes the number of constituent elements that bring together two or more conventionally distinct aspects. A greater number of elements can offer increased choice and flexibility for decision-making or justifying proposed actions. However, managing more than two constituent elements can also create instability and pose significant challenges.
- **Structure:** refers to the degree of flexibility with which organisations combine and recombine integration and differentiation in their structures. Integration involves individuals, sub-groups, organisational practices, and divisions blending various elements of hybridity, while differentiation focuses on enacting a single element. The chosen structure can significantly influence the risk of conflict and mission drift within hybrid organisations.

Overall, hybrid network organisations can be very complex entities, as they consist not only of networked organisations but also of their varying ways of organising work flexibly for individual employees and teams. Hybridity has also been described as a feature that enhances interaction and collaboration within a broader ecosystem, enabling cross-boundary engagement among individuals and teams (Ancona et al, 2021). However, blending different modes and working styles poses practical challenges in arranging working conditions and organising work efficiently within these dynamic spaces.

Summary points to chapter 1

- Existing models at the individual job level primarily define hybrid work as an arrangement where employees divide their time between a traditional primary workplace and remote locations, emphasising the temporal and physical aspects of hybrid work. Other dimensions, such as the virtual and social elements, receive comparatively less attention in the literature.
- The configuration of hybrid work can be determined in various ways: management may impose work arrangements ('inflexible'), agreements may be made between employees and management ('structured' or 'fixed'), or employees may have the autonomy to decide ('flexible'). Hybrid work models range from inflexible, office-based setups to structured or agreed-upon arrangements, and fully flexible models where employees control their work patterns. A common assumption across many standard hybrid models is the existence of a central workplace that employees commute to and from. However, this assumption does not apply to some other models, such as fully remote models.
- The hybrid work arrangements identified in this review include office-centric hybrid, controlled hybrid, flexible hybrid, remote-friendly hybrid, remote-first hybrid, smart maturity, fully flexible, and digital nomadism.

- The hybrid teamwork perspective adds complexity to hybrid work. Beyond considerations of timing, frequency, and duration in specific locations, the temporal element in hybrid teams includes an additional dimension: the synchronicity versus asynchronicity of collaboration among team members, as an additional temporal and virtual variable. An important aspect is the alignment of individuals and sub-teams within the broader hybrid structure. Effective 'orchestration' of work is crucial, as preferences for time, place, social relationships, and technology usage vary significantly among team members and subgroups.
- At the organisational level, hybrid configurations appear to take three forms. First, the flexible hybrid organisation integrates individual and team-level arrangements to achieve its vision, goals, products, and operational needs. Second, the all-remote virtual organisation relies entirely on the physical and virtual elements of hybrid work, with employees working from multiple locations and using information and communication technologies for communication and collaboration. Third, the hybrid network organisation emerges from the collaborative needs of several independent organisations.

Management challenges of hybrid work

Addressing the second research question (*What are the organisational and management challenges associated with different hybrid work models?*), this chapter explores these challenges in detail.

The challenges posed by hybrid work for employees are widely discussed in the literature and include feelings of isolation due to the lack of face-to-face interactions with their co-workers, difficulties associated with asynchronous communication, increased stress and exhaustion due to excessive use of technology (Stasiła-Sieradzka et al, 2023). But hybrid work models also pose distinct organisational and managerial challenges, particularly concerning the remote component and the broader organisation of work within this regime.

The review of the studies carried out in 2020 and 2021 in different EU countries such as Austria, Italy, Malta and Sweden found that managers had a much more pessimistic view than employees of how the pandemic affected working relationships (Eurofound, 2022). Similarly, an experiment conducted by Bloom et al (2022) with 1,612 graduate employees in the airfare and IT divisions in a large Chinese technology firm found that managers are less enthusiastic about hybrid work (3 days in the office, 2 days at home) than employees. The experimental design offered half the employees the option to work from home on Wednesdays and Fridays. Non-managers were significantly more likely to volunteer for the first wave of the experiment, take up the option to work from home on the designated two days, reported a positive impact of hybrid work on their productivity, and had a lower quit rate. In contrast, managers assessed the situation differently and reported significantly negative impacts of hybrid work on employees' productivity. They were less likely to volunteer for and work from home on eligible days and exhibited higher quit rates among those randomly assigned to the hybrid treatment group.

The following section provides an overview of the common management challenges, followed by a closer examination of areas that are critical to organisational success and employee well-being including the well-being of managers, all of which are directly impacted by hybrid work arrangements. These areas include communication and collaboration, digital innovation and experimentation, equity and inclusion, performance monitoring and managerial control, employee engagement, and occupational safety and health.

General organisational and management challenges

Management challenges of hybrid work, as identified in the literature, relate to several topics and areas. These include facilitating effective communication and collaboration among team members, ensuring equitable treatment for both remote and in-person workers, addressing potential disparities in access to resources and opportunities, fostering a cohesive company culture across diverse work environments, employees' productivity, supporting employees' well-being and motivation, and navigating ambiguities or the lack of organisational guidelines on hybrid work.

This section focuses on two general challenges, ensuring access to high-quality, secure work tools and maintaining a trust-based organisational culture. These categories were selected for their cross-cutting relevance to multiple areas or dimensions, which will be elaborated in more detail below. They also complement insights from the employee perspective captured in several studies identified in this review. For instance, a survey of a representative sample of 8,090 employees in the US who

split their workweek between in-office and remote settings, found that two of the most commonly reported challenges were reduced access to work resources and equipment (35%) and a diminished sense of connection to the organisation's culture (32%) (Wigert and White, 2022).

A challenge that intersects with both ensuring access to high-quality and secure work tools and maintaining a trust-based organisational culture is the design of the office environment. The increased flexibility of the workplace, combined with the reduced number of on-site employees present simultaneously, is accelerating the need towards smaller, more shared and more flexible office spaces (e.g. flex-office, 'hot-desking') at the employer's premises. This situation can degrade hybrid working conditions on-site, prevent activities (individual or collective) from being carried out on-site due to noise pollution (flex-office) or lack of suitable spaces, or even impose 'forced remote working' on certain hybrid team members. This encourages feelings of isolation (not only at home but also on-site) and reduces the sense of belonging and trust in the organisation, as well as the cohesion of hybrid teams (EU-OSHA, 2024). Providing an office design that fits the needs and preferences of employees carries vital importance (Babapour Chafi et al, 2022; Appel-Meulenbroek et al, 2022).

It is also worthwhile noting that these general organisational and management challenges are inherently interconnected with the distinct management issues faced in specific areas or domains, as identified in the review of sources and discussed in the subsequent sections of this chapter. For example, access to high-quality, secure work tools also relates to communication and collaboration from a technical point of view as well as equity and inclusion from a social standpoint as managers should ensure equal access to work resources for all employees (Reyes et al, 2021). Similarly, organisational culture is intertwined with managerial control and employee engagement (da Silva et al, 2022), making it impossible to address these aspects in isolation.

Ensuring access to high-quality and secure work tools

One general challenge of hybrid work is ensuring access to high-quality, secure work tools. In hybrid work arrangements, employees need to manage at least two separate work environments, generally including the home office and the employer's office, as well as clients' offices and other places, for specific jobs like consultancy. This multiple workspace setup often requires an investment in infrastructure, particularly when employees must use ICT tools across several locations. The need to install equipment in multiple spaces can increase costs for the organisation, with expenses spanning from hardware to communication tools (Dimitriu, 2023). Employee's workspaces outside the employer's premises warrant special attention as outdated or inadequate tools in remote work environment could cause connectivity issues. This can disrupt work, decrease communication, and negatively impact performance and efficiency (Lenka, 2021). Creating attractive and cost-efficient solutions for hybrid work environments, including the logistics of an uncertain number of employees at the offices, appears as a challenge at the leadership level (Babapour Chafi et al, 2022).

Hybrid workers, including managers, may use such digital technologies that they cannot always navigate, especially in case of a technical problem. Therefore, specific managerial and technical support for work tools such as internet access and equipment for home use and, if necessary, at the employer's premises is another significant need (Andersone et al, 2021; EU-OSHA; 2023 Eurofound, 2023a). Regarding the security aspect of the work tools, the use of employees' own networks and devices may lead to problems related to data protection and leaks of confidential information (Dimitriu, 2023). This is especially a concern for organisations in highly regulated industries such as

finance, as they face significant compliance and data security challenges when employees work remotely (ILO, 2024). Therefore, it is important that HR and IT departments focus on end-user education, security, and seamless connectivity that enables hybrid teams to communicate quickly and effectively (Effner and Havriljak, 2021). In general, providing management and employee training, such as in digital skills and data security, can serve as vital support structures to ensure both the quality and security of access to work tools (Eurofound, 2023a).

Maintaining a trust-based organisational culture

From an organisational perspective, building and maintaining a cohesive organisational culture in a virtual or hybrid work environment presents significant challenges. The absence of informal, in-person interactions - often crucial for fostering shared values and norms - can hinder the development of a strong organisational culture (Reyes et al, 2021).

In a guide on hybrid work, based on research conducted at the Finnish Institute of Occupational Health, Alasoini et al (2025) highlight several challenges related to organisational culture and team cohesion. Hybrid work can fragment teams, weakening the sense of community and shared culture. This is particularly challenging for new employees, who may struggle to integrate without regular in-person interactions. Additionally, the exchange of tacit knowledge becomes more difficult, as fewer informal learning and mentoring opportunities arise in a remote or hybrid setting.

These difficulties become even more pronounced when trust is factored in. It is harder to build in digital settings due to reduced face-to-face interaction. Hybrid work environments can exacerbate concerns for employers who may view this work modality as a risk to productivity, primarily due to a perceived loss of control and reduced coordination. As highlighted by Grzegorzczuk et al (2021) in their policy contribution for think-tank Bruegel, such concerns often originate from a lack of trust in employees' ability to remain productive while working remotely. This lack of trust not only undermines managerial confidence but also risks affecting employee morale, which can, in turn, contribute to productivity loss. Supporting this view, Abgeller et al (2024), based on a qualitative study involving semi-structured interviews with knowledge workers in the UK, emphasise that reciprocal trust between managers and employees is key to successful remote work arrangements. Their findings suggest that when managers shift their focus from micromanaging daily activities to assessing outcomes, employees feel more trusted and empowered. This approach allows individuals to manage their time and work methods, leading to increased motivation and a sense of ownership over their tasks. Similarly, Babapour Chafi et al (2022) argue that micromanagement, characterised by excessive oversight, can reduce employee morale and engagement. Instead, a trust-based approach granting employees greater autonomy helps to maintain a positive work environment. Carrasco-Garrido et al (2023) further highlight the role of transparency in communication as a means of building trust in hybrid settings.

In the evolving hybrid workplace, leaders and managers are increasingly called on shifting from control-based to trust-based leadership to foster team collaboration, communication, and performance (Tigre et al, 2023). As part of building trust-based work relationships, they should recognise and value the diverse needs and work styles of employees (da Silva et al, 2022). Rather than perceiving the lack of in-person interactions as a barrier, organisations should reframe their approach to sustaining trust-based organisational culture. According to Gibson et al (2023, p.4), 'at the heart of what is missing in many of the conversations about organisational culture and whether it matters if employees work remotely or in person is the notion of trust'.

Specific management challenges across key dimensions

Communication and collaboration

The rise of hybrid work models, where employees split their time between working remotely and from the office, has fundamentally changed communication and collaboration between team members within an organisation. The flexibility offered by the combination of in-office and remote work has numerous benefits, but it also presents unique challenges for effective communication and collaboration, which can be grouped into sub-thematic issues.

Asynchronous communication and misalignment

Hybrid work includes remote work and, therefore, relies heavily on the use of digital tools. It forces teams to communicate asynchronously due to differences in location and time zones. Unlike traditional in-office environments where employees can engage in real-time discussions, hybrid setups require more written communication via email or messaging platforms. While this may increase flexibility in processing information and responding, it can also lead to misalignment and misunderstandings due to delayed response time or lack of immediate feedback (Lilian, 2014).

