

HEALTHY WORKING ENVIRONMENTS FOR ALL AGES: AN EVIDENCE- DRIVEN FRAMEWORK

3rd International PEROSH Conference
on Prolonging Working Life

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The Netherlands

WAge



Background

- **Ageing population**

In 1950, 12% of Europe's population was aged >65 years; today, it's 19.2%, and by 2050, it's projected to be >36% [1]. However, longer life is not necessarily linked to healthy, active, and independent ageing.

- **Health Challenges**

Increased longevity brings more chronic diseases, comorbidities, and geriatric syndromes, posing challenges for economies and healthcare systems [2].

- **Workforce demographics**

The number of older workers is rising due to extended life expectancy and economic needs. Increases in retirement age raise challenges in health, employability, and the ability to work until retirement [3].

[1] http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing

[2] Divo, M. J., Casanova, C., Marin, J. M., Pinto-Plata, V. M., De-Torres, J. P., Zulueta, J. J., ... & Celli, B. R. (2015). COPD comorbidities network. *European Respiratory Journal*, 46(3), 640-650.

[3] OECD. *Health at glance*. 2021.



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Background

State of the art

Over the past two decades, a substantial body of literature has acknowledged the complex and multifactorial nature of workplace well-being and the risks to both mental and physical health, particularly musculoskeletal disorders (MSDs) [4]:

- **Physical Factors:** Related to workplace activities and ergonomics (e.g., repetitive movements, improper postures, heavy lifting).
- **Psychosocial Factors:** Including high job demands, low task control, and poor social support.
- **Individual Factors:** Factors like age, gender, income, and education also contribute to MSD susceptibility (Hernandez & Peterson, 2013).

[4] Afsharian, A., Dollard, M. F., Glozier, N., Morris, R. W., Bailey, T. S., Nguyen, H., & Crispin, C. (2023). Work-related psychosocial and physical paths to future musculoskeletal disorders (MSDs). *Safety Science*, 164, 106177.



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Background

Identified gaps

- Although research has explored some relationships between individual, psychosocial, and physical factors—both separately and in combination—**age-sensitive and integrated approaches** remain scarce.
- There is a lack of strategies aimed at leveraging opportunities and the positive aspects of these interactions.
- Few studies exploiting representative, participatory research facilitating knowledge transfer and action



