P5

Sarah Meijer
4553241

First mentor **Vitalija Danivska**
Second mentor **Herman Vande Putte**

An Observational Perspective on Embedding Mental Health in Workplace Strategy:
From concept to completion

Management in the Built Environment

AR3R010 Graduation Laboratory

Faculty of Architecture and Urban Sciences

Delft University of Technology

Abstract

The rising prevalence of workplace-related mental health issues, particularly burnout, has garnered significant attention from both public and private sectors. This thesis investigates how workplace strategies incorporate mental health considerations, focusing on the development process and implementation within Dutch corporate offices. Against a backdrop of increasing burnout rates and associated costs, now exceeding €3.3 billion annually in the Netherlands, this study aims to bridge the knowledge gap on how mental health is embedded within workplace strategy-making.

Utilising a qualitative, abductive research approach, this study combines theoretical review and an embedded single-case study, including document analysis and semi-structured interviews. Findings reveal that while well-being is strategically prioritised, translating these aspirations into actionable measures remains challenging. The research identifies a disconnect between intangible mental health considerations, which are well integrated into organizational strategies, and tangible workplace implementations, which often fade to the background due to feasibility constraints and funding limitations.

The study concludes that mental health remains underprioritised in workplace strategy, without a cohesive and clear approach. This segmentation hinders effective cascading of mental health priorities across organizational levels, raising questions about responsibility and actionability. Addressing these gaps, the thesis highlights the need for greater clarity, enhanced interdepartmental collaboration, and stronger support for mental health considerations throughout workplace strategy formulation and implementation.

Key words – workplace, workplace strategy, corporate real estate, mental health, well-being

Colophon

Title

An Observational Perspective on Embedding Mental Health in Workplace Strategy: From concept to completion

Version   P5 Report
Date   23/10/2024

Student
Author   S.E.M. (Sarah) Meijer

Student number   4553241

Photo

University

Name   Delft University of Technology

Faculty   Architecture and the Built Environment

Master track   Management in the Built Environment

Supervisors

First mentor   Vitalija Danivska

Department   REM – Real Estate Economics

Second mentor Herman Vande Putte

Department   REM – CRE Alignment

Content

1. Introduction

In recent years, the discussion surrounding mental health has gained momentum, capturing the attention of both the public and private parties, particularly within the domain of workplace mental well-being (Hanc et al., 2019). This surge is closely linked to a concerning increase in people suffering from burnout-related mental health challenges induced by workplace stressors (CBS, 2020; TNO, 2019). Additionally, research conducted by Amsterdam UMC (2022), show that from all mental health work-related diagnoses, 78% were overstrain or burn-out related. Dutch statistics from 2019 revealed that 1.3 million people exhibited burnout symptoms, a number that has since risen significantly in recent years (Ministerie van Algemene Zaken, 2022). TNO's latest report in 2023 indicated a remarkable increase in burnout symptoms, this report points out that in the past decades, the number of people who suffer from burnout symptoms has balanced around an average of 10%, in recent years this has risen to 14%. Implying a significant rise which is not to be ignored according to organisational psychologist Schaufeli (TNO, 2023). Additionally, the rise in mental health issues has gained attention on national government agendas (World Health Organization: WHO, 2019).

This increase in awareness stems from the profound impact of mental health on workplace dynamics, organisational productivity, and revenues (Nientker, 2017). Studies consistently link mental health issues with absenteeism, posing financial challenges for organisations as long-term absence adversely affects revenues and overall productivity (Aarstad & Kvitastein, 2023). Recent reports from TNO, CBS, and ArboNed underscore the financial impact, with the costs of work-related stress surpassing 3 billion euros annually in the Netherlands (Ministerie van Algemene Zaken, 2023). Beyond financial implications, fostering better mental health in the workplace contributes to lower absenteeism rates, decreased costs, and positively impacts essential business goals (Muldavin, Miers, & McMackin, 2017).

While existing literature extensively links the physical workplace to health (Chadburn et al., 2017), there is a noticeable gap in understanding how knowledge on mental health integrates into the shaping processes, or strategies, of healthy workplaces. To address this gap, this thesis investigates how workplace strategies are formulated and the extent to which organisational objectives regarding mental health are effectively embedded in these processes.

The significance of this research is emphasised by the alarming statistics on burnout-related issues, with TNO revealing a substantial rise from 1.3 million to 1.6 million affected individuals within a year (TNO, 2023). The financial burden on organizations is staggering, with associated costs exceeding 3.3 billion euros annually. Costing organisations approximately €11.000 per employee (TNO, 2023). In light of these challenges, organisations are bound to address the issue not only for the well-being of their employees but also to safeguard their own interests and sustainability in the long run.

1.1 Problem statement

The compilation of these numbers and recent trends due to societal changes lead to the following problem statement:

Despite the startling statistics around mental health, and the acknowledged impact of mental health on organisational productivity and revenue, there is a gap in understanding how current knowledge on mental health is effectively integrated into the formulation and implementation of workplace strategies in the Netherlands. **Moreover, the influence of physical work environments on well-being is widely established in scientific literature.** Consequently, there is a need to investigate the extent to which organisational goals concerning mental health are reflected in the shaping and executions processes of workplace strategies.

1.1.1.   Societal and scientific relevance

Societal changes over the past decades have changed the nature of work and the way people work, as a result organisations are more and more focused on the employee and organisational behaviour. A pervasive trend contributing to the emergence of the mental health topic in relation to organisations, is the sudden and significant shift from an industrial society to a service-based economy in the final quarter of the twentieth century (Schaufeli et al., 2009). Schaufeli et al. (2009) state that this societal change is accompanied by psychological stressors, this makes it subject to the public discussion. Leading to a growing interest in healthy work environments as good mental health is now known to contribute to the overall organisational success.

Societal - The societal relevance of this thesis lies in the impact of mental health issues, particularly burnout, on individuals and organisations. As defined by various experts, burnout, characterised by mental exhaustion, is a complex phenomenon often misinterpreted outside scientific research (Van Lier, 2024; Sahadat, 2022). Despite lower burnout statistics in the Netherlands, work-related stress affects one in five employees, with a noticeable rise over the past five years (Overspannenheid En Burn-out | Volksgezondheid En Zorg, n.d.). National research by institutions like TNO reveals a significant increase in burnout-related symptoms, costing organizations billions annually and emphasising the need for attention and intervention in the workplace (TNO, 2023). This thesis, focusing on mental health in workplace strategy, contributes to tackling this societal problem. With a plethora of literature linking the physical workplace to mental health factors, the impact of the workplace on mental health becomes clear. By researching the part that workplace strategies play in this, organisations will be able to better tackle this issue from a CRE point of view in the future, creating better work environments for users. Additionally, improving user well-being may also result in lowering the organisational costs related to this problem.

Scientific - The past decades show a growing awareness of the impact of the physical environment on peoples' health and well-being, both in academic research and in professional publications. The scientific relevance of examining workplace management and incorporation of mental health in corporate real estate arises from several factors. First, as previously mentioned, the topic of mental health has become increasingly relevant in today's society and organisations. Furthermore, within the research field of corporate real estate, most of research revolves around CRE strategy, fewer, but still a decent number, focus on the physical aspects of the workplace and how this affects people. The literature that can be found on workplace strategy making put a lot of emphasis on creating either more efficient, more sustainable or healthier workplaces. In these studies, health is apparent, however the topic of mental health is still very underrepresented. This is remarkable as so many organisations are affected by this issue. The topic of workplace strategy in combination with mental health holds significant scientific relevance as it examines the coming together of two elaborate research fields

which, in today's society now demands close collaboration and even integration. The topic of mental health is however more represented in adjacent scientific fields such as human resource management and naturally abundantly represented in the field of psychology. This means that a lot of knowledge on both workplace strategy, and mental health exists, yet the confluence of these fields remains underexamined. Creating insight into this confluence in practice will enrichen research on CRE strategy and most importantly, it can create insight into current practices as to how the topic of mental health is in fact incorporated and cascaded throughout multiple levels of the organisation. Uncovering and explaining this process, along with its enablers and barriers, has the potential to greatly improve this process. This will subsequently enable organisations to better understand the underlying strategy issues, potentially leading to new and improved approaches in practice.

1.2 Objective and research questions

The aim of this thesis research is to close the knowledge gap on how these two topics come together in practice, examining how mental health is actually incorporated in workplace strategy making. This will be tackled by gaining insight into the shaping process of workplaces by organisations who aspire to create environments which benefit employee mental health. By looking into their workplace strategies and subsequently examining how the topic of mental health is embedded into these forming processes, an attempt can be made at closing this knowledge gap.
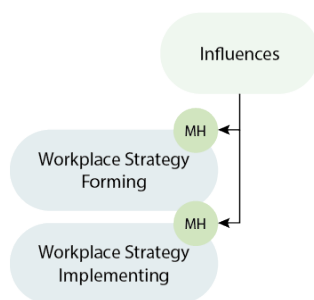
Figure 1: Role of MH in WP strategy (author)

Figure 2: Embedding of MH (author)

Potential outcomes could bring forth findings that these organisations include the topic of mental health in organisational strategies but lack efficient embedding into their translation to workplaces strategies. Or that knowledge from human resource management departments is insufficiently woven into the workplace strategy making process. From possible findings like these, a conclusion could be drawn that the topic of mental health is tackled in separate departments of organisations and not integrally included in corporate real estate strategies. The scope of this research are Dutch corporate offices, based on data availability. This research is made possible with the help of Brink, a Dutch real estate advisory firm based in Rotterdam, Eindhoven and Groningen. More specifically, this research was developed within the advisory and management branch of Brink, specialised in housing and workplace advisory.

From the problem statement and objective, the following main research question and sub questions are formulated:

Main RQ:

> *How is the topic of <u>mental health</u> incorporated in the <u>forming</u> and <u>implementing</u>*
> *of <u>workplace strategies</u> in Dutch corporate offices?*

SQ1: What is a workplace strategy and how is it formed and implemented?

SQ2: What are mental health considerations in the workplace?

SQ3: What factors help or hinder how the topic of MH is incorporated in the forming of WPS?

SQ4: What factors help or hinder how the topic of MH is incorporated in the implementing of WPS?

Together, these questions will provide insight into the current practices and thus contribute to a holistic answer to the main research question.

1.3 Definitions and abbreviations

Health: "is the result of a complex interaction between the physiological, psychological, personal and organizational resources available to individuals and the stress placed upon them by their physical and social environment at work and home" (Clements-Croome, 2018)

Well-being - WB: "reflects one's feelings about oneself in relation to the world, personal feelings about motivation, competence, aspirations and degree of personal control" (Jensen & Van der Voordt, 2023).

Mental health - MH: "Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in. Mental health is a basic human right. And it is crucial to personal, community and socio-economic development." (World Health Organization: WHO, 2022)

Corporate real estate - CRE: "Corporate real estate is the real property that a company owns or holds for the purposes of housing its operations. Multiple types of properties and facilities, including offices, warehouses, data centres and retail spaces, can be part of a corporate real estate portfolio. (Definition of Corporate Real Estate (CRE) - Gartner Finance Glossary, n.d.)

Corporate real estate management - CREM: "The management of real property assets for use in business other than real estate." (Ali et al., 2008)

Workplace - WP: "a building or room where people perform their jobs" (Cambridge Dictionary, 2024)

Workplace strategy - WPS: "the dynamic alignment of an organization's work patterns with the work environment to enable peak performance and reduce costs" (Savage & Schriefer, 2005).

Human resources - HR: "the department of an organization that deals with finding new employees, keeping records about all the organization's employees, and helping them with any problems" (Cambridge Dictionary, 2024)

Human resources management - HRM: "is the strategic and coherent approach to the effective and efficient management of people in a company or organization such that they help their business gain a competitive advantage. It is designed to maximize employee performance in service of an employer's strategic objectives." (Johnson & Szamosi, 2018).

2. Research Methods

This research aims to explore the integration of mental health knowledge in the forming and implementing of workplace strategies within the corporate real estate sector in the Netherlands. The research uses a variation of qualitative research methods to answer the main research question. A set of sub-questions have been formulated to guide the research towards the desired outcome of answering the main research question. This chapter elaborates on the research design and its execution.

2.1   Research Design

This thesis adopts a qualitative, abductive research approach that combines both theoretical and empirical components in a mixed-methods design. The research focuses on understanding how mental health topics are integrated into workplace strategy-making and implementation processes across different organisational levels in large corporations. The choice of an abductive approach is due to the exploratory nature of the research. This approach allows for iteration between theory and practice. By doing so, identification and explanation of surprising findings can occur.

The mixed-methods design, as depicted below in figure 3, in this context refers to the combination of a theoretical part and an empirical part. The theoretical part establishes a foundational body of knowledge by analysing literature related to workplace strategies and relevant knowledge on workplace mental health topics. The empirical part complements this by gathering qualitative data through interviews and document analysis to observe how these theoretical insights manifest in practice. By integrating both components, and assimilating these in a synthesis, the study aims to provide a comprehensive understanding that is both theoretically grounded and a representation of practice.
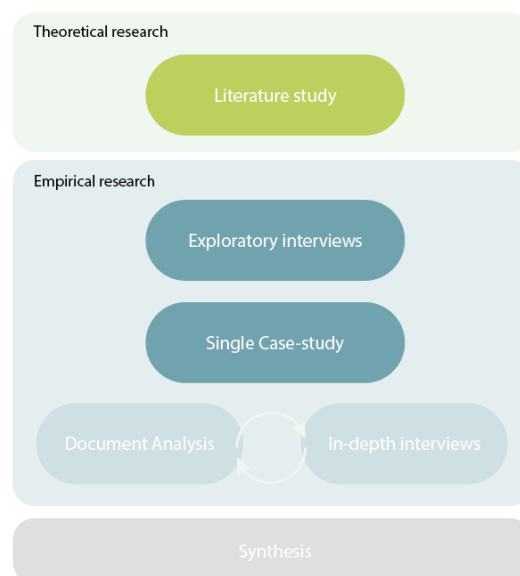

Figure 3: Research design (author)

Triangulation is achieved by integrating both theoretical research and empirical data. Theoretical findings provide one perspective, and the empirical observations offer another. By comparing and cross-referencing the two perspectives, the study can validate its findings and gain a more nuanced understanding of the topic. In addition, hypotheses are drawn up and reaffirmed by Brink staff both from the housing and workplace advisory department, as well as from the project management department. This was regularly done throughout the entire research process.

The theoretical research part will provide a theoretical foundation which will then inform the empirical part of the research. It will on one hand focus on the existing literature around workplace strategy making, and on the other hand focus on the existing knowledge of mental health in work environments. By establishing a solid theoretical basis, the study can identify key concepts, expected processes, and criteria against which the actual practices observed can be evaluated.

The empirical research part aims to observe and analyse current-day practices in the forming and implementing of WPS. Its aim is to explore how the theoretical concepts occur in practice. The empirical part is not just focused on testing theoretical ideas, but also on exploring how real-world processes match, differ from, or expand these concepts. The aim is to identify unusual patterns, unexpected practices, or innovative methods that can add insights to existing theories. This back-and-forth process between theory and practice is central to abductive research, which aims to develop new insights based on research findings.

The synthesis part falls under the Discussion chapter and will bring together all the findings and aim to answer the main research question. In this part, a visualisation will be made of the workplace strategy forming and implementing process, including findings from the research.

To conduct this research, the following research methods are applied: theoretical background review, explorative interviews (unstructured), and an embedded single-case study. With the explorative interviews as part of the empirical research, alongside the single-case-study. The embedded single case-study approach was selected to provide an in-depth, context-specific exploration of how mental health considerations are integrated into WPS within a single organisation. This method allows for a detailed, qualitative examination across multiple organisational levels. Capturing both nuanced insights and varied perspectives. The applied research methods within the case-study consist of document analysis, and in-depth interviews (semi-structured). A complete overview of the research design, including its research questions and methods, is given below in figure 4.
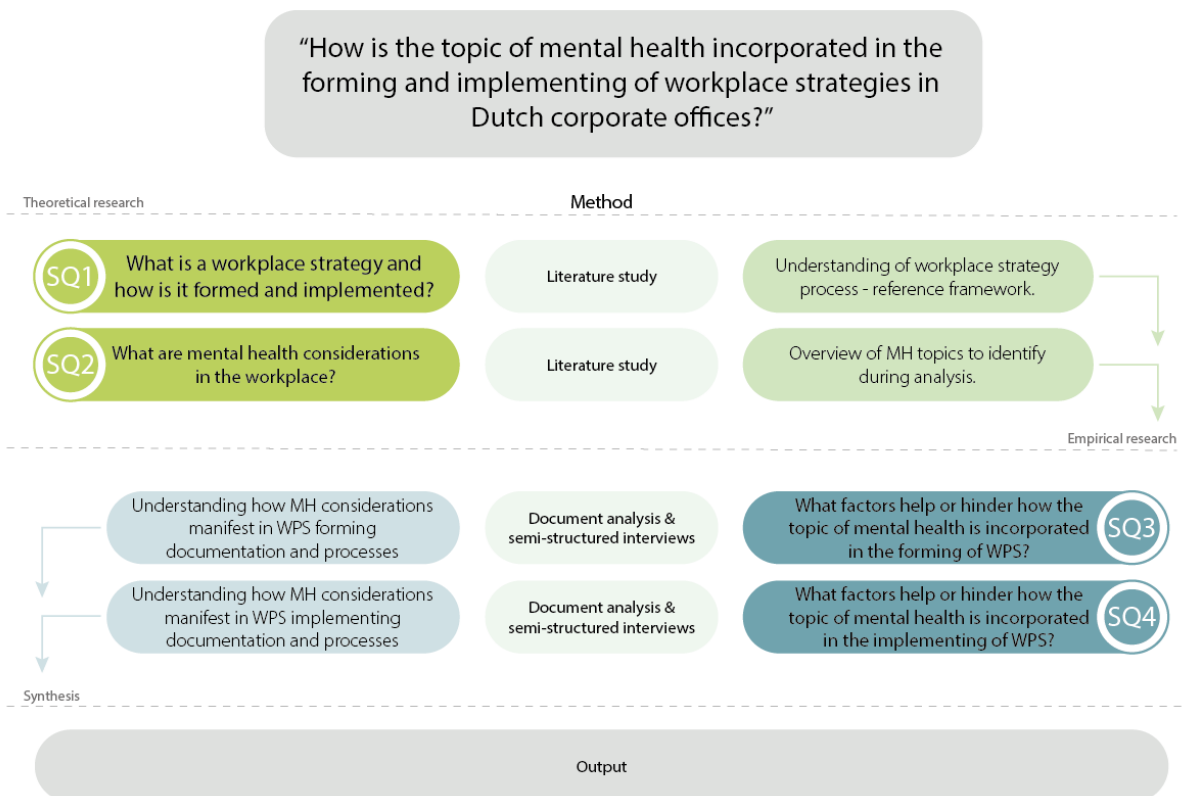
Figure 4: Research design and questions (author)

2.2 Theoretical research

The theoretical research will aim to answer the first two sub-questions of this research through a literature study. In this literature study, two topics will be explored. These two topics are the two main concepts which will be analysed in the empirical part of the research:

- The forming and implementing process of workplace strategy.
- Mental health considerations that are related to the workplace.

Within the exploration of these topics, theoretical frameworks and sub-concepts will arise and be discussed. These sub-concepts are foundational to the understanding of the real-life process which will be observed in the empirical part.
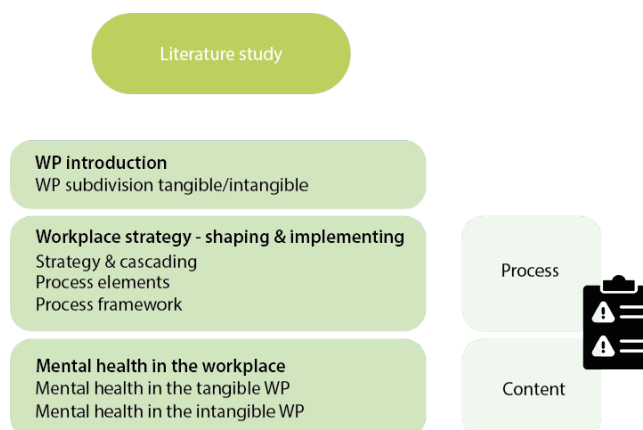

Figure 5: Components of the theoretical research (author)

2.3   Empirical research

The empirical research will aim to answer the following four sub-questions by conducting a case study. Prior to conducting the case study, explorative interviews are held within the internship company with people who are, or were at some point, included int projects from the company which will be analysed. These explorative interviews serve to get a before-hand understanding of the topics and complexities within this case. Firstly, this will aid to refine the case-study approach. Secondly, it will aid to identify potential anomalies and gaps, which will in turn boost attentiveness and facilitate critical analysis.

2.3.1 Case study selection

The choice for an embedded case-study comes from the two-fold nature of the main research question. On one hand opting to understand the deployment of the workplace strategy process. And on the other hand, investigating the content around the topic of mental health, and how this develops and cascades throughout the process. These are the same two sub-concepts as distinguished in the literature review: process and content.