When employees cannot instantly clarify questions or provide input, task progress slows down, and misunderstandings compound over time. These delays are more pronounced in hybrid work models, where team members work at different times or in different time zones. As a result, it demands additional effort to understand factors such as the reasons behind delays and to enhance coordination (Effner and Havriljak, 2021).

On the other hand, there are studies suggesting that asynchronous collaboration improves outcomes; when teams are dispersed over time and locations, asynchronous work allows customising their working time to their schedules and not depend on a very short time frame when synchronous collaboration can occur (Effner and Havriljak, 2022). Hence, in hybrid work models, a mix of synchronous and asynchronous collaboration works best for the task at hand and the people executing it (Waller, 2022). A literature review by Castaneda et al (2022) points out that information convergence may be achieved through asynchronous communication such as e-mails, and announcements, whereas project discussion and generating ideas through in-person meetings. This could necessitate managers to align types of communication-based tasks with the working mode.

Reduced informal and non-verbal communication

Several studies report a decline in communication quality or an erosion of social interaction when communication is organised remotely (Lenka, 2021; Arena et al, 2022; Singh, 2023; Abgeller et al, 2024; Neidlinger et al, 2024; Alasoini et al, 2025).

The detrimental effects of virtual communication in creating social relationships were found far earlier than the outbreak of the COVID-19 pandemic and the rise of remote work (Chidambaram, 1996; Bordia, 1997). More specifically, remote meetings reduce informal communication, which is considered crucial in building and strengthening relationships with colleagues (Hambley et al, 2007). Along with that, physical touchpoints for employees, which facilitate meeting people from different departments, are limited in a hybrid setting, which hampers networking (Effner and Havriljak, 2021).

Furthermore, in hybrid work models where remote work is prevalent, employees miss out on spontaneous, informal interactions, and the reliance on online communication often exacerbates feelings of social isolation from their network (Effner and Havriljak, 2021; Alasoini et al, 2025).

Effective communication involves not just words but also nonverbal cues like facial expressions, gestures, and tone of voice (Purvanova and Bono, 2009). These cues are often lost or diluted in virtual meetings, and thereby, people perceive them as more anonymous (Hertel et al, 2005; Neidlinger et al, 2024; Alasoini et al, 2025). It can affect how team members interpret messages. The lack of nonverbal feedback can lead to misinterpretations, reduced emotional connection, and decreased trust between colleagues (Purvanova and Bono, 2009; Effner and Havriljak, 2021). The loss in social skills due to the shift from face to face to virtual communication may also foster incivility or hostile work interactions (EU-OSHA, 2018).

Hybrid work models with a higher proportion of remote work tend to encourage communication with an individual's current contacts at the expense of making new contacts. It leads to weaker social bonds among team members and reduces the chance for cross-functional collaboration. In large organisations with complex structures, where employees from different departments need to collaborate, communication can become siloed, often being more straightforward with colleagues from the same team. Employees may become more isolated, focusing narrowly on their tasks and missing out on the cross-pollination of ideas that in-person work often fosters (Bloom et al, 2022; Gibson et al, 2023).

Studies showed that during the pandemic, in business sectors where it was possible, all collaboration became technology-based, including in-office interactions within hybrid work models. Drawing on semi-structured interviews with 29 knowledge workers conducted during the pandemic, Waizenegger et al (2020) examined the profound transformation in communication, which shifted from spontaneous face-to-face interactions to more structured and purpose-driven exchanges. While this shift enhanced task efficiency, it came at the cost of spontaneity and the informal interactions essential for fostering innovation and knowledge sharing. This change was particularly challenging for new employees, who struggled with the absence of in-person cues, limiting their ability to seek guidance and slowing their integration into teams. Additionally, the increased reliance on virtual meetings often led to 'Zoom fatigue', highlighting the critical need for a balanced and strategic approach to digital communication.

A systematic literature review of empirical studies on leadership in face-to-face and virtual teams (Caputo et al, 2024) found that communication challenges - including lack of spontaneous interactions, information overload, digital communication fatigue, increased risk of misunderstandings, and reduced non-verbal cues - significantly impact leadership effectiveness in hybrid work environments compared to face-to-face settings. Leaders who engage more in face-to-face interactions are generally perceived as more effective than those who primarily rely on digital communication, emphasising the need to balance virtual and in-person engagement to enhance team cohesion and performance.

Over-reliance on digital tools and platform fatigue

Virtual communication can be perceived as cognitively exhausting (Walther, 1996) due to an overload of information from different channels simultaneously and constant focus on receiving notifications and messages from various channels (Lilian, 2014).

When relying on digital tools, employees often dedicate less of their full attention to a single conversation, instead attempting to divide their focus across multiple conversations within a short time frame. This 'risk of lost attention' is particularly prevalent during virtual meetings, as other participants may not notice the divided attention (Effner and Havriljak, 2021).

This cognitive fatigue concerns both employees and managers. Additionally, for managers, using digital tools requires more careful meeting planning, and preparation of meeting agendas, and online meetings, even one-to-one, have become more formal. It requires additional efforts to maintain the same level of employee involvement and team spirit (Reyes et al, 2021).

Cultural and communication gaps between in-office and remote workers

In hybrid models combining office and remote work, whether fixed or flexible, a cultural divide can emerge between employees who regularly work from the office and those who primarily work remotely. In-office employees may benefit from spontaneous conversations with managers or participate more in decision-making, leaving remote employees feeling isolated or excluded from key discussions. This issue is often referred to as the proximity bias, where managers may favour employees they see in person more frequently (Gratton, 2021; EU-OSHA, 2024; Haas, 2022).

Consequently, hybrid work teams can operate at two distinct speeds: one for those working face-to-face and another for those working remotely. The first group may have access to better equipment, participate in informal discussions, implement follow-up discussions, and participate in decision-making, whereas the other group is strictly narrowed to online communication and timeframe. Social bonds between colleagues are different, and asymmetries in communication and networking are created in the team (Bloom et al, 2022).

Another potential source of disparity between remote and office employees lies in differing preferences for the two primary modes of communication: remote and face-to-face. Some employees feel more comfortable and open during online meetings, while others prefer face-to-face interactions. Hybrid meetings and work sessions may favour some participants over others, and the adaptation between employees' capabilities to participate in the meeting and the possibility of participation might not be ensured (Dimitriu, 2023).

This divide can exacerbate team disparities and lead to tension or resentment among employees, particularly in large organisations where hierarchical structures complicate internal communication. Addressing these challenges can be especially difficult for line managers, who must manage varying employee preferences and communication styles while fostering a cohesive and inclusive team dynamic. Additionally, remote employees may struggle to feel connected to the company culture, which can lead to lower engagement and higher turnover rates over time (Sharma, 2024). It is worth noting, though, that existing literature does not provide enough quantitative data to support the negative relationship between remote work and turnover rate.

Tasks scheduling and work arrangements specific to hybrid work

Hybrid work offers specific work arrangements, and an understanding of these arrangements is crucial for ensuring both productivity and employee satisfaction. This relationship is reciprocal - higher productivity contributes to enhanced organisational adaptability, which, in turn, facilitates the successful implementation and integration of hybrid work arrangements within the organisation (Givan, 2024). Understanding these arrangements involves numerous activities, particularly those related to effective communication and collaboration. Firstly, some tasks are better suited for remote work, others are suitable for in-office work. Eurofound (2020b) highlights that information-processing tasks are among the best suited for working remotely. These tasks, which involve working with encoded information (whether verbal, numerical, or otherwise) can typically be carried out remotely without any technical drawbacks. Social tasks, while increasingly feasible to perform remotely, often suffer from a decline in service quality. This is partly due to issues like small delays,

information overload, and the loss of non-verbal or connotative cues, which can significantly impact activities such as teaching, selling, negotiating, caring, and coordinating (Eurofound, 2020b).

Remote tasks should contain appropriate autonomy in task performance and the possibility of receiving feedback (Müller et al, 2022). Adaptation to hybrid work arrangements may also involve developing opportunities for employees to interact and connect in a virtual environment (Krajčák et al, 2023). Managers are tasked with orchestrating interpersonal communication among employees (Bell et al, 2023) to foster collaboration and maintain team cohesion. Another adaptation includes planning the meetings depending on their size, for instance, small meetings online and large meetings - in person (Bloom, 2021).

Some authors underline that organisations face challenges when scheduling work for office and remote employees. These include ensuring equity for employees in similar roles but working from different locations as well as managing varying monitoring methods for remote and office employees, among other issues (Tredinnick and Laybats, 2021; Glynn et al, 2020).

Digital innovation and experimentation

A bibliometric analysis of digital leadership research indicates that innovation and adaptability have become increasingly prominent themes in recent years (Tigre et al, 2023). This shift likely reflects the growing necessity for organisations to evolve rapidly and continuously to remain competitive in the digital era. Effective digital leadership must cultivate a culture of innovation, flexibility, and receptiveness to change, encouraging experimentation and ongoing learning.

Strong digital infrastructure is also needed to support remote work, with employees relying on robust communication platforms and managers exploring new technologies. Difficulties in effectively integrating digital technologies into daily operations This integration often involves adopting new tools for communication, project management, data sharing, employee engagement, etc. The need for continuous experimentation when using these technologies adds another layer of complexity for organisations that are not only striving to enhance productivity but also seeking to stay competitive in a rapidly evolving digital landscape. While these innovations hold great promise, organisations face several significant challenges in implementing and experimenting with them effectively.

Technology fatigue

Hybrid work often necessitates the deployment of multiple digital tools to ensure seamless operations between remote and in-office employees. This can overwhelm both management and employees, who must quickly adapt to new platforms and processes (Andersone et al, 2022; Reyes, 2021).

Technology fatigue is a common issue (Zalewska-Turzynska, 2022). Constantly experimenting with new tools requires continuous adaptation and frequent updates, making it difficult for employees to keep up. Managers are tasked with overseeing these transitions, ensuring that all employees are adequately trained and can use the tools efficiently. The adoption of too many platforms or frequent changes to digital infrastructure can decrease employee engagement and lower productivity as employees struggle to adapt to new systems (Glynn et al, 2020).

According to an integrative literature review³ by Marsh et al (2022), technology fatigue manifests in five side effects: technology-related stress, overload, anxiety, interruption and distraction, addiction, and excessive use. The authors found that this may lead to cognitive and affective outcomes, such as strain, work-family conflict, burnout, lowered job satisfaction, end-user satisfaction and well-being, and behavioural outcomes, including lower productivity and performance, as well as decreased organisational commitment and higher turnover intentions. Such negative outcomes can impact both employees and managers alike.

Ensuring consistent productivity across hybrid teams

A major concern for management in hybrid work environments is ensuring consistent productivity across teams that may be dispersed geographically and split between in-office and remote work. According to Alasoini et al (2025), successful hybrid work requires employees to develop strong self-management skills to effectively balance productivity, work-life integration, and focus. Without these skills, individuals may face significant risks, including overworking, a diminished sense of purpose, social isolation, and even burnout.

Experimenting with new digital tools, particularly those designed to track performance or automate tasks, can lead to uneven results across different groups of employees and is perceived by employees as a stressor (Abgeller et al, 2024). For instance, productivity tracking tools are being increasingly implemented to monitor remote work as employees and managers are not able to track the work of other employees and managers (Lenka, 2021). However, these tools can create a sense of surveillance that negatively impacts employee morale, especially if management does not communicate transparently organisational rules and decisions (Choudhury et al, 2020). Furthermore, reliance on such tools can uncover productivity disparities between employees who are more comfortable with technology and those who are not. While these tools aim to measure and enhance performance, they may inadvertently highlight gaps in technological proficiency, leading to perceived or actual disparities in productivity within the organisation. Additionally, the increased visibility of such disparities can exacerbate organisational inequalities if not addressed, as employees less adept at using these tools may be unfairly judged or disadvantaged compared to their more tech-savvy counterparts.