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Background

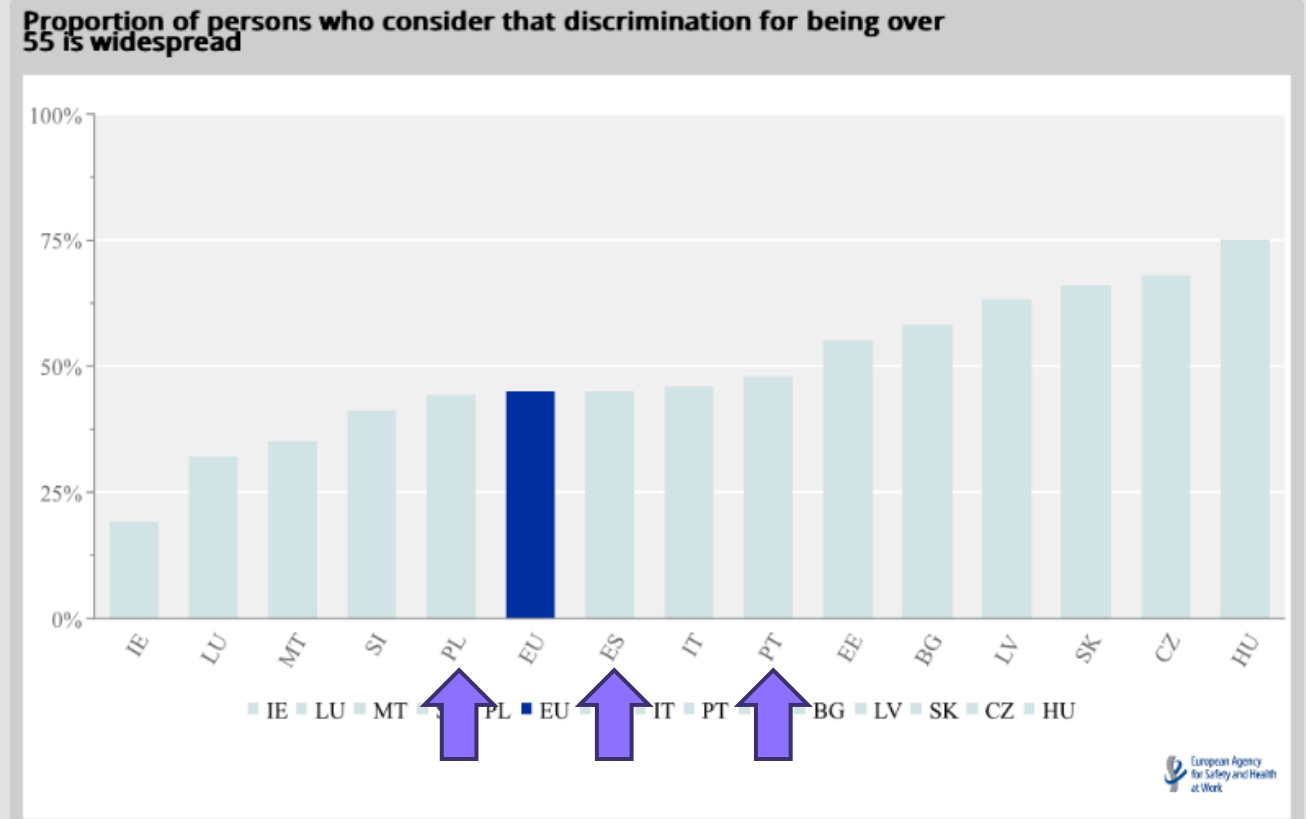
WAge study cases

The three countries targeted by WAge (Poland, Portugal, Spain) have been classified by EU-OSHA as nations where workforce ageing is recognized but not yet prioritized.

Policies exist at a conceptual level but are rarely implemented in practice.

Focus remains largely on economic stabilization and unemployment reduction, while cross-policy initiatives for addressing workforce ageing are lacking [4].

[4] <https://visualisation.osha.europa.eu/ageing-and-osh#!/country-groups/group2/description>



Is discrimination for being over 55 very widespread, fairly widespread, fairly rare or very rare?
Total: fairly widespread + widespread. (European Commission, Special Eurobarometer 393 — Discrimination in the EU, 2012)



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Main Goals



Pave the way to an integral use of evidence by modelling the complex interactions between work environment risk factors in different age groups and the range of frameworks and constructions for potential solutions



Ensure workers have control over the data collected about them and address concerns about privacy, data security, and data misuse



Identify how processes are undertaken to define problems, apply evidence, and select solutions through strong stakeholder representation



