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Hybrid Work in the Public Administration: A Person-Environment Fit Analysis

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Abstract

This study examines the implementation of mandatory hybrid work in the Portuguese central government through the lens of Person-Environment Fit Theory, addressing a theoretical gap in public administration contexts beyond Anglo-American settings. Through reflexive thematic analysis of in-depth interviews with 21 senior managers across central government institutions, we investigate how hybrid work fundamentally reconfigures the four Person-Environment (PE) Fit dimensions in these bureaucratic environments. Our findings identify four interconnected dimensions critical to successful hybrid work adaptation: organisational framework, leadership and management, employee-centric factors, and digitalisation support. Rather than operating independently, these dimensions function as an interdependent ecosystem in which disruption cascades systemically. This systemic interdependence necessitates simultaneous intervention across all dimensions, fundamentally challenging human resource management orthodoxy. Our study reveals how traditional supervisory control mechanisms collapse under hybrid arrangements, forcing managerial reinvention that transcends established public sector hierarchies. Our theoretical contribution demonstrates how regulatory mandates reshape PE Fit dynamics in ways that voluntary adoption cannot capture, while revealing how public sector hybrid arrangements could serve as catalysts for geographic economic redistribution, offering solutions to Portugal's demographic challenges of rural depopulation and urban concentration.

Keywords: hybrid work; public sector; public administration; person-environment fit; Portugal**JEL:** H83, J24, J81, M12, O33

1. Introduction

The public sector research field remains predominantly concentrated in Anglo-American contexts, constraining theoretical development across diverse institutional environments (Liu et al., 2025). This limitation proves particularly problematic in examining the implementation of hybrid work, where its intersection with bureaucratic traditions generates unique challenges that resist generalisation from established empirical foundations (Gil-Garcia et al., 2018; Hammerschmid et al., 2023). Portugal offers a valuable counterpoint to this research focus, as its public administration has implemented mandatory hybrid work within a context of delayed digitalisation and centralised governance structures (Madureira and Rando, 2022).

Portugal's trajectory represents an atypical case where comprehensive hybrid work mandates preceded the development of a complete digital infrastructure (Madureira and Rando, 2022). The Portuguese Labour Code institutionalised hybrid work arrangements in 2020, creating regulatory frameworks that persist across all levels of the public sector (Portugal, 2021). This mandatory implementation contrasts with the voluntary adoption patterns studied predominantly in private sector contexts (Schmoll and

Süß, 2019), necessitating systematic adaptation regardless of individual preferences or organisational readiness (Ortiz-Lozano et al., 2022). Such externally imposed environmental changes necessitate theoretical frameworks that can explain the dynamics of fit under regulatory constraints, rather than employee-driven selection processes (Edwards, 2008).

Central administration managers provide essential perspectives for understanding these dynamics, given their proven influence on fit dimensions through organisational framework design and institutional response orchestration (Caplan, 1987). Previous research in bureaucratic settings has demonstrated that managers play crucial roles in navigating the re-regulation of work when traditional supervision methods become less applicable in remote arrangements (Taskin and Edwards, 2007). These managers navigate the tension between maintaining bureaucratic integrity and accommodating technological transformation, positioning them as critical informants for examining how public organisations recalibrate Person-Environment (PE) Fit during mandatory institutional change. As Caplan (1987, p. 248) establishes, fit improvement depends fundamentally on organisational actors who can enhance alignment through “commensurate dimensions, time perspectives, and mechanisms”.



Given this context, our research addresses the question: How do top managers in public administration successfully implement mandatory hybrid work? A qualitative research approach was employed, utilising in-depth interviews with 21 managers from various central governmental institutions in Portugal. This investigation advances two theoretical contributions. First, it addresses public administration literature by incorporating a less-explored cultural and national context, responding directly to Liu et al.'s (2025) critique of Anglo-American dominance in public sector research. Second, it extends the literature on PE Fit Theory to hybrid workplace contexts in underrepresented public administration contexts, demonstrating how the four fit dimensions require recalibration when work environments shift to hybrid work arrangements. This systemic perspective reveals that successful hybrid workplace implementation requires comprehensive strategies that address all dimensions simultaneously, rather than isolated interventions targeting individual fit components. The practical implications extend to regional development policy, as hybrid workplace arrangements in public administration can redistribute economic activity geographically, potentially addressing the challenges of rural depopulation and urban concentration that characterise contemporary Portuguese demographics.

2. Person-Environment Fit Theory and Hybrid Work in the Public Administration

The PE Fit Theory examines the dynamic interaction between individuals and their work environments (Caplan, 1987; Chalutz-Ben Gal, 2023). This theory posits that congruence between an individual's characteristics (encompassing values, skills, needs, and preferences) and the demands and resources of their environment produces positive outcomes such as enhanced job satisfaction, engagement, and well-being (Armitage and Amar, 2021; Kristof-Brown et al., 2005). The theory encompasses both complementary and supplementary forms of fit, where individuals either fulfil environmental demands or share similar characteristics with their environment (Caplan, 1987; Edwards, 2008; Kristof, 1996).

Scholarship adopts the perspective that fit represents a dynamic process that evolves as individuals and organisations adapt to changing circumstances (Caplan, 1987; Edwards, 2008). While traditional PE Fit research has predominantly examined static work environments characterised by consistent spatial and temporal boundaries (Kristof-Brown et al., 2005), contemporary organisational transformations introduce complexities that demand theoretical advancement. Hybrid work arrangements, which combine remote and on-site work modalities, create distinct environmental characteristics that may interact differentially with individual preferences and capabilities (Madureira and Rando, 2022). The PE Fit Theory provides the conceptual foundation for examining how indi-

viduals adapt to multiple work environments and organisational outcomes.

The theory encompasses four dimensions that address compatibility between individuals and aspects of their work (Caplan, 1987; Chuang et al., 2016; Kristof-Brown et al., 2005). Person-Job Fit examines the alignment between individual competencies and job demands, as well as between personal needs and job-supplied resources, through the mechanisms of demands-abilities and needs-supplies (Kristof-Brown et al., 2005). Public sector research indicates that this dimension has a significant impact on work motivation and performance outcomes (Steijn, 2008). Contemporary work arrangements that require employees to perform effectively across multiple environments demand broader skill sets, encompassing traditional administrative capabilities and digital competencies, which fundamentally alter the nature of job-person alignment.

Person-Organisation Fit addresses the congruence between an individual's values and an organisation's culture, mission, and objectives (Caplan, 1987; Kristof, 1996). Research demonstrates that public sector organisations exhibit distinct value orientations toward public service motivation (Steijn, 2008). On the other hand, Person-Group Fit assesses the compatibility between individuals and their work teams in terms of interpersonal relationships, communication patterns, and collaborative processes (Kristof-Brown et al., 2005; Seong and Kristof-Brown, 2012). Recent research reveals that remote and hybrid work arrangements fundamentally transform team dynamics and collaborative mechanisms (Hincapie and Costa, 2024; Mele et al., 2021; Wiatr and Skowron-Mielnik, 2022).

Person-Supervisor Fit examines the alignment between subordinates and supervisors regarding leadership styles, expectations, and working relationships (Kristof-Brown et al., 2005). Research reveals supervisory challenges in remote and hybrid work environments, requiring adaptation of traditional management approaches (Ortiz-Lozano et al., 2022). Leadership extends beyond direct supervisor-subordinate relationships to encompass broader organisational responsibilities for facilitating PE Fit across all dimensions (Caplan, 1987; Edwards, 2008). Leaders shape job designs, team dynamics, and organisational cultures that either support or hinder optimal PE Fit (Kristof, 1996). Hence, effective leaders should simultaneously attend to job design considerations that support Person-Job Fit, cultural initiatives that strengthen Person-Organisation Fit, team development activities that enhance Person-Group Fit, and supervisory practices that optimise Person-Supervisor Fit (Kristof-Brown et al., 2005), particularly within public sector contexts where service delivery quality depends heavily on employee engagement (Brennan et al., 2024) and motivation (Steijn, 2008).