This challenge becomes even more complex in hybrid models like remote-first environments, where a majority of the workforce operates remotely, and traditional management practices such as direct observation are no longer applicable. Managers must innovate how they measure and maintain productivity while ensuring that employees feel empowered rather than micromanaged. The shift from micromanagement to job performance assessment is necessary for successfully implementing a hybrid work model based on addressing employees' needs (Choudhury et al, 2020). Balancing experimentation with productivity tools and maintaining a supportive work culture is a significant challenge for leadership and management in hybrid models (Lenka, 2021).

Fostering innovation in dispersed teams

While digital tools can enhance collaboration, they can also stifle innovation if not properly managed. Hybrid work models, particularly when employees are working remotely, reduce

³ Conducting an integrative review means taking an inclusive approach to the literature relating to a particular topic, inclusive of both quantitative and qualitative findings, empirical and theoretical publications, different types of research design and varied sampling frames. It is a suitable method for synthesising the literature relating to an emerging topic or where research emerges in different fields, to conceptualise it in a holistic manner and to help to formulate an agenda for further research (Marsh et al, 2022).

opportunities for spontaneous brainstorming sessions and cross-functional collaboration, which are often vital for fostering innovation (Arena et al, 2022).

Experimenting with digital tools that aim to simulate in-person innovation processes - such as virtual whiteboards, collaborative brainstorming platforms, and AI-assisted creativity tools - can help but also presents challenges. These tools, while valuable, do not always replicate the immediacy or richness of in-person exchanges, leading to innovation fatigue. The possibility of experimenting with various IT tools can lead to frustration both among employees and managers especially if there is a lack of support and clear guidance on how to use them and the associated benefits (Andersone et al, 2022; Glynn et al, 2020).

A study by Sokolic (2022) indicates that the lack of physical presence and reduced face-to-face interaction in hybrid teams can result in less effective ideation and fewer breakthrough innovations. Employees may struggle to maintain the same level of creativity when communicating solely through digital platforms, particularly when working asynchronously, and informal sharing of knowledge and information is limited (Wigert et al, 2023). In-person interaction is better suited to communicating complex information and ideas (Castaneda et al, 2022; Haas 2022). In virtual communication, detecting problems and exchanging ideas is delayed (Eurofound, 2023c). In line with this argument, a review of a large sample of research articles found that remote teams tend to collaborate more effectively on technical tasks, whereas in-person teams excel at conceptualising new ideas (Lin et al, 2023). This can impact industries where innovation is critical, such as R&D departments in technology, pharmaceuticals, or creative fields like marketing and design.

For managers, the challenge is twofold: they must balance experimenting with new tools that enable innovation with the need to foster a culture that supports creativity despite physical distance - a task that often requires prioritising human connection over purely technological solutions. This demands a shift in management style, moving from reliance on in-person collaboration to creating virtual spaces that not only encourage but also capture innovative thinking.

Cybersecurity and risk management

Cybersecurity has become a critical concern as organisations increasingly rely on digital tools to support remote work. Hybrid work introduces vulnerabilities due to the expanded attack surface - employees accessing company systems from home networks or personal devices increases the likelihood of data breaches or cyber-attacks. As companies experiment with new digital tools, including cloud-based solutions and AI-driven platforms, the risks grow even further (ILO, 2024).

Cybersecurity innovation is essential but comes with challenges, especially when legacy systems need to be integrated with modern cloud solutions. Managers must ensure that the organisation's digital infrastructure is robust enough to protect sensitive information while enabling employees to work productively from anywhere. According to a 2021 report by Gartner, 53% of companies in hybrid models reported cybersecurity as one of their top concerns when implementing new digital tools (Panetta, 2021).

Equity and inclusion

From a social perspective, hybrid work arrangements have the potential to create asymmetries (information, access to work resources, equity of communication and perspectives) in the team as well as within organisations. These asymmetries could amplify in-group versus out-group dynamics regarding the relations between team members. Moreover, they could create unequal outcomes as

employees' in-person interactions with their leaders may vary significantly. Especially the fully flexible and remote-friendly or remote-first hybrid models could quickly lead to status tiers of employees and significant inequities that favour those who are office-bound more often (Hinds, 2021). These equity and inclusion related asymmetries carry the risk of causing adverse organisational outcomes such as encouraging departures and harming performance (Dowling et al, 2022).

Meetings and social interactions

A proximity bias refers to the tendency of leaders or managers to favour employees who are physically present in the workplace over those working remotely. This bias can result in leaders giving more attention, recognition, and opportunities to on-site employees, potentially disadvantaging remote workers (Hill, 2023). In-office workers may have more opportunities for impromptu discussions and visibility with leadership, which can create inequalities in career advancement and collaboration opportunities (ILO, 2024). Similarly, hybrid meetings and work sessions may give voice to some on site employees over those working remotely (Dimitriu, 2023). Hence, employees working in different modes (on-site, online) and performing similar roles are likely to encounter inequities arising from the consequence of informal social interaction (Tredinnick and Laybats, 2021). When some team members are in more established work arrangements, such as 'office-first remote allowed' and 'office-occasional' models, employees working remotely may feel insecure and sidelined, believing those physically present in the office receive more attention and importance. They may feel disconnected and out of place (Lenka, 2021).

Babapour Chafi et al (2022) argue that one of the situations that can lead to the exclusion of colleagues is hybrid meetings, that is, meetings where employees working from home participate online, and office employees are gathered in one room and participate in the meeting using conference room facilities. In two qualitative studies conducted in Sweden, participants of online meetings where everyone (even office employees) connects via their laptops perceived them to be more inclusive than hybrid meetings. However, according to Bloom (2021), even when companies seek to avoid exclusive dynamics by requiring office employees to join video calls from their desks in a hybrid work environment, home-based employees still tend to feel excluded, knowing that there will be more opportunities for on-site workers to socialise after the meeting.

Introduction of new team members

Effner and Havriljak (2021) highlight the challenges in team dynamics when introducing new members to pre-established teams in hybrid settings. The addition of a new member often requires revisiting previously established workflows, with integration made more difficult when the new member participates online while the rest of the team has engaged earlier in person. While hybrid environments may maintain existing ties, building new relationships and fostering trust becomes problematic due to the lack of regular personal interactions, which could create unequal dynamics within the team. Moreover, hybrid teams tend to be more diverse, requiring careful and more personalised management of interpersonal dynamics and trust-building to ensure team cohesion (Griffith and Neale, 2001; Fiol and O'Connor, 2005). When introducing new team members, managers must clearly communicate and reinforce the organisation's values and provide opportunities for team members to express their identification with the company through various rituals, such as greetings rituals, which are more complex in online setting (Fiol and O'Connor, 2005).

Inequitable access to work tools and infrastructure

While hybrid work offers flexibility, it can also highlight disparities in access to technology and communication resources. Employees working remotely may not have the same high-quality internet connection or access to essential communication tools as those working from the office. This gap can create frustration and hinder collaboration when remote employees struggle to participate fully in meetings or access shared documents (Haas, 2022; ILO, 2024). Additionally, a low quality of connection may reduce the quality of communication and influence the possibility of collaboration and productivity, and the costs of using remote tools, such as the Internet and electricity, may be transferred to employees (Sokolic, 2022). Poorly designed hybrid work models could accelerate departures, reduce inclusion, and harm performance for workplaces already struggling with diversity and employee retention. Finding the balance between hybrid work and strong inclusion can make an organisation highly attractive to employees. However, this requires leaders at all levels to listen, coach, and view flexibility not as a fixed endpoint but as a set of evolving expectations, with regular adjustments, possibly tailored to individual employees (Dowling et al, 2022).

It is important for management to consider designing hybrid working environments to ensure inclusivity. For example, all team members could join meetings or other collaborative activities virtually, regardless of location, to prevent remote workers from feeling neglected or excluded (Lenka, 2021). Moreover, according to a qualitative study conducted by Babapour Chafi et al (2022), office design and technologies provided to employees need to improve to accommodate mixed participation effectively and support the creation of a social hub for collaboration and creativity, emphasising the impact of office design on inclusion in hybrid work arrangements.

Performance monitoring and managerial control

Organisations aim to achieve specific targets in their activities, and managers are responsible for monitoring the progress of projects and unit targets. Managing performance is of significant economic importance to organisations, but it poses challenges in hybrid work environments. This is especially true if management relies on immediate and direct observations - such as real-time monitoring of employees' activities, constant visibility through video calls, or live tracking tools – to assess the performance of remote employees. Less intrusive managerial control practices may focus on evaluating both quantitative and qualitative outcomes. Alternatively, trust-based management approaches emphasise granting employees autonomy and flexibility to complete their work independently, enabling them to achieve goals without the need for constant oversight or micromanagement.

Organisational control in remote work arrangements

A study based on surveys conducted between 2021 and 2022 with two large samples of German employees and leaders found that leaders who work entirely or predominantly remotely face specific challenges in supervision, control, and team support (Neidlinger et al, 2024). Compared to leading in a conventional office setting, remote leadership makes it more difficult to monitor workload, track progress, and assess employee performance, which can hinder task coordination and overall oversight. The reduced visibility into employees' daily work often raises concerns about accountability and engagement, further complicating the management of hybrid teams. Pianese et al (2023) argue that supervision and control in remote work are a primary concern for managers and constitute a severe barrier to the adoption and diffusion of hybrid work arrangements.

Organisational control is defined (ibid, p. 327) as a 'set of mechanisms aimed at aligning employees' capabilities, activities, and performances to organisational aspirations and objectives'.

Pianese et al (2023) conducted a systematic review providing a novel perspective on organisational control in remote work settings, focusing on how the physical distance inherent in remote work impacts organisational control across five control domains. In addition to output control, control is enacted top-down by managers, for example, through their leadership style and efforts to build trusting social relationships. Organisations also contribute to control by fostering organisational identification. Additionally, control is exercised bottom-up through the development of remote and teleworkers' work identities. The authors also identified various control mechanisms of remote workers:

- behaviour control, exercised through the definition of rules and procedures regulating task execution
- output control, focused on measurable objectives assigned to employees
- peer control, exerted by colleagues
- self-control of employees, and
- 'clan' control, based on shared norms, beliefs and values within a group or an organisation.

These control systems are established by organisations through the setting of clear objectives, but they are mediated by managers. Managers play a crucial role by fostering trust-based relationships with employees, balancing emotion-focused support with job-focused guidance. Remote workers contribute to reinforcing these norms of control by valuing clear objectives and the autonomy to achieve them. Both technological tools and social support mechanisms facilitate and strengthen this process.

Performance measurement

Key concepts such as performance, effectiveness, and productivity are key to measuring and evaluating work actions and their outcomes. Taris and Schaufeli (2015) distinguish between *process performance*, that is, what is done and how it is done, and *outcome performance*, i.e., whether these actions achieve the intended goal. The outcome performance can also be defined with the term '*effectiveness*'. Performance and its outcomes are measured *subjectively* based on employees' perceptions of their performance, those of their colleagues, or the employer's assessment. An *objective measurement* relies on the actual outcomes of performance, i.e., the number and quality of concrete products or services. For example, Bloom et al (2015) measured the performance of home-based order takers as teleworkers by comparing the number of phone calls answered and the number of orders taken. *Productivity* is the ratio of output (O) and input (I). Productivity was measured by calculating phone calls (O) answered per minute (I).

