

# SHAPING THE FUTURE OF WORK

Towards a Strategic Research & Innovation Agenda for the new European Partnership on Social Transformations and Resilience



#### **IMPRINT**

This document has been prepared by the DLR Project Management Agency (DLR-PT). DLR-PT is commissioned by HERA Humanities in the European Research Area to conduct Strategic Foresight exercises to support the drafting of the Strategic Research and Innovation Agenda for the future European Partnership on Social Transformations and Resilience.

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June 2025



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# **Executive Summary**

This report presents the findings of a Strategic Foresight process conducted to systematically and co-creatively explore developments related to the future of work. The aim is to inform the Strategic Research and Innovation Agenda (SRIA) that will be developed to guide the European Partnership on Social Transformations and Resilience from 2027 to 2033. To ensure depth and relevance, a Strategic Foresight cycle will be carried out for each of the Partnership's four impact areas, 1. Supporting the modernisation of social protection systems and essential services, 2. Shaping the future of work, 3. Fostering education and skills development, and 4. Contributing to a fair transition towards climate neutrality. The results of these individual foresight exercises will be synthesized into the final SRIA. The Strategic Foresight process started with the impact area "Shaping the Future of Work" - a domain undergoing rapid transformation due to technological innovation and the transition to climate-neutrality, demographic shifts, evolving societal expectations, and economic as well as geopolitical pressures.

To anticipate major developments in the world of work and translate these insights into strategic input for the Social Transformations and Resilience Partnership, we combined desk research, stakeholder engagement, and scenario-building in a multi-step process. We first focused on identifying key trends shaping the future of work over the coming 10-15 years to establish a robust, evidence-based foundation for the subsequent steps. Based on systematic desk research, 34 initial trends were identified - each trend reflecting a direction of change – either emerging, accelerating, or evolving – with relevance to employment structures, skill requirements, working conditions, or workforce composition.

In interviews with researchers and stakeholders, these trends were then validated. To this end, we conducted four indepth interviews with European experts. Apart from this, a survey among experts from across Europe and beyond was carried through. The combined analysis of the interviews and 187 survey responses led to a collection of ten trends and a ranking of these trends based on their perceived impact. In addition, initial reflections on potential implications for the future of work were gathered.

Based on the results of the online survey and the expert interviews, a trend workshop with 27 participants served to map implications of the ten prioritised trends using the Futures Wheel method. To then prepare this material for scenario development, we filtered out general reflections, grouped related ideas into thematic clusters, and structured them into a hierarchy of effects. Based on the resulting implications we developed a desirable future-oriented scenario that will serve as the basis for the next foresight phase.

The scenario outlines a preferred vision for the future of work in Europe by 2040: a labor market that is digitally advanced but human-centered, inclusive and resilient, and anchored in fair, sustainable, and adaptable work models. This scenario is structured around four pillars:

- Human-centered and ethically governed digital transformation,
- Inclusive learning ecosystems and adaptable careers,
- Resilient and equitable work models,
- Sustainable economic and organisational transformation.

These results will inform the next phase of the foresight process: a backcasting exercise in early 2026. This step will translate the scenario into concrete action pathways and policy recommendations for the SRIA, helping to align research priorities with long-term societal needs across Europe.



# 1. Background and Introduction

Europe is undergoing profound transformations. The green and digital transitions, demographic shifts, and unforeseen disruptions such as pandemics or economic crises are reshaping societies and institutions. In this rapidly changing world, it is crucial that European societies become more inclusive, cohesive, and resilient. In an era of accelerating change, strengthening Europe's capacity for social resilience, cohesion, and innovation is not only a strategic necessity, but a foundation for inclusive and sustainable futures.

In response to these challenges, the European Commission has proposed a co-funded **European Partnership on Social Transformations and Resilience** (STR) under the Horizon Europe Framework Programme for Research and Innovation (R&I). By bringing together insights from the humanities and social sciences, the Partnership aims to promote inclusive sustainable development and strengthen cultural, social and economic resilience.