Within public sector settings, specifically, the fit dimensions differentially predict outcomes, with Person-Job Fit demonstrating particularly strong relationships with per-

formance indicators (Steijn, 2008). Research also reveals significant transformations in public sector work arrangements, including widespread adoption of remote work capabilities and digital service delivery mechanisms (e.g., Ortiz-Lozano et al., 2022). Given its comprehensive coverage of multiple alignment dimensions, dynamic conceptualisation of PE congruence, and capacity to address both structural and relational transformations, PE Fit Theory provides a particularly robust theoretical lens for examining how public administration institutions navigate the complex reconfiguration of work arrangements inherent in hybrid digitalised environments.

3. Research Design

Our research design is anchored in the social constructivism paradigm, acknowledging the socially constructed nature of organisational realities (Gioia et al., 2013). We ensure methodological rigour and enhance the credibility of our findings by adhering to transparency principles and maintaining systematic documentation (Tracy, 2010). This includes recording notes during interviews, creating memos, and holding regular discussions among researchers throughout our data collection and analysis processes. This approach facilitates a rich, contextualised understanding of the phenomenon and permits theoretical insights that may extend beyond the immediate empirical setting to inform broader debates on public sector transformation (Gehman et al., 2018).

The complex and context-dependent nature of hybrid work implementation in public administration necessitates an exploratory, qualitative approach as recommended by Pratt (2009). This methodological choice aligns with our aim to elucidate managers' nuanced experiences and perspectives navigating this organisational transformation (Hammerschmid et al., 2023), particularly crucial given Portugal's position as a digital laggard within the European Union (EU; Madureira and Rando, 2022), where traditional theoretical frameworks may inadequately capture the unique challenges of rapid technological adoption in bureaucratic settings.

3.1 Context: The Portuguese Public Administration

Portugal presents a compelling case for examining hybrid work in public administration for several reasons. The Portuguese public administration is characterised by a high degree of centralisation, with the central government accounting for more than three-quarters of the workforce in 2022 (DGAEP, 2023b). Furthermore, Portugal lags behind many of its European counterparts in digital public services, experiencing 10% fewer citizen-public administration interactions than the EU-27 average (European Commission, 2021). This digital gap creates a unique opportunity to study the challenges and strategies of rapid digitalisation. Additionally, the public sector in Portugal employs a significant portion of the workforce, with the central

government representing over three-quarters of public employment (DGAEP, 2023b). Beyond the centralisation and digital gap previously noted (Madureira and Rando, 2022), the Portuguese public administration possesses unique demographic characteristics, including an ageing workforce (27% aged 55–64), high levels of feminisation (62% female), and extensive educational qualifications (61% with higher education degrees), which together create distinctive conditions for hybrid work (DGAEP, 2023a).

The substantial presence of the public sector enhances the potential impact of digitalisation and hybrid work policies. The transformation of Portugal's public administration stands as a critical case study within the broader European context of digital governance reform (Madureira and Rando, 2022). The recent implementation of national digitalisation programmes in Portugal (Portugal, 2021) provides a pertinent context for analysing the effects of such initiatives (For more information, see Article 166-A (1), (2), (3) and (5) of the Portuguese Labour Code). For instance, the Portuguese public administration's national programme for digital transition is a recent development, having only been published in the Republic Diary on 21 April 2020. The programme is founded on three key pillars: (i) training and digital inclusion of individuals, (ii) digital transformation of businesses, and (iii) digitalisation of the State (Presidência do Conselho de Ministros, 2020). These pillars are backed by four major measures: (i) implementing a cloud strategy for public administration, (ii) simplifying the procurement of Information Technology (IT) services, (iii) providing digital services in English, and (iv) ensuring the usability and digital accessibility of public services (Portugal, 2021). The implementation of these measures is anticipated to enhance the quality and efficiency of public services in Portugal, thereby promoting the country's digital economy (Portugal, 2021).

3.2 Methods and Materials

The sample was purposefully selected and employed the snowball technique (Marshall et al., 2013). Twenty-one senior managers were purposively selected through institutional networks and official directories, supplemented by snowball sampling to ensure comprehensive representation across hierarchical levels and functional areas within Portuguese central administration (Table 1). This sampling strategy addressed the need to capture strategic decision-making perspectives while maintaining sufficient diversity to achieve theoretical saturation.

Data were collected over a three-month period through interviews using a semi-structured script developed by the authors. The interviews were conducted in Portuguese; after transcription, they were translated into English. The questions were designed to elicit unrestrained responses, such as "What changes have you made to your organisational policies and procedures to accommodate the off-site work environment?" and "How do you ensure that off-site

employees are adequately supported regarding their physical and mental well-being?”.

Microsoft Teams was used to conduct and record interviews to minimise the interviewer’s influence, including ensuring better interviewer uniformity in delivery, standardising questions, reducing interviewer effects, and enhancing cost-efficiency (Shuy, 2001). However, we acknowledge potential limitations, including reduced non-verbal communication cues. We collected informed consent for the recording and transcription. To uphold the authenticity and credibility of individual narratives, the interviews were conducted in a non-judgmental manner, with stringent assurances regarding confidentiality. Throughout the interviews, participants’ responses were cross-verified, particularly in cases where descriptions or assertions were inconsistent. The data amassed encompassed direct elucidations, portrayals, and representations from the participants captured using their words.

This research concurs that saturation is achieved “when the study can be replicated with the available information, no new information can be gleaned, and additional coding becomes impractical” (Fusch and Ness, 2015, p. 1408). Thus, data collection ceased when we reached theoretical saturation (Fusch and Ness, 2015), a point at which new interviews predominantly echoed previously identified themes without yielding substantial novel insights, indicating that our sample had captured the range of experiences relevant to our research question. The participation of twenty-one interviewees in the study allows for adequate focus on data gathering and analysis, leading to significant conclusions (refer to Marshall et al., 2013). In addition, two researchers participated in the codification and translation processes to safeguard and assess the quality during the data analyses.

This manuscript is part of a larger project funded by the Portuguese Foundation for Science and Technology (FCT, UIDB/00713/2020), which includes several related investigations. The interview dataset used here (21 senior managers from the Portuguese central public administration) is the same dataset analysed in a book chapter of the project’s Portuguese-language final report (Rocha et al., 2024). That chapter offered an initial, largely descriptive thematic account structured around five practitioner-oriented themes. The present study extends this preliminary exploration by re-analysing the data through a fully documented six-phase reflexive thematic analysis, integrating the findings into the four dimensions of Person-Environment Fit Theory as an interdependent theoretical system, and advancing a theoretical argument—supported by an expanded engagement with the public administration and PE Fit literatures—about how regulatory mandates (rather than voluntary adoption) reconfigure person-environment fit in bureaucratic contexts.

4. Analysis of the Results

4.1 Characterisation of Interviewees and Organisations

After interviewing twenty-one managers from various central government institutions in Portugal (see Participant Characteristics in Table 1), the over 15-hour interviews (averaging 44.71 minutes per interview) were transcribed into over 13,000 words, resulting in a 265-page dataset (for the report in Portuguese see Rocha et al., 2024).

According to the characteristics of the participants presented in Table 1, our sample accurately reflects the population demographics, consisting of 62% female and 38% male participants. In terms of age distribution, 24% of the participants are classified as millennials, 57% belong to Generation X, and 19% are categorised as Baby Boomers. Furthermore, regarding the educational qualifications of the participants, 52% possess a bachelor’s degree, 43% have attained a master’s degree, and 5% have earned a PhD.

4.2 Reflexive Thematic Analysis

We employed Reflexive Thematic Analysis, following Braun and Clarke’s (2006, 2012) framework, which was selected for its theoretical flexibility and capacity to generate rich interpretative insights from complex qualitative data (Byrne, 2022). This approach proved particularly suitable for exploring hybrid work in the central government, allowing themes to emerge from both theoretical expectations and empirical discoveries.