Empirical research shows that performance and its outcomes are controversial issues in hybrid work because of concerns around the reliability of measurement and the attitudes associated with them. In a systematic review, de Menezes and Kelliher (2011) examined the link between flexible working arrangements and both organisational and individual performance. The performance measures were based on manager or employee ratings, with fewer than one-fifth of the reviewed studies using objective metrics. Among 18 studies examining financial performance indicators or productivity, 8 reported a positive relationship between flexible work arrangements and performance, 9 studies found no association, and one identified a negative link. In contrast, among 42 studies based on performance ratings, 13 indicated a positive relationship between telework and individual

performance, while 29 found no association. Notably, none of these studies reported negative associations.

Another study from China found a positive relationship between working from home and performance, based on an experiment conducted at a 16,000-employee Chinese travel agency (Bloom et al, 2015). This experiment randomly assigned call centre employees to work from home or in the office for nine months. The results showed that working from home led to a 13% increase in performance among those working from home, with 9% attributed to longer working minutes per shift (fewer breaks and sick days), and 4% to a higher number of calls handled per minute (attributed to a quieter and more convenient working environment).

A systematic review by Mutiganda et al (2022) investigated flexible work arrangements - broadly conceptualised as telework – and their relationship with organisational economic performance indicators such as self-reported employee and organisational performance. The study found employees in various hybrid work arrangements and supervisors reported higher self-assessed performance compared to those working in the office. Additionally, seven out of 15 studies showed positive effects of hybrid working on objective organisational performance, such as higher sales per employee, an increased number of claims processed and lower operating costs. These benefits were especially evident in homogeneous samples with specialised tasks, such as call centre operations or highly structured roles (Mutiganda et al, 2022).

What explains the inconsistent findings? There are many potential reasons. One of them is that working from home or hybrid work, in general, is not a homogeneous construct. It may cover differing work situations, such as the number of hours worked from home, tasks performed, or job type. It is too simplistic to claim that hybrid work is related to positive or negative outcomes without knowing the practical arrangements of hybrid work in target organisations. In practice, hybrid work - and remote and telework - are flexible configurations. How they are arranged depends on the organisation's purpose, contextual demands, and available resources, including employees' needs.

Balancing control and autonomy

The main challenge of managing performance and outcomes in hybrid work lies in resolving the tension between *control* and *autonomy* and finding a balance between the two. Returning to the main workplace may be justified by factors such as fostering organisational culture, building a sense of community, encouraging collaboration, and driving innovations and creativity (Gibson et al, 2023). These expectations reflect the belief that such outcomes cannot be achieved otherwise and are better supported when employees are physically present onsite. Studies conducted during the pandemic revealed that the physical and virtual separation between managers and employees altered the dynamics of managerial control (see for example Andersone et al, 2022). Employees valued the increased autonomy, which allowed them greater flexibility in deciding when, where, and how they worked, as well as more choice in selecting their tasks.

During the pandemic and beyond, however, media reports highlighted that many employers felt compelled to replicate workplace control by adopting monitoring software tools to ensure employees remained productive. In their literature review, Iosi and De Stefano (2022) refer to data showing that demand for employee monitoring software was stronger still in 2022 (58%) than in 2021 (57%) compared with the 2019 monthly average, with both years experiencing bigger increases than 2020 (43%). In 2023, it remained 49% above the 2019 levels (Migliano and O'Donnell, 2022). In practice, tracking can be done in many ways (Mann et al, 2022); for example, an employee's location

can be monitored via GPS, if they are using work-issued digital devices equipped with tracking capabilities. In some manufacturing plants, employee productivity is monitored by requiring them to wear radio frequency identification (RFID) devices, while interactions and activities can also be captured using body cameras. Ravid et al (2023) conducted a comprehensive meta-analysis of the effects of EPM on workers (including 94 independent samples, n= 23,461) and found no evidence that EPM improves worker performance; instead, it increases worker stress.

Employee engagement

One line of research suggests that hybrid work models can negatively impact employee engagement due to reduced in-person interactions or interactions restricted to job-related purposes (Lenka, 2021; Chellam and Divya, 2022). When employees do not see each other regularly, addressing challenges becomes more difficult in a virtual setting. Over time, remote work can become monotonous, leading to decreased communication, growing frustration, and difficulty maintaining focus, ultimately resulting in employee disengagement (Lenka, 2021; Chellam and Divya, 2022). Maintaining employee engagement is difficult in a remote setup from the perspective of the manager as well, as they cannot rely on physical proximity to build relationships and assess engagement (Glynn et al, 2020).

As mentioned earlier in this chapter, employee engagement is associated with organisational culture. Effner and Havrilják (2021) conducted a qualitative multiple-case study with senior managers or directors employed at one of the 'Big Four' consultancies in Germany or Sweden respectively that have adopted hybrid work arrangements. Their findings suggest that establishing team engagement has become a challenge for managers in terms of translating organisational culture, specific values and a sense of belonging into a hybrid work environment. The organisational culture may not translate effectively to the hybrid setting, as it has traditionally been reinforced through activities historically conducted in the office (Effner and Havrilják, 2021). To foster team engagement, leaders need to ensure the team stays well-informed, a task that can be particularly challenging in organisations that use multiple work modalities within a hybrid work model. Moreover, employees should feel that the level of autonomy they experience when working remotely in hybrid work environments is equitable to that in other settings (da Silva et al, 2022).

Onboarding is another challenge for managers. According to recent Eurofound research on hybrid work (Eurofound, forthcoming), line managers find it difficult to onboard new hires effectively. In the company cases investigated, new employees were typically asked to work from the office during the initial months to facilitate learning and integration. Line managers interviewed saw physical presence in the office as crucial for knowledge exchange. Indeed, when existing employees leave the company and new ones join, an increasingly pressing challenge is acclimating these newcomers and integrating them into the company's culture, whether they are interns, entry-level hires, or seasoned executives (Haas, 2022). However, networking opportunities for new employees are impacted significantly by the shift to hybrid work, as togetherness and giving these employees a sense of belonging and cultivating engagement is more difficult in the hybrid environment. The junior colleagues have no pre-existing ties to the team or company, little to no experience with the corporate culture, and thus a low sense of belonging. Therefore, new employees may be particularly affected by the adverse impacts of hybrid work on network development. A considerable proportion of networking traditionally occurs through unplanned interactions and meetings or guided office tours where new employees meet and greet colleagues. These interactions have become

increasingly scarcer as the in-office rotations are disrupted by the flexibility offered in hybrid work models (Babapour Chafi et al, 2022).

Occupational Safety and Health (OSH)

Managerial challenges related to occupational safety and health are comparatively less explored in the literature on remote and hybrid work than other identified dimensions. The available evidence suggests that hybrid work could increase the risk of physical and psychosocial health issues. Prolonged exposure to digital devices can cause eye strain, musculoskeletal disorders, and 'technostress' - the anxiety associated with adapting to constantly evolving technologies (EU-OSHA, 2023).

In hybrid work environments, the impact of these issues can be exacerbated by the irregular working conditions at different locations, which may not always be ergonomic (EU-OSHA, 2024). Therefore, managers face the challenge of ensuring all employees have access to safe and healthy working conditions, whether they are working remotely or on-site. This may involve providing guidance on setting up a home office, offering mental health support, and promoting work-life balance.

Since part of the work takes place in private spaces in remote and hybrid work arrangements, conducting inspections, OSH and ergonomics checks is another significant challenge. After the pandemic, some EU Member States, such as Croatia and Portugal, strengthened their OSH enforcement by granting company OSH professionals the right to access home workers' workplaces to inspect compliance with OSH regulations (EU-OSHA, 2023).

This shift in work environments also has implications for psychosocial risks, including the delicate balance between work and personal life. The literature presents mixed findings on the effects of hybrid work on work-life balance. On the one hand, spending more time working remotely reduces the need for commuting, which can contribute to an improved work-life balance (Grzegorzczuk et al, 2021). However, in a home-based work environment, employees often face blurred or diminished boundaries between professional and private life, leading to increased stress from the pressure to remain constantly connected and responsive to colleagues' demands (Effner and Havrilják, 2021). The negative effects of constant connectivity affect both employees and managers alike.

Previous research comparing leadership in remote and office-based settings highlights significant well-being challenges in digital work environments (Krick et al., 2022; Schübbe et al., 2023; Neidlinger et al., 2024). One key challenge is the difficulty leaders face in recognising employee stress and burnout, as the lack of in-person interactions makes it harder to detect signs of strain. For instance, Schübbe and colleagues (2023) conducted an experimental study examining leaders' ability to identify health-related warning signals in employees. By comparing three communication modes - face-to-face, video calls, and phone calls - they found that leaders were most effective at recognising these signals in face-to-face interactions.

A survey-based study conducted between 2021 and 2022 with two large samples of German employees and leaders revealed another critical aspect of leadership and well-being in remote settings (Neidlinger et al, 2024). The findings indicate that leaders who prioritise their own health in remote work environments are significantly more likely to support and promote their employees' well-being compared to those who neglect their own health. This suggests that leader self-care may play a crucial role in fostering a healthier work culture in digital settings. Supporting this perspective, another study found that higher frequencies of remote work among leaders were associated with

both greater self-care (the extent to which leaders take care of themselves) and staff care (the extent to which leaders promote their employees' health) (Krick et al, 2022). This suggests that reduced direct contact with employees may heighten leaders' sense of responsibility for their employees' well-being, although fulfilling these responsibilities from a distance can present challenges.

In hybrid work arrangements, managers can give employees greater autonomy to organise their work (Eurofound, 2023a). However, more autonomy and flexibility in organising work can also lead to work intensification and diminished work-life balance. A qualitative study among knowledge workers in the UK conducted during the pandemic found that employees frequently experienced a loss of control over working hours and faced challenges such as endless online meetings/virtual presenteeism (Abgeller et al, 2024). Managers need to carefully address this 'autonomy paradox' to ensure employees do not overwork and experience negative consequences for their well-being. Reznik et al (2022) suggest that managers should, as much as possible, tailor hybrid work arrangements to individual preferences. For instance, some workers report that they rely on interactive communication and support from colleagues within the corporate setting to alleviate work-related stress while others report the benefits of being away from a high-stress corporate setting. Moreover, the authors argue that managers should establish clear expectations regarding work hours and availability, encourage employees to take breaks and promote a healthy work-life balance (Abgeller et al, 2024). Promoting the right to disconnect would facilitate the counterbalancing of adverse effects, such as blurred work-life boundaries related to hybrid work (EU-OSHA, 2023; Eurofound, 2023c).

In the context of increased responsibilities associated with managing employees across different work modalities, combined with the challenge of overseeing a hybrid workforce remotely, the well-being of managers has also become a significant concern. A study by Andersone et al (2022) focused on first-line managers from a large Danish pharmaceutical company transitioning to hybrid work models during the pandemic found that the shift to distance management negatively impacted their well-being, driven by increased job demands and insufficient support from higher management. More specifically, first-line managers were tasked with experimenting with different work models to find what best suited their teams, navigating changing regulations and company policies, organising virtual meetings, and finding new ways to monitor performance. The emotional demands included dealing with uncertainties and the need to prioritise care and support for employees. The combined effects of emotional and practical demands, coupled with insufficient organisational support, had a detrimental impact on the well-being of the line managers. The long hours, continuous screen time, and inability to disconnect from work led to tiredness, exhaustion, and increased potential for burnout.

Lastly, the office environment and design significantly impact the well-being and health outcomes of office workers. Improvements to office design will be necessary to accommodate the evolving needs of hybrid workers. Remote and hybrid work models bring to light new questions about the design of future homes, namely, the location, lighting conditions, ergonomics, and allocation of dedicated space for a home office (Babapour Chafi et al, 2022).