To select the case the following criteria were applied:

- The case is a company which publicly expresses an interest in workplace mental health
- The case is a company which is knowledgeable on the topic of mental health
- The case is a company that has a mature real estate organisational branch
- The case is a company that applies a business-as-usual workplace strategy
- The case is a company that has a vast portfolio of workplaces

These criteria ensure that the selected organisation offers a comprehensive and insightful setting for examining mental health integration into workplace strategy. A company that publicly prioritises mental health and possesses expertise on the topic can provide informed perspectives and practical examples of integrating mental health into work environments. A mature real estate branch indicates established workplace management processes, facilitating analysis. Additionally, choosing a business-as-usual workplace strategy allows for the study of consistent practices, while a vast workplace portfolio highlights how mental health considerations are applied across diverse settings. Collectively, these criteria enable a thorough investigation into the operationalisation of mental health goals within workplace strategy.

Prior to the case selection, various informal conversations were held with workplace strategy experts at Brink to identify potential fits. In the first place, these interviews will serve to select a case study. Next to this, the interviews are important as they will act as a valuable instrument for developing an global comprehension of the case itself and its relevant topics. From these conversations, only one company arose which fit all criteria perfectly and beyond expectation. The embedded design approach is applied because it allows the study to focus on different parts or levels within the organisation (sub-units) while still analysing how they fit into the bigger picture. An embedded study analyses multiple sub-units within a single case to capture internal variations and complexities. An embedded design is necessary as a holistic single-case study would not as effectively capture the diverse opinions arising from interviewees' distinct perspectives, shaped by their specific roles and operational levels within the organisation. This is important to understand how decisions and strategies move through different levels and roles in the company.

In order to cover both the process and the content, the chosen research methods within the case-study are document analysis and semi-structured in-depth interviews. By applying both methods, the research can effectively examine both the formal documentation and practical realities. Leading to a more complete understanding of how strategies are formed and implemented across the organisation.

2.3.2 Document analysis

Document analysis as a research method is applied as it provides direct insights into the formal strategies, policies, and guidelines related to mental health in the organisation. The documents were selected by Brink employees involved in the entire WPS process. The documents range from WPS documents to project briefs. The Brink staff provided access to all the documentation in their possession regarding the case-company's WPS formulation and execution. Naturally documents could have been withheld, so this is an selection based on trust. Though anonymisation was already ensured and both Brink and the case-company would benefit from this research so there are no direct grounds for assuming that any documentation was deliberately withheld.

By reviewing these documents, it can be understood and made visible how mental health topics are addressed, what the intended goals are, and whether there are gaps or inconsistencies across different organisational levels. This method helps to understand the planned content and how it does or does not align throughout the organisation. The documents that will be analysed are documents that either reveal or directly describe the strategies and policies around this topic at various levels of the organisation. These will range from overall business strategy down to office-design specifications.

2.3.3. In-depth interviews

Semi-structured in-depth interviews are applied to explore the experiences and perspectives of key stakeholders involved in creating and implementing these workplace strategies. This method is flexible, allowing to ask follow-up questions based on the interviewee's answers while still focusing on key themes. The aim is to understand the different roles, collaboration and decision-making structures, in order to understand how strategies are made and cascaded across different organisational levels. The interviews cover three main topics: role description and responsibilities, collaboration and decision-making, cascading process.

The selection of interview participants was informed by literature, which identifies specific roles as critical for forming and implementing workplace strategies. These people were selected to create a representative data-gathering of the actors within the workplace strategy process. The criteria were:

- The participant is either involved in the forming or implementing the company's WPS;
- The participant must be aware of the topic of well-being within the company's WPS;
- The participant role is either one of the following, based on literature: Management, HR, Real estate or facility management;
- Participants are professionally experienced with either WPS or employee WB, or both.

For the forming phase, the focus was on internal roles such as HR, Corporate Real Estate (CRE) Management, and Workplace Strategy Management. These roles are central to decision-making and strategy development within the organization. For the implementation phase, the focus shifted to external roles, particularly consultants who were brought in to steer the process. This distinction between internal and external roles highlights the different expertise and perspectives involved in both creating and executing the strategy.
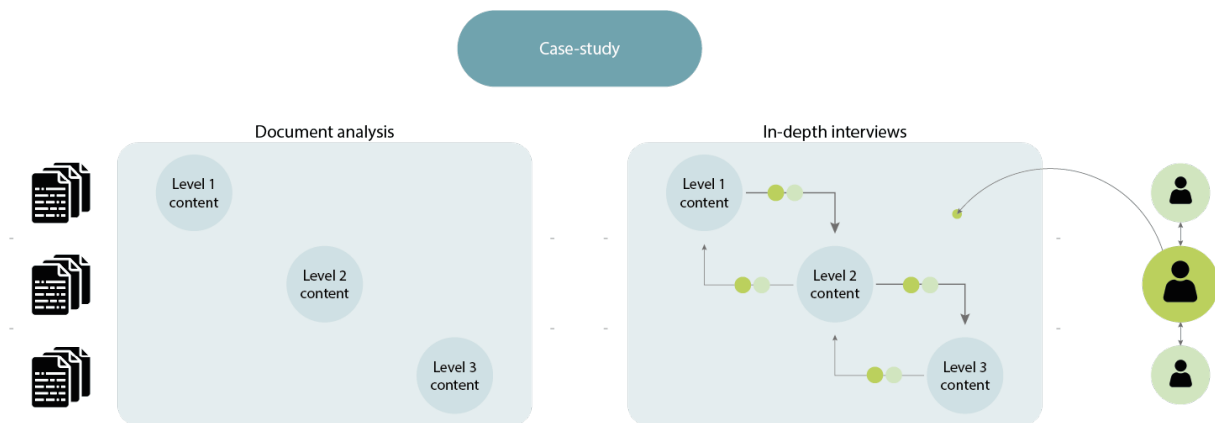

Figure 6: Components of the empirical research (author)

2.4 Data analysis and data plan

When all interviews and documents have been conducted, collected and reviewed. The data will be analysed through a thematic analysis in order to deduce themes which aid to answer the last two research questions to subsequently answer the main research question. Two ways of coding are applied for both interview and document analysis. First, a set of pre-defined codes is gathered from theory themes. Second, new codes are deduced from the documents and interview transcripts. These codes are themes that have not initially been thought of or identified before analysis, their purpose is to complement the pre-defined codes.

After collecting and coding of the data, the analysis is continued by translating the coded data into first-order concepts. This is followed by categorising these first-order concepts into second order concepts as to identify broader patterns or themes. Subsequently, these are organised to classify the themes. These findings form the foundation for the synthesis.

A data management plan has been created to ensure ethical handling of data during this research (Appendix). This plan outlines the data analysis procedures and aligns them with the research objectives. The plan follows the FAIR principles (Findability, Accessibility, Interoperability, and Reusability) by Wilkinson et al. (2016), to guide data use and documentation, aiming to improve the quality and accessibility of the research data. Special care has been taken to safeguard the privacy of interviewees, who share insights based on their professional roles. To maintain confidentiality, all participants have been anonymised. After the research is completed, this research will be published on the TU Delft Repository (www.repository.tudelft.nl). In doing so, the research is made accessible to a broad audience and contributes to academic world.

2.5   Synthesis

In the synthesis, the answers to the sub-questions, studied in both the theoretical and empirical research, are come together to answer the main research question: "How is the topic of mental health incorporated in the forming and implementing of workplace strategies in the Netherlands?". Together, the findings from each sub-question will be used to gain insight into the complete process in practice. This information on current-day practice will be utilised to create a critical pathway visual. This visual will incorporate the learnings from the observations of this thesis. This knowledge can help practitioners navigate this process in the future.

2.6   Ethical considerations

This research is conducted in line with the academic integrity guidelines of TU Delft and will be published in the university's online repository. Ethical considerations are essential in this research to protect participant well-being. As the study explores perspectives of various actors and as the research may reveal potential conflicting opinions, ensuring ethical integrity is critical. Therefore, participant anonymity will be strictly maintained throughout the research process. Given the potential sensitivity of the data, all documentation is securely stored on a TU Delft drive. To ensure confidentiality, all data has been anonymized, and no interview transcripts or internal documents will be published online; they are only used for analysis. Educators may access these documents if needed, but no data will be transferred externally.

Participants received and signed an informed consent letter explaining the research purpose, the voluntary nature of participation, and their rights, including the option to withdraw at any time without explanation. The letter also requested permission to record and transcribe interviews and guaranteed the anonymity of participants, the company, and its practices. Consent was reconfirmed at the start of each interview.

Once the research is complete, all sensitive data will be permanently deleted to ensure privacy and confidentiality are upheld.

3. Theoretical Research

The theoretical research consist of a literature review with three chapters. The first chapter serves as an introduction to the subject of the workplace. It explains the complexity of the subject which is necessary for understanding the subsequent chapters. The second chapter explains the process of strategy forming and implementing, and the last chapter provides insight into the relationship between mental health and the workplace. Together these chapters form a theoretical foundation for this thesis.

3.1 The concept and context of the workplace

3.1.1 Origins of the workplace concept

The concept of the workplace has evolved considerably over time, reflecting societal changes in priorities. In its beginning days, the workplace was simply approached as the environment in which people executed work. So, initially, workplace management focused primarily on an activity perspective, driven by the need to optimize productivity as work moved from homes to factories, and later to dedicated office buildings following the industrial revolution (Oseland, 2021). Halfway through the 20th century, this evolved into a financial perspective, where managing workplace efficiency and optimizing real estate value became central (Danivska & Appel-Meulenbroek, 2021). This period saw the emergence of what we would now know as Corporate Real Estate Management (CREM), creating professions around the steering and managing of CRE.

The human-centred perspective of the workplace, began to take shape already in the first half of the twentieth century, in the adjacent discipline of psychology. Researchers began to explore the relationship between workplace environments and the needs of employees, leading to a deeper understanding of how workplace design and management influence human behaviour, satisfaction, and productivity. The Hawthorne Studies (1933) were particularly influential in highlighting the importance of social factors and employee satisfaction in workplace productivity. In these days, the field of HR began to formalise as a distinct field. Short thereafter people started researching human response to their social, organisational and later on also physical work environments, further developing foundational theories for human psychology (Danivska & Appel-Meulenbroek, 2021; Oseland, 2021). Since then, and up until today, research within the field of psychology has taken great interest in human behaviour within their work environments (Danivska & Appel-Meulenbroek, 2022).

Concurrently, notions on the workplace continued to evolve. The demand to manage operations scattered in buildings across various locations gave rise to a new approach in research in the 80s and 90s, known as facilities management (FM). The "fifth resource" notion by Michael Joroff (Joroff et al. 1993) entails that CRE should be considered as a crucial organisational resource alongside the traditional four: people, technology, information, and capital. It highlighted that managing CRE effectively can offer strategic advantages such as cost control, flexibility, and value creation. A shift took place from viewing real estate merely as a cost centre to recognising it as a strategic asset that supports the core business functions and contributes to competitive advantage.

As from the 1980's onwards, researchers started investigating the activities and dynamics of people, and between people on the work floor. These studies uncovered the importance of workplace design, workplace management and efficient execution of work (Danivska & Appel-Meulenbroek, 2021). This is where the human aspect gained critical momentum, and began to appear in WPS and CREM.

3.1.2 Workplace of today

As the previous paragraph unveils, building nowadays serve both as a means to an organisational end and as a social environment where humans execute work. This paragraph dissects the relationship between the workplace and its managerial and corporate real estate environment. To gain a better

understanding of the workplace of today, it is wishful to understand how today's organisations view the workplace and where it stands in the greater scheme of things. Firstly, this paragraph will deal with the position of the workplace in its external, physical context and, secondly, with the complexity of the internal components of the workplace.

While the focus mainly lies on their well-functioning, it is now generally accepted that human functioning, and thus well-being, is of critical importance to the financial prosperity of organisations. Although, with statements as "If a building is an investment, then the focus is on maximizing return" (Oseland, 2021) and "for many in the industry, it is still about 'the deal'" (Kane, 2020), in practice, the workplace is still largely viewed as a financial resource, regardless of human factor.

External context of the workplace

The workplace and the workplace management are tied to a bigger structure of corporate buildings and operations. These corporate buildings often are referred to as portfolio's: that is an assembling of corporate buildings. These portfolio's and their processes must be managed on various scales in order to keep companies thriving. The management of portfolio's is called CREM (Corporate real estate management).

As for the workplace itself, the workplace as a subject is tied to a variety of management scales such as CREM, FM (Facilities management), and HRM (Human resource management) which can essentially be translated into the management of the portfolio, its facilities and its people. So where does the WP fall in this sequence?
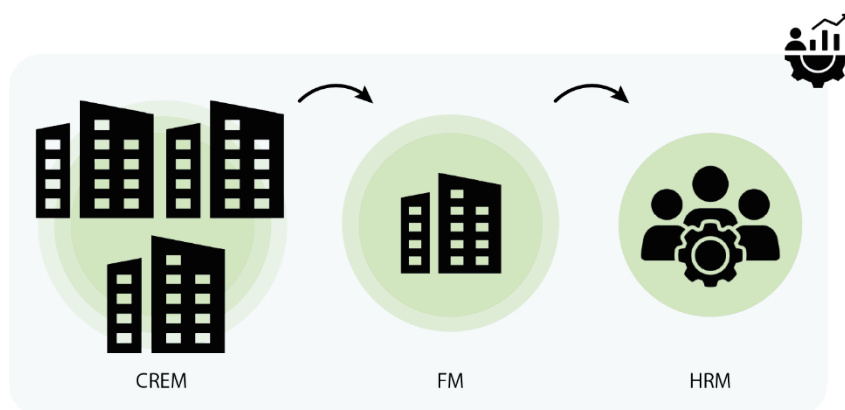
Figure 7. Scales of organisation (author)

Throughout the years attempts have been made to grasp the ambiguous concept of workplace management within one definition. In the work field, workplace management is generally perceived as a responsibility falling under either one of the following purviews: facility management (FM), corporate real estate management (CREM), or human resource management (HRM) departments (Danivska & Appel-Meulenbroek, 2021), separately or simultaneously. At each level, policies are written regarding the workplace. Throughout literature, suggestions are made that these three management levels must interact on this topic in order to align.
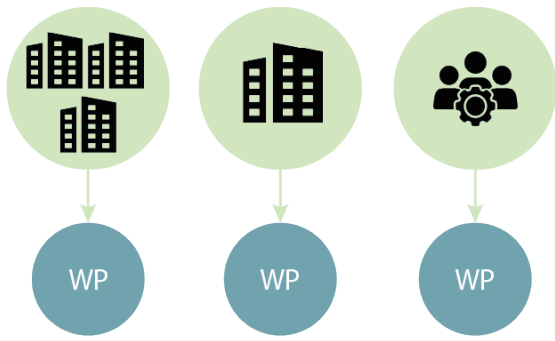
Figure 8. WP in the organisational context (author)

Figure 9. WP intersection of domains (author)

Another interesting view is that the workplace and its management go beyond these three scales and involve a combined expertise of multiple fields such as CREM, FM, HRM, marketing, finance, IT, organisational head figures and employees (Redlein et al.,2020), so much so that this combination is viewed as necessary in order to create a healthy and effective workplace for both the organisation and its employees.
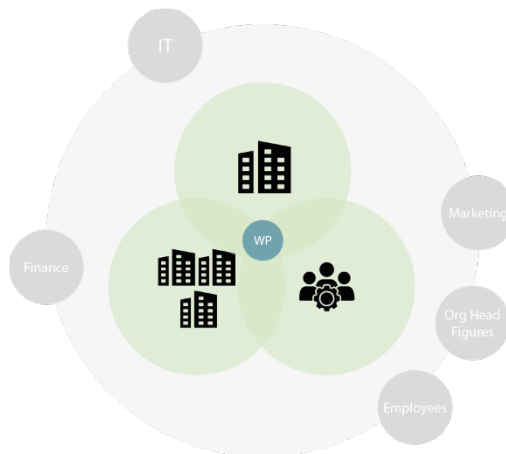
Figure 10. WP according to Redlein et al. (author)

As the literature shows, the workplace is an ambiguous concept and does not fall under one clear category but rather appears at the conjunction of several management fields and building scales. With the most prevalence in management fields of CREM, FM, and HRM.

Internal complexity of the workplace

As seen in the previous paragraph, workplace management is a topic which is thoroughly researched in multiple fields, though it is not known as an academic discipline in itself.

The workplace has been researched from a variety of perspectives, each contributing to an extensive body of literature with great differences in scope and perspectives and little interaction between these fields. Such research fields are: psychology, medical sciences, organisational management sciences, engineering sciences, economics and architecture. Each field observes the phenomenon from different

perspectives and approaches the subject with its respective theoretical background regarding research, and assess the processes behind successful management. Each developing their own visions and ambitions of what the workplace should be. These different fields and approaches naturally entail different considerations and relationships compared to the other fields. As stated in their work, Appel-Meulenbroek and Danivska (2022) conclude that this stratification regrettably leads to knowledge on this topic being scattered and essentially lost between these fields.

According to Danivska & Appel-Meulenbroek (2022, p.4), "workplace management has been scattered across different disciplines for a long time, especially the physical versus the psychosocial environment". Many literature sources also make the distinction between conceived space, perceived space, and lived space (Lefebvre, 1991). From this foundational threefold division of the experienced work environment emerged the physical, social, and digital division. This threefold division is widely accepted and applied in theory and practice (Poutanen, 2021). Dale and Burell (2008) describe the workplace as an environment in which organisation, space and architecture intertwine and impact the daily lives of people, whether this is on a conscious level or on a subconscious level. Haynes (2008), who approaches the workplace from the user's perspective, divides the workplace into the physical environment and the behavioural environment. These are general, widely accepted and often-recurring explanations in literature regarding the workplace. These notions imply that the work environment is not only material and tangible, but also socio-spatial, abstract and intangible.

The tangible workplace refers to the physical environment, such as the building or floor where actual work activities take place, and is supported by various environmental factors. In contrast, the intangible workplace encompasses the psychosocial environment—where individuals interact, build relationships, and are supported by services like HR, behaviour policies, and colleague interactions. In other words, the tangible workplace represents the physical space devoid of human interaction, while the intangible workplace focuses on the behavioural and relational aspects among employees.
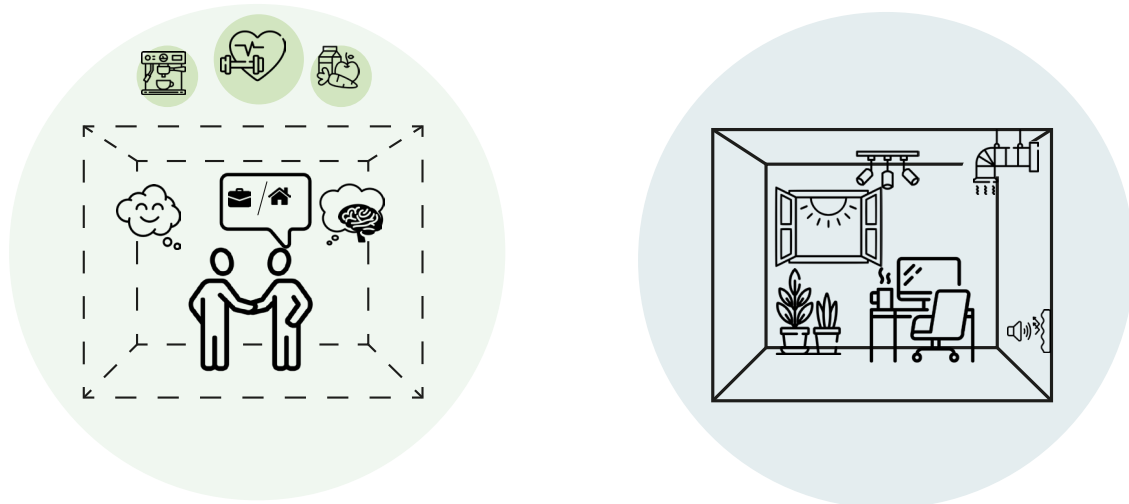

Figure 10. The intangible (left) and tangible (right) workplace. (author)

3.1.3 Chapter conclusion

The workplace and its management have been approached from various perspectives throughout time, showing a progressive emancipation of the human factor within the workplace. However, the priority of the workplace as a financial asset prevails.

Secondly, there is still ambiguity around the workplace's designated area of responsibility within organisations. Prevailing in the separate fields of CREM, FM and HRM, among others, the workplace is subject to internal substructures of organisations. Interference of these perspectives occurs, creating organisational confusion. Additionally, the fragmentation and scatteredness of theory regarding the workplace appears to manifest in a lack of clarity within the discipline, resulting in loss of information between disciplines. Nevertheless, a distinction can be made between the tangible and the intangible workplace.

3.2 Workplace strategy – forming and implementation process

3.2.1 The multiple dimensions of general organisational strategy

Many standard textbooks on general organisational strategy, typically define strategy as the plans developed by top management to achieve objectives that align with the organisation's mission and goals (Wright et al., 1992). Nonetheless, the scientific literature mainly relies on Mintzberg's definition of the term. As he is a founding name in strategy literature, we will turn to Mintzberg's definition of strategy. His theory argues that effective strategy encompasses multiple dimensions and cannot be understood through a single definition, but rather through five. Henry Mintzberg defines strategies through his well-known framework known as the "5 Ps of Strategy," which includes Plan, Ploy, Pattern, Position, and Perspective.