Our analysis followed a systematic yet recursive process across six phases (Braun and Clarke, 2006). Phase 1 (*Familiarisation*) involved repeated reading of transcripts by both researchers, with initial observations documented in analytic memos. For example, early readings revealed unexpected emphasis on trust-building mechanisms that extended beyond traditional hybrid work literature. Phase 2 (*Initial Coding*) generated 67 preliminary codes using both theory-driven approaches (drawing from PE Fit Theory dimensions and pre-established themes on hybrid work from the literature, e.g., Wiatr and Skowron-Mielnik, 2022) and data-driven insights. Codes such as ‘digital culture adaptation’ and ‘virtual relationship maintenance’ emerged directly from participant narratives. Phase 3 (*Theme Development*) involved collating codes into 15 candidate themes, with visual mapping techniques used to identify relationships between codes. It enabled us to conduct a thorough analysis, striking a balance between the need for theoretical coherence and the ability to uncover new insights. Phase 4 (*Theme Review*) refined these to four coherent themes and 11 codes through iterative checking against both individual extracts and the complete dataset. For instance, initially separate themes of ‘communication adaptation’ and ‘relationship building’ were integrated under ‘Building Meaningful Relationships’ when analysis revealed their interdependence. Phase 5 (*Theme Definition*) established four overarching dimensions with clear definitional boundaries, ensuring each captured a distinct aspect of hybrid work and

Table 1. Characterisation of interviewees and organisations.

ID	Duration of the interview	Sex	Age	Education level	Time in the organisation	Time as a manager	Number of employees supervised	Organisation dimension
1	70 min	M	40	Master	4 years	3 years	25	>230
2	54 min	M	48	Master	11 years	6 years	4	280
3	26 min	F	47	Bachelor	4 years	3 ½ years	3	270
4	46 min	F	60	Master	35 years	26 years	54	>4000
5	56 min	M	35	Master	12 years	10 years	90	90
6	28 min	F	48	Master	5 years	5 years	30	230
7	43 min	F	59	Bachelor	9 years	9 years	38	174
8	50 min	F	61	Bachelor	34 years	11 years	23	>400
9	31 min	M	42	PhD	3 months	3 months	3	90
10	43 min	F	49	Master	20 years	1 ½ year	7	90–100
11	22 min	M	47	Bachelor	24 years	18 years	12	>3000
12	18 min	F	43	Bachelor	3 years	1 year	16	90
13	52 min	F	49	Master	1 year	1 year	40	120
14	55 min	F	45	Master	3 months	3 months	6	84
15	50 min	M	58	Master	7 years	5 years	8	80
16	40 min	F	40	Bachelor	5 years	5 years	10	80–90
17	62 min	M	64	Bachelor	35 years	30 years	26	400
18	48 min	F	39	Bachelor	12 ½ years	11 years	15	280
19	40 min	F	45	Bachelor	14 years	6 years	6	1748
20	58 min	F	51	Bachelor	27 years	8 years	23	>3700
21	47 min	M	50	Bachelor	5 years	3 years	550	550

Source. Created by the authors. M, Male; F, Female.

digitalisation implementation. Phase 6 (*Reporting*) constructed the analytical narrative presented in our findings, maintaining close alignment between themes and empirical evidence.

5. Findings

Our reflexive thematic analysis of the interviews with Portuguese public sector managers revealed four key dimensions shaping hybrid work and digitalisation: Organisational Framework, Leadership and Management, Employee-Centric Factors, and Digitalisation Support. These dimensions provide a comprehensive view of the challenges, strategies, and outcomes associated with transitioning to hybrid work models and digital processes in the public sector.

The themes from the reflexive thematic analysis and illustrative quotes from interviewees are displayed in Table 2. This presentation aligns with Braun and Clarke's (2006) method, offering a transparent view into our analytical process and the lived experiences of public sector managers navigating digitalisation and hybrid work. This presentation of data providing transparency and rigour to our qualitative analysis (Tracy, 2010) not only substantiates our findings but also allows readers to engage directly with participants' voices, enhancing the credibility and transferability of our research (Gehman et al., 2018).

In the following subsections, we explore each of these dimensions in detail. We begin by examining the Organisa-

tional Framework, which encompasses structural and relational aspects of hybrid work. We then move into Leadership and Management, focusing on the evolving roles of public sector leaders in this new work paradigm. The Employee-Centric Factors section highlights the impact of these changes on public servants' well-being and performance. Finally, we investigate the Digitalisation Support mechanisms that underpin these transformations. Throughout, we draw on our interviewees (i) to provide nuanced insights into the lived experiences of public sector managers navigating this significant organisational change.

5.1 Organisational Framework

5.1.1 Building Meaningful Relationships

The transition to hybrid work arrangements has impacted developing and maintaining meaningful relationships within Portuguese central public administration teams. To address this challenge, managers have implemented various strategies to preserve a humanised organisational environment. For instance, one organisation instituted a monthly social gathering called "Café INA" on the last Thursday of each month. This event serves multiple purposes: celebrating employee birthdays, welcoming new team members, and providing a forum for open discussion on organisational matters (i16). Such initiatives foster a sense of belonging and strengthen team cohesion in the new work paradigm.

Table 2. Quotes from the interviewees by theme.

Dimension	Second order	First-order	Quote
Organisational framework	Collaborative Work Environment	Building Meaningful Relationships	“There were even funny situations here; people here decided to have a virtual coffee in the morning. They set a time for everyone to meet, so they had coffee, each in their own home but in a virtual sharing.” (i4)
		Nurturing Effective Communication	“I don’t know if it matters, but for example, I’m always careful to hold a weekly meeting with the whole team, I try to make it face-to-face, sometimes it’s not possible because I was saying that we have a lot of questions about events and so on and I do it online eventually, but I like... I don’t like people to be loose in the sense that they don’t get any feedback from me or it’s only by email, I like there to be this contact, I value it a lot.” (i14)
	Empowered Work Structure	Continuous Autonomy	“We are obliged to exercise trust, and I think this goal will be highly benign because this exercise of trust is associated with an exercise of accountability. The worker feels that they have an increased responsibility since they do not have anyone to micromanage them; in other words, they must raise the standard of their performance and the level of their functional content.” (i5)
Leadership and management	Adaptive Leadership Approach	Hybrid Leadership Dynamics	“I think the only advice I’d give, Raysa, is not to forget that even though people aren’t there in person, people are people. People have emotions, people have feelings, people have desires, people have ambitions, people want to be well, and we can’t forget that even though people aren’t conscious in person every day, they are there and it’s them that we must look after, and we must take care of.” (i13)
	Trust-Based Management	Motivation via Trust	“I’m communicating to my organisation that today we want to be a people-oriented organisation, that our principle is to trust people and hold them accountable, that we want to promote real strategic alignment, in which people understand their part in the process and their part in the whole and that they share an ambitious vision.” (i5)
Employee-centric factors	Work-Life Integration	Promoting work-life balance	“Why should a mother take time off work to be at home with her children if she can be at home working? [...] there are those situations in which the children have chickenpox, the children have rubella, those children’s illnesses in which people must take care of the family, they are going to lose part of their salary which, unfortunately, is less and less given the life we are living, and the person can actually be teleworking.” (i13)
		Employee Well-being	“Our human resources department was very proactive in providing people with alternatives. In other words, they are done in packages of well-being that a person could join or not join. Even today, for example, some people do yoga online. Or sessions that had more to do with mental health. They were very proactive in putting in place some activities and tools that allowed people who wanted to, nothing is compulsory. So, they launched it, and people who want to join, join. Then, as managers, give people the freedom to join in. (...) they have made many people aware of mental health issues, exercise, and take breaks at work. We are always concerned about this, and our Human Resources are very active in this area.” (i20)
	Outcomes	Job Satisfaction	“From the feedback we have from employees, they are satisfied with the system that is currently in place. We usually do a yearly questionnaire to find out about employee satisfaction and find out if they would like to change anything, to give suggestions for making some changes.” (i13)
		Employee Performance	“Yes, I think that’s the main thing about teleworking, what motivates people and what makes people like teleworking is exactly that balance, that equilibrium. [...] It [employee performance] has increased. [...] Because of the more timely response and the number of courses available—I am in training—that aspect will be increased.” (i12)
	Technological Infrastructure	Resources for Digitalisation	“There was a supply of hardware, computers, cameras, discs, and everything necessary to create the post as if it were at work.” (i1)
Digitalisation support	Digital Capability Development	Training for Digitalisation	“The first thing that was done, which I think was a very good thing, was to try to train the workers at the hardware and software levels. When I say that, I mean create the conditions for people to have a workstation at home, with a computer and access to the internet. Secondly, teach people how to use virtual communication platforms, for example, Microsoft Teams.” (i1)

Source. Created by the authors.