Summary points to chapter 2

- General management challenges related to hybrid work include: 1) ensuring access to high-quality and secure work tools that support workspaces in various locations and utilise diverse technologies, along with maintaining security and providing technical and managerial support; 2) sustaining a trust-based organisational culture despite remote work reducing informal interactions, which can undermine trust between employees and managers and decrease motivation; and 3) addressing the interconnected challenges of office design by integrating solutions that support both the functional and cultural aspects of hybrid work environments.
- Specific management challenges were reviewed in each identified domain, that is, communication and collaboration, digital innovation and experimentation, equity and inclusion, performance monitoring and managerial control, employee engagement, and occupational safety and health.
- Communication and collaboration challenges are focused on challenges with asynchronous communication, erosion of social bonds due to reduced informal interactions, and over-reliance on digital tools.
- Digital innovation and experimentation challenges include tackling technology fatigue - which can result in stress, overload, or distraction - while maintaining productivity, avoiding the overuse of monitoring tools, and ensuring strong cybersecurity
- Equity and inclusion challenges are intertwined with the two above-mentioned challenges and focus on bridging cultural and communication gaps when employees are distributed across home, office, and other locations. These challenges also involve ensuring equitable access to work tools and infrastructure, with particular attention to fostering equity when onboarding new team members.
- Performance monitoring and managerial control challenges centre on resolving the tension between control and autonomy and achieving a balance between the two. Leaders and managers face the need to develop new methods of monitoring employee performance that are both effective and ethical
- Employee engagement challenges are linked to reduced social interactions in virtual settings, particularly informal ones, increased frustration stemming from inequity and technology-related stress, and difficulties in maintaining employee motivation.
- Occupational safety and health challenges for managers receive less attention in the hybrid work literature compared to other domains. However, they encompass both physical risks (for example, musculoskeletal issues) and mental health risks, which should not be overlooked.

Management strategies: What works and what does not

The first section of this chapter addresses the research question concerning the strategies managers use to overcome the challenges of managing hybrid teams (*What strategies are managers using to overcome the identified challenges of managing hybrid teams?*), while also exploring recommended approaches that managers should adopt to address these challenges effectively. The chapter reviews available literature on hybrid work, focusing on the key dimensions identified as particularly relevant to managing hybrid teams: collaboration and communication, digital tools and experimentation, performance management and managerial control, employee engagement, equity and inclusion, and occupational safety and health.

Analysis of management strategies

The surge in hybrid work posed several challenges, requiring managers to adapt to the new role of ‘hybrid manager’ and pursue new strategies to address these challenges effectively. In a guide on hybrid work, based on research conducted at the Finnish Institute of Occupational Health, Alasoini et al (2025) identify four distinct management strategies for hybrid work, each varying in its approach to balancing onsite and remote work.

- The first, **increasing onsite work from the top down**, is a directive approach where management mandates a set amount of in-office work. This ensures physical presence and structured work patterns but may create resistance among employees who perceive it as a lack of trust.
- A more collaborative alternative is **increasing onsite work based on a shared view of management and staff**, which encourages in-person work through dialogue and mutual agreement. This strategy focuses on making the office a more attractive and purposeful space, fostering engagement without imposing rigid requirements. It builds trust and cooperation but requires ongoing effort to adapt to employee needs.
- The third approach, **building a new culture for differentiated ways of working**, fully embraces hybrid work by redesigning processes, workspaces, and technologies to support both remote and onsite work seamlessly. This strategy is forward-looking and ensures long-term adaptation but demands significant investment in infrastructure and cultural change.
- Lastly, the **emergent construction of a new culture** takes a passive stance, allowing hybrid work practices to evolve naturally without direct intervention from management. While this maximizes flexibility, it carries the risk of disorganisation, weakened team cohesion, and inconsistent communication.

Most management strategies identified in the review of the literature were mostly related to supervising and maintaining the engagement of employees working now part or most of their time remotely. It includes organising work tasks with consideration for both fully virtual or remote work and hybrid work where employees may alternate between remote and in-office settings. Managers would also be required to implement effective control strategies to oversee productivity without micromanaging, ensuring that virtual teams remain engaged and productive.

Effective communication is also crucial, requiring managers to foster clear, consistent, and accessible channels to keep all team members aligned regardless of location.

To ensure long-term success, leaders and managers must also promote equity by providing equal opportunities, resources, and support to both remote and on-site employees. A fair and inclusive work environment is essential to maintaining engagement and preventing disparities in professional development and recognition. At the core of all leadership strategies in hybrid work settings is the ability to understand digital technology, recognize its impact on work dynamics, and continuously assess and refine approaches based on what is effective and what is not.

Maintaining a trust-based organisational culture, emphasised in the first chapter of this working paper as a key overarching challenge, requires careful consideration in the structural and organizational design of the hybrid work model. According to Hill (2023), building a culture of trust should start by establishing a hybrid work structure that includes opportunities for relationship-building. These could include periodic onsite activities that bring all team members together, fostering equity, inclusion, collaboration and communication (Hill, 2023). A trust-based culture encompasses multiple organisational domains. For instance, strategies such as results-oriented performance management (Hill, 2023), improving informal communication channels, and encouraging employees to seek help and advice from supervisors and colleagues are effective ways to build trust within the organisation (EU-OSHA, 2024). These strategies also align with broader goals in performance management as well as occupational safety and health.

Training managers in new hybrid leadership skills is critical for the long-term success of hybrid work. Ipsen et al (2022) advocate for providing training focused on communication, fairness, and operational efficiency to help managers effectively support teams in hybrid work environments. Such training can equip managers with the skills needed to navigate the complexities of hybrid work. These may include effectively addressing employee concerns, managing and resolving conflicts, and adapting leadership style to suit the diverse demands of hybrid work environments. For instance, Anderson et al (2022) emphasise the importance for senior management to establish ongoing training in areas such as distance management and virtual psychology. These training initiatives enable first-line managers to handle the responsibilities of managing hybrid work teams and develop the ability to interpret and respond to employees' emotional states in virtual settings.

Collaboration and communication

In hybrid work models, effective communication requires deliberate effort due to the lack of spontaneous, informal interactions typical of in-office settings. According to Alasoini et al (2025), maintaining effective communication, collaboration, and mutual support in a hybrid work environment is not solely the responsibility of managers but requires active participation from employees as well. As traditional managerial oversight diminishes in remote and flexible work settings, peer management - where team members assume informal leadership roles - becomes essential for ensuring smooth workflows and fostering team cohesion. To support this shift, organisations must establish new frameworks that promote engagement and teamwork, creating structures that balance autonomy with a strong sense of community and shared purpose.

While employees play a key role in sustaining collaboration, the challenge of fostering engagement in virtual settings remains significant, particularly for line managers. A qualitative study based on semi-structured interviews conducted during the pandemic found that first-line managers from a

Danish pharmaceutical company faced challenges in involving employees in virtual settings (Andersone et al, 2022). They had to create structured opportunities for participation, such as soliciting input during meetings and organising virtual social activities. To maintain engagement, managers used tools like virtual coffee meetups, one-on-ones, and team-building activities, ensuring consistent interaction despite the dispersed workforce. Another study, based on a bibliometric review, emphasised that transparency in communication is critical for fostering trust in hybrid work, with structured communication processes helping to bridge the gap left by the absence of informal in-office conversations (Carrasco-Garrido et al, 2023).

Transparent communication, paired with a focus on outcomes, enables employees to understand expectations and feel confident in their roles, fostering a culture where trust and accountability thrive. To ensure the smooth implementation of hybrid work, it is essential for organisations to set clear standards and guidelines. Based on a literature review, Ozturk Ciftci (2022) emphasised the need for companies to define all aspects of the hybrid model, including work schedules, transition processes to hybrid work, and auditing methods. Clear guidelines help employees to understand managers' expectations of the hybrid arrangement. Drawing from their CEO's experience, Morales and Misner (2021) further stress the importance of training and educating employees about the standards connected with hybrid work to eliminate uncertainties. Providing detailed guidelines helps create a structured framework that supports both managers and employees in adapting to the hybrid work environment.

Taken together, these studies point to the importance of prioritising trust in hybrid work models to create a more supportive and productive work environment.

Digital innovation and experimentation

The shift to hybrid work during the pandemic led managers to experiment with different work structures and digital tools to identify what worked best for their teams. For instance, in their case study research, Andersone et al (2022) describe how managers experimented with varied work designs, such as four-day work weeks, task rotations, and flexible task-based arrangements, depending on the nature of the work performed (for example, production requiring in-person presence, while administrative tasks benefited from remote setups). Using quantitative data from a case study involving 70 interviews with employees of a company in Indonesia, Givan (2024) highlights the crucial role HR professionals played in leveraging technologies to facilitate seamless communication and collaboration across dispersed teams. Managers adopted digital platforms for brainstorming, virtual whiteboards, and project management tools, which have been essential in maintaining innovation and productivity. A robust digital infrastructure is crucial for supporting hybrid work models. As Ozturk Ciftci (2022) points out, businesses must ensure that their digital systems can manage the demands of hybrid operations. This includes reviewing cybersecurity strategies to safeguard sensitive information and conducting training sessions to raise awareness about cyber risks while promoting responsible employee behaviours to minimise risks associated with digital technology use. Drawing on insights from a panel of Business Consulting Group experts and survey data from employees in Germany, India, and the US, Hilberath et al (2020) argue that investing in smart workspaces, digital information systems, and cybersecurity tools can not only offer net cost savings but also provide employers and employees with greater flexibility in where and how they work. The authors exemplify a health insurance company (based on a case study) that could close several small offices without affecting their employees' work because its leaders had

been implementing new digital systems and collaboration tools to support hybrid work models. These measures are essential for maintaining secure and efficient digital-based workflows, enabling employees to work seamlessly regardless of their location.

Furthermore, the hybrid work environment requires a shift in management style, particularly as digital tools and platforms continue to evolve. Traditional top-down management structures may no longer be effective in a dispersed, digitally driven workforce. Drawing on findings from a survey of managers and employees in Spain, France, Slovenia, Italy, and Greece, Lladós-Maslloré et al (2024) argue that managers must learn to lead in more decentralised environments, where employees have more autonomy and decision-making power due to the increased reliance on digital tools.

This shift toward digital leadership requires managers to embrace a more agile management style, where rapid decision-making and flexibility are critical. A study based on a survey among employees in the UK highlights the need for IT support and guidance in day-to-day management (Forbes et al, 2020). This poses significant challenges for both managers, who must oversee and implement new digital-based workflows, and employees, who must adapt to and effectively use them. Based on discussions with four experts, Gibson et al (2023) argue that managers should incorporate less formal communication and networking opportunities into work schedules by organising meetings that allow employees to speak freely and discuss unplanned topics.

A study by Brown et al (2021) highlights the growing importance of transformational leadership in hybrid work settings, where managers are tasked with motivating and inspiring teams through virtual channels. Transformational leadership is defined as a relationship-focused leadership style that seeks to inspire and motivate followers to embrace the vision and values set by the leader. It involves transformational behaviours and encourages employees to innovate and develop new strategies to enhance the company's performance.

A systematic literature review of empirical studies on leadership in face-to-face and virtual teams, highlighted transformational and shared leadership as particularly relevant in relation to communication and engagement within hybrid teams (Caputo et al, 2024). Transformational leadership was found to be more effective in virtual teams, where strong communication and motivation are essential to compensate for the lack of in-person interactions. However, its impact diminishes in highly dispersed teams, where maintaining engagement and direct influence becomes more challenging. Similarly, shared leadership, in which leadership responsibilities are distributed among multiple team members, is more effective than hierarchical leadership in virtual teams. This approach fosters greater collaboration, communication, and engagement but requires a different management strategy to ensure cohesion, coordination, and accountability across both face-to-face and remote team members.

However, not all leaders or managers are equipped to make the transition to more inclusive leadership styles, particularly those in industries traditionally relying on more hierarchical leadership models, such as manufacturing and finance (Greimel et al, 2023).

Previous research also shows that leadership effectiveness evolves over time, requiring adaptive strategies to sustain employee engagement in hybrid and remote work environments. The evolving nature of leadership is further highlighted by a German longitudinal study, which collected data at three different time points. The study found that 'consideration leadership' - a relationship-oriented leadership style that prioritizes employee well-being, support, and interpersonal connections - was particularly effective for employees working remotely. However, its impact was not immediate;

benefits became more evident in later phases, ultimately leading to positive changes in work engagement (Sedefoglu et al, 2024).