1. _Plan_ – A deliberately crafted course of action designed in advance to address a specific situation.
2. _Ploy_ – A tactical manoeuvre intended to outsmart competitors.
3. _Pattern_ – A consistent behaviour or action over time, highlighting emergent strategies that arise naturally.
4. _Position_ – Adopting a strategic attitude in relation to in one's environment results in a competitive advantage.
5. _Perspective_ – The collective mindset or culture within the organization that shapes decision-making and strategic approaches.

His work underscores the importance of flexibility and adaptability in strategic management, recognising that strategies can emerge from patterns of behaviour and evolve over time based on organisational learning and environmental changes. All in all, Mintzberg gives the following attributions to Strategy: strategy sets direction, strategy focusses effort, strategy defines the organisation and strategy provides consistency. In short, one may say that the main aim of strategy is to support the core business and its goals. However, strategy in itself is not a singular thing; strategy consists of a set of plans and actions based on specific needs which aim to attain a variety of specific goals.

Henri Fayol, a pioneering figure in management theory, identified four key management levels within organisations: normative, strategic, tactical and operational.

1. *Normative Management:* This level establishes the core values, culture, and mission of the organization. It sets the foundational principles that guide decision-making across all levels.
2. *Strategic Management:* Top-level executives focus on long-term goals and overall direction. They formulate policies, allocate resources, and ensure the organization's vision aligns with its mission.
3. *Tactical Management:* Middle-level managers bridge the gap between top management and operational staff. They translate strategic objectives into specific plans and projects, coordinating resources to achieve these goals.
4. *Operational Management:* Frontline managers oversee day-to-day operations, ensuring tasks are completed efficiently and effectively. They implement tactical plans and address immediate issues, maintaining smooth workflow and productivity.

Each management level plays a unique yet interconnected role in making sure strategic goals are translated into practical plans and executed smoothly. This hierarchical structure enables clear communication, resource allocation, and alignment of activities with the organization's overall mission and goals. According to Fayol, smooth interaction and cooperation among the four organizational management levels are perceived to be essential for a company's success. By working together, these levels ensure that strategic objectives align with the organisation's values and are executed efficiently. To conclude, in all forms of strategy, alignment is necessary between the four levels of management. It is only through effective alignment of the highest level to the lowest level, that a desired outcome is generated (Kämpf-Dern & Will-Zocholl, 2022).

3.2.2 Alignment and Cascading
Almost all organisations either own or rent space to support their business operations. This is why strategy around CRE affects so many organisations. It drives both CRE objects and CREM practices, making alignment between CRE and business strategies the primary focus (Arkesteijn, 2019).

"Corporate Real Estate alignment is defined as the management of a corporation's real estate portfolio by aligning the portfolio and services to the needs of the core business processes, in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the corporation." - Arkesteijn (2019)

This underscores the critical importance of business strategy in shaping both CRE and subsequently, the Workplace Strategy. This means that, business objectives require a strategic approach to their corporate real estate and workplaces to effectively support their core operations, making workplace strategy highly valuable for organisations. This alignment practice is well described by Krumm et al. (2000) as:

"The management of a corporation's real estate portfolio by aligning the portfolio and services to the needs of the core business (processes), in order to obtain maximum added value for the business and to contribute optimally to the overall performance of the corporation".

A specific form of alignment which is less prominently discussed in real estate literature but which finds its roots in organisational management theory, is the concept of 'cascading'. Cascading in organisational management refers to the process in which strategic goals and decisions made at higher management levels are translated into specific actions and objectives at lower levels. This ensures that all parts of the organisation are aligned with the overarching strategic vision and are working cohesively towards common goals. This concept was first introduced by Drucker (1954) and is still highly regarded in

management literature. As Safari and Mazdeh (2018) state: "What truly drives an organization forward in strategic management is the process of cascading strategies developed during the planning phase into actionable, operational programs during implementation." Safari and Mazdeh underline that cascading strategic plans into a clear operational program is essential for organizational success. By cascading the right strategies effectively throughout the organization, strategic success becomes much better achievable. The key lies in how well these strategies are cascaded, ensuring they flow seamlessly from the top levels down to every part of the organization. This information from Safari and Mazdeh is key for this research and is used as a theoretical backbone when analysing practice.

As a conclusion we may say that strategy is necessary to achieve alignment. This alignment of the portfolio to the core business is where strategy is necessary in order to create direction and attain certain objectives related to the overall business strategy. Therefore it is of high value to organisations. Primarily as a financial asset, but also as a strategic asset and a tool for competitive advantage. Strategy is a tool for all forms of future organisational intentions and performance. It is essential to understand the processes of workplace strategy development and its varying composing elements components.

3.2.3 Workplace strategy

As stated in the origin of the workplace, the workplace is no longer only a place to house employees. Awareness around the strategic dimension of the workplace and its potential influence on business numbers has begun to arise at the turn of last century (Kampf-Dern & Konkol, 2017).

As mentioned in the previous chapter, managing the workplace includes creating and maintaining work environments which support the core business. The latter indicates that after the creation of a workplace, management is the driving force for successful work environments when the workplace is in use. So, human beings and their performance play a crucial role in maintaining workplace functionality and are significantly influenced by the alignment of organisational objectives with CRE goals. On this topic, Redlein et al. (2020) state:

"the alignment of the organisation's workplace with business strategy to optimise employee effectiveness and achieve strategic business goals".

Arkesteijn and Heywood (2017), have dedicated almost all their research to the topic of CRE and WP alignment and how alignment is achieved. After extensive research they have concluded that alignment emerges in four forms:

1. As a defined strategy or plan, in the form of documents;
2. As a process, that is a set of management actions and decision making;
3. As a static form, meaning the current or a future degree of alignment;
4. As a behaviour which entails having a continuous strategic mind-set.

From these four alignment forms, two distinct forms stand out and directly relate to Fayol's above-mentioned four levels of management and the alignment between these levels. The first is the defined strategy in the form of documents. Each organisational level produces documents around strategy. The second is the process in the form of actions and decision-making. This originates from a pre-defined model or plan with a series of steps in order to attain optimal alignment between organisational objectives and real estate. This alignment is steered by managers or other decision makers. Both alignment forms highly resemble the cascading theory. A third, less traceable, yet intriguing alignment form is the behaviour-based form. In this type a strategic mind-set is important for assessing strategic potential of tactical and operational actions. Here, behaviours and process are combined in order to create better alignment. This clearly indicates that the process of alignment on one hand consists of

pre-defined strategic plans in the form of documents, and on the other hand heavily relies on human management and their strategic mindsets for optimal execution of the process.

3.2.4 Forming and implementing a successful workplace strategy

In a paper by Kämpf-Dern and Will-Zocholl (2022), the four organisational levels by Fayol, and workplace strategy and alignment literature are merged within one framework which specifically applies to workplace strategy making and implementing. This framework gives an overview of the required documentation and the necessary actions to take at, and between, each level of the four organisational levels, in order to form and implement a successful workplace strategy. It gives a coherent, ready-to-use template of the exact cascading route for any topic in the business strategy, all the way down to the actual workplace.

Below, a description is given of the framework: the four organisational levels and their strategy-components.
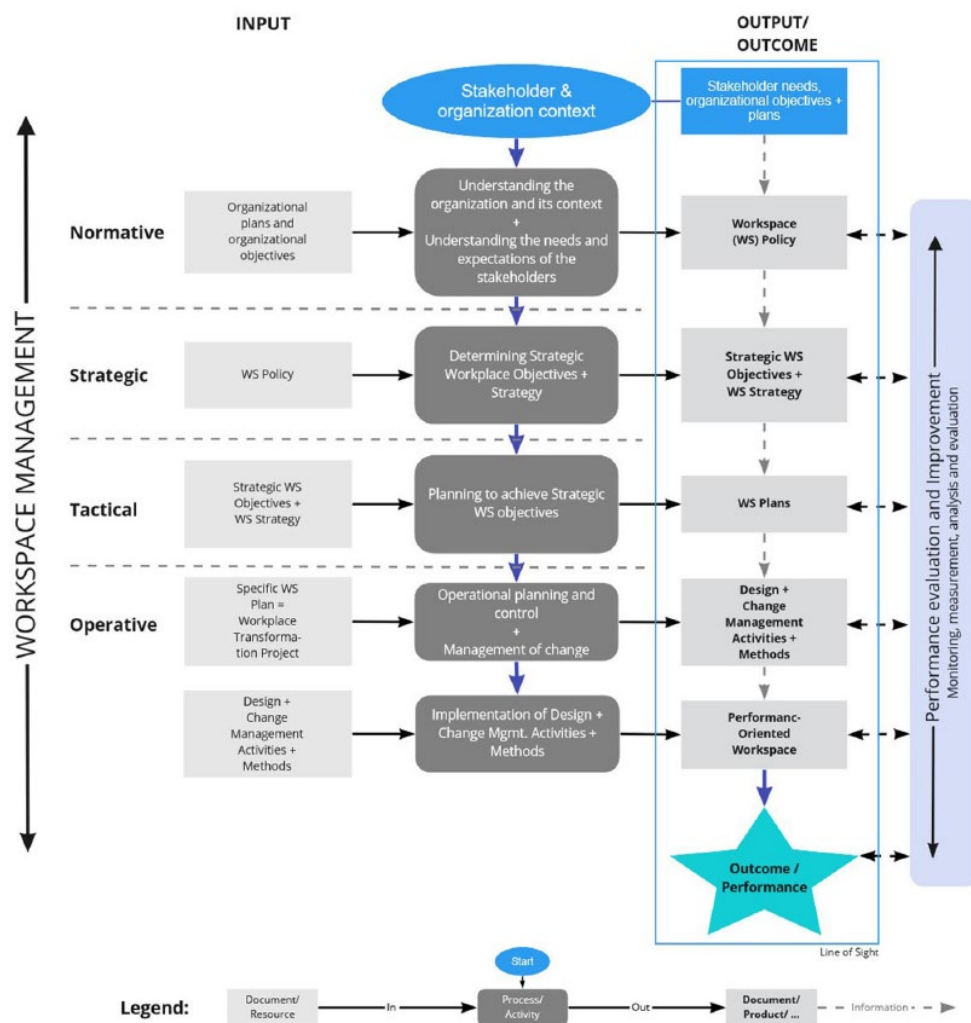

Figure 11. From organizational objectives to workspace performance
(Kämpf-Dern & Will-Zocholl, 2022)

Normative level – This is the corporate context, mission and vision, policies and objectives of an organisation, regardless of its real estate. At this level, alignment occurs through understanding the overall business and stakeholders expectation. This understanding is translated into and anchored in a generic workspace policy.

Strategic level – After the generic workspace policy, a strategic plan regarding the WS is developed. At this strategic level, general workspace objectives are determined and a plan is made to ensure optimal organisational alignment. This strategy, in the form of a plan, is the named the Strategic workspace plan.

Tactical level – At this level, a number of workspace plans are made, which originate from the Strategic workspace plan. The general WS objectives are refined into a variety of topics and actions, the so-called Tactical workspace objectives. For this, key performance indicators are determined and used for communication between all layers of management. Then, workspace analyses are conducted in order to identify current alignment gaps. In the final workspace plans, target figures are set for the various topics, accompanied by clear implementation measures. This implementation will then be executed at the operative management level.

Operational level – This level will manage the materialisation of the workspace plans. This entails the management of design, workspace technology, services, information and participation measures. At this level, many experts, both internal and external, are involved. It is in this phase that the project trajectory is carefully defined in terms of content and timing and further coordinated. All of this results in intensive branching and outsourcing of interdependent activities.

The authors mention that successful cascading is required between all layers of management levels in order to obtain a successful result. Furthermore, during the totality of the implementation, communication and constant monitoring are required.

A related article by Kämpf-Dern and Konkol (2017) about the performance-oriented workplace states that to achieve a successful workplace, the input of a select variety of actors is necessary as well as elaborate change management. These actors will be discussed in the following paragraph. As for workspace change management, this entails the inclusion and support of users throughout all phases: planning, implementation, operation and evaluation. The aim is to connect the physical and organizational adjustments with the psychological and emotional responses of the users. It is deemed important to provide tools and strategies that help achieve the desired outcomes of these changes.

3.2.5 Key actors

As mentioned in the first literature chapter, the workplace itself is at the intersection of multiple disciplines (Danivska & Appel-Meulenbroek, 2021). Therefore the creation and management of the workplace requires the collaboration of interdisciplinary experts (Kämpf-Dern & Konkol, 2017). Kämpf-Dern and Konkol have determined the following functions or disciplines within organisations, which are involved in the defining, designing and delivering of an efficient workplace: HR, CRE/FM, management and Finance in addition to ICT and user representatives. According to Robertson (2000), if any of these roles are not sufficiently involved timely and throughout the process, crucial information could be missing, increasing the chances of the project failing. Kämpf-Dern and Konkol (2017) continue by underlining that the commitment and involvement of management are critical for creating successful workplaces. It is their responsibility to guide employees through change and new working behaviours. Furthermore, input of end-users is a critical resource to understand needs and preferences.

3.2.6 Chapter Conclusion

Firstly, seamless cascading and alignment of CRE to business objectives is critical for creating a successful workplace. For this, strategy at one organisational level should be aligned with strategy at the previous and following levels. Workplace strategy consists of four organisational levels, each with their own activities and products.

Organisational level	Activities and products
Normative	The understanding of the business objectives, based on the overall business strategy. Understanding the organisation and its context.
Strategic	The formulation of strategic objectives, based on the workspace policy. Creating a workspace strategy.
Tactical	The translation of the workspace strategy into actionable plans. Creating a workspace plan.
Operational	The execution of the workspace plan, which entails operational planning and control, as well as design implementation and change management activities.

Table 1: Activities and products per organisational level, based on literature (author)

Secondly, theory describes strategy as a series of policies and actions towards a specific goal. The content of these policies typically include clear statements of purpose, specific rules or standards, and the procedures necessary to enforce and implement them. Subsequently, this is achieved through the application of defined processes, which represent the actions. These two components continue to alternate recurrently until the final result is achieved. In this thesis, the specific goals comprise workplace well-being or mental health.

Thirdly, key-actors, change management and a supporting organisational context are critical for a seamless cascading and alignment process. These three make up the outline components of how successful performance-oriented workplaces are formed and implemented as according to Kämpf-Dern and Konkol (2017).

This chapter has created an overview of the critical elements of WPS as a process, explaining how these are formed and implemented. The following chapter will dive into the subject matter of MH in the workplace, thus providing a theoretical outline of the content to be taken into consideration throughout the process of integrating MH into WPS processes.

3.3 Workplace and mental health

To understand the current trend and considerations around mental health in organisations, it is important to first create a better understanding of the concept of mental health in general, and in relation to the workplace in particular. In the previous paragraph, the workplace was described as a place where organisation and building come together. In the literature, well-being in the workplace is also approached from two separate perspectives: the organisation and the building. On the one hand, it is approached from the perspective of the psychosocial or organisational workplace, which we hereafter refer to as the 'intangible workplace'. And, on the other hand, it is approached from the perspective of the physical workplace, hereafter: the 'tangible workplace'. This chapter will adopt the same distinction and aims to retrieve recurring topics in the literature of both perspectives. These topics will then be assembled in a list. The topics from the list will be used to analyse the case in the empirical part. Before exploring the topic of mental health in the intangible and tangible workplaces, a short introduction is given hereafter on well-being and mental health in general in the workplace.

3.3.1 Mental health

According to the World Health Organization, health is described as a condition of overall physical, mental, and social well-being, rather than just the absence of illness or weakness (World Health Organization: WHO, 2022). In the past, the term mental health was often used by default as a connotation for mental disorders. However, in recent days mental health is no longer solely mentioned in relation to mental disorders and is now perceived as a complex continuum of varying mental states which can for example include psychological distress and impairment in functioning (World Health Organization: WHO, 2022). This implies that poor mental health is not an issue which solely applies to people with mental disorder diagnoses, but that its scope is much broader and can essentially affect anyone.

3.3.2 Mental health in the workplace

In the workplace, stress and burnout are the most common-known expressions of mental health issues. Clearly, burnout is not the most prevalent mental health issue at is it often considered to be the utmost form of stress-related work condition. Yet, research conducted by Amsterdam UMC (2022), shows that from all mental health work-related diagnoses, 78% were overstrain or burn-out related. From this the question arises what burnout entails and what lies at its source. According to Van Lier (2024), all definitions of burnout agree on one thing: the core of burnout is mental exhaustion. All in all, a solid and verified foundation of literature point out the correlation between mental health, or mental health consequences, and its significant impact on the organisation's functioning.

A significant number of mental health issues observed in the workplace are various expressions of stress or, more precisely, conditions linked to stress. In fact, many studies have found positive associations between stress and burnout (Crawford et al., 2010; Schaufeli & Taris, 2014) and also between stress and poor health (Ganster & Rosen, 2013). The understanding of the impact of the employees' environment (both the intangible and the tangible) on their overall functioning is evolving. Due to this growing understanding of the dual impact environmental psychology has gained momentum. One thing most researchers in this field agree upon, is that the users have two types of reactions to their environment: a psychological response, and a physiological response (Haynes et al., 2017). This once more underlines the interconnectedness of the tangible and intangible workplaces, as their components affect either the psychological or the physiological aspect of health, or rather both. Specifications on these components and impacts will be discussed in later paragraphs.

3.3.3. Organisational impact and repercussions

One may assume that stress is at the root of most mental health and well-being issues. Kropman et al. (2022) go as far as to determine that stress is the most prevalent component of mental health. As with mental health, stress is viewed as an ambiguous phenomenon which is difficult to define scientifically. Throughout the years, a vast amount of literature has been written about stress in relation to mental health in the field of psychology. In the foundational theory by Seyle (1956), it is concluded that stress is a reaction to a disruptive cause. Such disruptive causes are often referred to as stressors. Stressors have a significant impact on mood, our sense of well-being, behaviour, and health (Schneiderman et al., 2005). According to Leiter and Maslach (2016), stress, and thus impaired MH, is generated by six particular variables: workload, control, reward, community, fairness and values.

In general, most jobs involve some degree of pressure and such pressure can often be positive. When translated to the work environment, stress arises when the demands of the workplace exceed a person's ability handle or control them (Henderson et al., 2012). When stress occurs within the person's control, it can improve performance and give job satisfaction. However, when the pressure reaches excessive levels, and continues for some time, it can lead to mental and physical ill health (Kropman et al., 2022).

The mental health indicators that relate to MH in the workplace are vast, diverse and multi-facetted (Kropman et al., 2022). Several indicators come forth from an extensive literature study on the most-mentioned mental health related terms linked to the physical workplace in 133 papers, all selected by Bergefurt et al. (2022). From this research ten indicators kept resurfacing: burnout, engagement, depression, mood, fatigue, sleep quality, well-being, concentration, productivity, and stress.

The consequences of poor mental health at work are two-fold, impacting both employees and the overall business. Employment conditions, among other factors, are significant determinants of mental health. On this topic, Alegría et al. (2018) establish that a two-way relationship exists between mental health and social determinants. Research by Bambra et al. (2009) highlights that factors such as sufficient job control and decreased workload demand can mitigate stress, anxiety, and depression, while also boosting productivity, job satisfaction, and self-esteem.

Kropman et al. (2022), along with many other researchers, point out that problems around stress, MH, and well-being are known to result in poor employee health, absenteeism, decreased quality of work, reduced productivity, decreased employee satisfaction. all leading to excessive and unnecessary costs (TNO, 2023). According to Breslau et al. (1995), continuous stress can lead to long-term health problems, including anxiety, functional impairment, and even depression.

Long-term stress not only affects mental health but also has serious physical repercussions, causing changes in the nervous, cardiovascular, endocrine, and immune systems (Schneidermann et al., 2005). However, the *reciprocity of stress on health* makes it difficult to determine which event is the cause, and which is the effect (Teasdale, 2006). Persistent, excessive stress is a significant contributor to severe health issues, which can lead to absenteeism and negatively impact organizational outcomes (Miraglia & Johns, 2016).

Notably, the aforementioned literature focuses exclusively on workplace stress without considering its connection to the physical work environment, as is mostly the case in literature on workplace stress. This is due to the fact that the physical work environment is only researched from the field of environmental psychology. Seddigh et al. (2014) have conducted research on the relationship between office types and health and performance indicators, and come to the following conclusions. Most studies focus on the association between office space design and health, environmental satisfaction, or work environment. Other studies focus primarily on the characteristics of the job itself and the

interaction with the office environment, showing again a distinction between two types of workspace perspectives, the intangible and the tangible.

Although businesses depend on their employees' performance to achieve profitability, which in turn requires that the work environment is conducive to health and performance, there is a lack of research scrutinizing the interaction effects of office space design and concentration requirements. A better and widely accepted understanding of this could potentially be an important value driver for organisations. It also points out a potential blind-spot in practice.