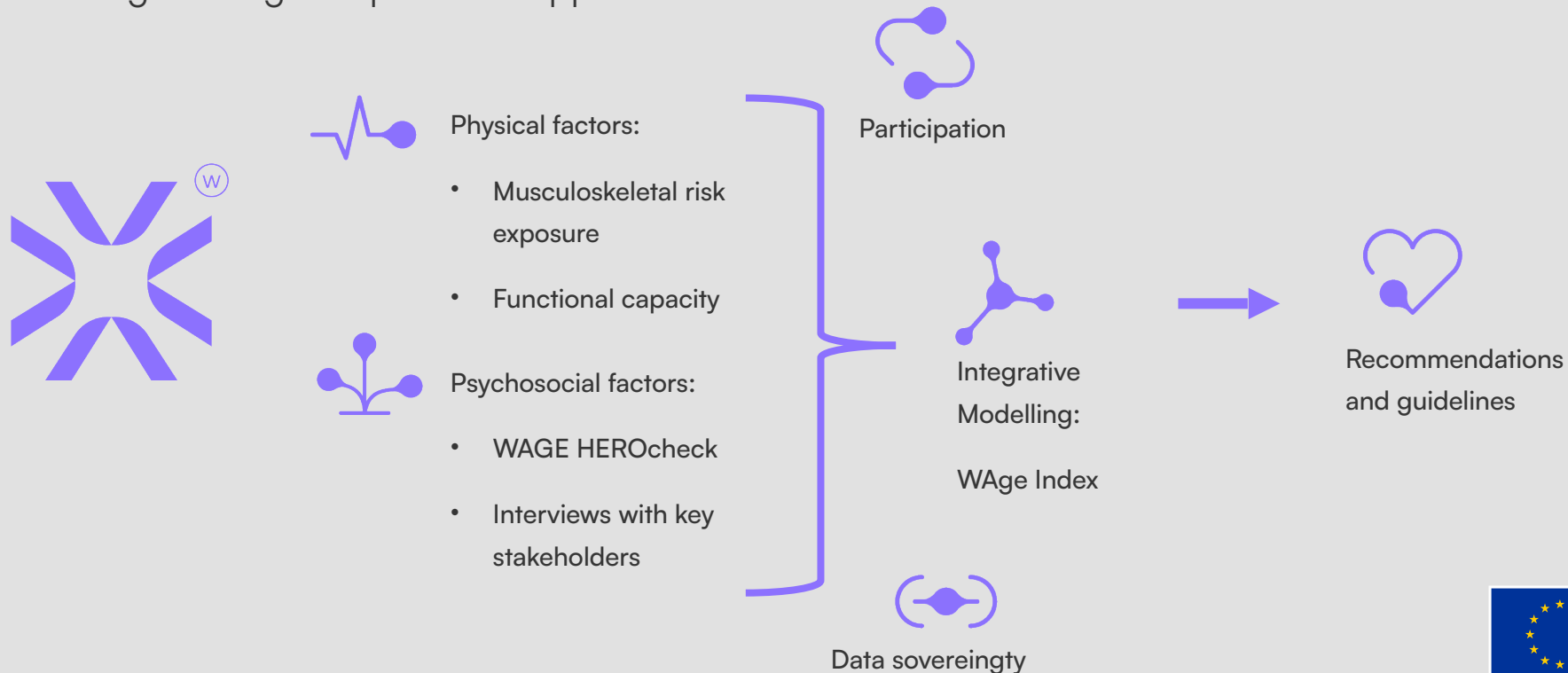
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Methods

WAge will target manufacturing industry cases across three countries (Spain, Portugal, Poland) for implementation of our evidence gathering and provision approach.