Performance monitoring and managerial control

Managing performance in a hybrid setting requires a shift from process-oriented supervision to outcome-based assessments. According to Abgeller et al (2024), reciprocal trust between managers and employees is crucial for successful implementation of hybrid work arrangements, where the emphasis moves away from overseeing daily activities to focusing on results. This shift enables managers to uphold accountability without falling into the trap of micromanaging their employees. In addition, Anderson et al (2022) highlight that the absence of spontaneous in-person interactions in hybrid settings necessitates a more deliberate approach to assessing employees' contributions and providing feedback. This often results in extended working hours for managers, as they work to ensure that employees receive the guidance and support they need. Developing fair and consistent employee assessment policies is essential for managing hybrid work effectively.

A meta-analysis of the effects of electronic performance management on workers shows that organisations which monitor their employees more transparently and less invasively are more likely to foster positive attitudes toward monitoring among their workers (Ravid et al, 2023). Best practices in human resource management, including procedural transparency and granting individuals control over their own work, continue to be important mechanisms for guiding employees towards both individual and organisational goals (Ravid et al, 2023).

The available evidence suggests that the transition to hybrid work can be enhanced by adopting management by objectives and a supportive leadership style that emphasises trust-based relationships, remote workers' empowerment and autonomy. Research on telework and remote work highlights the 'autonomy-control paradox', which describes the tension between granting employees greater freedom (autonomy) to manage their work independently and the need for organisations to maintain oversight (control) to ensure productivity, accountability, and alignment with goals (Eurofound, 2022). To overcome the autonomy-control paradox, Wheatley et al (2024) suggest a coordinated approach centred on 'inclusive flexibility' and 'responsible autonomy' that involves moving away from one-size-fits-all strategies towards a tailored approach offering employees choice, agency and voice in decision-making while accommodating different needs. Moreover, in an editorial piece, Erro-Garces et al (2024) argue that replacing the traditional form of management based on physical supervision (even if this supervision is technology-based) with an evaluation of performance quality based on planned objectives is key. Adopting a results-oriented approach to evaluating employees that promotes autonomy can help ensure leaders prioritise clear objectives and success standards over physical presence in the office (Hill, 2023).

Employee engagement

Maintaining high levels of engagement is a significant challenge in hybrid work models, as remote employees often feel disconnected from their colleagues and the broader organisation. Reyes et al (2021) highlight that regular, one-on-one meetings tailored to employees' unique needs can effectively address personal and career-related concerns. This is particularly crucial for new employees who may require additional guidance and support to integrate into the team. Drawing on case study research conducted during the pandemic, Anderson et al (2022) emphasise that fostering engagement through organised virtual social activities - such as online games, meditation

sessions, and virtual cocktail parties - can boost morale and strengthen the sense of belonging among remote workers. However, in a hybrid work arrangement in post-pandemic times, different ways of creating a connection with the company are important.

Waller (2022) stresses the importance of involving employees in designing and adjusting hybrid work arrangements. When employees have a voice in shaping the structure of their work, they are more likely to feel valued and engaged. This participatory approach can lead to improved performance and lower levels of fatigue, as employees feel a sense of ownership over their work environment. It also enhances their commitment and job satisfaction, ultimately reducing turnover and fostering a more engaged workforce.

Hilberath et al (2020) emphasise the importance of engaging with employees' experiences by surveying their preferences and building new and agile team norms and processes to foster optimal collaboration. The author provides an example of a leading healthcare and hospital organisation that used a participatory approach for its administrative employees working remotely during the pandemic. Rather than imposing a one-size-fits-all model for returning to work after the lockdown, the organisation carefully listened to employee needs through surveys, interviews, and meetings. Some teams preferred in-person planning meetings once every couple of weeks, while others favoured brainstorming and connecting in person two or three days a week. Giving employees a voice and collecting rich data on the employee experience enabled the healthcare organisation to create highly tailored working models to help each team achieve peak performance.

Lake (2023) and Hopkins and Bardoel (2023) suggest that flexibility should become the norm in hybrid models, allowing employees to choose when and where to work. However, this flexibility must be balanced with structured support and clear guidelines to ensure that organisational goals are met. Providing employees with the autonomy to manage their schedules while maintaining accountability through structured frameworks can lead to both higher job satisfaction and productivity.

Equity and inclusion

In hybrid work environments, open communication, well-defined expectations, and a focus on equity are crucial for fostering a cohesive and productive workforce. Reyes et al (2021) emphasise the importance of maintaining regular communication through structured methods such as one-on-one meetings and feedback sessions. These practices help address the individual needs of employees, particularly those who might feel disconnected when working fully remotely. This is a prerequisite for fair treatment of all employees.

Andersone et al (2022) note that managers must adopt a more deliberate approach to communication in hybrid settings, as the absence of spontaneous, in-person interactions makes it harder to maintain clarity. The lack of clarity may lead to a perceived lack of fairness. This includes outlining roles, responsibilities, and performance metrics to ensure team members are aligned and working toward common goals. Carrasco-Garrido et al (2023) further highlight the role of transparency in communication, which is essential for bridging the gap created by the lack of informal office interactions. Structured processes, like regular team check-ins, help align efforts and maintain cohesion among remote and in-office staff.

Babapour Chafi et al (2022) stress the importance of fairness in hybrid arrangements, emphasising the need for well-designed and transparent policies to address key aspects of hybrid work. These

include clarifying when employees are required to be in the office, even when individual preferences differ, and implementing guidelines and expectations for office use. Equally important is managing the logistics for meetings with an uncertain number of in-office attendees and ensuring inclusion and equality by offering equal opportunities and support to all employees, regardless of their work location. Such measures help ensure that both remote and in-office employees feel equally valued and create an inclusive culture fostering employee loyalty and lower turnover.

Ensuring equity between remote and in-office employees remains a critical challenge for managers in hybrid work settings. According to da Silva et al (2024), creating a sense of inclusion through transparent communication ensures that remote workers feel equally valued. Evidence from case study research suggests that managers who personalise interactions and create structured spaces for input can effectively mitigate feelings of exclusion among remote employees (Andersone et al, 2022). This approach helps ensure that all team members have a voice, regardless of their physical location, and managers encouraged by senior management to remain mindful of potential biases, such as more attention given to employees present in the office (Hill, 2023), in evaluating remote versus in-office performance, focusing on fairness in recognition and providing equal opportunities for career advancement. Therefore, by combining transparency in communication, task scheduling and assessment, managers can create a more inclusive culture that values all employees and fosters engagement, regardless of where they work.

Occupational Safety and Health (OSH)

Managers face unique challenges in maintaining occupational safety and health within hybrid work models. A key aspect of managing these challenges involves fostering a balanced approach to both mental health support and physical working conditions to create a sustainable and healthy work environment.

From an OSH perspective, one pressing challenge is addressing technostress, which refers to the situation where employees struggle to keep up with constantly evolving technologies, and virtual presenteeism, where workers continue to work even when unwell (EU-OSHA, 2024). Establishing clear work boundaries helps ensure that employees have time to disconnect from work and recharge, reducing the likelihood of exhaustion.

Andersone et al (2022) note that managers often implement regular check-ins to support employees' mental well-being, recognising that remote workers can feel isolated. These check-ins provide a platform for managers to address issues related to stress, offer emotional support, and maintain a sense of connection with their teams. By promoting work-life balance and maintaining open communication channels, managers can create a supportive environment that mitigates the negative effects of remote work, such as loneliness and stress.

In addition to addressing mental health, managers must also focus on the physical health aspects of remote work, particularly the ergonomic setup of home offices. Andersone et al (2022) highlight that providing home office equipment and guidance on maintaining healthy routines, such as taking regular breaks and engaging in physical activities, is critical to preventing physical strain. This approach helps combat issues like musculoskeletal disorders, which can arise from prolonged periods of working in unsuitable environments. Similarly, Choudhury et al (2020) illustrate how organisations like GitLab, which operates fully remotely, offer ergonomic guidance to ensure employees have proper work setups at home. GitLab's approach includes encouraging employees to set boundaries and offering flexibility in managing their work schedules, helping them effectively

balance work and personal responsibilities. This flexibility allows employees to create a work environment that suits their needs, reducing physical strain and promoting better overall well-being.

Creating a healthy work-life balance in a hybrid environment goes beyond physical health and encompasses the holistic well-being of employees. Putri et al (2023) stress that maintaining a balance between working hours and rest periods is vital to preventing burnout and work-related stress. A balanced approach to scheduling, whether employees are working from the office or remotely, helps ensure that they have sufficient time to rest and recharge. This approach can lead to improved job satisfaction, engagement, and overall quality of life for employees.

Lake (2023) also notes that providing optimal working conditions, regardless of whether employees are working from home or the office, is crucial for supporting their well-being and mental health. These may include access to ergonomic equipment, clear guidance on maintaining healthy workspaces, and policies that support flexible working hours. Addressing the challenges of occupational safety and health in hybrid work environments requires a willingness to adapt and experiment with different strategies to determine the most effective. Andersone et al (2022) highlight the importance of flexibility in managerial strategies, noting that managers need to adjust their practices continuously to meet the evolving needs of their teams. This includes experimenting with different communication methods, adjusting support structures, and responding to employee feedback to create an environment that supports mental and physical health.

By adopting these strategies - focusing on mental health support, promoting ergonomics, fostering a holistic approach to work-life balance, and remaining adaptable - managers can overcome the challenges of hybrid work environments. These efforts help create a healthier, more engaged, and resilient workforce, turning the challenges of hybrid work into opportunities for growth and well-being.

Pitfalls of overlooking hybrid workforce management challenges

This section addresses the fourth research question: *What are the potential pitfalls of not addressing management challenges in hybrid work arrangements, and what strategies can promote positive organisational outcomes?*

If the management challenges of hybrid work are not adequately addressed, various pitfalls can arise, potentially undermining productivity, employee well-being, and organisational culture.

The pitfalls described below are based on the assumption that the overall trend of organisations adopting and expanding hybrid work arrangements will continue in the future, rather than reverting to more traditional office-based models. However alternative perspectives on the development of hybrid work exist. Eurofound's foresight study on hybrid work explores the potential trajectories of telework and hybrid work under different conditions. One scenario presented in the study – 'disengaging from telework and hybrid work in a turbulent world' - describes a situation where the levels of hybrid work have decreased due to EU-wide crisis-driven shifts and unresolved challenges (Eurofound, 2023c). The scenario describes a tense and stressful work environment focused on survival rather than innovation, characterised by prevalent command and control management strategies.

Table 22: Pitfalls of overlooking hybrid workforce management challenges

Pitfall	Related dimensions identified in this review	Outcomes
Decreased productivity and overwork	Performance monitoring and managerial control	Employees' fatigue, and poor performance leading to difficulties in maintaining productivity
Social and professional isolation	Digital innovation and experimentation (technology fatigue); Equity and inclusion	Decrease in employees' motivation and morale, disengagement from an organisation's culture
Higher attrition rates, especially among managers	Performance monitoring and managerial control	Significant emotional investment and time, which can lead to dissatisfaction and high turnover among managers
Loss of trust and micromanagement	Performance monitoring and managerial control	Negatively impact on morale, leading to a decrease in trust and autonomy, reduced engagement and motivation of employees
Destructive leadership behaviours	Performance monitoring and managerial control	Unrealistic demands or unethical monitoring practices can negatively affect the well-being of employees leading to higher turnover rates. Managers may experience burnout and emotional exhaustion due to the increased demands of overseeing remote teams.
Lack of psychological safety and proper OSH support	Communication and collaboration; Occupational Safety and Health (OSH)	Hesitation to communicate openly, stifled exchange of ideas and diminished creativity; employees are discouraged from seeking support when needed, increasing mental well-being problems
Inconsistent or ineffective performance evaluation	Performance monitoring and managerial control; Equity and inclusion	Difficulties for managers in accurately assessing individual contributions of employees lead to inconsistencies in performance evaluation
Imposition of rigid work models	Communication and collaboration	Disconnection between employees' expectations and organisational practices, leading to decreased performance and engagement

Source: Authors' elaboration based on the desk research

Decreased productivity and overwork

According to Reyes et al (2021), hybrid work environments can lead to reduced productivity if management challenges are not addressed. Employees may become distracted without adequate support structures for supervision or, conversely, may overwork to maintain visibility, leading to burnout. In both scenarios, the outcome is fatigue and decreased performance, highlighting the need for proper support and clear work goals and boundaries to maintain productivity. Similarly, according to the future of work scenario 'Disengaging from telework and hybrid work in a turbulent world', heavy workloads compel employees to work at home in addition to their office hours. Line

managers struggle to manage their workloads, work irregular hours and feel pressured to be constantly available (Eurofound, 2023c).