People need to feel that even when they are far away, the manager is interested in them, not just monitoring what they are doing. It is not monitoring; it is being interested because we have several people working remotely, so we have to do this follow-up. Sometimes, there are people with whom we do not speak for one or two days. However, it is important not to go much longer than that without contacting the person so that people feel that they are accompanied and [the manager] has the availability. (i6)

Public servants have also taken the initiative to maintain social connections in the virtual realm. One interviewee described how employees organised virtual coffee breaks, scheduling time in the morning to bond with colleagues off-site (i4). These informal interactions help bridge the gap created by physical distance and maintain team spirit.

Integrating new leaders or team members into established hybrid teams presents unique challenges. Most interviewees reported that their teams had worked together in person long before transitioning to hybrid work, allowing them to maintain pre-existing relationships through online interactions. However, leaders who assumed their positions after implementing hybrid work faced the additional challenge of building connections with their teams in a predominantly virtual environment (i13).

Some organisations have implemented regular in-person gatherings to combat social isolation and maintain team cohesion. These events provide opportunities for face-to-face interactions, which are seen as crucial for maintaining personal connections and organisational culture. One manager emphasised the importance of these gatherings, noting that they help address the psychological impact of prolonged off-site work on some employees (i13).

5.1.2 Nurturing Effective Communication

Research shows that effective digital communication in remote settings depends on how users interact with communication technologies, particularly influenced by job characteristics (Fuchs and Reichel, 2023). Managers have implemented various approaches to ensure effective communication in this new work paradigm. Regular virtual meetings have become a cornerstone of team communication. One manager emphasised the importance of weekly team meetings, preferably face-to-face, to maintain personal contact and provide feedback. These meetings are a vital touchpoint for team members, fostering a sense of connection and alignment (i14).

We do not realise that people are far away, and sometimes the screens do not make it clear. So this

very close communication, in fact, is fundamental in managing hybrid work, communication, being clear about the objectives and the results you want to achieve, and there is also communication at the department level, so people get together in a way... it is systematic communication, there are department meetings here once a month, or once every fortnight, so that people themselves can have a dialogue with each other and try to identify solutions to problems together. (i10)

Digital collaboration tools have been widely adopted to facilitate off-site work. Platforms such as Zoom and Microsoft Teams are now extensively used for meetings and file sharing. Some organisations have embraced innovative approaches to virtual collaboration, such as using digital whiteboards for design thinking exercises and conducting co-creation workshops in virtual breakout rooms (i9). The hybrid nature of current work arrangements has led to hybrid meetings, where some participants are physically present while others join online. This format has become increasingly common, requiring adaptations in meeting facilitation and technology use (i9). Despite the shift towards virtual communication, many managers still recognise the importance of face-to-face interactions for certain discussions. There is an acknowledgement that in-person meetings can be more effective for specific tasks, leading to efforts to coordinate on-site days to maximise opportunities for face-to-face collaboration (i14).

The transition to hybrid work has also prompted changes in communication norms. For instance, one organisation implemented a policy of not sending emails after 6 pm, with messages scheduled for delivery the following morning. This approach aims to reduce stress and maintain work-life boundaries for employees (i13).

5.1.3 Continuous Autonomy

The shift towards hybrid work has highlighted the importance of pairing autonomy with responsibility. Managers emphasise that the success of these flexible arrangements depends on employees meeting business needs and delivering results. One interviewee noted that their work is primarily project-based, allowing teams to organise themselves effectively regardless of physical location (i11). This aligns with research emphasising the need for employee autonomy over excessive formalisation in hybrid work (Kulik, 2022).

There is a level of autonomy that is necessarily greater due to the distance, which is beneficial in the long term. It is more pronounced in profiles that are better prepared, more oriented, and more committed, which is noticeable within the organi-

sation. The main advantages are that it is perceived as a mechanism for trust and recognition, as well as a source of increased flexibility and autonomy. (i5)

This increased autonomy has led to a shift in management practices, with a greater focus on trust and accountability. As one manager expressed, exercising trust is associated with an increased sense of responsibility among workers. Without constant supervision, employees are expected to raise their performance standards and take greater ownership of their work. This approach is particularly effective with well-prepared, motivated, and committed employees (i5).

Imagine that an ordinance has been published for a certain type of training. I am going to have to make regulations. I am going to assign a team to do this work, and they will have to work either face-to-face or online. They will need to organise themselves to respond to that request. The work here is very project-based when involving teams of people working together. (i4)

The shift to hybrid work has changed performance evaluation from assessing physical presence to focusing on outcomes (Wiatr and Skowron-Mielnik, 2022). This transition requires clear communication of expectations and ongoing performance discussions to align individual and organisational goals (Hincapie and Costa, 2024). Organisations face challenges, including resistance from employees who favour traditional work styles or struggle with the technology needed for remote work, reflecting past findings in the public sector (Madureira and Rando, 2022). Leaders must balance employee autonomy with accountability while considering how workplace flexibility impacts organisational appeal and employee acceptance (Schmoll and Süß, 2019). This transformation marks a shift in Portuguese public administration from presence-based supervision to a results-focused, trust-based approach (Hincapie and Costa, 2024). It aligns with public sector modernisation trends, where bureaucratic controls are being replaced with more flexible, trust-oriented management practices (Madureira and Rando, 2022), though success relies on the alignment of structural conditions and control systems (Schmoll and Süß, 2019).

5.2 Leadership and Management

5.2.1 Hybrid Leadership Dynamics

The transition to hybrid work has necessitated significant adaptations in leadership approaches within the Portuguese public administration. Managers have had to develop new strategies to lead teams distributed between off-site and on-site settings effectively. Regular check-ins and individualised support have become crucial components

of hybrid leadership. One manager described maintaining daily contact with team members through various digital platforms, including video calls, phone conversations, and emails. This frequent communication helps maintain team cohesion and ensures off-site workers remain connected to the organisation. Additionally, this manager emphasised the importance of scheduling regular face-to-face team meetings to reinforce team spirit and internal cohesion (i9).

Although the rule [hybrid work] applies to all employees, managers usually go there practically daily. (...) I am there; as I was saying, I usually spend one day teleworking. I try to spend one day not teleworking, hybrid, right? I try to stay one day, but sometimes I cannot and, as a rule, all my colleagues are there too, so I think that is a curiosity; I do not know if you have that note or not. (i14)

Adaptable management practices based on employee preferences and needs have emerged as a key aspect of effective hybrid leadership. Leaders recognise the importance of clear communication regarding expectations and performance levels. They also emphasise the need for ongoing dialogue to understand and address any difficulties employees may be experiencing in meeting their objectives. Moreover, managers are encouraged to be attentive to their team members' well-being, acknowledging that the physical distance in hybrid work can sometimes obscure personal challenges (i10). Additionally, the general and open regulation about hybrid work created challenges between transversal teams working under diverse leadership.