Concluding, a vast amount of literature establish the profound impact that mental health related issues can have on successful professional functioning of individuals in general. Furthermore, many articles and studies indicate clear links between mental health, the workplace and working conditions. Literature suggests that negative relations were found between work and mental health, as well as positive relationships, alluding that this influence is binary. However, for organisations, traction can be gained in understanding and tackling of these conditions at their sources.

The following paragraphs will take a deep dive into the elements composing the intangible workplace, as well as the elements composing the tangible workplace which appear to have an impact on mental health. This information will provide a clear overview of the factors which should be integrated into the workplace strategy forming and implementation process.

3.3.4 Mental health in the intangible workplace

As mentioned in the first chapter, non-physical aspects partially create the perceived work-environment of employees. The intangible workplace encompasses the psychosocial environment where individuals interact, build relationships, and are supported by services like HR, behaviour policies, and colleague interactions. This intangible environment also influences behaviour, well-being and mental health. Hereafter, themes from literature on this subject are categorised and discussed.

1. *Workplace culture and values*

Maslach (2017), who is a renowned name in the field of workplace psychology, finds the following aspects to be critical for the employee's well-being within working environments: sustainable workload; choice and control; recognition and reward; fairness, respect and social justice; clear values and meaningful work. Among these values, inclusivity and diversity appear under the umbrella of fairness, respect and social justice. All of which depend on the chosen organisational culture and its values.

Teasdale (2006) mentions the following organisational responses to enhance well-being in the work environment: a positive environment; a safe environment; enabling social interaction; occupational health programs and promotion of health programmes; counselling and life-management resources; encouragement of healthy lifestyles; flexibility in work-life balance options. Teasdale emphasises the importance of role modelling by leading with example. Next to the providing of resources, the allocation is also critical. Teasdale further elaborates on personal needs around well-being and among others mentions the need to learn and develop.

2. *Social dynamics and relationships*

From many research sources, the theme of respect arises as a factor which influences mental well-being in the workplace. This applies to intercollegiate relationships, as well as relationships between employees and managers. According to Maslach (2017), supportive work communities and a general sense of community heavily impact feelings of stress in the workplace. Feelings of loneliness and

isolation have great consequences for productivity, mental health and eventually organisational turnover (Hammer et al., 2022). Jensen and Van Der Voordt (2019) mention social cohesion as a workplace characteristic which impacts mental health. This underscores the importance of having fulfilling social relations and interactions in the work environment.

3. Engagement and autonomy

According to Leiter & Maslach (2016), exhaustion in the workplace is not solely due to workload and inability to meet requirements. They state that the psychological connection to one's work heavily impacts the sense of motivation and identity. In that research, as in many others, engagement is mentioned as the counteragent of this phenomenon. Maslach (2017), determines autonomy as one of the core psychological needs of employees. They underline the importance of environments which can support these needs. Personal control over one's work patterns and work environment also often reoccur in the literature and impacts productivity as well as mental health (Jensen & Van Der Voordt, 2019). A sense of autonomy in the form or freedom and choice, increases well-being, motivation and performance (Wohlers & Hertel, 2016). Furthermore, privacy and the ability to execute work without interruptions and disturbances are often mentioned. Higher sense of privacy positively influences ownership and identity, causing to decrease mental health related stressors. On the topic of controlling one's work environment, territoriality is also mentioned as influential on the feelings of belonging and stress.

4. Communication and information flow

Wohlers and Hertel (2016), who research the impact of working conditions and organisational psychology, often circle back to communication. Whether this is one-on-one communication, within teams or between teams, the ability or inability to effectively and easily communicate is of great influence on satisfaction, freedom and well-being. This is because it impacts social relationships, cohesion and work performance. It also heavily impacts efficiency and productivity, especially when working in teams. The authors mention that communication frequency is heavily impacted by design and layout, for example by design choices either enabling or obstructing proximity and visibility, thus impacting efficient information flow and collaboration.

5. Services and amenities

Within the workplace, often services are made available for employees to support their work or for personal development. These vary from ICT aid to support professional activity, to provision of catering or any kinds of training (Kämpf-Dern & Will-Zocholl, 2022). Some of these services are provided in the form of amenities. Think of gym facilities or psychological guidance outside of the office floor, but provided by the employer. Studies have shown that such additional services are beneficial to productivity, health and well-being, resulting in financial added value (Van Der Voordt & Jensen, 2021). These hospitality services and amenities appear to affect performance, productivity, satisfaction and health of employees (Groen et al., 2021). A valid question mark can be put here as to whether services and amenities should be classified as an intangible component or a tangible component. This classification varies per scientific perspective, though the choice was made to follow Kämpf-Dern and Konkol's (2017) classification. Their classification describe services as supporting processes for employees outside of the physical office space where people execute their daily work tasks. Amenities are thus the physical entities which enable such services.

In conclusion, these aspects of the workplace significantly influence employees within their work environment. The intangible elements, such as workplace culture, social dynamics, engagement, and communication, play crucial roles in forming behaviour, well-being, and mental health. The literature

underscores the importance of creating a supportive and inclusive culture, fostering positive social interactions, and providing autonomy and effective communication channels. As organizations aim to enhance employee well-being, understanding and addressing these psychosocial factors becomes essential.

3.3.5 Mental health in the tangible workplace

The literature on the tangible aspects of the workplace is extensive and finds its roots in the field of environmental psychology. Environmental psychology explores how human beings act, function and perform in their physical surroundings, emphasising how environments influence behaviour, well-being, and mental health. In the context of the workplace, environmental psychology provides valuable insights into how the tangible aspects of the work environment can significantly impact employees' psychological states. Understanding these effects is crucial for designing and redesigning workplaces that not only foster productivity but also support mental health. All researched components of this topic show a relationship with productivity, and almost all show a relationship with stress and well-being (Kropman et al., 2022). Below, the themes from literature are categorised and discussed.

1. Office layout and spatial design

Layout and openness are the two most discussed factors of workplace design and how they affect employees. First and foremost, open spaces increase stress and private, more enclosed office spaces have a reducing effect on stress. Next, literature points out that flexible use of individual workspace also contributes to lower stress levels. Furthermore, the availability and freedom of choice to use breakout rooms or concentration spaces also contributes to lower stress levels (Kropman et al., 2022). Most studies find that the spatial factors greatly influence satisfaction, productivity and health (Candido et al., 2016). Candido et al. researched this and found the following relationships. In the case of ABW, logistical time-waste and lack of or reduced availability of desks are a prime issue which is perceived as a great source of irritability. Furthermore, the inability to adjust or personalise the environment to one's preferences, impacts productivity and mood. To the majority of employees, high density or high occupation ratio's leads to discomfort. Seddigh et al. (2014) point out that that the higher the number of occupants in a single space, the higher the sickness absence rates are. According to Kropman et al., the number of occupants and dispersion of people over certain areas can also influence perceived stress. This research shows that workspace-clusters of more than six employees increase feelings of stress due to difficulties with concentrating leading to lower productivity rates. Dense environments namely cause higher levels of distraction due to excessive noise and movement, which negatively impacts concentration, task performance, attention control and cognitive overload. The same applies to wide open layouts, where lack of privacy is also an issue (Brunia et al., 2016). In large, open areas, distance also complicates visual control and ability to interact with colleagues. High density is often also due to a lack of suitable spaces for one's work activities. This leads to claiming behaviour which also causes irritability and negatively impacts mood and productivity. A lack of enclosed spaces often resurfaces as an issue as well as employees express a need for spaces to concentrate. Lastly, in non-territorial environments, teams tend to be scattered which impairs knowledge sharing, immediate collaboration and ad-hoc conversations. This leads to collaboration and communication issues within teams, greatly impacting performance, productivity and efficiency (Wohlers & Hertel, 2016). It also impacts intercollegiate relationships. The authors underline the importance of the proximity and visibility of team members.

Positive factors of non-territorial spaces are ability and flexibility to choose one's workspace. However sufficient availability is a prerequisite in this case. Though a study by Brunia et al. (2016) solidifies that employees highly appreciate clearly defined areas with a clear demarcated division and acoustic divisions. More on the latter below. A high diversity in space-types and functions is also favoured.

Another positive aspect of non-territorial layouts is that it facilitates low-threshold communication. However this also brings challenges in the form of noise disturbance if poorly designed.

2. Lighting and visual environment

Light exposure is known to be an essential factor to human health. For this reason, this topic has been closely researched in relation to mental health. Daylight exposure affects the human circadian system, which regulates various biological processes such as sleep-wake cycles. It is therefore natural that lighting is heavily related to mental health indicators such as fatigue, mood, productivity and concentration (Kropman et al., 2022). With artificial lights, the cooler the colour tone, the more positively it impacts productivity and concentration. Moreover, personal control over lighting is highly appreciated and correlates with increased productivity, mood, well-being and engagement. Dark colour schemes are linked to distraction and impact concentration which leads to decreased productivity (Brunia et al., 2016). According to Kropman et al.'s elaborate literature review, colour is only in part associated with impact on stress levels. Regardless of personality types, it appears that softer colour tones and natural textures and elements have a positive effect on perceived stress and increase concentration.

Views with outlook on greenery also reduce stress. Kropman et al. mention a study that concludes that if employees move towards a desk with such views, a 4% reduction stress symptoms is recorded. Research on indoor greenery points out that a small number of plants per desk is most impactful and beneficial to stress. According to measurements, this reduction goes up until an 8% reduction of stress. Adding a small number of plants also appears to boost employee productivity up to 15%, and concentration up until 20%. Higher numbers of plants however negatively influence stress and productivity. Yet, any amount of plants still appears to be better than no plants at all according to this research.

3. Acoustics

Noise levels are often dealt with in literature, mostly in relation to layout openness and density issues. Poor office acoustics are almost always rated as a highly influential and negative aspect as this is believed to impact productivity, mostly due to distractions or an inability to concentrate (Brunia et al., 2016). Next to impacting concentration and productivity, excessive noise can also lead to higher stress levels, fatigue and even in some rare cases shows links to depression (Kropman et al., 2022). Contrastingly, good office acoustics lead to higher satisfaction and increased productivity. Next to this, speech privacy shows clear correlations with concentration, productivity and overall well-being.

4. Temperature and Ventilation

Optimal temperatures for the workplace vary between 18 and 25 degrees Celsius (Kim et al. 2018). If offices deviate from this temperature bandwidth, stress along with several other mental health indicators, is negatively impacted (Kropman et al., 2022). Other than temperature, deviation from optimal humidity standards is also detrimental to stress levels. Again, alongside other mental health indicators, stress perceptions are heavily impacted by humidity levels. Under these sub-optimal conditions, stress can increase up to 22%. With regards to ventilation, only CO_2 levels highly impact stress. Studies determined stress increase as higher blood pressures were measured due to higher CO_2 concentrations in the air. Other indoor air quality and ventilation topics mostly, and also heavily, impact productivity, concentration and fatigue.

5. Ergonomics

In literature, comfortable furniture (Cándido et al., 2016) and good ergonomics (Brunia et al., 2016) are mentioned as an appraised element of the workplace as it contributes to employees' comfort. Other literature supports this as well; however there is little further elaboration on the subject.

6. Technology and equipment

A less prominent, but still often recurring aspect is annoyance around IT and technology Brunia et al. (2016). Workplace technology comprises technical equipment and devices such as hardware and software, but also other work supporting IT and facilities (KD&WZ). The annoyance mainly includes irritation around cables, excessive device noise, insufficient quality of IT, as well as loss of time with finding the correct set-up. So its accessibility poses a form of distraction and irritability. Wohlers and Hertel (2016) mention technology has a significant impact on working conditions, impacting communication and territoriality, as well as spatial design. It also greatly impacts flexibility of the employee, impacting autonomy, privacy. These on an individual level impact performance, motivation, satisfaction, and well-being. And on a team level they impact satisfaction, collaboration and performance.

This short literature survey sheds a light on the most critical tangible factors for a productive and healthy workplace. It further clarifies that the way the concept of flexible workspaces has been applied, results in great differences in satisfaction and therefore well-being levels. Particularly with regard to spatial layout, openness levels and availability of workplaces which support certain activities. Insufficient quality of these aspects appears to result in issues around communication and a high negative impact on possibilities for employees to concentrate, consequently affecting stress, productivity and overall well-being.

3.3.6 Chapter conclusion

From the literature studied in this chapter, a great amount of potential causes have been identified with regard to both the tangible and intangible office environments. Literature lists a variety of aspects which cause certain emotions or have direct impact on the employees' ability to perform. The topics derived from literature, are the most recurring themes which are proven to negatively impact the employee's ability to perform, and in doing so, affecting their well-being and mental health. Therefore, these are to be considered when attempting to create a healthy work environment. Together, all these considerations make up a foundation for the themes to be researched when analysing the documentation, or content, of the complete WPS forming and implementation process.
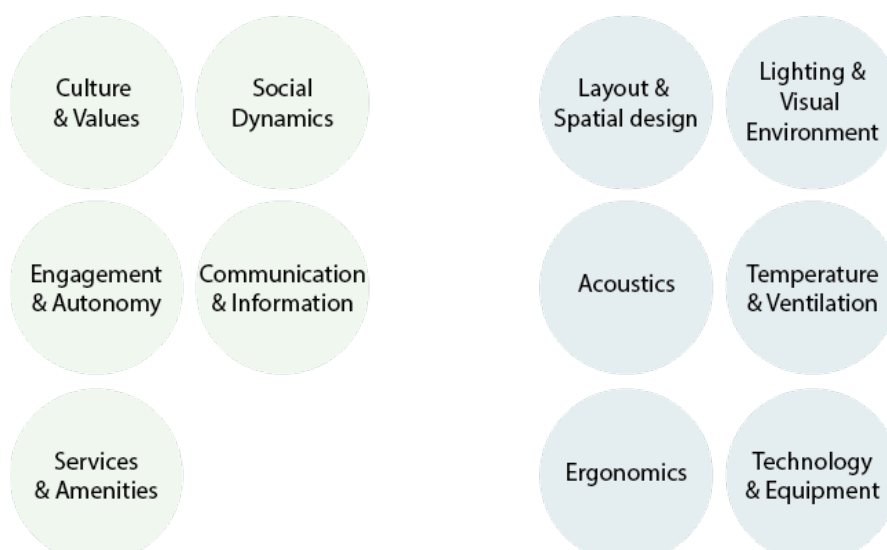

Figure 12: Intangible and Tangible MH considerations (author)

Intangible		Tangible	
Main theme	Elaboration	Main theme	Elaboration
1. **Workplace culture and values**	• Supportive • Integrity • Inclusion • Diversity • Work-life balance	1. **Office layout and spatial design**	• Supportive • Flexibility • Availability • Choice • Variety • Visual distractions • Territory demarcation • Clusters • Control
2. **Social dynamics**	• Social cohesion • Good relationships	2. **Lighting and visual environment**	• Daylight proximity • Cool artificial light tones • Greenery views • Indoor greenery • Soft colours • Natural textures
3. **Engagement and autonomy**	• Engagement • Control • Autonomy • Privacy • Territoriality	3. **Acoustics**	• Noise disturbance • Acoustic divisions • Speech privacy
4. **Communication and information flow**	• Collaboration • Communicate with ease	4. **Temperature and ventilation**	• Optimal temperature • Optimal humidity • CO_2 levels
5. **Services and amenities**	• WB counselling • Sports services • HR Development options • Work from home	5. **Ergonomics**	• Comfort
		6. **Technology and equipment**	• IT functioning

Table 2 List of mental health considerations within the intangible and tangible work environments (author)

3.4   Literature review conclusion

The totality of this chapter has provides a setlist of tools to conduct the empirical research. From this chapter, several foundational lessons can be summarised. The human dimension of the workplace is gaining prominence, yet its role as a financial asset remains dominant. Ambiguity surrounding the workplace's designated area of responsibility within organisations and differing perspectives on this role often lead to organisational confusion. Successful workplaces require alignment with business objectives, which is achieved through a seamless cascade across four organisational levels. Workplace strategy comprises policies and actions directed towards specific goals, with specific key actors, effective change management, and a supportive organisational context are critical for efficient alignment and cascading. Lastly, theory highlights recurring elements essential for mental health in the workplace, including five intangible and six tangible factors, which are desirable throughout the formation and implementation of workplace strategies.

4. Empirical research

Case description

WeCare, a global corporate with over 40.000 employees, provides a unique case for studying workplace strategy and employee well-being due to its public and explicit commitment to well-being. Their organisational values are directly translated into their workplace strategy. With a comprehensive and mature workplace strategy, WB is embedded as one of its cornerstones. WeCare's case offers insights into how an organization's workplace strategy can be crafted to support well-being. It allows for a deeper examination of how WeCare embeds well-being within its workplace strategy, focusing on understanding and subsequently mapping the process in the form of a critical pathway.

The study is based on a single embedded case study, where six, in-depth interviews and two exploratory interviews were conducted with key actors involved in this process. Though these varied in approach, findings from both interview types were used for the findings as these complemented and consolidated one-another. Additionally, internal documents were analysed to provide a comprehensive understanding of the organisation's approach to workplace strategy. The research aims to uncover how MH considerations are addressed in terms of content at normative, strategic, tactical, and operational levels. As well as understanding the processes of how the topic is cascaded in between these organisational levels, and which elements either enable or hinder an efficient cascading of MH. Thus providing a clear journey of how the topic of mental health is included in strategy forming and implementing.

Methods of analysis

In this study, thematic analysis was employed for both the document analysis and the interview analysis, using different approaches depending on the data and objectives. An abductive approach was applied to the document analysis, while an inductive approach was used for the interview analysis. All documents and interviews have been anonymised and are presented in pseudonyms and codes. Each chapter will briefly discuss the preparatory process before analysis, followed by the thematic analysis.

4.1   Document Analysis

4.1.1 Document analysis - Content

Apart from the annual report (Doc1, 2023), all documentation is provided by Brink. These are all documents Brink either obtained from the case-company at the start of their collaboration, or documents that were produced by the consulting company (Brink) during their collaboration. The scope of all documents reaches from business strategy visions and ambitions in the annual report, down to definitive project briefs.

4.1.2 Approach and categorisation

This paragraph will shortly explain the adopted approach for document analysis. Then go on to discuss the general content of each document, classify the document to a specific organisational level, and then elaborate on the content concerning MH of each of these documents. Based on their general content, the documents are classified according to the four organisational levels from the literature, to create an insight in the gradual content order (figure 13).

The adopted analysis method is abductive. Building on the theoretical foundation from the literature review, the documents will be thoroughly analysed, focusing on the prevalence of topics related to MH and how their form varies across organisational levels. This analysis will also allow other subjects to

emerge, sometimes revealing underlying motivations or the organizational and governance structures in place, that support the topic of MH.

Some documents contain much more, and more important information on MH and WPS than others. These are marked in italic and underlined in the table below (table 3). This table provides an inventory of all documents; a brief description of their content; the organisational level they belong to as according to literature. The organisational level which is attributed to each document is based on the content and to which extent it matches the descriptions from literature. Several documents are attributed two levels as they contain elements from both level-descriptions. For example, Doc2 (2021) is a document which discusses an overarching vision, aims and policy around behaviour in the work environment. The overarching scope and universality of the content makes it a strategic document. However, the level of detail and actionability of the content, makes it a tactical document as well.