Social and professional isolation

Hybrid work can result in employees feeling isolated from their teams and the broader organisation, particularly when they lack regular interaction and support. Therefore, employees' motivation and morale may diminish. Decreased engagement and morale associated with disconnection can eventually lead to higher turnover rates (Reyes et al, 2021). Furthermore, social isolation can weaken the sense of community, making it difficult for employees to feel connected to the organisational culture, which can reduce their commitment to the organisation (Abgeller et al, 2024).

Higher attrition rates, especially among managers

Research indicates that the impact of the hybrid work model varies between managers and non-managers. Managers, who often find remote team management challenging, may experience increased attrition rates if they are not supported (Reyes et al, 2021; Bloom et al, 2022). Managing a remote workforce requires more significant emotional investment and time, which, without appropriate backing from upper management and organisational rules, can lead to dissatisfaction and turnover among managers (Reyes et al, 2021).

However, this aspect - particularly the differential impact of hybrid work models on managers versus non-managers - has not been given much attention in the literature. While much research focuses on the experiences of employees at large or the general benefits and challenges of hybrid work, there is limited investigation into the unique pressures faced by managers.

Loss of trust and micromanagement

A lack of trust in hybrid work arrangements can lead managers to adopt micromanagement practices, such as excessive monitoring of employees' activities (Babapour Chafi et al, 2022). The shift from outcome-based management to behaviour-focused supervision can have a negative impact on employee morale, leading to decreased trust and autonomy. Employees who experience such scrutiny may feel that their efforts are undervalued, which in turn can reduce engagement and motivation. Additionally, a lack of trust can weaken managers' leadership effectiveness, as they may adopt overly controlling behaviours to ensure task completion. This approach, however, risks diverting attention away from the broader focus on team performance (Efnér and Havrilják, 2021). Ultimately, this can lead to reduced opportunities for employee involvement and the development of an adversarial work climate, characterised by a prevailing tense relationship between managers and employees (Eurofound, 2023b).

Destructive leadership behaviours

Managing hybrid teams can place significant pressure on managers, sometimes resulting in destructive leadership behaviours, such as unrealistic demands or unethical monitoring practices (Babapour Chafi et al, 2022). Moreover, there is surveillance software of various kinds used by organisations to monitor remote workstations, and track presence and hours worked, which can perpetuate a command-and-control culture, extending into the virtual realm and making surveillance more extensive and invasive (Lake, 2023). These behaviours can have a negative impact on employee well-being and job satisfaction, undermining the potential benefits of hybrid work by

increasing stress and turnover rates. Additionally, as Glynn et al (2020) highlight, unaddressed challenges can lead to managers experiencing burnout and emotional exhaustion due to the increased demands of overseeing remote teams, which require more time and engagement, further straining their limited work hours. When left unaddressed, hybrid management challenges can erode trust within the team, potentially leading to poor performance. Miscommunication, especially in virtual settings, can exacerbate misunderstandings, increasing the likelihood of conflicts (Griffith and Neale, 2001). A lack of support for managers can further lead to mismanagement, resulting in practices that are harmful to the team's overall functioning and the well-being of its members.

Lack of psychological safety and proper OSH support

Hybrid work requires managers to actively foster a sense of psychological safety, where employees feel comfortable sharing ideas and concerns without fear of judgment (Reyes et al, 2021). Without this, team members may hesitate to communicate openly, leading to a stifled exchange of ideas and diminished creativity. The absence of psychological safety also discourages employees from seeking support when needed, contributing to feelings of isolation. Choudhury et al (2020) emphasised that hybrid telework, if not managed well, can lead to health and safety risks, especially concerning the mental health of employees, including managers. Issues like social isolation and overwork can contribute to burnout and other mental health challenges. Additionally, inadequate ergonomic setups in home offices could lead to long-term physical health problems, such as musculoskeletal pain.

Inconsistent or ineffective performance evaluation

In a traditional office setting, managers often rely on direct observation and in-person interactions to gauge employee contributions. These observations and interactions are frequently informal and unscheduled. However, in hybrid or remote arrangements, these direct face-to-face observations are no longer feasible. While direct online monitoring is possible, it requires different arrangements, such as the use of specialised software and prior communication with employees about the use of such software. Process monitoring is still an option, although it may become less effective, and can be perceived as intrusive. Therefore, a greater emphasis on outcome-based assessments is needed, which requires deliberate design and implementation.

Babapour Chafi et al (2022) note that the absence of structured performance metrics can make it difficult for managers to assess individual contributions accurately, leading to inconsistencies in performance evaluation. This inconsistency can foster perceptions of unfairness among employees, who may feel their efforts are not being recognised or evaluated equitably, thereby reducing their motivation and engagement. The difficulty in measuring productivity extends beyond individual assessments to the organisation's overall performance. Carrasco-Garrido et al (2023) emphasise that organisations and their management may struggle to maintain accountability and monitor progress without clear goals and well-defined metrics. This lack of clarity can lead to a disconnect between employee efforts and organisational objectives, ultimately undermining productivity and efficiency. Managers may find themselves needing to experiment with different management techniques without adequate guidance, potentially exacerbating inconsistencies in how productivity is measured across teams. Additionally, the absence of daily check-ins and clear work boundaries can lead to two divergent issues: distraction due to insufficient supervision or overwork as employees strive to remain visible and productive (Reyes, 2021). Both outcomes are detrimental, resulting in either a lack of focus or burnout, further impairing productivity.

The challenge of balancing oversight and autonomy in hybrid work settings can cause managers to struggle with maintaining team cohesion and communication (Andersone et al, 2022). This lack of alignment can lead to a misalignment between management strategies and organisational goals, ultimately resulting in decreased team productivity and effectiveness. In summary, the challenges in measuring productivity in hybrid work environments stem from the need for new assessment frameworks that account for the unique dynamics of remote and in-office work. Without clear strategies and metrics, organisations risk reduced accountability, employee dissatisfaction, and a decline in overall performance.

Imposition of rigid work models

Imposing fixed hybrid work models without involving employees in the design process can lead to negative outcomes. Waller (2022) argues that organisations that fail to adapt their models based on employee feedback miss the opportunity to align work designs with evolving needs. Rigid models can create a disconnect between employees' expectations and organisational practices, leading to decreased performance and engagement. As Waller (2022) suggests, actively involving employees in designing and adjusting hybrid work models can yield significant benefits. Employees who contribute to shaping work arrangements are more likely to report higher performance and lower fatigue levels. This collaborative or participatory approach can enhance employees' commitment and satisfaction, reducing attrition and increasing engagement.

Summary points to chapter 3

- The literature highlights several strategies that managers can implement to address the challenges of hybrid work.
 - To enhance **communication and collaboration**, managers should adopt transparent communication practices and establish clear guidelines.
 - In the area of **digital innovation and experimentation**, management must ensure that digital systems are capable of meeting the demands of hybrid operations, including implementing robust cybersecurity measures and offering technological support to help employees effectively use the digital tools available.
 - For **performance management and monitoring**, an outcome-focused approach is preferable, avoiding micromanagement, minimising overwork, and ensuring transparency regarding monitoring methods.
 - To improve **employee engagement**, managers should emphasise regular communication, fostering a sense of belonging, and involve employees in designing and adjusting hybrid work arrangements.
 - Identified challenges in the area of **equity and inclusion** can be addressed through regular, open communication, clear expectations, and well-designed, transparent policies, such as specifying when employees are required to be in the office.
 - In terms of **occupational health and safety**, a strong focus should be placed on supporting mental health, promoting ergonomic practices, fostering a holistic work-life balance, and maintaining adaptability.
- However, overlooking the challenges of managing a hybrid workforce can lead to significant pitfalls, including decreased productivity and overwork, social and professional isolation, higher attrition rates (especially among managers), loss of trust and increased

micromanagement, destructive leadership behaviours, and lack of psychological safety among employees.

Conclusions

One of the most profound changes to the world of work brought on by the pandemic was the accelerated shift to remote work. Many organisations were forced to transition almost overnight to remote operations, proving that large-scale remote work was both feasible and productive. Although working outside the employer's premises using digital technologies was not uncommon before 2020, the scale of remote work from 2020 to 2022 marked a transformative shift. This widespread adoption proved the viability of remote work at scale and has led to lasting changes, with many organisations now embracing hybrid models to balance in-office and remote work. These shifts are likely to shape the labour market for years to come.

This literature review sought to summarise the available knowledge on defining characteristics of hybrid work models, management challenges associated with implementing them, strategies to overcome such challenges and potential pitfalls of failing to address them.

Hybrid work models

The concept of hybrid work builds on well-established concepts related to non-traditional work, such as telecommuting, telework, remote work, and ICT-based mobile work. Key defining elements of hybrid work include its flexibility in physical location and time. Another important element is the alignment of individual work arrangements among team members, including types of social relations, evolving working methods that incorporate both synchronous and asynchronous collaboration and the use of ICT tools, which are essential for facilitating seamless communication, task management, and collaboration across geographically dispersed teams. At its core, hybrid work is a dynamic combination of these elements, allowing organisations to achieve goals, adapt to the demands of their operating environment and optimise the available resources.

By considering three key aspects - location flexibility, employee autonomy, and communication methods - eight common hybrid work models can be identified based on the review of the literature:

- 1) **Office-centric hybrid model:** this model emphasises in-office presence with limited remote work allowance. Work schedules are typically dictated by the employer. Team collaboration occurs face-to-face.
- 2) **Controlled hybrid model:** it mandates specific days in the office based on role profiles; employees may request to work remotely on non-mandated days but with limited decision-making power; team collaboration is mostly face-to-face, using online tools occasionally based on the work arrangements.
- 3) **Flexible hybrid model:** employees or teams determine the balance between office and remote work, with organisational guidelines rather than strict mandates; this model allows for team-specific adaptations, retaining in-office collaboration when needed; team collaboration could be face-to-face, using online tools occasionally based on the work arrangements.
- 4) **Remote-friendly hybrid model:** remote work is the default, with occasional in-office mandates to foster team engagement; for example, companies might prohibit remote work on certain days.

- 5) **Remote-first hybrid model:** remote work is the default, with offices available as optional resources. Employees rarely need to be in the office, making this ideal for global teams or distributed workforces.
- 6) **Smart maturity model:** this highly context-dependent model often involves task-based decisions about time and location; flexibility depends entirely on results and employee or team autonomy; collaboration could be balanced or mostly online.
- 7) **Fully flexible model:** it gives employees complete autonomy about when and where to work; employees often tailor their schedules to optimise productivity and work-life balance; collaboration is mostly or entirely online.
- 8) **Digital nomadism model:** employees have total autonomy to work from anywhere, often travelling frequently; this model uses digital tools to enable global mobility, making location irrelevant to work.