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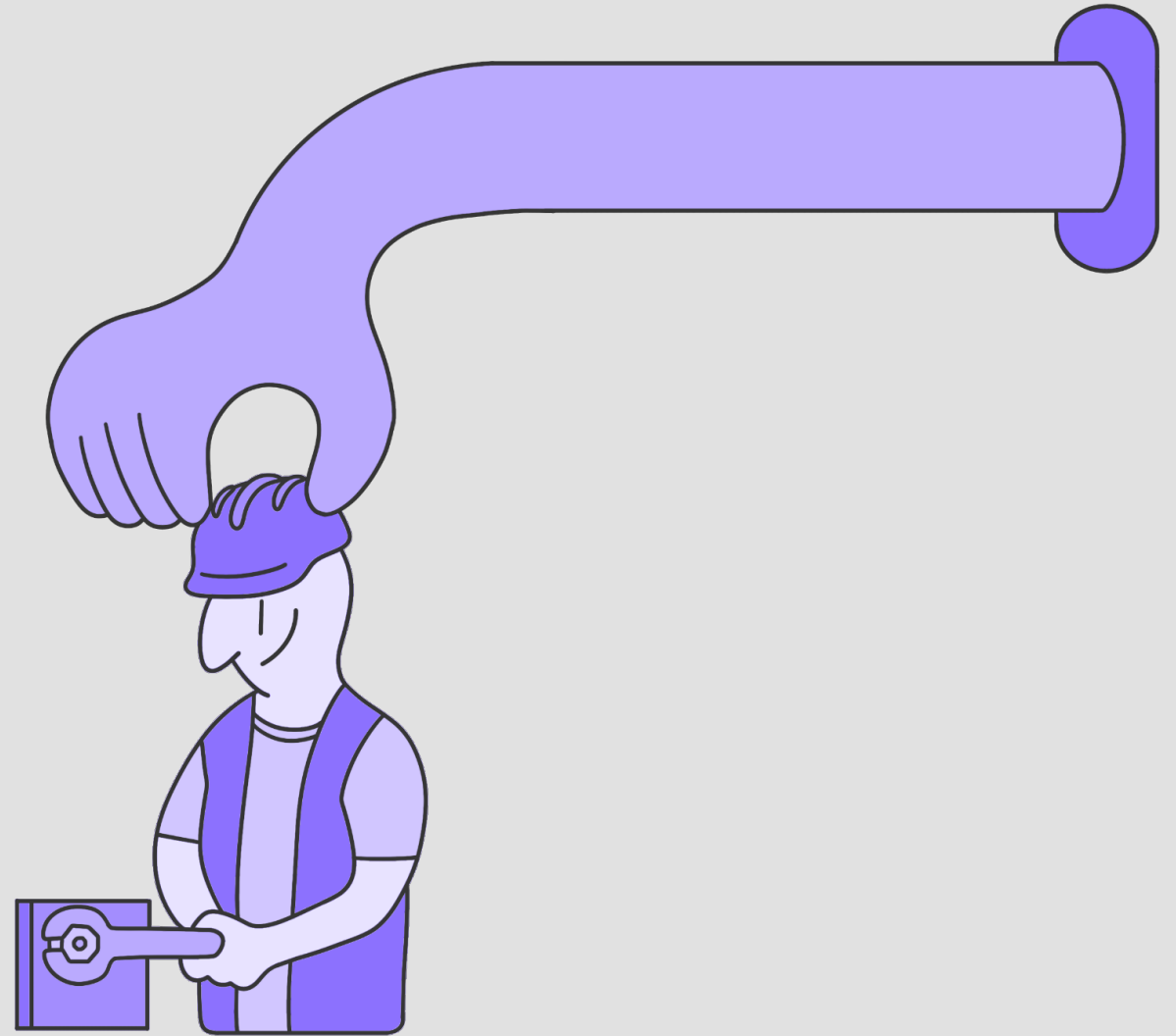
Participatory Research

Ensuring representation and accountability in research and evidence generation.



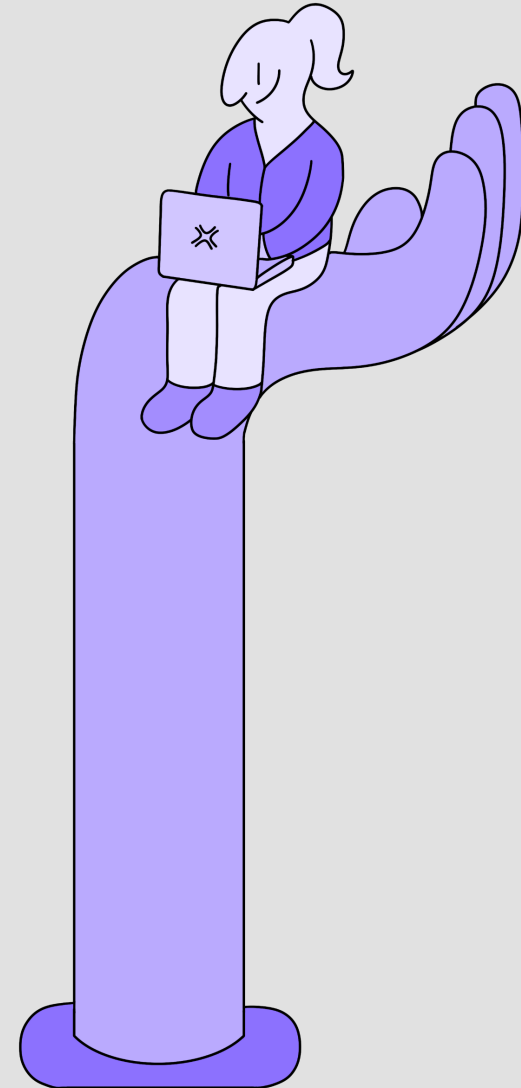
Mapping and modelling risk factors

Determining the strength of the association between work-related physical and psychosocial factors influencing health and wellbeing across age groups