Code	Document type	General content	Level
Doc.1	*Annual Report*	This document revises the organisational strategy. It discusses vision, ambitions and organisational values. These topics lay the foundation for WPS as the WPS must align with these. It also provides information on the motivation around WB and its structural and governance embedding in the company, as well as its link to stakeholders.	**N**
Doc.2	*Work Environment Guidelines*	This document contains behavioural guidelines for all environments-types of their workplace concept.	**S**
Doc.3	*Space Type Guidelines*	This document is in fact a chapter of Doc.6 (2023), it provides extensive design guidelines for more than 60 space types. For each space type, a variety of aspects are reviewed and visual examples are provided.	**S/T**
Doc.4	Workplace Concept	This document provides zoning and floorplan principles through typical modules and layouts. Concept sketches are given of floorplans.	S/T
Doc.5	Guidelines Hospitality Brand book	This document gives standards for restauration services. Visions and design principles are given as well as 3D sketches.	T
Doc.6	*Workplace Experience Document*	This document builds upon the organisational strategy and translates these ambitions into WP ambitions. The document outlines the structure of the workplace strategy and the pillars it consists of. It sets objectives for the workplace and provides planning principles. It also unveils the organizational structure of their workplace concept.	**S**
Doc.7	*Amenity Concept*	This document discusses a specific amenity concept in terms of space type and design. With chosen design standards to apply.	**S/T**
Doc.8	Colours & Materials	This document gives an overview of specific selected colours and textures to choose from and apply in office design.	S/T
Doc.9	*Design Brief*	This document is a design brief which outlines a specific project mission, deliverables and scope. It builds upon the Workplace Experience Book (Doc.6, 2023) and applies that content to a specific project.	**T**
Doc.10	User requirements specification	This document is an elaboration on the Design Brief (Doc.9, 2023). It provides an in-depth overview of the deliverables.	T/O
Doc.11	Plazas Concept	This document discusses several types of restauration service concept developments for offices buildings.	T
Doc.12	Guidelines Hospitality Brand book	This is the same document as Doc.5 (2022).	T
Doc.13	Vision Office & Amenities	This document discusses key takeaways from a vision brainstorm and translates these into a project vision and possible office building concepts to choose from.	T
Doc.14	Scenarios & planning	This document reviews the aim and programme for a specific project. In part, it builds forth on the project vision (Doc.13, 2023). It also discusses some design aspects.	O
Doc.15	Ambition document	This document is a report on a sounding board session about a specific project. It builds forth on the project vision (Doc.13, 2023) and defines the project scope and aims.	O
Doc.16	Service concept	This document is almost the same as the project vision document (Doc.13, 2023), it revises the scenario's and possible office building concepts.	O
Doc.17	Kick-off	This document is a project brief, where scope is defined and elaborated on. It discusses project aims, organisation, collaboration, governance, schedule and next steps.	O

Table 3: Categorisation of documents based on content (author)

The documents are organised and categorised according to the four organisational levels in table 3, based on content, as to create a comprehensive and hierarchical overview of content cascading. The documents vary in scope (organisation-wide to concrete project) and in specificity (from abstract visions to precise choices and actions). These aspects defined their placement in the greater scheme of WPS documentation, as seen in figure 13.
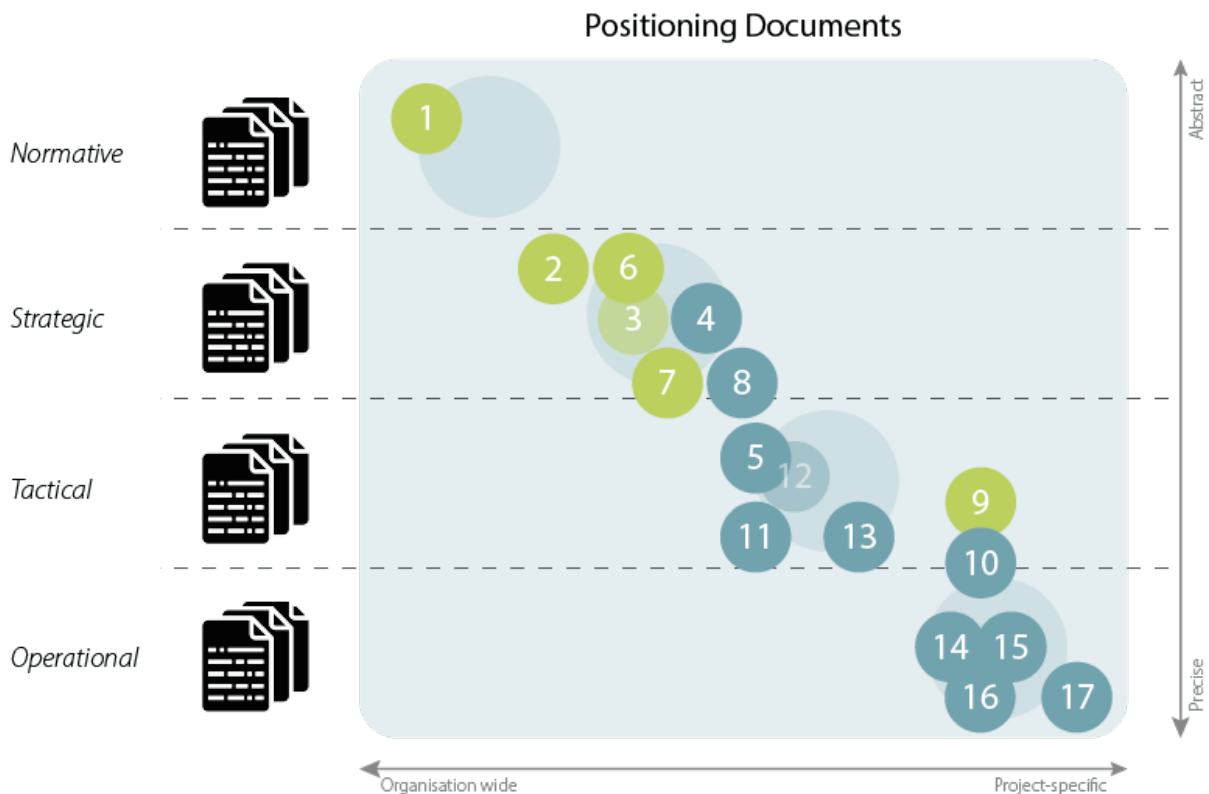
Figure 13: Categorisation of documents based on analysis (author)

4.1.3 Predefined themes – document analysis

The documents, now categorised according to the four organisational levels, each contain the pre-defined themes: WP considerations related to MH. An overview of these is given in **Appendix A**. When analysing all documents, the following patterns arose with regards to the pre-defined themes:

1. Throughout all documents, there is a great focus on services and amenities almost every time WB is discussed.
2. The intangible MH topics are omnipresent in most documents.
3. All intangible aspects, except for Amenities & Services, clearly stem from HR ambitions and policies such as the company's people strategy.
4. Tangible aspects emerge from the Strategic level on. They are much more present and detailed in the Strategic level. Even in a derivative form, the tangible aspects are much less present in the subsequent levels. The visions and ambitions content on tangible aspects in the Strategic documents showcases an abundant amount of knowledge on the topic of workplace WB. Yet, they are mainly present as ambitions or in the form of aspirations.
5. Tangible aspects are also present at the Tactical and Operational level, yet in a derivative form. The aspects are either evidently present in the form of visual environment requirements, or still present in the form of aspirations with little concrete actionability. Notably, the visual environment requirements also directly relate to the environmental branding design guidelines as found in Doc.6 (2023).

4.1.4 Emergent themes – document analysis

In addition to the pre-defined themes from the literature research, emergent themes were found. First and foremost, it is important to mention that MH is rarely mentioned on its own, but rather as part of the company's focus on WB. Their understanding of WB comprises MH, therefor any mention of WB form this moment on includes a motive regarding MH. The documents mostly explained the way in which WB as a topic is organised and structured throughout all levels of the company. Generally speaking, WB was embedded either in policy, in organisational structures allocating accountability, and lastly in standard practice processes. Additionally, the documents contained many indications of underlying motivation with regard to making WB such an apparent topic throughout the organisation. All themes can be found in table 4 below. The themes which were clearly at the forefront in comparison to other themes are accentuated in bold.

Themes		Prevalence
Emergent	Embeddedness in Policy	ESG as one of four pillars of overall Business strategy
		Embedded as a Social pillar of ESG
		ESG linked to stakeholders wishes
		Embedded in strategic aim of employee experience
		Main focus in HR strategies
		Embedded in one of three core values
		Embedded in one of five WP pillars
		Derivatives embedded in WP concepts
		Derivatives embedded in WP behaviour guidelines
		Derivatives embedded in WP design direction
		Derivatives embedded in WP amenities
	Embedded in Structures	Triple Accountability on topic in top-management
		Expertise groups on ESG
		Expertise groups on WB
	Embedded in Processes	**ESG embedded in all company governance**
		Collaboration between departments on WB
		Continuous feedback employee experience
		Standard application of WELL in construction
		Embedded in programs available to employees
	Motivation	Deliver on ESG goals for stakeholders
		Talent attraction and retention
		Experience and Brand
		Reduce employee stress
		Productivity
		Collaboration
		Occupational health and safety
Pre-defined	Intangible workplace considerations	**Workplace culture and values**
		Social dynamics
		Engagement and autonomy
		Communication and information flow
		Services and amenities
	Tangible workplace considerations	**Office layout** and spatial design
		Lighting and **visual environment**
		Acoustics
		Temperature and ventilation
		Ergonomics
		Technology and equipment

Table 4: Emergent document themes (author)

4.2   Interview Analysis

4.2.1 In-depth interviews analysis - Process

All interviews are made possible by Brink, through a contact person with the case company. The interviews were conducted over an extended period of time, thus enabling the iterative process of document analysis, and interview conducting.

4.2.2 Interview analysis approach and categorisation

The interviews that were held in this case consist of two groups: those with a professional function inside WeCare, and those with a professional function at Brink, the consulting company for WeCare's workplace concept and construction project management. Notably, from these eight interviews, two interviews were exploratory (B.T.WPC, 2024 & B.O.MPM, 2024), unstructured interviews which incidentally uncovered worth-while information for the case-study. The other six are in-depth, semi-structured interviews. From this group of interviewees, one interviewee has Brink as their professional home-base, but is also hired by WeCare for the duration of their collaboration. The choice for the specific interviewed roles are on the one hand derived from literature, on the other hand based on informal conversations with Brink employees who suggested several people that were critical for the forming and implementation of WeCare's WPS and, or their WB ambitions.

Code	Organisation	Position in organisation	level
CC.S.HR	WeCare	HR – Global program manager Well-being | Workplace Well-being	N/S
CC.S.MR	WeCare	Manager Strategic Housing & Workplace experience	N/S
CC.S.WPX	WeCare	Global Design lead Campus & Workplace | Sustainability & WB	S
CC.S.PM	WeCare	Program manager	S
B.T.PM	WeCare/Brink	Senior project manager/Space planner facility management	T
B.T.WPC	Brink	Workplace consultant	T
B.O.SPM	Brink	Senior Project manager	O
B.O.MPM	Brink	Medior Project manager	O

Table 5: Interviewees overview and anonymisation (author)

The table above gives an overview of the interviewees, hierarchically categorised based on information from the interviews. That is, the hierarchy within the WPS forming and implementation process and as according to the four organisational levels from theory. The first two roles being classified between the Normative and Strategic level as they both form visions, strategy and policy, both separate, as well as collaboratively. With CC.S.HR (2024) as part of the HR department, and CC.S.MR (2024) as part of the CRE department. Actor CC.S.MR (2024) is the head of a specialised workplace experience team. These two are both in direct contact with top management at the normative level of the organisation. The following two are both directly involved in the forming of the WPS. Whereby CC.S.WPS (2024) reports back to CC.S.MR (2024) directly, as part of the specialised workplace experience team. At the tactical level, the roles become project specific and revolve around implementation of the WPS. These consist of actors both internal to WeCare, as well as external parties, one of which is Brink. Here, B.T.PM (2024) translates the WPS into actionable programs which are tailored to specific projects. Simultaneously, B.T.WPC (2024) offers WeCare workplace advisory on project-specific visions and ambitions. At the operative level, one senior and one medior project manager are involved in steering and guiding the realisation and construction of workplace projects. These links are made visible in the illustration below (figure 14).

Figure 14: Positioning interviewees (author)

In this image, the internal actors to the organisation are colour-coded in bright green. The overlapping actor, B.T.PM (2024), is coded in bright green, and the Brink actors are coded in blue.

4.2.3 In-depth Interview questions approach

All in-depth interviews revolves around the decision making process throughout the entire WPS forming and implementing process. Primarily, all in-depth interviews included questions such as function description and responsibilities, as well as communication and collaboration with upper and lower levels of the organisation in order to gain clarity in cascading matters around WB, revealing bottlenecks and prioritisation in practice. Subsequently, interview questions were adapted to each specific function. For example, Strategic-level interviewees received questions addressing matters such as motivation and decision-making patterns of the Normative level. Whereas the Tactical and Operational level interviewees received questions around briefing from upper levels to their levels, actionability and decision-making patterns at their professional levels.

4.2.4 Emergent themes – interview analysis

For the analysis of these interviews, an inductive approach was adopted in order to detect emergent themes around the organisational structure and cascading process. These are listed below.

Themes	Prevalence
Roles	Responsibilities
	Contact with other departments
	Collaboration with other departments
	Relationship to WPS
Motivation	**Talent attraction and retention**
	Productivity
	Reduce employee stress
	Company Brand/Image
Forming Process	**Content translation between levels**
	Feedback systems
Forming Bottlenecks	**Understanding WB importance Top Management**
	Company growth
	Absence HR
	Role responsibility scope
	Effectivity of strategy
	Oversight of Data
	Clarity of Data
Implementing Process	Project briefing
	Clarity of Policies
	WELL
Implementing Bottlenecks	**Feasibility/Budget**
	Complexity of project planning
	Tensions/Contradictions
	Quality checks
	Managers
Overall Cascading Bottlenecks	Ambiguity of WB
	Ownership and responsibility WB
	Priorities
	Actionability
	Policy vs reality

Table 6: Emergent interview themes (author)

4.2.5 Cross comparison with documentation

When these documents and interviews are compared, several thematic patterns are detected.

The documents and interviews converge on: Amenities being the general answer to WB questions, a very clear and detailed development of intangible MH considerations across all levels, a vagueness around the tangible MH considerations, vagueness around actionability across the three lower phases.

The documents and interviews diverge on: WB being embedded and prioritised throughout its governance, top management's understanding of the importance of MH, WB being a strategic brand lever rather than a employee productivity and cost-driven measure, the presence of the tangible.

4.3 Findings

This chapter discusses the findings from both document and interview analyses. The findings discuss both content per organisational layer as well as processes between these organisational layers. For each part of the cascading journey, the observations are discussed.

4.3.1. Normative level – Content

First and foremost, the topic of WB is abundantly embedded within the organisational strategy. As part of the social objectives of WeCare's ESG commitments, it is embedded in one of the four core strategic pillars. Secondly, the accountability around the ESG commitments, is dispersed over three top management bodies, with reciprocal justification between the three of them on ESG topics. Thirdly, WeCare proclaims to integrate ESG into its company-wide governance. Thus WB is integrated into the governance systems as well.

"Environmental, social and governance (ESG) topics have become increasingly important to our customers, employees, suppliers, shareholders and society." (Doc.1, 2023)

In terms of content, WeCare's take on the topic of WB finds its origin in one of the three organisational values: Challenge, Collaboration and Care. These values clearly transpire throughout all documents, as a result of efficient cascading as they are very structurally recurrent and referred to on in almost all documents. Interest in the topic of well-being is mostly said to be driven by the company's ambition to reduce stress, improve productivity and providing the best employee experience, however multiple interviewees have mentioned that above all, the motivation lies in its role in attracting and retaining talent, as well as brand identity. The interviewee B.O.MPM (2024) even goes as far as to say that their motivation is status-driven. Nonetheless, WB is also clearly part of the organisational strategy and consistently re-emerges in the form of visions, ambitions and policy. For example, WB is explicitly first introduced in WeCare's people strategy. With a great focus on culture, values and engagement, WB is heavily represented in its intangible form and clearly stems from HR ambitions. At this stage, language on the topic mostly has an aspirational tone and the tangible workplace has not been mentioned yet.

"…heel erg bewust bezig zijn met het aantrekken van talent en het aantrekken van mensen, om te zorgen dat die mensen zo goed mogelijk kunnen presteren…" – B.O.SPM (2024)

All in all, WB is very well embedded in the upper layer and overall governance of the company. The topic is extremely visible in all forms of vision and clearly heavily utilised as a strategic lever to strengthen their image and appeal. Though few mentions are made about the relationship between absenteeism and WB, the focus clearly lies on the best employee experience. Which is consistent with literature on the positive employee experiences in relation to organisational success (Groen et al., 2021). The topic's early and abundant presence, as well as the great amount of effort that is put into this at the normative level suggests that the company to a certain extent understands its organisational value and aims to deliver on this topic.

"…als ik heel eerlijk ben, denk ik dat het voor een bedrijf belangrijker is om aantrekkelijk naar de buitenwereld te zijn en medewerkers te behouden, en dat daarmee welzijn ingezet wordt, maar dat het misschien niet het hoogste doel is voor een bedrijf…" – CC.S.PM (2024)

The Normative level indeed provides some form of a workspace policy, yet the subjects that are covered are all intangible WP aspects, mainly expressing visions. Noteworthy, almost at every occasion that WB is mentioned in the workspace policy, amenities and services are mentioned. This will appear to reoccur throughout almost all documents.

4.3.2. Normative > Strategic – Process

The transition from the normative level to the strategic level happens through the translation of the business strategy into the workspace policy. The first step in this alignment takes place in management team (MT) meetings, where representatives from all departments come together for decision-making on organisation-wide topics. Here, the HR-initiated WB policy is shared with the other departments. Each department determines how they can contribute to HR's well-being ambitions. How this is done remains vague as interviewees simply expressed this, but could not elaborate in detail. One example that was given was the fact that CRE clearly embeds Care, one of the three organisational values, into their WPS. According to the interviewees, the WB strategy is passed on to CRE through a collaboration between the HR and CRE departments. How this collaboration occurs also remains vague, no detailed elaboration was be given by the interviewees. Notably, CRE and HR require approval from the MT before any action can be taken on this topic. This marks the entry of the well-being theme into the CRE department. The CRE department includes a specialised Workplace Experience team that facilitates this translation. This translation becomes part of the larger WPS, which also encompasses other organisational ambitions.

Though this process seems a top-down process, interviewees mention that on the topic of WB, this process mainly occurs bottom-up. With HR trying to draw top management's attention on the subject, to emphasise its importance in order to gain funds. HR is aware of the employees experiences and needs around WB through the use of periodic surveys. They use this data to generate programs around WB.

Both CRE and HR struggle with top management's understanding of WB and workplace WB. They mention the issue that top management does not sufficiently grasp the importance of WB, making it difficult for them to realise their plans. According to them, this is primarily due to the challenge of clearly demonstrating that investing in WB leads to concrete financial benefits (CC.S.HR, 2024).

"Senior management zijn over het algemeen oude heren die het onderwerp WB heel anders zien dan iemand die net de arbeidsmarkt op komt. Die denken nog steeds, dat doe je maar lekker in je vrije tijd. Dat is al lang niet meer zo. Dat maakt het heel lastig." – CC.S.HR (2024)

"Sometimes I still get a question, but well-being is an HR topic, so people do not always see the connection between corporate real estate and well-being" - CC.S.WPX, 2024

A policymaker at the strategic level has expressed significant criticism regarding the structural absence of HR in the formation of the workplace strategy (WPS). In their explanation, the irritation is quite noticeable, with a reference to a time when HR was consistently present.

"... En als je kijkt natuurlijk aan alle besluitvormingsorganen dan is HR gewoon, die zit er niet in... Claimt geen rol, neemt geen rol, blijkt eigenlijk in afwezigheid." - CC.S.PM (2024)

However CC.S.MR (2024) and CC.S.HR (2024), confidently state that someone from HR is present throughout the majority of the process of forming and implementing the WPS. When probing, it appears that they are not entirely sure after all.

"Ongetwijfeld wel, hoe dat is ingericht weet ik niet" – CC.S.HR (2024)

From the interviews, both CC.S.WPX (2024) and CC.S.PM (2024) express that the WPS is their responsibility. Though it becomes clear that there is a joint effort, they both believe they carry the final responsibility for the WPS. This suggests unclear demarcation of role scopes. This is later confirmed by B.T.PM (2024).

4.3.3. Strategic – Content

Normative objectives are translated into Strategic WP pillars and objectives. In the translation of WB ambitions from the Normative level to the Strategic level, first visions are crafted. Then, WP pillars are created with the aim to embed WB in the new defined structure of strategic WP objectives. After the strategy structures are discussed, the WPS document (Doc.6) primarily consists of a behavioural policy, as well as a great amount of standards and design propositions.

"The goal is to empower project delivery teams to drive quality, consistency, and continuous improvement in the planning and delivery of workplace solutions to support WeCare's growth globally."
(Doc.6, 2024)

While the intangible considerations are still clearly present in the visions, and driven by the people strategy and employee experience, some tangible considerations emerge when examples are given on how to ensure WB in the workplace experience.

The newly defined structures of strategic WP objectives sometimes reveal somewhat unclear structuring and categorisations. Firstly, the WP objectives and their methods have thematic overlap, mainly with the topic of sustainability. Secondly, some provided methods and examples for WP objectives are very specific and seemingly second-rate subjects to obtain strategic WP aims, for example "incentives to bike". Furthermore, interior design pillars, which one would expect to be derived from the WP pillars, clearly originate elsewhere as the themes per pillar seem incoherently classified in comparison to the WP pillars and they do not match nor echo the content of the WP pillars. Based on their content, these design pillars appear to originate from branding, again displaying thematic overlap in objectives and slightly illogical categorisation and elaborations, evoking doubt on the policy makers' understanding of WB.

Tangible WP MH considerations first appear just before the standards and design propositions, where planning principles and design guidelines are introduced. The planning principles consist of a long list of uncategorised intervention examples whose origin, and follow-up actions remain unclear. The examples greatly vary and are very detailed and specific design interventions. It is unclear to what extent these should actually be realised and what their significance is in this document. Their presentation somewhat comes across as a group of random examples to choose from without clear direction and with no specifications on what is to be done with this list. The subsequent design guidelines show highly detailed 3D examples of certain space types. These include both intangible and tangible MH WP considerations. However, both intangible and tangible considerations are verbally presented in the form of ambitions such as the quote from document six below. It is unclear how, and to which extent this can and should be realised. Furthermore, it cannot be retrieved from these documents whether which aspects of the proposed designs are must-haves, and which are nice-to-haves. This too, will later be confirmed in interviews by implementing actors.