While a hybrid work model refers to the overarching framework or strategy an organisation adopts for combining in-office and remote work - and therefore serves as the blueprint for how an organisation functions - hybrid work arrangements are the tailored application of that blueprint to meet individual or team needs. Hybrid team arrangements exhibit even greater variations, including differences in synchronous versus asynchronous communication and the degree of alignment across individual schedules and arrangements

Management challenges

Hybrid work has various and multifaceted consequences for employees, managers in different positions, and organisations. Whereas the effects on the workforce are widely studied, the consequences for management seem understated and under-investigated. However, the existing studies point to significant challenges for top and middle management, including HR managers, who must equip and oversee employees and teams that operate across various locations and work environments.

The general management challenges identified in this review relate to ensuring access to high-quality, secure work tools and maintaining a trust-based organisational culture.

The first set of challenges involves the need to establish and support two distinct work environments for employees: the home office and the office at the employer premises. The need to install equipment in multiple spaces can increase costs for the organisation, but even more importantly, it requires that the organisation ensures proper hardware and communication tools, which can maintain the productivity and security level offered by the employer's workspace. In sales roles, this might include providing access to digital platforms that allow employees to register sales seamlessly while at customer premises, ensuring continuity and efficiency in their work regardless of location. Managers also need to organise technical support for staff and training on the secure and efficient use of the technology.

Maintaining a robust organisational culture in the hybrid work environment is another overarching challenge for the management. Employees working remotely risk missing out on the informal interactions that typically help build an organisational culture. On the other hand, managers may fear a loss of control and diminished coordination, which could reduce productivity. Building mutual trust is crucial in addressing these concerns and this effort is heavily influenced by the organisation's culture and the management style.

Hybrid work models have fundamentally changed **communication and collaboration** not only between team members but also between managers and employees as well as among managers themselves. These challenges include increased use of asynchronous communication leading to potential misalignment of goals, priorities and expectations. Other challenges include reduced informal and non-verbal communication, which can lower engagement and creativity; cognitive fatigue as a result of over-reliance on digital tools; cultural and communication gaps between in-office and remote workers; inequitable access of employees to communication technologies; and the added burden on managers to schedule tasks and adapt to the complexities of hybrid work dynamics.

In the area of **digital innovation and experimentation**, several challenges arise. Organisations must keep pace with fast-evolving technologies and carefully select the digital tools most suited to their needs. Managing hybrid teams also necessitates the use of digital tools to ensure consistent productivity across dispersed team members. Creativity may suffer in the absence of face-to-face interactions, making it difficult to sustain innovative thinking in remote or hybrid settings. Furthermore, increased reliance on digital tools heightens cybersecurity risks, requiring organisations to prioritise robust protective measures. Addressing these challenges demands that leaders and managers adapt their management approaches to support remote work and encourage digital innovation and experimentation.

Hybrid work arrangements have the potential to create asymmetries within teams and, more broadly, between organisations, highlighting disparities between those with abundant resources and those without. **Ensuring equity** in these contexts presents a significant challenge for management. Potential inequality within organisations can manifest as 'proximity bias', where leaders and managers tend to value and give more attention to physically present employees than remote ones. Additional challenges include integrating new team members without adequate personal interactions and ensuring that meetings provide equal access to information and opportunities for discussion for both remote and office employees.

In hybrid work, immediate and direct **monitoring of employees** working offsite is impossible; therefore, this challenge includes implementing alternative management methods for remote workers and fostering trust-based relationships with employees. Performance and productivity are key metrics used to measure and evaluate outcomes of work activities. In a hybrid work environment, it is crucial to solve the tension between employee control and autonomy and find a balance between them. There are studies showing that electronic performance monitoring does not improve worker performance but increases worker stress.

Most of the studies reviewed underline that **employee engagement** in hybrid work settings is negatively affected due to reduced in-person interactions and interactions only for job-related purposes. Remote work can become monotonous, leading to decreased communication, growing frustration, and difficulty maintaining focus, ultimately resulting in employee disengagement. Managers must develop new tools to maintain engagement and ensure that the level of autonomy in remote and office work is the same. Even more challenging is building engagement with new hires who lack networking opportunities.

The issue of **occupational health and safety** (from a managerial perspective) is discussed less than other challenges in the extant literature. Irregular working conditions at different locations may create new risks in hybrid work environments. More autonomy and flexibility in organising work can

empower remote workers to tailor their schedules to their preferences, enhancing job satisfaction and work-life balance. However, this increased autonomy can also lead to work intensification and blurred boundaries between work and personal life. In the context of the heightened responsibilities, the well-being of managers is also a significant concern. Managers may face a combination of emotional and practical demands, including the pressure to support team members' mental health, ensure equitable treatment in hybrid settings, and maintain productivity across diverse work environments. These responsibilities can lead to increased stress, burnout, and difficulty balancing their own work-life boundaries, emphasising the need for organisational support and resources to safeguard managers' well-being.

Effective strategies for managing hybrid teams

The management strategies for addressing the challenges of hybrid work include several activities cutting across the areas or dimensions identified in the early stages of this review. These strategies are tailored to align with the skills, knowledge and abilities of individual employees and managers as well as the resources available to the organisations.

To foster an organisational culture of trust and accountability, managers are required to assess regularly and adapt their strategies to meet the evolving needs of the hybrid workforce. This involves shifting their focus from micromanaging to outcome-based management, where employees are given the autonomy to manage their work and are held accountable for results.

Clear and open communication is achieved by holding regular one-on-one meetings with employees to discuss their progress, goals and challenges. Virtual social activities can also foster team bonding and collaboration. Involving employees in the design and adjustment of hybrid work arrangements ensures that their needs and preferences are met. To accommodate the diverse needs of employees, managers may introduce varied work designs and flexible task-based arrangements, depending on the nature of the work. These may involve adopting digital platforms for brainstorming, virtual whiteboards, and project management digital tools that are easy to use and accessible.

Performance management is also crucial in a hybrid work environment. Managers can address this by taking a more deliberate approach to assessing employee contributions and providing feedback. Well-designed and transparent policies emphasise inclusion and equity to help ensure that both remote and in-office employees feel equally valued and supported.

Furthermore, managers may prioritise employee well-being in a hybrid work environment by encouraging digital detox practices, such as limiting after-hours emails, implementing no-meeting days, and promoting regular screen-free breaks. These measures help prevent burnout and promote work-life balance. Establishing clear work boundaries, such as defined work hours and policies discouraging constant connectivity, can prevent employees from feeling overwhelmed and overworked. Additionally, promoting a culture of self-care and well-being, including initiatives like wellness programmes, mental health resources, and flexible scheduling, can support employees' physical and mental health.

If left unaddressed, the challenges of hybrid work may lead to negative consequences for both employees and the organisation as a whole, including lower engagement and motivation among employees, increased overwork and burnout, leading to lower productivity and higher turnover rates, and decreased job satisfaction and well-being among employees.

Knowledge gaps

Hybrid work is an emerging topic that has been studied extensively post-pandemic, though predominantly from the perspective of employees rather than management. Due to its novel nature, it evolves rapidly, and much of the existing research quickly becomes outdated, making it challenging to capture a comprehensive and current understanding. Moreover, the lack of longitudinal studies limits insights into the long-term effects of hybrid work, as most research to date focuses on short-term impacts.

A few gaps were encountered within the scope of the literature review, which focused on the organisational and managerial aspects of the implementation of hybrid work arrangements to the greatest extent possible. First, most of the reviewed literature was based on theoretical or normative insights into potential strategies organisations or managers could pursue in response to challenges, rather than on proven strategies. Therefore, it is difficult from the literature review to discern what is being practically implemented and measured or evaluated as good practice. This highlights the importance of conducting case studies to gain practical insights into what works and what does not.

Another significant gap relates to management challenges associated with specific hybrid work models. Only a few studies identified in the review suggest the potential variety of challenges associated with different hybrid work models. For example, related to the dimension of 'equity and inclusion', Hinds (2021) argues that the fully flexible and remote-friendly or remote-first hybrid models could quickly lead to status tiers of employees and significant inequities that favour those who are office-bound more often. Additionally, Wigert et al (2023) posit that the managerial challenges intensify as employees work remotely more frequently in hybrid arrangements, such as only one day on-site compared to their counterparts who are in the office three to four days per week. However, most of the literature lacks evidence linking specific challenges to particular hybrid work models. Rather, it tends to take a broader approach, discussing difficulties in relation to hybrid work arrangements as a whole. This is another limitation that case studies could address, providing insights into the challenges organisations face within their specific hybrid work models and how managers respond to them.

Thematically, another knowledge gap in the literature pertains to the occupational safety and health domain. Most of the studies reviewed focus on the challenges faced by employees. According to EU-OSHA (2023), there is a gap in knowledge regarding effective work organisation, management practices, and OSH management for hybrid workforces. Addressing this gap necessitates broadening the perspective of hybrid work beyond the usual perception as an individual activity experienced as a benefit (for example the ability to choose hybrid work according to individual preferences). Instead, it should be seen as a holistic activity encompassing multiple spaces and adopting a multidimensional and ergonomic perspective that includes collective organisational and social dimensions, such as team dynamics and work organisation.

Moreover, the well-being of managers warrants more attention in research. Empirical studies on experiences during COVID-19 have predominantly focused on employees' working conditions, with comparatively little emphasis on the experiences and well-being of those responsible for leading and managing teams during the pandemic. This gap is evident, as most studies examine well-being from the employee's perspective, rather than addressing the specific challenges managers face in supporting the well-being of the employees they manage or supervise.

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Annex: Methodological overview

Databases and sources consulted

The search for academic literature was primarily conducted through specialised scientific databases, including JSTOR, Google Scholar, and Web of Science. Grey literature was accessed through various institutional and organisational repositories, websites, and online libraries, such as the OECD iLibrary, ILO, European Trade Union Confederation (ETUC), EU Publications, and Eurofound publications.

Search terms and keywords

The review of studies on hybrid work, along with organisational policies and practices related to hybrid work, was conducted using search terms specifically tailored to the thematic areas - referred to as dimensions in this review - considered critical for examining the management challenges of hybrid teams. The search terms were formulated to ensure comprehensive coverage of relevant materials across multiple databases. The examples of keywords included generic keywords such as *hybrid work*, *telework*, *remote work*, *virtual work*, *hybrid work model*, *hybrid workforce*, *managing hybrid workforce*, *hybrid workforce challenges*, *management*, *executive*, *manager*, *line-manager*, *HR*, *leadership*, *managing*, as well as keywords pertaining to predefined thematic areas or dimensions such as *collaboration*, *communication*, *performance management*, *managerial control*, *employee engagement*, *digital innovation*, *experimentation*, *equity*, *inclusion*, *occupational safety and health*.

Inclusion criteria and analytical approach

The inclusion criteria for this study were established to ensure that only the most relevant and valuable sources were selected for in-depth analysis, aligned with predefined thematic areas pertinent to hybrid work models and their management. A systematic process was followed, utilising an analysis log to track and evaluate each source against the defined criteria.

An initial screening was conducted to narrow the number of sources aligned with the study's focus areas. During this stage, abstracts and executive summaries were reviewed. Sources discussing hybrid work models, the management of hybrid workforce, or organisational outcomes related to hybrid work were selected for further consideration, while irrelevant sources were excluded. The selected sources were then mapped in the analysis log for detailed assessment using framework analysis. These sources were categorised as 'highly relevant', 'relevant', or 'partially relevant' and organized in an analysis matrix in relation to the research questions.

Thematic analysis was employed to identify emergent categories and common themes within the collected material. Regular discussions among the research team facilitated a shared understanding of the material. Additionally, comparative analysis was used to develop a typology of hybrid work models, as well as the challenges and practices associated with hybrid work management. For example, this analysis distinguished between general challenges and those specific to certain sectors or dimensions. The comparative analysis also included cross-referencing information from different sources, such as determining whether challenges identified in one source were similarly addressed in others.

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