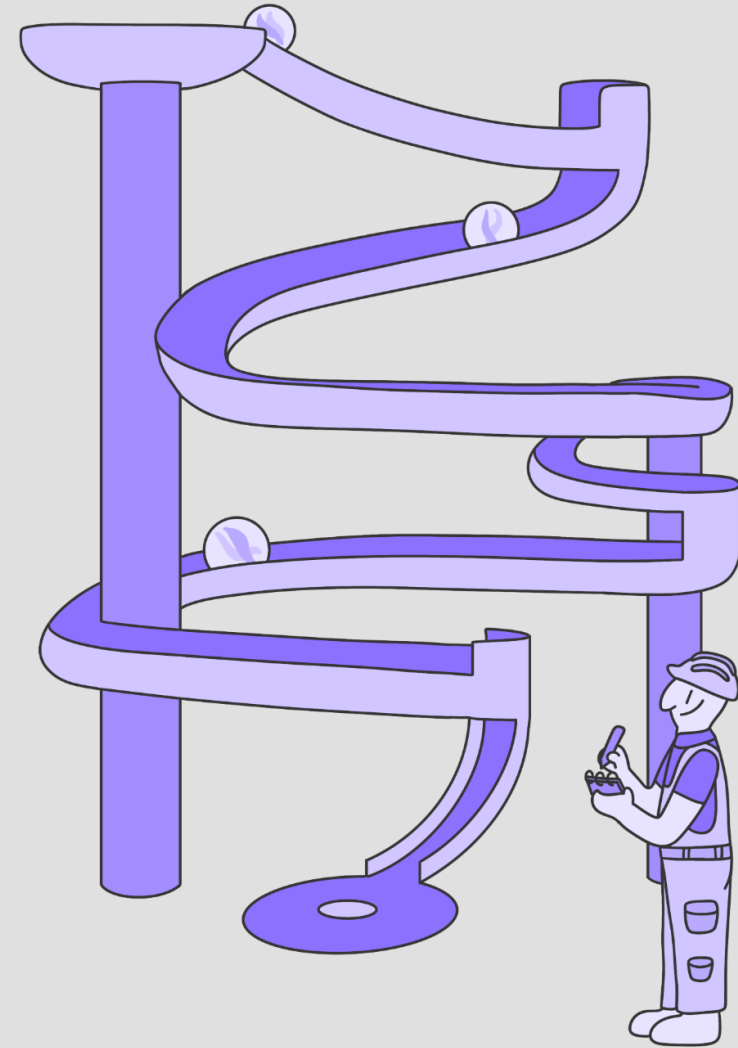
Data sovereignty

Implementing privacy preserving, privacy-assisting solutions through data spaces, facilitating informed privacy choices of participants and stakeholders.