The **overarching goals** of the STR Partnership are to (CHANSE 2025):

- "Create a 7-year Research and Innovation (R&I) programme for the social sciences and humanities (SSH) to explore and make use of their potential to build resilience, ensure fairness and inclusiveness, and foster social cohesion in the light of changes in climate and environment, technology, demography, and unexpected shocks.
- > Develop knowledge, tools and innovative solutions to address contemporary social challenges in a collaborative, interdisciplinary and systematic way.
- > Contribute to new strategies and policy solutions at European, national, and regional level."

Throughout 2024, a drafting group has developed the Commission's initial proposal into a fully-fledged programme of interest to the Partnership's future partners. The Draft Guidance Proposal is focused on **four key impact areas**:

- 1. Supporting the modernisation of social protection systems and essential services
- 2. Shaping the future of work
- 3. Fostering education and skills development
- 4. Contributing to a fair transition towards climate neutrality

A central element of the future Partnership will be a **Strategic Research and Innovation Agenda** (SRIA) that will guide the Partnership's work from 2027 to 2033. The SRIA is expected to anticipate the main challenges to be addressed, propose lines of enquiry, and outline actions that translate research into strategies for policy-making. It will serve as a flexible framework for topics and activities of short-, medium-, and long-term relevance, while allowing for adaptation and iteration in response to emerging needs.

To ensure the SRIA is future-oriented and policy-relevant, the drafting process is informed by **Strategic Foresight**. This methodology enables the systematic exploration of future developments and supports evidence-based, proactive decision-making. Strategic Foresight is already used by the European Commission, national governments, universities, and various other organisations to identify emerging trends, anticipate shocks, and prepare agile responses. It shifts the perspective from reactive to proactive planning.

Tools such as **trend analysis**, **visioning**, **and backcasting** are particularly valuable in navigating the dynamic ecosystem in which both HERA and the STR-Partnership operate. These methods help identify and prioritize issues of relevance over different time horizons. Given the complexity of the task, we adopt a **truly co-creative process** that integrates diverse perspectives from **across Europe**, encompassing **different academic disciplines** (including but not limited to the humanities and social sciences) and a **broad range of stakeholders** (such as policymakers, and decision-makers from civil society, social partners, public administrations, and the private sector).

To ensure depth and relevance, a dedicated Strategic Foresight process will be carried out for each of the Partnership's four impact areas. The results of these individual foresight exercises will then be synthesized into the final SRIA.



In support of this ambition, HERA has committed to contributing actively to the development of the SRIA and to ensuring that the perspectives of the humanities and social sciences are embedded from the outset. To this end, HERA commissioned DLR Projektträger (DLR-PT) to liaise with the Partnership Drafting Group and the Partnership candidature coordinator. Drawing on its expertise in Strategic Foresight and its long-standing experience in supporting humanities and social sciences research, DLR-PT was tasked with designing and implementing the foresight process.

This report presents the findings of the first foresight cycle on "**Shaping the Future of Work**". Shaping the future of work is particularly crucial, as the ways people work, learn, and participate in the economy will profoundly influence Europe's ability to navigate technological, demographic, and environmental transitions and to rapidly adapt to geopolitical challenges.

The report is structured as follows: The **next chapter** provides an overview of the foresight process on the future of work, including trend analysis, the online survey, expert interviews, the trend workshop, and how these activities contributed to the development of the proposed scenario. The following chapters then present our results: **Chapter 3** presents the trend collection, combining insights from desk research and stakeholder inputs gathered through the survey and interviews. **Chapter 4** summarizes the first- and second order implications for each trend. **Chapter 5** outlines the best-case scenario for the future of work, based on the implications of the identified trends validated during the survey and discussed in the workshop phases. Finally, **Chapter 5** describes the next steps, focusing on the process that will translate the foresight results into strategic recommendations for the SRIA.

# 2. Strategic Foresight: Our Process at a Glance

This chapter outlines the foresight process that guided our exploration of the future of work, with a particular focus on stakeholder engagement and methodological transparency. Our approach combined structured desk research with participatory formats to identify, validate, and interpret trends likely to shape the world of work over the coming 10-15 years. Experts from across Europe and beyond were actively involved at every stage – from trend collection and validation to the co-creation of implications and scenarios. **The process drew on insights from 187 survey respondents in 29 countries, four expert interviews, and a trend workshop involving 35 participants**. These contributions reflect a broad geographical and disciplinary base, ensuring that the resulting trends and scenarios are informed by diverse experiences and perspectives including those of social partners, companies and non-profit organisations. The following sections summarise each step in this process: trend collection, online survey, expert interviews, trend workshop, and scenario development.