This [the generic rules about hybrid work] generated much dissatisfaction and many conflicts, and when we drew up these regulations, which were thought up and shared by everyone, we came to an understanding. Now everything is calm; there is no problem. We also went down this road of some disorganisation because we do not have any regulations, and everyone decides for their own teams; we also have the competence to decide, don't we? (i4)

The shift to hybrid work has also highlighted the need for leaders to develop new skills and competencies. Some organisations have implemented mandatory leadership training programs to ensure that managers are equipped to handle the challenges of hybrid team management. These programs often focus on developing skills beyond technical expertise, recognising that effective leadership in a hybrid environment requires a different skill set than traditional in-person management (i5).

Leading by example and maintaining close contact despite physical distance has become a hallmark of successful hybrid leadership. Managers are advised to remember that their team members are individuals with emotions, feelings, desires, and ambitions, even when not physically present in the office. This human-centric approach to leadership is crucial for maintaining employee well-being and contributing to the overall health of the organisation and, by extension, society (i13).

Attention to well-being and isolation risks in off-site work has become a significant focus for hybrid leaders. Managers are encouraged to support hybrid work while remaining vigilant for signs of distress or disconnection among team members. The importance of providing support and maintaining closeness despite physical distance is emphasised, with mental health identified as a crucial concern in the hybrid work environment (i11).

5.2.2 Motivation via Trust

Managers have recognised that traditional supervision methods are less effective in a distributed work environment, necessitating a focus on results and outcomes rather than physical presence. Leaders have emphasised providing autonomy and flexibility to employees, allowing them to manage their work schedules in ways that best suit their circumstances. This approach has particularly benefited employees with caregiving responsibilities or other personal commitments (i13).

I also have a management profile of maximum freedom and maximum responsibility, so I give people total freedom; I do not control, I do not control people, so I trust I do not control. People are grown up, and I do not control whether they are at home or not.... Now, when I ask them to do a job for me, and it is not just to hand over something, so it is a job well done, with responsibility, as long as that happens, that is fine with me; keep trusting, when that stops happening, then maybe the control will become tighter, or others, or the person who has to be called to account. (i10)

Supportive management practices and individualised approaches have become crucial in maintaining employee motivation. Managers have focused on understanding each team member's unique needs and circumstances, adapting their leadership style accordingly. This personalised approach has helped maintain team cohesion and productivity in the hybrid work environment (i9).

A key aspect of motivation via trust has been the alignment between organisational and individual needs. Managers have strived to create a work culture prioritising trust, accountability, and strategic alignment. This approach aims

to ensure that employees understand their role in the broader organisational context and share in the organisation's vision (i5).

The shift towards trust-based motivation has also involved recalibrating performance metrics and expectations. Instead of focusing on time spent working, managers are increasingly evaluating employees based on their ability to meet objectives and deliver quality work. The hybrid work model has facilitated this outcomes-focused approach, which naturally emphasises results over presence. However, the implementation of trust-based motivation strategies has not been without challenges. Some managers have reported difficulties maintaining team cohesion and ensuring consistent performance across off-site and on-site settings. Organisations have invested in training programs to address these challenges, helping leaders develop the skills necessary for effective hybrid team leadership.

5.3 Employee-Centric Factors

5.3.1 Promoting Work-Life Balance

Adopting hybrid work models in Portuguese public administration has significantly enhanced the work-life balance for public servants, prompting managers to implement various supportive strategies. Central to these efforts are flexible work arrangements, allowing employees to adjust their schedules to accommodate personal needs. As one manager noted, team members can structure their workday flexibly, provided tasks are completed and deadlines are met (i13). This approach has proven particularly beneficial for employees with caregiving responsibilities. This flexibility is complemented by reduced commuting time, widely recognised as a major benefit of hybrid work. Managers have observed that eliminating daily commutes, especially in urban centres like Lisbon, has reduced stress and improved many employees' overall quality of life (i8). The time saved from commuting can now be reallocated to personal or family activities, further enhancing work-life balance.

I notice that with the mixed teleworking system, people are more motivated, because we make their lives easier and help them reconcile their personal and professional lives. (i18)

Organisations have implemented policies to protect employees' personal time to reinforce the separation between work and personal life. For instance, one department established a rule against sending work-related emails after 6 p.m., with messages scheduled for delivery the following morning (i13). This policy aims to reduce work-related stress and maintain clear boundaries, an essential aspect of work-life balance in a hybrid setting. Some institutions have extended their support for work-life balance by offering additional benefits, such as time off for employees' birthdays or attending important events in their chil-

dren's lives (i4). These policies demonstrate a commitment to recognising and supporting employees' personal lives beyond traditional work-life balance measures.

We are concerned about not contacting people outside of their usual working hours, giving time off on their birthday, giving time off for half a day on the birthday of children or people who live in the same house with these people. We try to consider these issues, and even the allocation of a laptop is not only a work tool but also a conciliation measure, allowing a person to have greater flexibility in managing their personal and professional life. So, they are not tied to that fixed computer and can only work if they are physically present in the institution. (i4)

The impact of hybrid work on parenting roles has been particularly noteworthy. Managers have acknowledged the benefits for working parents, especially mothers, as the flexibility allows for better management of childcare responsibilities without compromising professional duties (i13). This has been invaluable during situations such as children's illnesses, where traditional work arrangements might have necessitated taking leave. Some organisations have introduced holistic initiatives such as online yoga sessions and mental health support programs to support employee well-being further. Human Resources departments have proactively offered these "well-being packages", allowing employees to opt in to activities that suit their needs and preferences (i20). These initiatives complement the flexibility of hybrid work, providing additional resources for maintaining work-life balance. However, managers have also recognised that work-life balance needs vary among employees. While many benefit from hybrid arrangements, some public servants prefer to work on-site full-time, finding it more conducive to their well-being and productivity. Organisations have sought to accommodate these individual preferences while maintaining overall flexibility (i13), demonstrating a nuanced approach to promoting work-life balance.

5.3.2 Well-Being, Job Satisfaction and Performance

Employee well-being has been a key focus in implementing hybrid work models. Organisations have introduced various initiatives to support both physical and mental health. For instance, one department offered weekly online gymnastics classes for stretching and posture improvement, though participation waned over time (i13). To address mental health concerns, some organisations have implemented psychological consultation services, recognising the potential challenges of off-site work on employee mental well-being (i13).

Firstly, I think it is clear that there is a greater reconciliation of professional, personal, and family life, is not there? The fact that people do not come... even more in Lisbon, they do not come to the city centre and waste an hour or two each way, is effective... and people really value that. [...] I think people are more flexible because they do not have to waste time. I think people are also better able to manage their pace of work. They have more flexibility. (i4)

Job satisfaction has generally increased with the adoption of hybrid work arrangements. Managers have observed that the flexibility offered by hybrid work has contributed to higher levels of employee satisfaction. One interviewee noted that their organisation conducts annual satisfaction surveys, showing positive responses to the current hybrid system (i13). The ability to better balance work and personal life has been a significant factor in this increased satisfaction.

We have five or six people who go to work every day because they feel better, they don't want to be at home, and they're welcome just like everyone else. So, we have to realise that each person is different, each person has their own way of being. (i13)

The impact on performance has been largely positive, although experiences vary across individuals and teams. Some managers reported increased productivity and efficiency gains when proper planning and organisation were in place (i9). The shift to hybrid work has necessitated a focus on deliverables and objectives, which has helped streamline processes and maintain high-quality and productivity standards.

I have seen everything in terms of performance, i.e. people who produced much more when they were remote, people who disconnected from work when they went remote, and people who maintained the same level of performance. (i9)

The shift to hybrid work has not been without challenges. Some managers have observed varied individual responses to off-site work, with some employees thriving while others struggled to maintain their previous performance levels (i9). There are also concerns about the potential risks of isolation, disconnection, and reduced team cohesion in entirely off-site settings (i10). Despite these challenges, many managers view the hybrid model as the best balance of organisational and individual performance. It allows for the flexibility and autonomy that employees

value while maintaining opportunities for in-person collaboration and team building. One manager expressed confidence that hybrid work is here to stay, though the specific arrangements may continue to evolve based on ongoing experiences and research (i14).