"Should be quiet and free of distractions" (Doc.6, 2024)

The content of the strategic documents suggest very mature workplace concepts, and significant knowledge of both tangible and intangible aspects of workplace MH at this level. However the considerations mainly emerge in a great variety of suggestions and examples, sometimes lacking in clarity, actionability and level of importance. This was later confirmed by B.T.WPC (2024).

"Het schort aan hoe gaan we dit doorvoeren" - B.T.WPC (2024)

4.3.4. Strategic > Tactical – Process

When transitioning from Strategic level to Tactical level, WeCare carries over responsibility to local project managers as implementers. WeCare has their own project managers and workplace experts, but they also hire external project managers and workplace experts to check their plans and carry out projects.

Not a lot of information is available on the transition processes between these levels. When asked what B.T.PM (2024) knows about WeCare's commitment to WB, they immediately refer to campaigns by HR, services and amenities. B.T.PM (2024) mentions that the Tactical level merely follows instructions from the strategic documents. However it is mentioned several times, and in different ways, that the strategic documents are not very clear about WB concretisation and direction.

"Volgens mij ontbreekt er echt nog wel een concreet kader, van dít vinden wij belangrijk en dít is een minimale standaard."- B.T.PM (2024)

In addition to using the strategic documents as blue prints for programme makers, WeCare chooses to use the WELL standards as a method to ensure implementation of the WB topic. However, multiple interviewees, both internal and external to WeCare, find the WELL standards outlandish and not effective at all with regards to WB.

"Of je zegt ik doe geen kroketten meer, of ik zorg dat iedereen daglicht heeft…" - B.T.PM (2024)

4.3.5. Tactical – Content

The documents of the tactical level are rather meagre in terms of content information. They mostly consist of services concept directions, project visions, or brainstorm debriefs where little aspects are consolidated for future projects. However, some user requirement specification offer more insight on the WB knowledge at tactical level. Programmes of requirements could not be looked into however interviewees B.T.PM (2024) and B.T.SPM (2024) say that these do not necessarily contain very clear, concrete or actionable content.

"Soms staat er iets leuks in het PVE en dan denk je nog van ja en nu wat? Hoe hebben jullie dat concreet gemaakt en hoe wordt het opgevolgd?" - B.T.PM (2024)

In these project visions, some themes that relate to well-being occur, yet there is again a significant focus on the intangible considerations, particularly in objectives related to Culture & Values and Amenities. Design examples are frequently provided, demonstrating that workplace well-being is primarily represented through amenities such as health and well-being centres, lactation rooms, and recharge spaces.

"Employees need spaces that spark curiosity, stimulate ideas and welcome diversity" (Doc.9, 2023)

Tangible considerations are often referenced verbally and still in aspirational or directive language forms with little concretisation or actionability.

"Bringing vegetation closer to working spaces and creating a link with nature." (Doc.9, 2023)

Visual design examples from the strategic level are carried over with little consequent detailing or elaboration, though some choices in space-typologies are made for project specific requirements. However, there is still a lack of clarity on how these tangible MH considerations should meet precise requirements.

4.3.6. Tactical > Operational - Process

Little is known about the transitions processes from the Tactical level to the Operational level. However, the interview with B.O.SPM (2024) provides some clarity as they mention particular differences and contradictions in project briefing depending on roles. With architects being given a specific design guideline and being briefed to ensure very high quality, while project managers are not aware of this document and briefed to keep expenses down. This brings forth the first implementation process contradiction and conflict of interest.

"Het grappige is dat dat document wel hetgeen is waar de architect mee aan het werk is. Alleen dat is nooit vastgesteld binnen ons project als voorbeeld." - B.O.SPM (2024)

4.3.7. Operational – Content

The documents at the operational level show merely show subtle signs of tangible WP considerations in derivative forms such as "greenery walls". The intangible are more present, as these topics were well included in brainstorm sessions which resulted in design directions. However, these still mainly occur in the form of aims or examples too. The extent to which these remarks are merely proposals, directions or imperative elements, is not clear from the documents.

"Good governance/zoning needed" (Doc.15, 2023)

"Clear zoning that indicates where people can go" (Doc.15, 2023)

"Inviting for students" (Doc.15, 2023)

B.O.SPM (2024) offers more insight when disclosing that indeed WeCare has much higher requirements of their workplaces than most. This suggests a focus on quality and aim for excellent workplaces. However, B.O.SPM (2024) also discloses that in the operational phase, budgets are increasingly tight. This is when great conflicts of interest emerge as the project manager sits with its clients to discuss future developments and courses of action. Resulting in necessary gradual elimination of aspects within the program of requirements, based on how important certain aspects are deemed. The prioritisation of such aspects vary greatly depending on who the project manager is discussing this with. When WeCare's project managers are deciding, they reason from a budget-perspective. Whereas when discussing with people who are responsible for the WPS, the product quality is their driving force.

"Het ligt er dus heel erg aan wie je aan tafel hebt en wat hun belang is" – B.O.SPM (2024)

In doing so, the end result differs from the initial designs intentions. Oftentimes, the aspects which are a derivative of tangible MH considerations, such as sound proofing elements, are pushed back as other aspects are often more indispensable. Furthermore, quality checks are executed on the basis of programs of requirements from the tactical level (B.T.PM, 2024), so if these do not include sufficient qualitative derivatives of WB, this quality will not be checked. And once again, amenities are mentioned in relation to WeCare's commitment to WB in their workplace projects.

4.3.8. Cross-level process findings

In addition to all above-mentioned processes, some distinct ideas and themes about the process kept recurring throughout most interviews, indicating the significance of their interference with a smooth cascading process.

Priorities – At each level, actors mentioned prioritisation as the greatest bottleneck. Whether this was at top management level, or at project implementation level, financial feasibility is mentioned time and over as the primary obstruct, leading to decision-making tensions. Most of the time impacting WB

plans, as their beneficiaries are not well understood in most layers of the company (CC.S.HR, 2024; CC.S.WPX, 2024).

Responsibility overview clarity – Throughout most levels of the organisation, the topic arose of the scale and growth of the organisation. The way the organisation's scale and structure were discussed suggested that many people do not have a clear overview. This rhymes with the literature by Danivska and Appel-Meulenbroek (2022). Additionally, the amount of surveys and the data is perceived as overwhelming, CC.S.PM (2024) calling it a "Survey jungle".

"Voor mij is het een beetje een black box" - B.T.PM (2024)

Responsibility demarcation – Especially in the two upper levels of the organisation, several roles seemed to have overlap in their responsibilities. Again consolidating literature by Danivska and Appel-Meulenbroek (2022) on the internal scatteredness of responsibility regarding WP responsibilities. Several statements were made which indicated that between same-level actors, it was not clear where one role's responsibility ended, and where the other began. In the two lower levels, encountered the same issues but rather in the vertical sense and with regards to responsibility over certain actions.

"Waar houdt jouw rol op? Wat wordt van mij verwacht? En waar moet de rest het overnemen?"- B.T.PM (2024)

Involvement of HR – In the upper levels, each actor had a different version of HR's role and involvement of the WPS process. Though they all underscore the importance of HR in forming and implementing a WB-embedded WPS, no one knew exactly how HR was involved nor to which extent. In the lower levels, people clearly state the absence of HR and label it as a shortcoming. At the upper levels, the WPS formers also express this shortcoming of HR. Though HR does not seem to be aware of this and management defends HR's position. This indicates organisational confusion and disagreement on HR's responsibility and involvement.

"…daar doet HR eigenlijk niks aan, die zijn ook niet betrokken" - CC.S.PM (2024)

WB is the first topic to be discarded – Almost all parties agree that regardless of the fact that people are aware of the importance of WB, in the battle for priorities, WB topics are the first to be discarded. This happens both in the upper levels and lower levels of the organisation. This contradicts with the great efforts put into action at the normative level to embed WB in the organisational strategy, policies and governance structures.

"…puntje bij paaltje, zitten er financiële consequenties aan, dan wordt WB wel als eerste geschrapt." - CC.S.HR (2024)

Company politics in cascading – In many interviews, it was mentioned that the cascading process could definitely be improved. It doesn't always go smoothly, and it's not always clear where the problem lies. However, what is frequently highlighted is how company politics can obstruct the process, especially in the upper levels. Issues that were previously discussed but not formally decided upon are often retroactively rejected. The problem seems to stem from the decision-making entities, which make statements like:

"… zo van "ik heb geen actieve herinnering aan", die wordt nog wel eens gebruikt." - CC.S.PM (2024)

4.4   Chapter Conclusion

This chapter conclusion recaps all the above information into main takeaways. First the content takeaways are discussed, followed by the process takeaways.

4.4.1. Content

In terms of content on MH throughout all analysed documentation the following becomes clear:

At the Normative level great efforts are made to embed WB into company strategy and governance. The intangible aspects are clearly incorporated in business values, visions and ambitions. However, all mentions are clearly HR-themed. Furthermore, services and amenities are mentioned in relation to WB. The intangible aspects are still absent at this level.

At the Strategic level, a lot of knowledge on WB is included in the WPS. Both intangible and tangible are omnipresent though translation into CRE aims and policy structures appears somewhat chaotic and incoherent. The intangible is again present in values, visions and ambitions. Services and amenities are very much at the forefront. The tangible is mostly present in the form of design standards and guidelines with very qualitative office plans, however remain generic and in the form aspirational language with little expression of significance or concrete requirements for follow-up actions.

At the Tactical level, project specific visions and requirements are drawn up. With the intangible very present in the visions. All documents clearly include the organisational values and identity in the project vision and in steering design choices. Details on services and amenities are very present at this level. The tangible MH aspects are present in derivative forms, though feeble and still mainly formulated in aspirations. They lack clarity, elaboration and actionability. A clear gap is noticeable between strategy and operations.

At the Operational level, content on MH is to be included in project specific requirements, design choices and planning. The intangible is still present in terms of vision and services and amenities, though only there is sufficient budget. The tangible mainly revolves around design and visual environment, where the brand is extremely well represented and includes some MH consideration but important MH considerations less present. Moreover, tangible WB aspects are said to be the first to be pushed back in budget cuts.
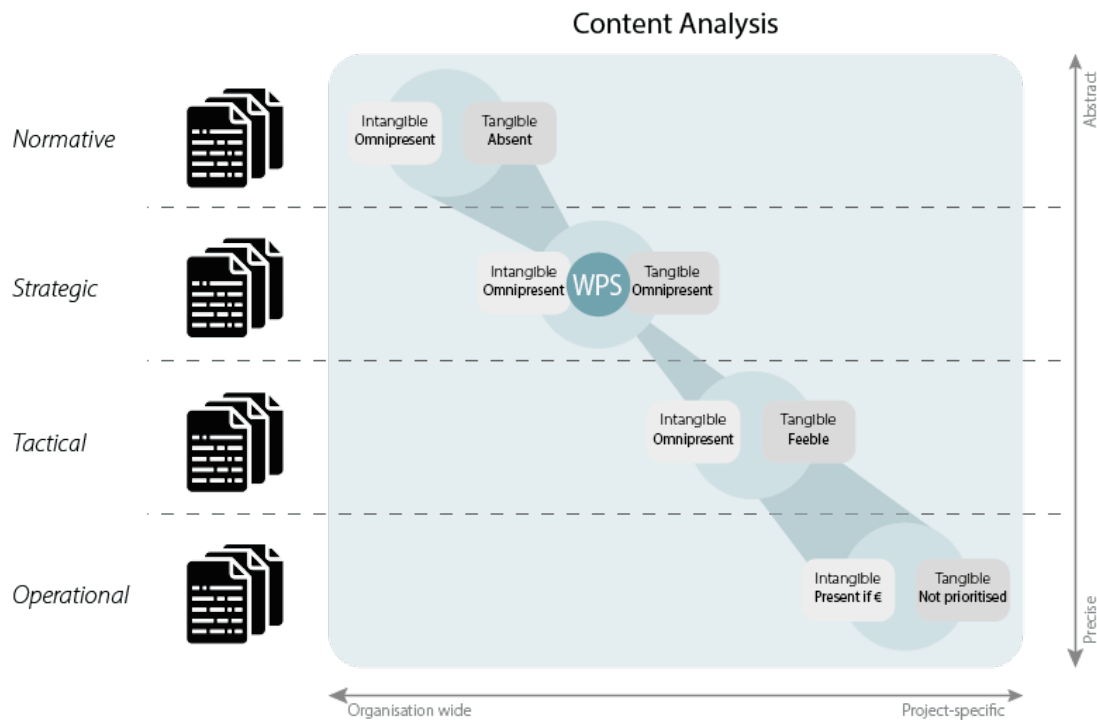
Content Analysis

Figure 15: Visual of content analysis (author)

All in all, the interviewees oftentimes refer to services and amenities when explaining how MH prevails in the company's WP. Indicating a clear focus on this specific aspect whereas other aspects are less known and incorporated. Furthermore, the Normative level embeds WB in its organisational strategy, incorporating many intangible aspects, all related to HR policy. The strategic level holds a great deal of knowledge on both intangible and tangible aspects, though is criticised by WeCare employees for lacking actionability potential. In the Tactical level, WB is present in the intangible form, much less in the tangible form and holding the same actionability issues. In the operational level it becomes clear that WB aspects are neglected unless the budget allows it. Thus a clear imbalance between intangible and tangible is detected, with an high dependency on funds, especially for the tangible WP elements.

4.4.2. Process

Building forth on the content findings, it becomes clear that the strategic level houses a lot of knowledge. However, based on both content and process analysis, it seems that it is a struggle to make the other levels understand and prioritise WB. So the knowledge, essentially encounters difficulties in crossing the boundaries of the strategic level and getting implemented at the lowest level. This is attributed to a variety of factors, to be found in the discussion.

Based on the interview, a global representation is given of the process of MH cascading across the four organisational levels (figure 15). It includes actors and supporting tools. All in all, a lot of thought and action goes into WB and the forming of the WPS, though not free of obstructs. Still, it is at the implementation levels that actors actively struggle with incorporating the topic of WB.
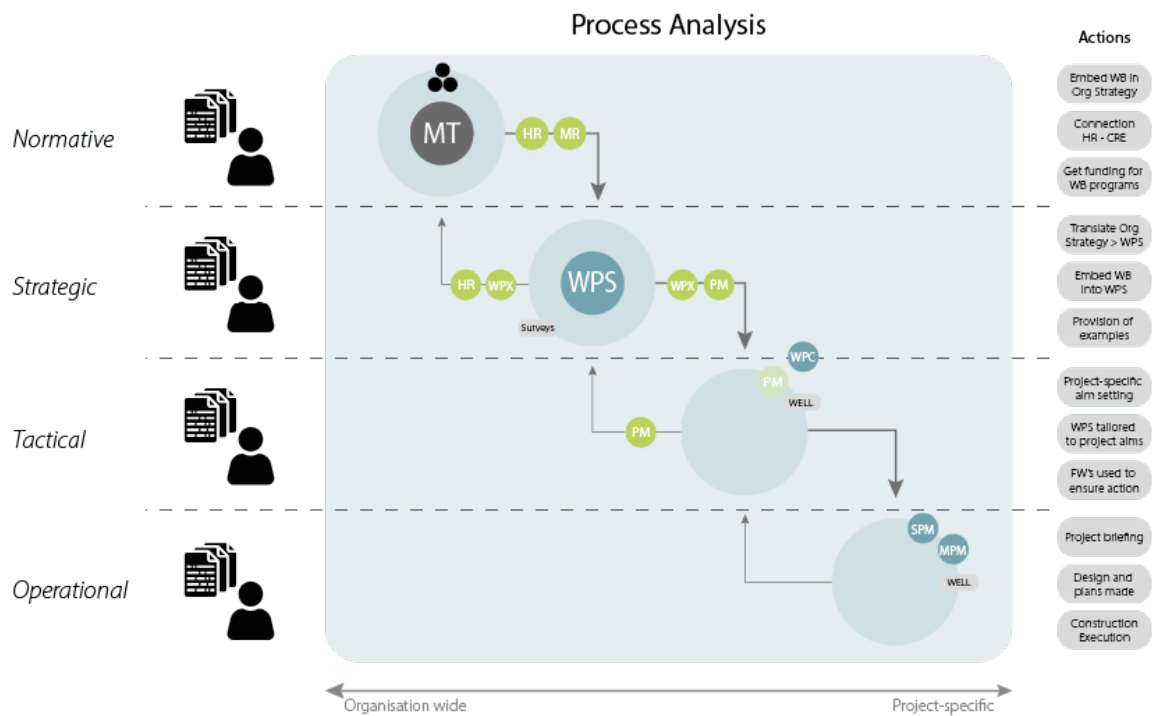
Figure 16: Process Analysis (author)

Based on all information on from the interviews and documents, the following set of enablers and barriers have been found in the process of cascading. The enablers being the process aspects that aid the cascading of MH, and the barriers being the process aspects that complicate cascading of MH. These are depicted in figure 17, where they are classified per phase. This set of enablers and barriers provide insight into current practice and the challenges the case company faces.

Figure 17: Cascading process Enablers and Barriers (author)

5.   Discussion

This chapter discusses the research findings and their interpretations. The validation of the interpretations is done either through connections to literature or by confirmations of multiple interviewees. Thereafter, transferability is discussed, as well as the limitations of this research.

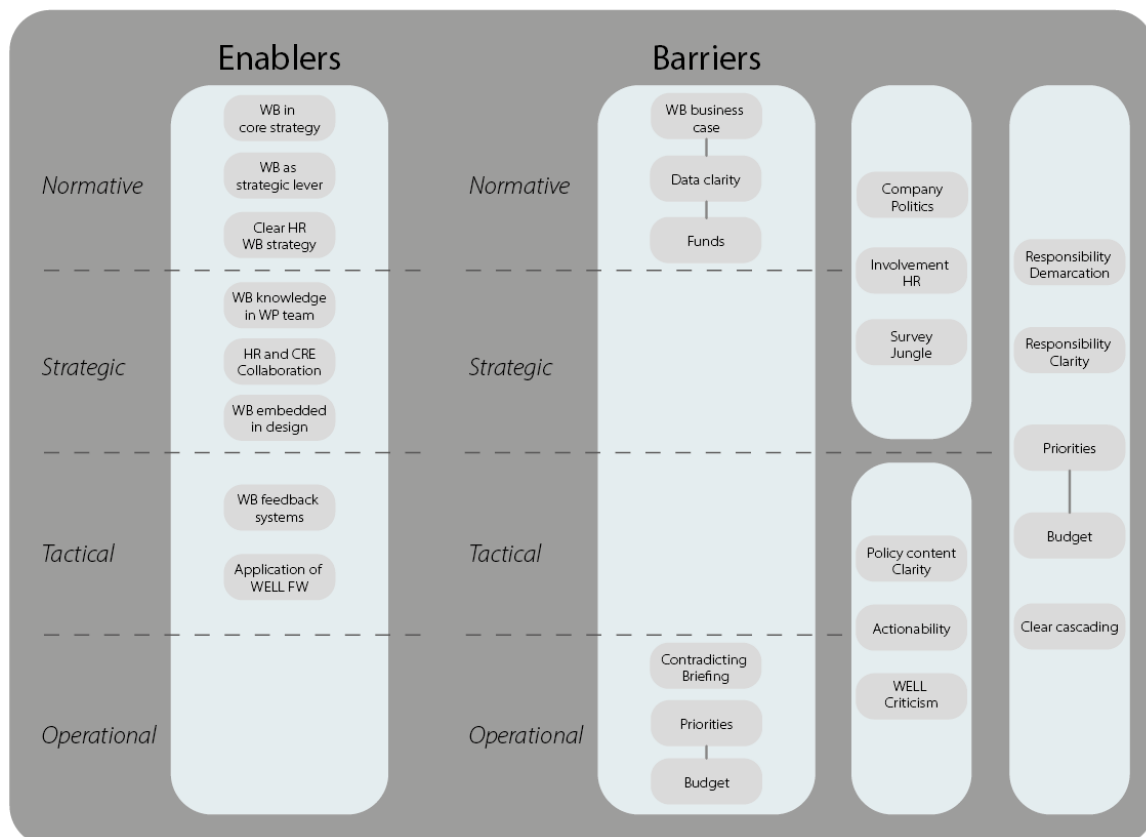## 5.1   Interpretation of findings

In terms of content, the findings show that the topic of MH is integrated into the topic of Well-being. Well-being is meticulously embedded into the organisational "core" strategy and governance of WeCare, with a separate focus on WB in the workplace. This is achieved through three actions. Firstly, through iteration of document and interview content, it becomes clear that responsibility on the topic of WB is allocated amongst three top management bodies with reciprocal accountability amongst them. Secondly, WB is made part of WeCare's three core values as well as being part of the ESG commitments, ensuring that action is taken on the subject as external stakeholders hold company's accountable for delivering on these commitments. Thirdly, workplace WB is utilised as an organisational strategy tool and therefor this subject is deployed highly strategically. The first two actions depict efforts of the company to hold themselves accountable and deliver on their WB ambitions, while the last action suggests a highly strategic manoeuvre. The latter interpretation was confirmed throughout most interviews. As confirmed by most interviewees, this clever deployment to incorporate the subject of WB, and an attractive WP as a strategic lever to attract and retain talent, is driven by HR and stems from a current development in the business-sphere named "The war on talent". This early HR involvement resonates with the literature (Wijnja et al., 2021). With WB as part of the organisational strategy and governance, an attempt is made at embedding WB into other departments of the organisation, if cascaded properly.