**Trend Online Trend Scenario Analysis** Survey Workshop Build starting point for Identify emerging Validate and prioritize WHY Deepen understanding Explore implications backcasting Synthesis of Rating & comments by stakeholders Futures Wheel method Desk research & Semi-structured HOW implications interviews in small groups Preferred future Ten high-impact **OUTPUT** Initial list of trends Multi-level implications formulations, nuances

Figure 1: Our Process at a Glance



#### 2.1 Trend Analysis

The first step in our foresight process focused on identifying key trends shaping the future of work. The aim of this phase was to establish a robust, evidence-based foundation for the subsequent steps. By mapping existing knowledge and anticipating potential drivers of change, we sought to build a shared understanding of how the world of work may evolve over the coming decade.

The trend collection was conducted through **systematic desk research**. Drawing on a wide range of sources, we analysed recent foresight studies, academic literature, institutional reports, and policy documents. Sources included the World Economic Forum's *Future of Jobs Reports*, OECD labour market and skills projections, European Commission foresight publications (including ESPAS), and ILO outlooks. These were complemented by academic analyses on labour market transformation, Al and automation, digital skills, demographic change, and related societal shifts.

From this wide base of literature, an **initial longlist of 34 trends** (see ANNEX) was compiled. Each trend reflected a direction of change – either emerging, accelerating, or evolving – with relevance to employment structures, skill requirements, working conditions, or workforce composition. Rather than restricting ourselves to one predefined model, we used a flexible categorisation approach, grouping trends thematically as the research unfolded. **Categories** included

- The Future of Workplace Technology: How AI and Automation Are Changing How We Work
- The Future of Skills: What Workers Need to Stay Competitive
- The Future of Employment: How Careers, Hiring, and Work Models Are Changing
- The Future of the Workforce: How Demographics and Economics Are Reshaping Jobs
- The Future of Workplace Expectations: Well-Being, Trust, and Inclusion.

The goal at this stage was not to filter or prioritise, but to ensure breadth, relevance, and coverage of diverse perspectives. The collected trends varied in scale, from macro-level developments like population ageing, to more focused issues such as the rise of micro-credentialing or the restructuring of middle management roles due to Al.

The result of this first step was a structured trend catalogue, organised to inform the next stage of the process: the online survey. The survey was designed to validate, refine, and add depth to the trend landscape with input from a broad range of external experts. While the desk research provided a grounded starting point, the trend catalogue remained open to revision and expansion as new insights emerged in later phases.

#### 2.2 Online Survey

To build on the initial trend collection and ensure its relevance from a broader stakeholder perspective, we conducted an online survey targeting experts in fields such as labour market dynamics (including workforce), work and organisations, workplace affecting technological change, and vocational training. The survey served four key purposes: to validate the trends identified through desk research, to collect expert feedback and suggestions, to establish a ranking based on perceived impact, and to gather initial reflections on potential implications for the future of work.

The survey was conducted in English using the LimeSurvey platform. It included a mix of closed and open questions and took between 5 and 20 minutes to complete, depending on how many trends participants chose to comment on. All responses were anonymous and used strictly for research purposes.

The survey was disseminated through a combination of targeted outreach and open expert identification. Participants were identified via project-related networks (e.g. CHANSE, HERA, NORFACE), the Partnership Drafting Group, and an online search for individuals working on the future of work with a focus on European countries including but not limited to a comparative perspective. It was sent to approximately 600 hand-picked individuals and additionally circulated via targeted mailing lists and expert communities. We also reviewed and acted upon suggestions regarding additional



individuals or organisations who should receive the survey, forwarding it accordingly where feasible. While – due to the mailing list and expert community circulation - no precise response rate could be calculated, the participant pool reflects a broad and balanced range of disciplinary and institutional backgrounds.