5.4 Digitalisation Support

5.4.1 Resources for Digitalisation

The transition to hybrid work in the Portuguese public administration necessitated relevant changes in resource allocation and infrastructure, with organisations demonstrating varying levels of preparedness. Some departments, already embracing digitalisation, smoothly adapted their systems and equipment, while others faced rapid adaptation challenges. Thus, providing adequate hardware emerged as a crucial first step for many departments. One organisation proactively supplied employees with computers, cameras, and other necessary equipment to create functional home workstations (i1). This approach ensured off-site workers had access to tools comparable to those in the office, facilitating a seamless transition. Some institutions went further, quickly enabling workers to have improved conditions to those in the office, positioning themselves as pioneers in supporting hybrid work (i18). However, the transition was not uniform across all departments. Sometimes, employees had to use personal equipment and even pay for necessary software such as antivirus programs (i10). This disparity in resource allocation underscores the challenges some departments faced in rapidly adapting to the new work paradigm.

So, in terms of equipment, infrastructure, and everything else, I think that my organisation, in this sense, was very pioneering and very quickly enabled workers to have all the conditions. Even more than many people sometimes have in the office, right? So, there were no difficulties there; it was easier for me. (i18)

Meanwhile, the workers had to use their own equipment to work remotely. In some of these organisations, the workers still use their equipment and pay for the required antivirus software, for example.

We must pay for the antivirus ourselves, and it cannot be just any antivirus, so the worker must pay for it. That is it. Oh, and another thing that has happened is that calls have been forwarded to the workers' phones; in other words, all the calls that go to our phones at work are automatically forwarded to our personal phones. (i10)

Organisations have also invested in upgrading their digital infrastructure to support the shift to hybrid work. Improvements to Virtual Private Network systems have en-

sured secure and reliable access to work resources from remote locations, maintaining data security and enabling seamless off-site work (i15). Some departments have extended their support to include ergonomic home office setups, providing chairs and other essential equipment to employees experiencing physical discomfort due to inadequate home office furniture (i7). Accordingly, all this variance in technological readiness across departments aligns with the findings of Roman et al. (2019), which indicate that success in public e-leadership heavily depends on technological infrastructure and security capabilities.

5.4.2 Training for Digitalisation

Some institutions focused on equipping employees with skills to use software and hardware effectively in off-site settings. This included training on setting up home workstations and using virtual communication platforms, such as Microsoft Teams and Zoom (i1). The shift also required training for on-site employees to communicate effectively with off-site colleagues, ensuring connectivity across all work environments. The transition from face-to-face to synchronous online training posed challenges, requiring time for adjustment and adaptation from both trainers and trainees (i16).

It is like transitioning from face-to-face training to entirely synchronous online training, where everything is different. Everything is different. It took us some time to adjust, not only to acquire the videoconferencing platforms, which previously existed in limited numbers only for a few meetings, but also to use these rooms in masse for training. It also required a great deal of adaptation on the part of the trainers, as most of them were not accustomed to it either. (i16)

Recognising the unique demands of managing hybrid teams, organisations emphasised leadership training for managers. This training addressed the new labour provision regimes and aimed to develop leadership skills beyond technical expertise. The initiative acknowledges that while public administration traditionally promoted technically proficient individuals to management roles, effective leadership in a hybrid environment requires a distinct skill set. Consequently, there has been a strategic investment in developing leadership capabilities among middle managers to ensure they can effectively manage teams in this new work paradigm (i5).

5.5 Summary of the Findings

Our reflexive thematic analysis reveals that the successful implementation of hybrid work in public administration requires systematic attention to the four dimensions of PE Fit, as displayed in Fig. 1. It summarises the

Hybrid Work in Public Administration: Person-Environment Fit

Characteristic	Person-Job Fit	Person-Organisation Fit	Person-Group Fit	Person-Supervisor Fit
 Definition	Alignment of individual skills with job demands	Congruence with organisational culture and values	Compatibility with team dynamics and individual preferences	Harmony with leadership style and expectations
 Key Elements	Digital competencies, and outcome-focused performance, and self-management skills	Preserving public service mission in digital contexts; maintaining organisational identity across virtual and physical spaces; developing digital culture	Virtual relationship building strategies; hybrid communication protocols; maintaining team cohesion across work modalities	Trust-based leadership competencies; individualised support strategies; adaptive management
 Challenges	Transition to project-based and outcome-focused evaluation, and developing enhanced self-regulation skills	Maintaining organisational culture; balancing technological flexibility with bureaucratic accountability requirements	Building meaningful relationships with new team members virtually and maintaining informal social connections	Developing new supervisory skills beyond technical expertise; balancing autonomy with accountability in distributed teams
 Impact of Misalignment	Job dissatisfaction and diminished performance	Conflicts, disrupted services, changes in the organizational climate.	Social isolation and knowledge sharing issues	Reduced motivation and diminished work-life balance
 Organisational Support	Providing support and resources for hybrid work, and training	Proactive technology provision, flexible work-life balance policies, and systematic communication protocols	Implementing virtual meetings and platforms	Encouraging trust-based motivation and leadership development programmes
 Demographic Factors	Ageing workforce, most female, and high education levels	varying digital readiness creates implementation disparities	Pre-existing relationships facilitate transition	New leaders face compounded challenges
 Overall Impact	Employee well-being, job satisfaction, and performance	Generates synergistic benefits	Creates vulnerability and opportunity	Requires systematic attention to alignment
 Interconnected Dynamics	<i>Misalignment in one fit dimension creates cascading effects across all others and comprehensive organisational support generates synergistic benefits across all dimensions</i>			

Fig. 1. Hybrid work in public administration. Source. Created by the authors.

connections between the PE Fit dimensions, addressing the workplace reconfiguration into hybrid work arrangements: Person-Job Fit expands to encompass digital competencies as core requirements; Person-Organisation Fit includes adaptation while preserving public service mission; Person-

Group Fit demands new approaches to meaningful relationship building and communication; and Person-Supervisor Fit requires an additional level of trust-based leadership capabilities. This reflects and extends previous research on public sector hybrid work (e.g., [Park et al., 2023](#)).