The interviews unveil other interesting aspects of this organisational level, namely that ambitions around the topic of WB is indeed organised at HR level and that funds must be obtained to develop these plans. As an enabler of these plans, sometimes CRE joins the efforts to also secure funds, this is the first contact between HR and CRE. To do so, approval is necessary from the management team (MT) to develop programs. In this bottom-up approach, HR and CRE encounter difficulties in explaining and convincing top management levels of the importance of WB. This conflicts with the intentions of the normative level to ensure WB throughout the company. It uncovers a subtle conflict between the normative and strategic level, based on the normative level's (un)willingness to prioritise WB by allocating funds to this topic. According to interviewees, this is due to three aspects. First, the opinions of top management on the topic of WB, which interviewees attributed either or both to generational beliefs and privileged background. Second, the ambiguity, subjectivity of the term WB and the responsibility for employee WB. Third, the lack of concrete cause-and-effect examples that can be shown to top management about financial gains and repercussions. Based on previous work experience at other global corporates, HR solidifies this by saying that the same exact issues were in place at every preceding employing company.

At the strategic level, CRE develops a workplace strategy. HR's involvement in this process is acknowledged; however, despite repeated requests for clarification, the specifics of their involvement remain vague. In terms of content, the extent to which WB is embedded into the WPS, first and foremost depends on the availability of funds. Secondly, it is said that the embedding of WB into the WPS is the result of a joint-effort between HR and CRE. However, this was maybe the most disputed aspects during the interviews. With the majority of proof leading to believe that HR is indeed involved in the forming of the WPS, but to which extent remains unclear. In general, the involvement of HR in any later stage remains vague throughout all interviews and is heavily criticised. This is in line with the

literature by Danivska and Appel-Meulenbroek (2022) on the complexity of the WP and the organisational department which carries responsibility for its developments. This creates the assumption that clear structures and demarcations of responsibility and collaboration are lacking for this case, but in fact necessary as it aggravates many actors. It also appeared that the centre of gravity on who is responsible for forming the WPS, is not clear. This further adds to the assumptions that clear role demarcations are lacking. This assumption is reaffirmed by three out of four actors external to WeCare.

The strategic level, home to the formers of the WPS document, clearly hold the most knowledge on the topic of workplace well-being, with both intangible and tangible aims and ambitions. Though in this case, the translating the organisational objectives into strategic WPS objectives appeared chaotic. Nevertheless, the WPS holds a lot of knowledge as it is created by a specialised team of workplace experts. This knowledge prevails in spatial standards and design suggestions. However ensuring that this knowledge is transpired to subsequent levels requires clear actionability, which appears to be a critical point in the cascading process. This is in line with the literature on cascading and on creating efficient workplace strategies by Safari and Mazdeh (2018). As no information was found on why this is so difficult, this could in fact be a case-specific limitation. However, all WPS implementers faced challenges stemming from this issue, highlighting the critical need for clarity and actionable guidance.

In the two lower levels, the implementers of WPS, information is far more limited and much less clear. The implementers mostly explained their daily activities with a visible lack of knowledge on how WB is part of the activities they were hired to execute. It could have been the case that the WB considerations were very well embedded into the design. However, the interviewees of these phases hesitantly express a general lack of clarity on requirements, especially on the topic of WB, and the difference between must-haves and nice-to-haves. In addition, the documents of these levels sometimes include signs of tangible workplace MH considerations, though they are rather feeble compared to the intangible aspects. One thing that clearly appears to be a must-have though, and therefore almost never compromised, is the brand-expression in design. Though generally, at the tactical level, there is a noticeable lack of precision and decisiveness. According to literature, these are absolute necessities in this phase of the process. All in all appears as though, on the topic of WB, a gap exists between the strategic and tactical level, probably due to the above-mentioned challenges.

One element consistently applied throughout the entire implementation phase is the WELL standards. Though those who worked with it expressed great dissatisfaction of the WELL standards. All of them expressed its irrelevance as the guidelines are often overly prescriptive, focusing on rigid criteria with an illogical an unbalanced scoring system. However, the WPS formers explained its relevance as its purpose is use it to hold the company and themselves accountable to continue focussing on WB throughout the implementation phase. Which highlights that if not applied, the commitment to WB would be much harder throughout these phases. This difficulty could stem from the main bottleneck which implementers of the operational level encounter: budget restrictions. A second bottleneck appears in the project organisation as different parties receive contradicting directions on which interests to protect. In addition, as the amount of involved people expands to realise projects, the structure of responsibility allocation and demarcation becomes more vague as well. Whose responsibility is it now to ensure the embedding of WB into a qualitative end-product? This altogether creates tension and disorder on the topic. On top of that, during the project phase, budget limitations results in program of requirement adaptations. Generally-speaking these are physical aspects, thus they only cover the tangible aspects. Depending on who the project manager encounters about the adaptations, this person and their professional interest play the greatest part in whether the tangible WP considerations are realised or pushed back. As for the intangible aspects, these are very present

across all levels in the form of HR-topics, but also in the form of services and amenities. Yet the services and amenities are part of the company brand and therefor they are not as endangered as the tangible aspects.

Now across all four levels, it is clear that the topic of WB encounters difficulties in prioritisation but at the operational level matters become primarily pragmatic, and this is often the final hurdle for the topic of WB, which is most difficult to overcome as it is the best argued. Interviewees consistently express how WB is the first topic to be barred, as its importance is not sufficiently understood by top management, or so according to the strategic and normative level interviewees. However, it can be argued that the importance of WB is indeed well understood, however more so as an HR topic than as part of the tangible workplace. This transpires through efficient cascading of the intangible aspects, whereas the tangible aspects encounter great difficulties in cascading.

It can thus be said that the top management's understanding of the importance of WB is critical for its survival from normative level, down to operational level. Additionally, the complexity of organising the thematic structure around this topic is also critical for internal clarity and efficient cascading. Furthermore, it is blatantly evident that the aspects of MH that are part of, and support the brand identity, easily survive the entire journey with little to no hiccups. The assumption is that these are proven to be of great organisational value, or even financially beneficiary, and therefore prioritised. Lastly, the journey encounters several cascading difficulties. Especially from the strategic level outward, both up and down. All in all, these claims essentially come down to a variety of conflicts of interest at different organisational levels throughout the process, and clarity and actionability throughout the content.

5.2   Transferability and limitations

The transferability of this research is in majority based on the support from the literature, indicating its general applicability. In addition, emerging hypotheses have been tested throughout the interviewing process, in a search for validation. During these interviews, participants regularly expressed the generality of their experiences, oftentimes based on previous professional experiences at different corporates. Thus indicating the general occurrence of these processes and bottlenecks in the full breadth of the field. Furthermore, throughout the iterative process of interviewing and document analysis, multiple sources within Brink have periodically reaffirmed presumptions and assumptions of the emerging hypotheses, both based on their experience with this client and other clients. Though the main transferability issue of this research presents itself in the fact that the research still heavily relies on Brink to provide all documentation and WeCare's willingness to disclose information. Below, other limitations are listed.

1. This study deliberately did not include work-from-home policies as the scope would get too complex to research within a short period of time. Though working-from-home policies may impact WB too, therefor it is advisable to include this topic in further research.
2. A primary limitation in this research is the single-case study approach. The amount of corporate companies with proven maturity on this subject and within reach were limited. This made the research constrained to in its scope and range of data. Furthermore, due to time constraints and resource availability, an in-depth study on the embedding of MH into WPS was only possible through thoroughly studying one case.
3. Secondly, time constraints complicated the development of a comprehensive holistic single-case research, including exploratory interviews, in-depth expert interviews, and documentation analysis, within a timeframe of less than a year, can be challenging. Time constraints may limit the depth and breadth of data collection and analysis, potentially impacting the richness and completeness of the findings.

4. Thirdly, there may be a risk of potential bias in data sources: Relying solely on data provided by Brink or its clients may introduce bias, as these sources might have vested interests or may not provide a complete picture. Despite the actions taken to assure objectivity and validity, the lack of independence in data sources could affect the outcomes of the research.

5. Moreover, the dependence on both company's cooperation may also present limitations. The completeness of the research partly depends on the company's cooperation and the availability of relevant data. Though genuine dedicative efforts to provide as much information as possible we sensed, limited access to information or reluctance to share sensitive details may have hindered the completeness and depth of the study. This could happen through a lack of completeness in the provided documentation at various organisational levels, or through professional conflicts of interest experiences by participants.

6. Furthermore, the difference between the forming and implementing phase were so great in terms of nature, that it complicated gaining an equal and clear understanding of both phases.

7. Lastly, the hierarchical professional differences and dependence between interviewees could influence their stance on the subject. Whilst this is to be expected and an important part of the research, it could also limit their willingness to share their true opinions on the process.

5.3   Recommendations

For future research, it is recommended to expand the study's scope by including multiple comparable cases, which would enable valuable cross-case analysis. During this study, it was challenging to find multiple cases that met the requirements, underscoring the potential benefits of a broader dataset. Additionally, having a larger pool of interviewees would help mitigate opinion bias and account for the differing perspectives and opinions encountered, which sometimes led to interpretative challenges. It would also be advantageous for researchers to select documents independently, as relying on Brink limited the ability to tailor document selection to research needs. Moreover, some participants were challenging to reach or fully engage in interviews, so including more individuals in similar roles could provide a more balanced view of workplace strategy processes.

Furthermore, setting up an independent study could further alleviate participant disclosure concerns, and separating the research into two focused studies may allow for a deeper analysis of both the formation and implementation phases of workplace strategy, which differ significantly in nature. Or given the different roles and perspectives encountered, future research could compare how mental health goals are prioritised across various organisational levels in multiple companies.

Additionally, increasing the participant sample size would help address issues of interdependence, minimising the impact of individual biases and facilitating a more comprehensive analysis. Since the influence of workplace strategy on mental health may take time to manifest, a longitudinal approach would allow researchers to observe changes and trends over an extended period.

Lastly, expanding the methodology to include quantitative data, such as employee well-being metrics or productivity data, alongside qualitative interviews, would strengthen the findings.

6.   Conclusion

SQ1 – What is a workplace strategy, how is it formed and implemented?

Workplace strategy consists of a continuous effort of alignment of an organization's operational practices with its office environment. The aim of a WPS is to provide a workplace environment which enhances employee performance and minimises CRE portfolio expenses, this in turn creates organisational value.

Though the foundational elements originate from the Normative organisational level, the forming of workplace strategies happens primarily at the Strategic organisational level. Here organisational aims are translated into workplace objectives and strategy. The forming of the WPS is a joint effort between multiple disciplines, with the two most important parties being a CRE entity and an HR entity. For a successful end-product, the multiple-actor collaboration is advised to last throughout the entirety of the WPS forming and implementing process.

Implementation of the WPS is organised at the Tactical and Operational level of the organisation. With the point of transition being the translation of aims into concrete plans and executable actions. At the Tactical level, implementation of the WPS roughly consists of plan-creation. At the Operational level, it consists of operational planning and control with the help of designs, change management and implementation methods and activities.

SQ2 – What are mental health considerations in the workplace

Considerations of MH in the workplace are two-fold as two separate literature niches imply. One approach is from an HR perspective and revolves around the human within the workplace, regardless of its building. The factors stemming from perspective are categorised as the intangible mental health considerations. These are Workplace culture and values; Social dynamics; Engagement and autonomy; Communication and information flow; Services and amenities.

The other approach is from a real estate and environmental psychology perspective, revolving around the physical office environment and how this affects people. The factors stemming from this perspective are categorised as the tangible mental health considerations. These are Office layout and spatial design; Lighting and visual environment; Acoustics; Temperature and ventilation; Technology and equipment. Together, this list of factors are the most recurring and important aspects affecting mental health in the workplace. Therefore these factors should be taken into consideration when drawing up an effective WPS that comprises WB as an integral part.

SQ3 – What factors help or hinder how the topic of MH is incorporated in the forming of WPS?

The forming of workplace strategies takes place in the two upper organisational levels. The strategic level emerges as the most influential in forming the WPS, taking a lead in defining the overarching goals and direction. With MH prevailing under the term of WB, it is incorporated in the organisations core strategy. Embedded in organisational values, strategic objectives and policy structures. However, the normative level plays a critical role in initiating and enabling the process. It is at this level that aims for MH are developed and woven into the broader organisational strategy. This part is heavily influenced by HR considerations, ensuring that workplace changes align with company values and employee needs. This alignment is achieved through efficient cascading. For this, a good collaboration between HR and CRE is necessary. As well as a knowledgeable WP team at the strategic level. The tangible considerations come to the surface in the latest stage of the strategy forming. They are incorporated into typology standards and design guidelines.

At the Normative level MH considerations are solely incorporated in their intangible form, due to HR's role at this level. At the strategic level, the intangible considerations remain solid, due to efficient cascading. Most intangible considerations are interwoven and embedded into HR-originated visions and ambitions for the organisation's WP concept. These ambitions are clear, highly strategic and well embedded into the company's core strategy. All of these are important enablers at this level. Other intangible considerations prevail in the form of employee experience amenities. The tangible considerations are not present yet at the normative level.

For both of these forming levels, the most influential obstructs are the extent to which HR is involved in the forming of the WPS, company politics, and the fact that a great amount of valuable data is available yet in excessive amounts thus creating chaos. Which in turn affects responsibility clarity and demarcation. In addition, efficient cascading is clearly heavily impacted by the allocation of funds and the prioritising of the topic of MH.

SQ4 – What factors help or hinder how the topic of MH is incorporated in the implementing of WPS?

The implementation of the WPS is the responsibility of practitioners at the Tactical and Operational level. Actors at these levels self-identify as the implementers, using the workplace strategy as a guideline to develop project-specific plans and deliver the final office building. Their role is focused on translating strategic intentions into concrete outcomes, ensuring that the workplace vision is realised through practical execution. Other than the WPS, the implementers use the WELL standards as a checklist to aid them in respecting the topic of WB into completion. However this transition has proven to be complicated, and is met with criticism.

At the Tactical level, practitioners are responsible for taking the WPS and turn it into plans. At this point, theoretically WB is embedded into the WPS though implementers often struggle to understand what the aims and actions around this topic. The topic becomes clouded in questions marks around clear frameworks and actionability. This results in translation difficulties, with tangible MH considerations still present as aims or watered-down derivatives, thus weakening in presence and clarity at the Tactical level. The intangible, is still omnipresent in the form of HR-themes, services and amenities.

At the operational level, the tangible considerations are present in derivative forms such as plants or ergonomic furniture, and intangible aspects are still present in HR policies, services and amenities. At this point, tangible aspects are further watered-down due to inevitable budget restrictions. Furthermore, contradicting briefs put additional strain on MH considerations. This creates tensions between decision-makers and professional opinions on priorities. This is where tangible derivatives of MH, that are not brand-related, are usually pushed back or eliminated from the programmes of requirements due to budget restrictions. The intangible considerations usually survive as they are brand-related. However they may be adjusted or eliminated if there are insufficient financial resources.

The implementation phase encounters obstructs in the translation of ambitions into concrete solutions. According to the actors of this phase, the problem lies in the clarity of policy content from the forming phase, which lacks actionability. Furthermore, the WELL certification is met with a lot of criticism because it would focus too much on certain unimportant aspects, whereas important aspects are not sufficiently prioritised. Additionally, prioritisation in general is also an issue in the implementation phase, again due to responsibility clarity and demarcation around WB. All of this hinders a smooth cascading process. Lastly, budget constraints are a clear and final bottleneck in the operational phase.

MRQ - How is the topic of MH incorporated in the forming and implementing of workplace strategies in Dutch corporate offices?

The topic of mental health is part of a greater commitment to well-being. At the upper organisational level, the topic is launched by HR. The topic resides in the organisational strategy as part of organisational values and is embedded into the organisations' governance. This commitment is translated as part of a workplace strategy through a joint effort between HR and CRE internal actors. Well-being is clearly adopted as a highly strategic lever. In the WPS, the topic is abundantly represented in both intangible and tangible forms. It transpires in visions, policies, and design standards and guidelines. At the implementation, it appears difficult to maintain clarity and commitment to the WB ambitions as actionability and responsibility become increasingly vague. The ambitions are still there, yet translating them from aspirations into concrete actions seems to be a bottleneck. Additionally, the topic is less tightly monitored as the group of involved people expands, which increases responsibility vagueness. The implementers adopt the WELL standards as a checklist to enforce their commitment throughout this phase as external influences also complicate this journey. Throughout the process, it is clear that the intangible MH considerations are very well embedded, whereas the tangible MH considerations are only well embedded in the WPS document itself, faces many obstacles and fades in its presence downwards. The main reasoning behind this appeared to be feasibility. Though all brand-related tangible considerations are not obstructed in their cascading journey downwards.

All in all it can be said that the intangible MH considerations face much less difficulties in cascading as opposed to the great resistance that the tangible meets. This is in part due to the Top Management's understanding of the importance of this topic. This heavily impacts the allocation of funds and prioritisation of MH during the cascading process across all organisation levels. Another great influence is the scatteredness of this topic. The research clearly shows that HR and CRE do not collaborate sufficiently at all levels, which heavily impacts the cascading of the tangible MH considerations.

Lessons learned

Literature points out that workplace mental health is of great importance to organisations. Securing continued good mental health of employees leads not only to: their increased well-being, but also to higher productivity, lower sickness related cost, higher profits, and enhanced attractiveness of the employer. This research looked into the way in which corporates handle the incorporation of this subject into their WPS and how they implement it. The abstracted lessons that can be retrieved from this research are discussed below.

First and foremost, the main finding is that the importance of WB is well understood from an intangible, HR-perspective, not as much from a tangible WP perspective. This hinders the efficient overall cascading process.

In the forming phase the allocation of funds appears to be a great bottleneck for the incorporation of MH. An important aspect of ensuring its presence, is the use of WB as a strategic lever for the organisational strategy. This ensures that the topic remains top-of-mind throughout the entirety of the process which aids prioritising of the topic. Another important aspect is making sure that top management understands the importance of this topic, both the tangible and intangible. This can be achieved though building a clear business case on WB for top management, thus securing more funds to develop qualitative plans. Furthermore, a better collaboration between HR and CRE is critical. The involvement of HR in the development of the WPS is clearly insufficient. To improve this, clear responsibility allocation and role demarcation are critical.

In the transition from forming to implementing a knowledge and action gap occurs, mainly at the tactical level. This transition can be improved by setting better concrete aims at the end of the forming phase to improve clarity and actionability, and by better clarification of responsibility allocation and demarcation in the implementation phase.

In the implementation phase, the greatest issues revolve around responsibility and budget constraints again. During this phase, there is a lot of chaos around whose responsibility it is to ensure efficient implementation, obstructing an efficient cascading. To reduce confusion, at least make sure to minimise contradictions in briefs. Additionally, the cascading flow can be improved through application of a feedback system to ensure presence of important elements. Then at the end of the implementation phase, one should be mindful of the budget constraints ahead of time. Ensure priorities and responsibility around WB are clear and concrete to minimise conflicts at the time of the budget constraints.

Research output

When taking the lessons learned, and selecting the most influential findings on workplace mental health, a list of critical moments and actions can be drawn up. This list in the form of a critical pathway is the output of this thesis (figure 18). A larger exemplary can be found in Appendix B.

The critical pathway can serve as cautionary map for practitioners. Indicating the hurdles and roadblocks which organisations may encounter, this critical pathway suggests how to bypass these or how to counter-act in those moments.
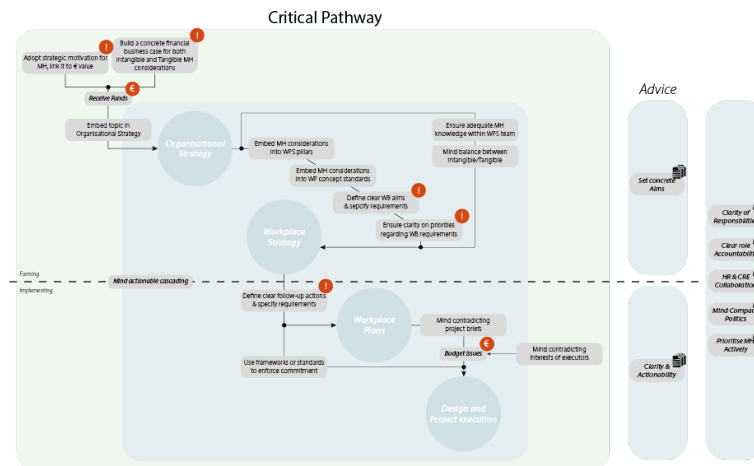

Figure 18: Critical pathway based on empirical research (author)

7.   Reflection

The subject idea for this thesis emerged from a personal observation. As someone with ADHD, I quickly notice how well, or poorly, spaces are designed to support concentration. Spoiler alert: effective spaces are limited. I thought to myself, I surely can't be the only one feeling that these environments negatively impact my productivity. Given the increasing media attention on mental health and the widespread expressions of organizational commitment to employee well-being, I became curious about how this is reflected in workplace design. Specifically, if top management expresses a commitment to mental health, what actions are they taking? How does this commitment translate into the actual workplace?