The survey was open from mid-February to mid-March 2025 and received **responses from 187 experts across 29 countries**. Participants represented a wide range of professional sectors. 120 participants (64.1 %) came from academia, 35 (18.7%) from public authorities, 10 (5.3%) from private sector stakeholders and, 9 (4.8%) from civil society and 4 from other types of organisations. In terms of gender, 93 respondents (49.7%) identified as female, 76 (40.6%) as male, and 3 (1.6%) as non-binary; 15 participants (8%) did not provide gender information. The country distribution showed notable peaks in Germany, Spain, Belgium, Poland, and France, while around 10% of participants chose not to disclose their country affiliation (see Figure 2). Regarding the upcoming trend workshops on the other three impact areas, further efforts will be made for a more balanced country distribution and to include more stakeholders, especially from the private sector, social partners, and civil society.

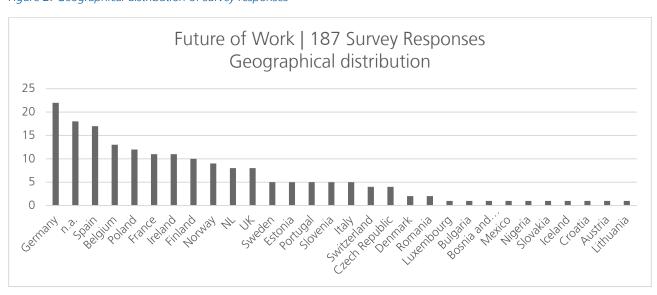


Figure 2: Geographical distribution of survey responses

The **analysis of survey results** followed a four-step process. First, trends were ranked based on their mean impact scores. All trends with a score above 3.0 were classified as "high impact," resulting in a pool of ten trends. Among these, three dealt with closely related themes – lifelong learning, Al literacy, and technology-enabled training. These were merged into a broader trend, "Lifelong Learning and Digital Training Are Becoming Essential for Career Mobility", to avoid redundancy and ensure thematic diversity in the subsequent workshop. To maintain a **total of ten trends**, two additional high-scoring and thematically distinct trends were selected from the remaining pool:

- Freelancing, Gig Work, and Flexible Jobs Are Reshaping Employment Models (Mean 2.94)
- Employees Expect More Autonomy in Where, When, and How They Work (Mean 2.88)

Second, the free text comments associated with each selected trend were analyzed. These were used to **refine the wording, clarify ambiguous formulations, and integrate missing nuances**. While no substantive redefinitions were needed, expert feedback from the free text comments improved the precision and representativeness of the trend descriptions.

Third, we analyzed the open-text responses regarding **potential implications of each trend**. These were summarized and categorized into first- and second—order implications, forming a structured foundation for the subsequent scenario development.



Finally, we reviewed the responses to the question asking whether any **trends were missing**. While according to survey participants, no major themes were absent from the original list, relevant nuances were incorporated into the scenario narratives.

#### 2.3 Expert Interviews

To complement the trend collection and survey, we conducted a series of expert interviews. The interviews served **three main purposes**: (1) to discuss and validate key trends identified through our desk research and online survey; (2) to complement the trend landscape with expert insights, including weak signals and overlooked developments; and (3) to explore the implications of these trends for research, policy-making, and society at large.

We interviewed four leading scholars and practitioners working on the future of work across disciplines and regions (IZA – Institute of Labor Economics, Stockholm University, Copenhagen Business School, and University of Surrey), equal gender distribution was maintained. Their perspectives from sociology/industrial relations, political philosophy, business administration, and human resource management added contextual nuance to the trend landscape and provided insight into both emerging dynamics and long-term structural shifts.

The interviews were conducted using a **semi-structured guide** designed to ensure comparability while leaving room for open reflection. Each interview lasted between 30 and 60 minutes and was **structured around four thematic blocks**: (1) general perspectives on the future of work, including long-term developments and overlooked or emerging issues; (2) validation and refinement of selected trends identified in the earlier phases of the project; (3) discussion of implications for research, policy, and societal priorities; and (4) closing remarks and follow-up opportunities. Experts were asked to comment on three trends of their choice, enabling a focused yet flexible exchange based on their areas of expertise.

The interviews served as an important bridge between trend identification and scenario development. In addition to confirming the relevance of most trends, the experts helped sharpen the formulation of specific developments, pointed to regional and institutional variation, and highlighted tensions between dominant narratives and lived realities. Their insights also informed the formulation of implications and research priorities later used in the workshop and scenario work.