Hybrid Work Adaptation in Public Administration

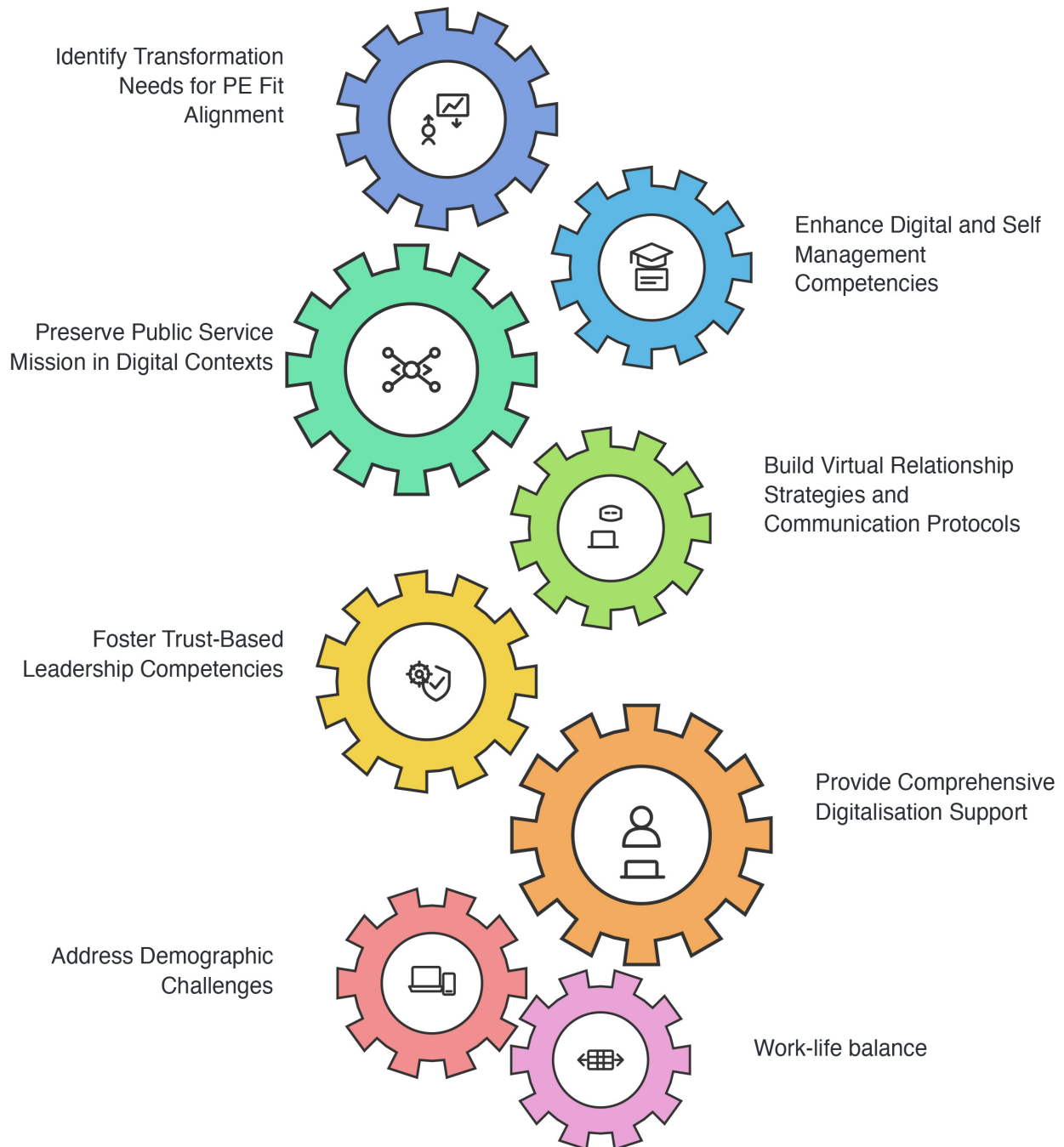


Fig. 2. Dynamics of the hybrid work adaptation in public administration. Source. Created by the authors.

The insights of the findings lie in the dynamic interconnections among these dimensions, where misalignment in one area cascades across all others. Like interconnected components within an engine, these dimensions operate as interdependent mechanisms that drive organisational adaptation, as illustrated in Fig. 2. The Portuguese case elucidated these systemic relationships through organ-

isational examples: inadequate hybrid work guidelines disrupted team relationships and individual satisfaction, while comprehensive support across all dimensions generated enhanced motivation, improved work-life balance, and maintained productivity. This interconnected nature extends our understanding of PE Fit to encompass the complexities of hybrid work arrangements in public administration, provid-

ing a theoretical foundation for understanding how public organisations navigate this adaptation while maintaining congruence between employee needs and organisational objectives.

Our findings reveal diverse approaches and contexts even within Portuguese central government institutions operating under the same hybrid work regulations. The breadth of experiences—from comprehensive technological support to employees using personal equipment, from structured leadership programmes to informal management adaptations—demonstrates how the deliberately flexible regulatory framework enables managers to tailor implementation strategies to their institution’s specific workforce needs and service delivery requirements. This variety reflects the heterogeneous purposes and resource allocations across central government entities, where shared legal frameworks converge with distinct organisational realities. The regulatory openness that allows for such institutional discretion may be a distinctive feature of the approach taken by the Portuguese public administration towards implementing and maintaining hybrid work.

6. Discussion

Our analysis of hybrid work in public administration, conducted through the lens of the PE Fit Theory (Caplan, 1987; Edwards, 2008; Kristof-Brown et al., 2005), reveals profound transformations across all fit dimensions and their dynamic interconnections (Figs. 1,2). We examine how our findings illuminate the evolving nature of fit in hybrid public sector contexts, where traditional fit mechanisms require fundamental recalibration in response to technological and organisational changes.

Our results demonstrate that continuous autonomy becomes essential when work environments shift between home and office settings, fundamentally altering Person-Job Fit in public administration. This finding corroborates research on forced remote work transitions, which has shown that job control perceptions significantly influence employee adaptation and well-being during mandatory workplace changes (Becker et al., 2022). Likewise, the transition from presence-based supervision to outcome-focused evaluation transforms both demands-abilities and needs-supplies components of fit (Chuang et al., 2016). We identify that project-based work necessitates self-organisation regardless of physical location, expanding job demands beyond traditional administrative tasks to encompass digital competencies and virtual collaboration capabilities. While Lopes et al. (2023) demonstrate in their Portuguese private sector study that employees’ subjective evaluation of their fit to telework significantly influences voluntariness in telework adoption and subsequent work well-being outcomes, our public administration findings extend this understanding by revealing how managers actively shape these fit perceptions through organisational framework adaptations and leadership approaches. Simi-

larly, whereas Stich’s (2021) French study establishes that perceived flexibility fit drives job pursuit intentions among job seekers, our research advances this knowledge by examining how established public servants experience fit within mandatory hybrid work transitions. The Portuguese public sector context reveals that digital competencies transform from optional skills to core job requirements, requiring public servants to develop enhanced self-management capabilities alongside traditional administrative competencies. Overall, we note that there are many layers to be observed and addressed to support the Person-Job fit in the hybrid and digitalised public administration.

Our findings reveal that maintaining organisational culture in hybrid environments challenges traditional bureaucratic norms, which relates to Giacomini and Palumbo’s (2023) assertion that public servants’ capability and confidence in using digital resources significantly impact public sector organisational culture in Italian municipalities. Similarly, research on forced remote work has identified work-related loneliness as a critical factor affecting employee well-being when traditional workplace relationships are disrupted (Becker et al., 2022). Accordingly, managers implementing strategies, such as monthly social gatherings and virtual coffee breaks, to preserve relationships and organisational identity, demonstrate the dynamic nature of PE Fit described by Caplan (1987) in his foundational work on PE Fit. Caplan (1987, p. 251) explicitly defines this dynamic quality, stating that “the degree of adjustment is defined in PE Fit theory as the amount of improvement over time in PE Fit” and “the adjustment process refers to how improvement (or worsening) is achieved”, thereby establishing that organisational interventions aimed at maintaining relationships constitute deliberate efforts to sustain PE Fit during periods of change, such as the hybrid work arrangements. Our participants emphasised that successful adaptation required organisations to embrace flexibility without compromising their public service mission, creating tension between traditional bureaucratic norms and digital transformation imperatives identified by Gil-Garcia et al. (2018). Thus, we argue that to achieve an effective Person-Organisation Fit, public servants need to undergo a ‘change of mindset’ regarding public institutional identity, service delivery mechanisms, and citizen communication.

Managers and public servants implemented new approaches to creating meaningful relationships and communicating with colleagues across hybrid environments to produce a successful Person-Group Fit. Our analysis demonstrates that effective communication became more complex when team members operate across multiple work modalities simultaneously, supporting Fuchs and Reichel’s (2023) findings that communication success depends on user-technology interactions and supportive Human Resources (HR) practices. Participants described implementing regular virtual meetings, utilising digital collaboration platforms, and maintaining some in-person meetings to

maintain team cohesion, while acknowledging persistent challenges in building relationships with new team members in virtual environments. The social isolation risks identified in our study align with concerns raised by Bellis et al. (2022) regarding changes in relationships in online settings due to the pandemic, requiring deliberate interventions such as scheduled in-person gatherings and virtual relationship-building activities to preserve team dynamics (e.g., Bellis et al., 2022).

Our findings demonstrate that managers should develop new leadership competencies, with organisations implementing mandatory leadership training programmes specifically for hybrid team management. This supports Roman et al.'s (2019) observation that managers require the development of new capabilities during digitalisation transitions. Likewise, the shift toward trust-based motivation represents a fundamental departure from traditional supervisory control mechanisms outlined in Wiatr and Skowron-Mielnik's (2022) work on hybrid team management. Our analysis also dialogues with Peretz and Kidron's (2023) study on the innovative behaviour of senior public managers in the Israeli context. Therefore, we argue that to maintain the Person-Supervisor Fit in public administration with hybrid work arrangements, it is necessary for managers to reinvent themselves by developing new competencies and modifying their approach to trust.

