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# Implementing Artificial Intelligence for Promoting Well-being in Organisations

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## Executive Summary

This policy brief examines the transformative potential of Artificial Intelligence (AI) in promoting mental well-being and resilience among employees. It explores innovative AI solutions, including workload management systems, AI-driven chatbots, wearable devices, and generative AIs, as tools to create supportive work environments.

In the H-WORK project, a review of digital technologies related to workplace mental health has been performed with the aim of implementing digital-based interventions, developing recommendations for the use of digital technologies in SMEs and public organisations as well as recommendations for designers, and identifying innovative and groundbreaking avenues for digital-based workplace mental health promotion. Among these, AI emerged as a relevant technology.

The document outlines specific ways AI applications can improve employee mental health. AI workload management systems are shown to reduce burnout, AI-driven chatbots aid in managing work-related stress and anxiety, while wearable devices encourage healthier lifestyles. Generative AIs are identified as practical tools for mitigating the negative impacts of monotonous tasks.

The brief acknowledges challenges to implementing AI in organisations, such as ethical, practical and personal concerns, as well as organisational readiness. It concludes by offering recommendations for successfully integrating AI technologies, ultimately fostering employee well-being and promoting a more positive work environment.

## Introduction

In a review of digital technologies related to workplace mental health conducted as part of the H-WORK project, **Artificial Intelligence (AI)** has emerged as holding promising potential. AI has opened new possibilities for promoting well-being in organisations. Innovative solutions such as **workload management systems**, **AI-driven chatbots**, **wearable devices** and **generative AIs** can be important assets to create a supportive work environment that fosters mental well-being and resilience among employees. This policy brief describes various ways to improve employee mental health through AI applications. Insights are provided into potential benefits that AI may bring to organisations. **AI workload management systems can help reduce burnout**, **AI-driven chatbots can help cope with work-related stress and anxiety**, as well as promote **healthier lifestyles** through wearable devices, and **generative AIs can mitigate the adverse effects of tedious work**. Challenges stemming from the organisational implementation of these technologies are also described, such as **ethical and practical issues** and **AI readiness**. Finally, recommendations for the effective implementation of AI in organisations are provided.

## AI benefits to employee well-being and performance

### Workload management

Since AI constantly gathers data, AI systems in organisations can optimise workload to foster employee well-being over time. This reduces burnout risk and improves productivity. To accomplish this, AI-assisted workload management platforms are generally based on techniques such as **Predictive Analytics** (forecast upcoming workload and staffing needs based on past data, allowing for better planning and resource allocation), **Intelligent Task Assignment** (automatically assigns tasks and projects to employees based on skills, experience, workload capacity, and team composition), **Automated Scheduling** (generates optimal schedules that maximise productivity and minimise burnout), **Workload Monitoring** (monitors employees' workload, stress levels, and burnout risk), **Personalised Recommendations** (suggest when employees should take breaks, swap tasks, or shed load), **Team Collaboration Tracking** (analyses communication patterns and coordination within teams by identify bottlenecks), and **Overwork Detection** (detects overburdened employees based on workload hours, output, physiological signs).

As a notable example, Tangi and colleagues (2022) reported reduced employee stress and burnout due to the successful implementation of an AI-based workload management tool at the Estonian Unemployment Insurance Fund. Middle and senior managers especially saw the benefit to their coordinating role as they could reassign clients to consultants based

on the information available. The organisation also offered training to sceptical employees about the system's capabilities and potentialities. Such awareness is important for the sustainable usage of AI systems in organisations.

### Coping with work-related stress and anxiety

AI chatbots can help employees through empathetic conversations on easy-to-use and enjoyable interfaces. These systems can provide **quick solutions, consultations, calming methods, and other resources** that support employee mental health. These apps deploy natural language processing and machine learning algorithms to provide personalised guidance to users through **mood tracking, breathing exercises, goal setting, progress tracking**, and more. AI chatbots may also reduce people's fear of mental health stigma by employing a '**security-by-design**' approach, in which personal data and identifiable information are stored privately or not registered. On the other hand, organisations and employees need to be aware that AI may not fully understand the complexities of human mental health, thus, AI chatbots could make mistakes, misunderstand users, and lead to incorrect advice or further distress. Beyond enabling employees to cope better, employers should not neglect their legal obligations under occupational health and safety law to prevent stress related to psychosocial work environment.

### Promoting healthy nutrition and physical activity

AI can provide employees with information and tools to adopt healthy habits such as **exercise, mindfulness meditation, and healthy eating**, which foster mental health (Briguglio et al., 2020). AI-based apps can provide personalised coaching and support for nutrition, exercise, and sleep. The apps analyse users' health data to provide customised insights based on individual needs and preferences. These systems can receive real-time data from **wearable devices**, suggest personalised meal plans, exercise routines, and sleep schedules, and nudge them into healthier behaviours. By encouraging **healthy habits**, these technologies can **reduce chronic diseases**. However, this type of solution should always be accompanied by assessments of the psychosocial risks in the work environment.