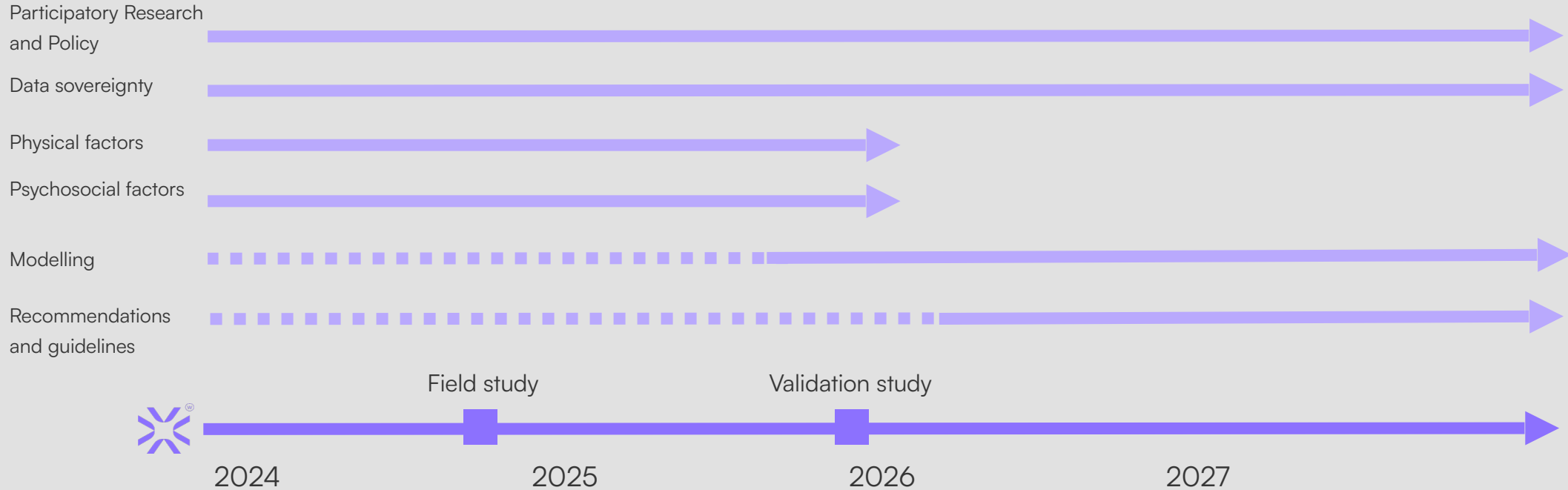


Evidence provision

Conduct evidence synthesis with stakeholder representatives and scholars to produce interventions and policy guidelines

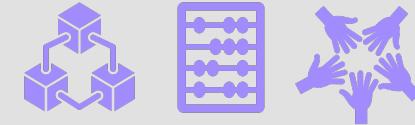
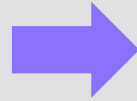
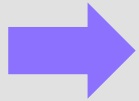
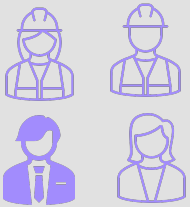
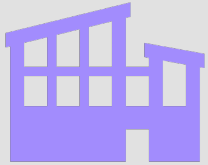


Timeline



- Data collection and development of interventions at 4 manufacturing sites in Spain, Portugal (2), Poland.
- Data management and sharing through International Data Spaces infrastructures.
- Participatory research and representation across all research activities.

WAge approach



Blue-collar and white-collar workers at their workplaces
In three countries (Portugal, Spain, Poland)

Field studies conducted by partners* in each country:

- Observational, self-report, and sensor-based physical exposure data
- Qualitative and quantitative psychosocial work environment data

Data analysis and extraction of physical and psychosocial risk factors conducted locally

- Inferences and processed data shared between partners
- Integrative analysis and modelling to generate age-sensitive **WAge-Index**



WAge-Index deployed at workplaces to evaluate working environments and produce interventions and recommendations

PARTNERS



The impact of WAge

- WAge will help to identify and address the root causes of health inequalities and inequities in the workplace.
- This will lead to the development of more inclusive workplaces, where all workers have access to safe and healthy working conditions, regardless of their age in times where the numbers of older workers are steadily increasing due to the ageing of the population and the raises on minimum pension age.

WAge Index

An age-inclusive physical and psychosocial factors model to assess health-promoting factors, through measuring the risk of MSDs, functional decline, and psychosocial wellbeing at work.

Participatory research governance

A fair, accountable, transparent, and equitable participatory research governance framework that can be used by other research and evidence gathering initiatives.

Policy roadmap

A map of policy instruments, policy responsables and meaningful engagement to make use of evidence.



The impact of WAge

- Setting new standards for healthier working environments sensitive to age in Europe and inspire similar initiatives in other regions or sectors, supporting existing policy frameworks such as the EU Strategic Framework on Health and Safety at Work.
- Broader involvement and awareness of workers, industry and regulators in evidence provision for occupational health.
- Reducing rates of work-related illness and injury, increasing productivity and job satisfaction, contributing to reducing work-related accidents and illnesses cost the EU economy, and make businesses more productive, competitive and sustainable.



WAge aims to pave the way for the design, implementation, and validation of effective multi-level and age-sensitive intervention strategies and policy changes for workers' well-being.





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