These additional layers in the dimensions of the PE Fit in the public administration show a transformed fit dimensions operating as an interconnected system where misalignment in one area cascades across all others, affecting work-life balance, job satisfaction, and overall well-being. Our findings demonstrate these dynamic relationships through specific examples that dialogue with Wightman and Christensen's (2024) comprehensive assessment of PE Fit in the public sector. For example, when supervisors failed to provide clear hybrid work guidelines, organisational conflicts emerged that disrupted both team relationships and individual job satisfaction. This exemplifies the cascading effects in their integrative framework of PE Fit outcomes (e.g., De Cooman and Vleugels, 2022; Steijn, 2008). Conversely, when organisations successfully implemented trust-based approaches with clear communication protocols, participants reported enhanced motivation and improved work-life balance, supporting Park et al.'s (2023) findings on an idiosyncratic optimal balance in telework arrangements in the South Korean public administration. The interconnected nature of the fit dimensions becomes particularly evident in our findings regarding organisational support mechanisms. We discovered that inadequate digitalisation resources create ripple effects across all fit dimensions in the Portuguese public administration, building on Di Giulio and Vecchi's (2022) in the Italian public sector and Kuhlmann and Heuberger's (2021) in German public institutions observations about varying digital readiness challenges, such as when employees must use personal

equipment and purchase their own software, job demands increase while organisational support decreases, potentially straining supervisor-subordinate relationships and creating inequities within teams.

7. Implications

Our study's first contribution to the public administration literature is the incorporation of a less-explored culture and national context (Madureira and Rando, 2022), as recommended by Liu et al. (2025) in their critique of Anglo-American dominance in public sector research. Likewise, we follow the recommendations of Fletcher et al. (2019) to gain a better understanding of the socio-cultural factors in the public sector. Our findings support Steijn's (2008) study, showing that PE Fit Theory offers a robust framework for understanding the public sector, particularly in contexts where traditional bureaucratic structures encounter flexible work arrangements. This provides empirical evidence of how hybrid workplace arrangements in the Portuguese public sector have transformed core administrative processes and relationships. Thus, it also contributes to comparative public administration literature, highlighting the importance of contextual factors in hybrid public sectors (Madureira and Rando, 2022; Peretz and Kidron, 2023). In addition, it adds to the growing body of literature on digital governance reform (Madureira and Rando, 2022) and the challenges of implementing hybrid work in public administration (Wiatr and Skowron-Mielnik, 2022).

Our research's second contribution is to the human resource management literature, as it extends the PE Fit Theory to less-explored hybrid workplace contexts in public administration. We argue for a holistic view that considers both worker experiences and organisational effectiveness, including tangible costs (e.g., equipment, training) and intangible factors (e.g., meaningful relationships and trust-based management), integrating suggestions from De Cooman and Vleugels (2022) and Caplan (1987). We demonstrate how the four fit dimensions require recalibration when work environments shift between home and office settings. This systemic perspective indicates that the successful implementation of a hybrid workplace requires comprehensive strategies that address all dimensions simultaneously, rather than isolated interventions. The interconnected and dynamic nature of these dimensions supports Caplan's (1987) argument that misalignment in one area creates cascading effects across others, challenging traditional Human Resource Management (HRM) approaches that address fit dimensions independently.

At the organisational level, our findings provide actionable frameworks for public administration institutions implementing hybrid work arrangements. We suggest that public institutions should establish structured relationship-building mechanisms, such as regular in-person gatherings and virtual social activities, to maintain team cohesion and organisational culture during hybrid transitions. The systematic communication protocols identified in our

study, including weekly team meetings, clear objective-setting processes, and boundary-setting practices like restricting after-hours communications, offer concrete strategies for maintaining operational effectiveness across distributed teams. We propose that these organisations also develop comprehensive resource allocation strategies to ensure equitable access to digital infrastructure, avoiding the disparities we observed, where some employees relied on personal equipment while others received full organisational support. At the group level, our findings demonstrate that successful hybrid teams require deliberate coordination of on-site days to maximise face-to-face collaboration opportunities, implementation of hybrid meeting protocols that effectively integrate both remote and in-person participants, and establishment of new communication norms that accommodate asynchronous collaboration whilst preserving relationship quality. At the individual level, we endorse that managers adopt personalised approaches that recognise varying employee preferences for hybrid versus on-site work, implement trust-based supervision models that focus on outcomes rather than presence, and provide targeted support for digital competency development, maintaining clear accountability frameworks. These multi-level practical implications reflect the cascading effects across PE Fit dimensions identified in our analysis, offering practitioners concrete strategies for managing the systemic interdependencies inherent in hybrid work implementation.

The practical implications extend to public policy considerations addressing Portugal's socio-geographical challenges. Hybrid workplace policies in public administration can serve as catalysts for regional development by enabling public servants to work from less centralised locations, potentially addressing rural depopulation and urban congestion (DGAEP, 2023b). The concentration of public employment in central government creates potential for geographic redistribution of economic activity through strategic hybrid workplace policies. For example, transportation and urban planning policies should incorporate measures to reduce commuting patterns among public servants, particularly in metropolitan areas, due to the hybrid workplace arrangements in the Portuguese public administration. Policymakers should consider these shifts when planning public transportation capacity and infrastructure investments, enabling efficient resource allocation and supporting environmental sustainability objectives. Furthermore, a national policy integrating hybrid work in the public sector with regional development could effectively combat desertification in rural areas. Policies addressing housing and desertification should also consider these findings. The digitalisation process and hybrid work rules could foster an urban exodus to the interior, promoting social and economic development in less central areas. This shift can alleviate pressures on public health and education systems in major cities, while revitalising rural areas and former industrial towns away from the capital.

8. Conclusions

This investigation examined the implementation of mandatory hybrid work arrangements within Portuguese central government institutions through the theoretical lens of PE Fit Theory. Our study provides contributions to the literature on human resource management and public administration. Employing reflexive thematic analysis of in-depth interviews with managers, the study identified four interconnected dimensions that collectively determine successful adaptation to digitalised hybrid work environments: organisational framework, leadership and management, employee-centric factors, and digitalisation support. The Portuguese public administration context offers compelling insights into how bureaucratic institutions navigate the tension between maintaining the integrity of their public service mission and accommodating the demands of workplace transformation.

This study acknowledges the methodological boundaries that illuminate promising avenues for theoretical advancement. The exclusive focus on managerial perspectives, while providing strategic insights into implementation processes, necessitates a complementary investigation of public servant experiences to achieve a comprehensive understanding of PE Fit dynamics across hierarchical levels. Future research should employ other theories, such as complex adaptive systems theory, as a conceptual framework to examine how hybrid work arrangements emerge as self-organising phenomena within public administration networks, where individual adaptations generate emergent collective patterns that transcend linear implementation models. Such theoretical integration would illuminate how institutional actors continuously adapt their behaviours in response to technological, regulatory, and social stimuli, creating dynamic equilibria. Additionally, longitudinal studies examining the temporal evolution of fit dimensions could reveal how public organisations develop adaptive capacity through iterative learning processes, particularly investigating whether initial misalignments eventually resolve through systemic adaptation or require deliberate intervention. Comparative analyses across diverse national contexts would further enhance theoretical generalizability by examining how varying institutional frameworks, cultural values, and digital infrastructure capabilities influence the manifestation of fit in hybrid public sector environments.

Availability of Data and Materials

Data reported in this paper will be shared by the corresponding author upon reasonable request.

Author Contributions

All authors designed the research study. RGR performed the research. SPG and FN provided help and advice on the data collection and analysis. RGR collected and

analyzed the data. All authors wrote the manuscript. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

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Conflicts of Interest

The authors declare no conflicts of interest.

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