## Automating repetitive tasks

Generative AI can generate text, images, or other media responding to prompts. It has the potential to improve employee well-being in several ways. First, it can automate repetitive and tedious tasks, freeing up valuable time for employees to focus on more meaningful and engaging work. This can help lighten heavy workloads and potentially decrease burnout (Work Trend Index Report, 2023). Although this has been an ongoing process for many years regardless of AI, Generative AI can also help employees **work more efficiently and effectively** in novel ways, by providing personalised recommendations, insights, and feedback based on their work patterns and preferences. This can help employees feel more empowered and motivated to achieve their goals (McKinsey, 2023).

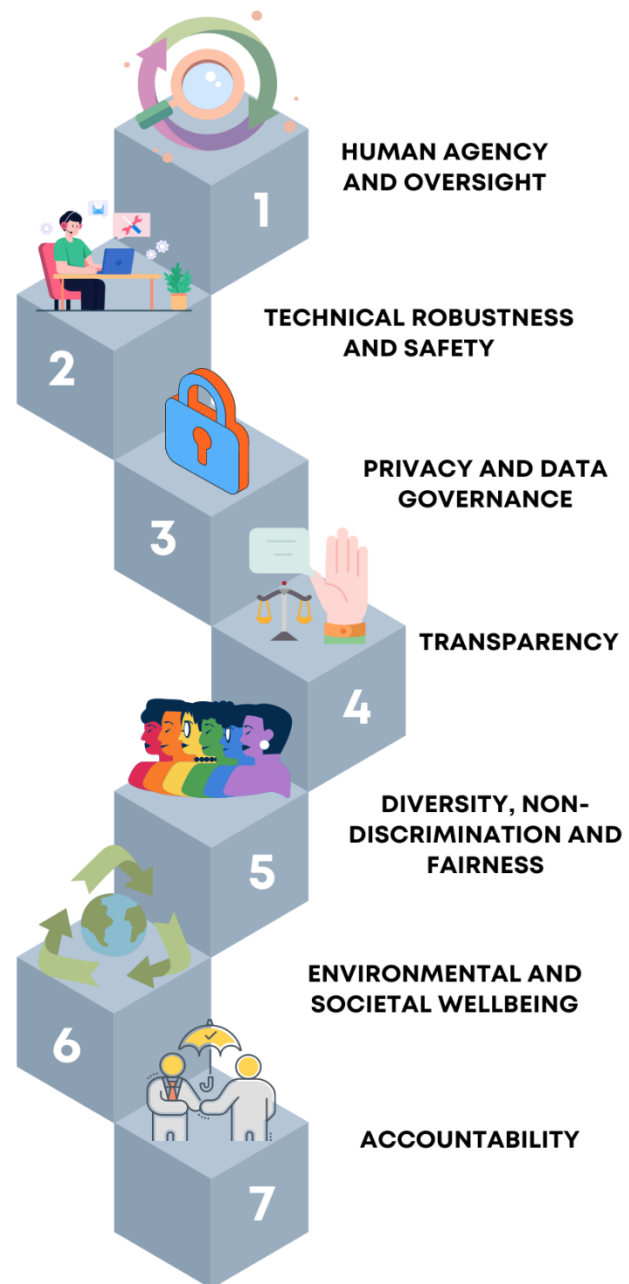
As a notable example, the OECD (2022) reports on a financial firm that implemented a process automation system, which led to administrative tasks becoming automated. Employees regarded this change as an improvement. As a result, workers appreciated having more time to support customers and colleagues. The technology helped them enjoy their work more, improving their engagement and well-being.

## AI implementation challenges in organisations

### Data protection issues

AI chatbots and generative AI raise **concerns about data privacy**. Conversations with AI may collect sensitive information about employees. Organisations need to ensure that data are collected, stored, and used in a **secure, transparent, trustworthy, and ethical manner**. Also, generative AI systems must implement robust measures to protect user data and ensure confidentiality. To this aim, organisations and developers can rely on the 7 principles of the **Assessment List for Trustworthy Artificial Intelligence (ALTAI)**, issued by the High-Level Expert Group on Artificial Intelligence of the European Commission. ALTAI is a practical tool to self-assess the trustworthiness of AI systems under development or being used.