When trying to shape this idea into a thesis subject, I initially faced challenges in defining the aim of my research. It took a considerable amount of time to refine the scope and direction. Once I had that clarity, finding relevant literature became the next hurdle. I initially intended to conduct a multiple case study, but as I delved into the complexity of this approach, I realized that access to detailed cases was limited. This made it difficult to determine the scope within the constraints of the available data. Additionally, the limitations were a constant source of underlying restlessness for me, as I would prefer to eliminate all uncertainty. However, a great turning point for me was when I realised that this too, was simply an assignment, this realisation made me feel more at ease in developing my thesis project. This was funny to realise as I had been writing about sources of stress for an entire year.

The empirical phase of this research was very enjoyable and insightful. Conducting interviews with various stakeholders allowed me to understand the complexity of differing perspectives, making the research feel very personal. However, this also meant managing a substantial amount of interconnected and sometimes contradicting data. As someone who values having an overview, I found it challenging to balance the iterative nature of scientific research with my own preference for structure. While I already knew that iterative processes were not my forte, I could not have anticipated the extent of iteration required in a scientific research.

All in all, I feel like the researched methodology has worked well, though it took some detours to arrive at the final output. I believe it worked out well because I put many hours in the finding of the correct literature and structuring of this into digestible parts. When starting to conduct the empirical research, the results almost immediately confirmed this in the findings. Naturally, the many conversations I have had, and actively pursued, with my several mentors throughout the process have greatly contributed to building the correct path. Through the consistent posing of questions and immediate action after such conversations, I could improve my process each time.

Reflecting on this experience, I realize how much I've grown. I encountered obstacles not only in terms of content but also in managing the activities required to execute and support my research. It was challenging, especially in a personally demanding year, but my interest in the topic remained strong which greatly helped me persevere and achieve the final outcome. The societal value lies in the recommendations, providing new insights for practitioners to create better work environments for all.

First and foremost, this thesis subject relates to MBE as it researches strategy management regarding corporate real estate. In a broader sense, it relates to the faculty of AUBS as the human-centric role within the physical work environment has been observed and analysed. Finally, I would like to thank Vitalija for her guidance and kind approach, and Herman for stepping in during her leave. I also appreciate Brink for their assistance throughout this process, from providing data to creating a positive and enjoyable atmosphere at the office.

8. Bibliography

Aarstad, J., & Kvitastein, O. A. (2023). Effect of Long-Term absenteeism on the operating revenues, productivity, and employment of enterprises. *Administrative Sciences*, *13*(6), 156. https://doi.org/10.3390/admsci13060156

AlegríA, M., NeMoyer, A., Bagué, I. F., Wang, Y., & Álvarez, K. (2018). Social determinants of mental health: Where we are and where we need to go. *Current Psychiatry Reports*, *20*(11). https://doi.org/10.1007/s11920-018-0969-9

Arkesteijn, M. (2019). *Corporate Real Estate Alignment: a preference-based design and decision approach* (12th ed.). TU Delft OPEN. https://doi.org/10.7480/abe.2019.12

Arkesteijn, M., & Heywood, C. (2021). Alignment theory. In *Routledge eBooks* (pp. 100–116). https://doi.org/10.1201/9781003128786-9

Bambra, C., Gibson, M., Sowden, A., Wright, K., Whitehead, M., & Petticrew, M. (2009). Tackling the wider social determinants of health and health inequalities: evidence from systematic reviews. *Journal of Epidemiology and Community Health*, *64*(4), 284–291. https://doi.org/10.1136/jech.2008.082743

Banbury, S., & Berry, D. C. (2005). Office noise and employee concentration: Identifying causes of disruption and potential improvements. *Ergonomics*, *48*(1), 25–37. https://doi.org/10.1080/00140130412331311390

Barry, M. M. (2009). Addressing the determinants of positive Mental health: Concepts, evidence and practice. *The International Journal of Mental Health Promotion*, *11*(3), 4–17. https://doi.org/10.1080/14623730.2009.9721788

Bergefurt, L., Weijs-Perrée, M., Appel-Meulenbroek, R., & Arentze, T. (2022). The physical office workplace as a resource for mental health – A systematic scoping review. *Building and Environment*, *207*, 108505. https://doi.org/10.1016/j.buildenv.2021.108505

Bhugra, D., Till, A., & Sartorius, N. (2013). What is mental health? *International Journal of Social Psychiatry*, *59*(1), 3–4. https://doi.org/10.1177/0020764012463315

Borle, P., Reichel, K., Niebuhr, F., & Voelter-Mahlknecht, S. (2021). How Are Techno-Stressors Associated with Mental Health and Work Outcomes? A Systematic Review of Occupational Exposure to Information and Communication Technologies within the Technostress Model. *International Journal of Environmental Research and Public Health*, *18*(16), 8673. https://doi.org/10.3390/ijerph18168673

Breslau, N., Schultz, L., & Peterson, E. L. (1995). Sex differences in depression: a role for preexisting anxiety. *Psychiatry Research*, *58*(1), 1–12. https://doi.org/10.1016/0165-1781(95)02765-o

Centraal Bureau voor de Statistiek. (2023, July 17). *Psychosociale arbeidsbelasting (PSA) werknemers; geslacht en leeftijd*. Centraal Bureau Voor De Statistiek. https://www.cbs.nl/nl-nl/cijfers/detail/83049NED

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834–848. https://doi.org/10.1037/a0019364

Cristescu, M. P., Comăniciu, C., Herciu, M., & Toma, R. C. (2007). Integrated Administration of the Organizations Informational resources. *DOAJ (DOAJ: Directory of Open Access Journals)*. https://doaj.org/article/5f35cc1ffbeb48c0ab2ed7d9a7430cec

Danivska, V., & Appel-Meulenbroek, R. (2021). Collecting theories to obtain an interdisciplinary understanding of workplace management. In *Routledge eBooks* (pp. 1–12). https://doi.org/10.1201/9781003128786-1

Dewulf, G. P. R. M., Krumm, P. J. M. M., & De Jonge, H. (2000). *Successful corporate real estate strategies*.

Duffy, F. (1997). *The new office*. Conran Octopus.

Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health. *Journal of Management*, *39*(5), 1085–1122. https://doi.org/10.1177/0149206313475815

Glatte, T. (2020). *Corporate Real Estate Management*. Springer Vieweg. https://doi.org/10.1007/978-3-658-32222-9

Groen, B., Pijls, R., & Van Sprang, H. (2021). Hospitality theory. In *Routledge eBooks* (pp. 194–204). https://doi.org/10.1201/9781003128786-17

Hammer, L. B., Allen, S. J., & Dimoff, J. K. (2022). The missing link: the role of the workplace in mental health. *Workplace Health & Safety*, *70*(8), 384. https://doi.org/10.1177/21650799221105176

Han, S., & Lee, H. (2013). Social capital and depression. *Asia-Pacific Journal of Public Health*, *27*(2), NP2008–NP2018. https://doi.org/10.1177/1010539513496140

Haynes, B. P., Nunnington, N., & Eccles, T. (2017). *Corporate Real Estate Asset Management: Strategy and Implementation*.

Henderson, R. K., Snyder, H. R., Gupta, T., & Banich, M. T. (2012). When does stress help or harm? The effects of stress controllability and subjective stress response on stroop performance. *Frontiers in Psychology*, *3*. https://doi.org/10.3389/fpsyg.2012.00179

Heywood, C., & Arkesteijn, M. (2018). Analysing fourteen graphical representations of corporate real estate alignment models. *Journal of Corporate Real Estate*, *20*(1), 16–40. https://doi.org/10.1108/jcre-02-2017-0005

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. https://doi.org/10.1037/0003-066x.44.3.513

ISO. (n.d.). *ISO - Management system standards*. https://www.iso.org/management-system-standards.html

Jahncke, H., Hygge, S., Halin, N., Green, A. M., & Dimberg, K. (2011). Open-plan office noise: Cognitive performance and restoration. *Journal of Environmental Psychology*, *31*(4), 373–382. https://doi.org/10.1016/j.jenvp.2011.07.002

Jensen, P. A., & Van Der Voordt, T. J. (2019). Healthy workplaces: what we know and what else we need to know. *Journal of Corporate Real Estate*, *22*(2), 95–112. https://doi.org/10.1108/jcre-11-2018-0045

Johnson, G., Scholes, K., & Whittington, R. (2008). Exploring Corporate Strategy: text & cases. *ResearchGate*. https://www.researchgate.net/publication/272353374_Exploring_Corporate_Strategy_Text_Cases

Joroff, M. L. (1993). *Strategic management of the fifth resource: Corporate Real Estate*.

Kämpf-Dern, A. (2021). St. Gallen Management model. In *Routledge eBooks* (pp. 36–52). https://doi.org/10.1201/9781003128786-4

Kämpf-Dern, A., & Konkol, J. (2017). Performance-oriented office environments – framework for effective workspace design and the accompanying change processes. *Journal of Corporate Real Estate*, *19*(4), 208–238. https://doi.org/10.1108/jcre-03-2017-0009

Kämpf-Dern, A., & Will-Zocholl, M. (2022). Transforming workplaces into performing workspaces—Holistic evaluation concept for managing workspace change projects. *Zeitschrift Für Immobilienökonomie*, *8*(2), 189–211. https://doi.org/10.1365/s41056-022-00058-y

Kropman, D., Appel-Meulenbroek, R., Bergefurt, L., & Blanc, P. M. L. (2022). The business case for a healthy office; a holistic overview of relations between office workspace design and mental health. *Ergonomics*, *66*(5), 658–675. https://doi.org/10.1080/00140139.2022.2108905

Lazarus, R. S. (1993). From Psychological Stress to the Emotions: A History of Changing outlooks. *Annual Review of Psychology*, *44*(1), 1–22. https://doi.org/10.1146/annurev.ps.44.020193.000245

Ministerie van Algemene Zaken. (2022, July 21). *Kabinet start brede beweging voor betere mentale gezondheid*. Nieuwsbericht | Rijksoverheid.nl. https://www.rijksoverheid.nl/actueel/nieuws/2022/06/10/kabinet-start-brede-beweging-voor-betere-mentale-gezondheid

Miraglia, M., & Johns, G. (2016). Going to work ill: A meta-analysis of the correlates of presenteeism and a dual-path model. *Journal of Occupational Health Psychology*, *21*(3), 261–283. https://doi.org/10.1037/ocp0000015

Nag, P. K. (2019). Office buildings. In *Design science and innovation*. https://doi.org/10.1007/978-981-13-2577-9

Nixon, P. (1982). The human function curve - a paradigm for our times. *PubMed*, *Suppl 3*(Pt 1), 130–133. https://pubmed.ncbi.nlm.nih.gov/7183056

Oseland, N. (2009). The impact of psychological needs on office design. *Journal of Corporate Real Estate*, *11*(4), 244–254. https://doi.org/10.1108/14630010911006738

Poutanen, J. (2021a). Socio-technical transitions theory. In *Routledge eBooks* (pp. 53–64). https://doi.org/10.1201/9781003128786-5

Poutanen, J. (2021b). Socio-technical transitions theory. In *Routledge eBooks* (pp. 53–64). https://doi.org/10.1201/9781003128786-5

Redlein, A., Höhenberger, C., & Turnbull, P. (2020). Workplace management. In *Classroom companion: business* (pp. 177–222). https://doi.org/10.1007/978-3-030-35314-8_6

Safari, M., & Mazdeh, M. Z. (2018). A Conceptual Framework of Strategy Cascading in the Mission-Based Organizations: A State-of-the-Art Review and Practical Template. *International Letters of Social and Humanistic Sciences*, *83*, 1–10. https://doi.org/10.18052/www.scipress.com/ilshs.83.1

Sander, E. J., Marques, C., Birt, J. R., Stead, M., & Baumann, O. (2021). Open-plan office noise is stressful: multimodal stress detection in a simulated work environment. *Journal of Management & Organization*, *27*(6), 1021–1037. https://doi.org/10.1017/jmo.2021.17

Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. In *Springer eBooks* (pp. 43–68). https://doi.org/10.1007/978-94-007-5640-3_4

Schneiderman, N., Ironson, G., & Siegel, S. D. (2005). Stress and health: psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*, *1*(1), 607–628. https://doi.org/10.1146/annurev.clinpsy.1.102803.144141

Smith-Jackson, T. L., & Klein, K. W. (2009). Open-plan offices: Task performance and mental workload. *Journal of Environmental Psychology*, *29*(2), 279–289. https://doi.org/10.1016/j.jenvp.2008.09.002

Sundstrom, E. D., & Sundstrom, M. G. (1986). *Work Places: The psychology of the physical environment in offices and factories*. http://ci.nii.ac.jp/ncid/BA04319595

Teasdale, E. L. (2006). Workplace stress. *Psychiatry*, *5*(7), 251–254. https://doi.org/10.1053/j.mppsy.2006.04.006

Vaingankar, J. A., Chong, S. A., Abdin, E., Kumar, F. D. S., Chua, B. Y., Sambasivam, R., Shafie, S., Jeyagurunathan, A., Seow, E., & Subramaniam, M. (2020). Understanding the relationships between mental disorders, self-reported health outcomes and positive mental health: findings from a national survey. *Health and Quality of Life Outcomes*, *18*(1). https://doi.org/10.1186/s12955-020-01308-0

Van Der Voordt, T. J., & Jensen, P. A. (2021). Value Adding Management of buildings, workplaces, facilities and services. In *Routledge eBooks* (pp. 140–151). https://doi.org/10.1201/9781003128786-12

Wijnja, J., Van Der Voordt, T. J., & Hoendervanger, J. G. (2021). Corporate real estate management maturity model. In *Routledge eBooks* (pp. 13–24). https://doi.org/10.1201/9781003128786-2

World Health Organization: WHO. (2019). Mental health. *www.who.int*. https://www.who.int/health-topics/mental-health#tab=tab_1

World Health Organization: WHO. (2022, June 17). *Mental health*. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

APPENDIX A – Content Analysis of MH considerations

Code	Document type	Culture & Values	Social Dynamics	Engagement & Autonomy	Communication & Information	Services & Amenities	Layout & Spatial design	Lighting & Visual Environment	Acoustics	Temperature & Ventilation	Ergonomics	Technology & Equipment	Level
Doc.1	Annual Report	●	●	●		●							N
Doc.2	Work Environment Guidelines	●	●	●		●			●	●		●	S
Doc.6	Workplace Experience Document	●	●	●	●	●	●	●	●	●	●	●	S
Doc.3	Space Type Guidelines		●	●	●	●	●	●	●	●	●	●	S/T
Doc.4	Workplace Concept			●	●		●	●	●				S/T
Doc.7	Amenity Concept		●			●	●	●	●	●	●	●	S/T
Doc.8	Colours & Materials							●					S/T
Doc.5	Guidelines Hospitality Brand book	●	●	●		●							T
Doc.11	Plazas Concept	●	●			●		●					T
Doc.13	Vision Office & Amenities	●				●		●					T
Doc.9	Design Brief	●	●	●	●	●	●	●	●		●	●	T
Doc.10	User requirements specification	●		●		●	●	●	●		●	●	T/O
Doc.14	Scenarios & planning	●	●	●	●	●		●	●				O
Doc.15	Ambition document	●		●			●	●					O
Doc.16	Service concept	●		●				●					O
Doc.17	Kick-off					●							O

MH considerations

APPENDIX B – Critical Pathway

Advice

Set concrete Aims

Clarity & Actionability

- Clarity of Responsibilities
- Clear role Accountability
- HR & CRE Collaboration
- Mind Company Politics
- Prioritise MH Actively

Critical Pathway

Forming

Adopt strategic motivation for MH, link it to € value

Build a concrete financial business case for both Intangible and Tangible MH considerations

Receive Funds

Embed topic in Organisational Strategy

Organisational Strategy

Embed MH considerations into WPS pillars

Ensure adequate MH knowledge within WPS team

Mind balance between Intangible/Tangible

Embed MH considerations into WP concept standards

Define clear WB aims & specify requirements

Ensure clarity on priorities regarding WB requirements

Workplace Strategy

Implementing

Mind actionable cascading

Define clear follow-up actions & specify requirements

Use frameworks or standards to enforce commitment

Workplace Plans

Mind contradicting project briefs

Budget Issues

Mind contradicting interests of executors

Design and Project execution

APPENDIX C - Data Management Plan

Msc Thesis; "How the topic of mental health is incorporated in corporate workplace strategy making"

0. Administrative questions

Vitalija Danivska, January

2024-01-31

I. Data description and collection or re-use of existing data

Type of data	File format(s)	How will data be collected (for re-used data: source and terms of use)?	Purpose of processing	Storage location	Who will have access to the data
Literature	.pdf files	Re-use of existing data	For content analytic purposes	Project storage drive [TU Delft]	Project team
Imagery from literature	.jpeg giles	Re-use of existing data	For explanation and visual supporting purposes	Project storage drive [TU Delft]	Project team
Audiovisual data	.mp4 files	Interview recording	For content analytic purposes	Project storage drive [TU Delft]	Project team
Audio data	.mp3 files	Interview recording	For content analytic purposes	Project storage drive [TU Delft]	Project team
Audiovisual transcript	.pdf files	Online transcription tool from .mp4	For data-analytic purposes	Project storage drive [TU Delft]	Project team
Audio transcripts	.pdf files	Online transcription tool from .mp3	For data-analytic purposes	Project storage drive [TU Delft]	Project team
Coding spreadsheets	.xlsx files	Self-produced	For data-analytic purposes	Project storage drive [TU Delft]	Project team
Corporate Policy Documents	.pdf files / .zip files	Received from practitioners	For content analytic purposes	Project storage drive [TU Delft]	Project team
Personal conversations	.docx files	Self-collected	For content analysis and argumentation-supporting purposes	Project storage drive [TU Delft]	Project team
Own vector imagery	.svg files	Self-produced	For explanation and visual supporting purposes	Project storage drive [TU Delft]	Project team

- 250 GB - 5 TB

II. Documentation and data quality

- Methodology of data collection

III. Storage and backup during research process

- OneDrive
- Project Storage at TU Delft

IV. Legal and ethical requirements, codes of conduct

- Yes

- Yes

- Yes, confidential data received from commercial, or other external partners

The datasets supporting the published papers will be made publicly available in accordance with the TU Delft Research Data Framework Policy. While the research is ongoing, the project leader from TU Delft will manage data access rights and handle any requests for access from external parties. All data will be safeguarded and are only retrievable by thesis examiners, if requested. Data fragments will be used and published at the time of the thesis publication.

- Photographs, video materials, performance appraisals or student results
- Signed consent forms

Specific professionals in the domain of CRE advisory, workplace management, and construction project management.

- No

- Informed consent

A consent form is drawn up explaining what the interviewees agree to. In this consent form, permission is asked to record the interview for analytic research purposes. In this consent form, anonymisation is guaranteed. In this consent form, the participants' rights are explained. All following the TU Delft's guidelines on research ethics. The participants must agree to this before the start of the interviews.

- Same storage solutions as explained in question 6

- None of the above applies

- Personal research data will be destroyed after the end of the research project
- Anonymised or aggregated data will be shared with others

- 10 years or more, in accordance with the TU Delft Research Data Framework Policy

- For research purposes, which are in-line with the original research purpose for which data have been collected

Created using DMPonline. Last modified 02 October 2024

2 of 3

67

- Yes, in consent form - please explain below what you will do with data from participants who did not consent to data sharing

They all must consent as the TU Delft publishes all theses and these contain anonimised data. If not, the interviews cannot take place.

V. Data sharing and long-term preservation

- Not all non-personal data can be publicly shared - please explain below which data and why cannot be publicly shared

Some data comes from internal company documents. These are not publicly accessible, therefore the used fragments of this data will be published, but paraphrased and their sources coded to ensure anonymisation. Not-used fragments of this data will be safeguarded on TU Delft drives and eventually be destroyed, as with the other data.

- All pseudonymised data will be uploaded to 4TU.ResearchData with restricted access
- All anonymised or aggregated data, and/or all other non-personal data will be uploaded to 4TU.ResearchData with public access

- 100 GB - 1 TB

- At the end of the research project

- CC0

VI. Data management responsibilities and resources

- Yes, leading the collaboration - please provide details of the type of collaboration and the involved parties below

Two other organisations are involved:
1. Brink: this is the thesis internship company, providing access to case information.
2. "Anonymous company": this is the case-study company, providing access to case information.

Company 1: Involved through signing of thesis internship contract.
Company 2: Involved through signing of consent forms.

Thesis supervisor (v.danivska@tudelft.nl).

4TU.ResearchData provides up to 1TB of data storage per researcher each year at no cost for all TU Delft research. Since I do not anticipate exceeding this limit, there will be no extra costs for long-term data preservation.