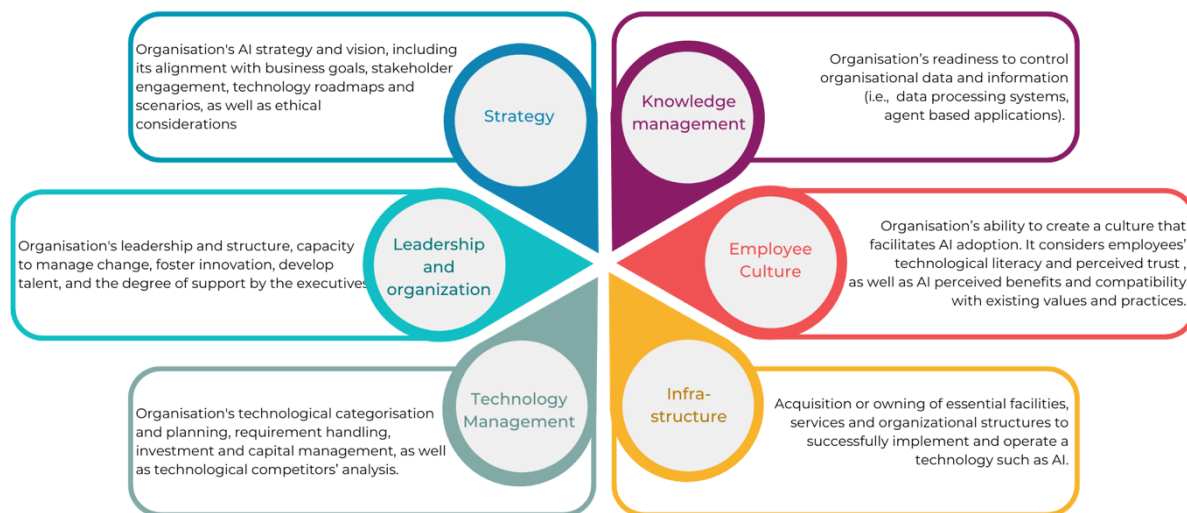
Similarly, from June 2023, **the AI Act** aims to ensure that AI developed and used in European organisations aligns with **EU rights and values**, as expressed in the Universal Declaration of Human Rights and the General Data Protection Regulation. These include human oversight, safety, privacy, transparency, non-discrimination, and social and environmental well-being. AI systems with unacceptable levels of risk to people's safety and security **are prohibited**.



## AI organisational readiness

Employees need to **access the necessary technology and infrastructure** for AI technologies to be effectively implemented in organisations. This could be a hindrance for organisations operating in remote or rural areas or with a diverse workforce with varying levels of **technological literacy**.

Nortje and Grobbelaar (2020) provide a valuable framework for assessing organisational readiness for AI adoption. This can be used as a good practice to determine the organisation's **readiness for AI adoption**, mainly focusing on technological infrastructure and employee skills. This preliminary assessment helps organisations to identify the **strengths** and **weaknesses** of their technological infrastructure and **develop a roadmap** for investment in necessary tools for **successful implementation**, such as wearables and others. This can be done by carrying out internal surveys, either based on interviews or questionnaires, that explore the dimensions of this organisational readiness framework.



## Recommendations to organisations and employers

- **Recommendation 1. Consider deploying AI to promote workplace mental health.** Managers can use AI tools to optimise work organisation (workload management tools), help employees cope with work-related stress and anxiety (chatbots), promote healthy habits among workers (wearable devices), and automate tedious tasks (generative systems). This is likely to prevent burnout, foster productivity, and result in a healthier work environment. However, for this not to be just a palliative approach to stress symptoms management, AI solutions should be coupled with actions at the psychosocial work environment level, so that the organisation will also meet its legal obligations under occupational health and safety law. This should also be part of a broader workplace health promotion approach taking place at the systemic level of the organisation.
- **Recommendation 2. Implement AI through participation and involvement.** The number of potential applications of AI in organisations is matched by the number of ethical, practical, and personal concerns. For instance, there are costs for businesses in terms of investment needed for infrastructure and training. Also, workers could be scared by the tracking and monitoring power of AI technologies, which may generate scepticism, anxiety, stress, and dissatisfaction. Thus, the implementation of AI systems must involve time for collaboration and consultation, including unions and other representatives in the discussion. This can be useful to set up case studies to define effective processes for implementation, and to assess costs and benefits, and the results of these participatory activities must be communicated openly as part of building trust and confidence in the new technologies.
- **Recommendation 3. Implement measures regarding ethics, transparency and stigma.** When addressing data protection issues, data leaks and privacy concerns, employers should use AI apps that support data encryption, pseudonymisation or anonymisation, and strict access controls. This can contribute to reducing the stigma associated with the use of technological tool for mental health matters. Moreover, organisations should verify that AI-based apps are accessible, user-friendly, and tailored to the needs of their workforce and provide training and support to employees to help them use AI-based apps effectively. Organisations can rely on the European Commission's tools and guidelines (e.g., the AI Act and ALTAI) to face these challenges and promote well-being through transparent and safe AI systems.
- **Recommendation 4. Assess the AI readiness level of your organisation.** As a manager, before deciding whether to implement an AI-based intervention to foster well-being in the organisation, assessing whether you have the necessary technological infrastructure and skills in your company is crucial. Employees' digital literacy should be

investigated to understand and plan the most successful implementation strategy. This preliminary assessment will help you identify your strengths and weaknesses in your technological infrastructure, ultimately developing a roadmap for investment (e.g., providing service subscriptions to your employees) and training, thus promoting trust and creating a culture for facilitating AI adoption.

- **Recommendation 5. Inform and train end-users about AI capabilities and potentialities.** For optimal integration of AI in employment, the end-users, both employees and managers, should be trained and clearly informed about the benefits and advantages that AI can bring to both their health and productivity. If workers do not understand what the capabilities and potentialities of AI are when it is implemented in the workplace, they may end up resisting its introduction and giving up its adoption, uptake and regular use, thus galvanising any possible positive impact. End-users should also be trained about potential risks and challenges in order to prevent misuse or unintended use of AI tools and promote correct utilisation of the new technologies.

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