#### 2.4 Trend Workshop

As the final step in the trend validation phase, an **online workshop was held on 27 March 2025** to deepen the analysis of key trends shaping the future of work. The workshop had **three main objectives**: (1) to validate and enrich the implications of ten pre-selected trends identified through desk research, survey, and expert interviews; (2) to bring together diverse perspectives from across sectors and disciplines; and (3) to generate structured input for the subsequent scenario development process.

#### Participants:

To ensure a diverse and balanced discussion, we initially aimed to engage around 30 participants for the trend workshop. Participants were selected from the pool of experts identified via project-related networks and the Partnership Drafting Group (see 2.2) as well as an online search for individuals working on the future of work with a focus on European countries including but not limited to a comparative perspective. One of the main selection criteria was professional respectively technical qualification and relevance. Furthermore, in addition to the researchers, the selection should reflect a broad range of stakeholders (policymakers, and representatives from social partners, public administrations, civil society, and the private sector). The selection was to also ensure geographical balance with special consideration of participants from the widening countries as well as gender balance.



In total, 35 experts confirmed their attendance, with a near-equal gender distribution (18 women and 17 men) and a broad geographical spread across 15 countries, including three from the widening group. The invited participants represented a variety of organisational backgrounds: 23 from research-performing organisations, four from research funding bodies, six from non-profit organisations including social partners, one from the private sector, and one from a European institution.

Ultimately, **27 participants** took part in the workshop, comprising **16 women and 11 men**, and representing **14 countries** (again with three from the widening countries). Attendees included 17 representatives from research-performing organisations, three from research funding bodies, four from non-profit organisations including one labour union representative, one from the private sector, one from a European institution, and one from a ministry. The group also included representatives from HERA, the Drafting Group, DG EMPL, and two top-experts who had written state-of-the-art reports to support the SRIA development. For future engagement activities, further efforts will be made to strengthen participation from the private sector, social partners, and organisations based in the widening countries.

#### Agenda:

The workshop was hosted on the Webex platform. It was designed to support structured, collaborative reflection while creating space for in-depth exchange and cross-sectoral insights. The session opened with a short context-setting presentation, introducing the foresight process and presenting the final top-10 trend set. Participants were then divided into five breakout groups, each working with two of the validated trends.

Table 1: Agenda Future of Work Trend Workshop

Time	Agenda Item	Description
10:00	Welcoming remarks	Introduction by the moderators
10:05	Context setting	Introduction to the project with a focus on the Strategic Foresight process & aims of this specific workshop.
10:10	Icebreaker	"How are we going to work in 2040?"
10:20	Presentation of selected trends	Presentation of the 10 most impactful key trends relevant to the project
10:30	The Futures Wheel	Introducing the Futures Wheel tool and the approach for the Breakout Sessions
10:35	Breakout Sessions	In-depths discussions on two selected trends for each Breakout Session and their implications
11:10	Break	
11:20	Presentation of results	Reporting back key findings and insights
11:55	Closing remarks	Summary of key findings and future outlook
12:00	The End	

To guide the discussions, each group used a **Futures Wheel template** (see ANNEX), i.e. a structured tool for mapping first-, second-, and even third-order implications of a given trend. This method encouraged participants to look beyond immediate effects and explore cascading consequences for workers, organisations, and society. Each group was supported by a facilitator and a rapporteur, who documented the results directly in the template.

The workshop format was deliberately designed to foster expert-driven knowledge production. Trends were not explained in detail during the breakout sessions; instead, participants received preparatory material (incl. the top-ten trends) by email in advance. This allowed the available time to be used primarily for discussion. Each group's results were presented in a short plenary session following the breakout phase, providing a shared view of the diverse implications



discussed. Following the workshop, additional feedback was collected from participants to capture further reflections and ensure that no key insights were missed.

The insights generated during the workshop served a dual purpose. First, they helped to test the robustness of the trends by surfacing overlooked dynamics and boundary conditions. Second, they provided a rich pool of implications that will inform the scenario development process and help translate trends into strategic narratives.

#### 2.5 Scenario Development

Following the trend validation and implications analysis, we developed a desirable scenario for the future of work. This scenario is grounded in insights gathered across all earlier phases of the process – the online survey, expert interviews, and the trend workshop – and reflects the collective knowledge generated through those engagements. Specifically, it builds on the implications identified for each of the ten key trends, including first- and second-order effects discussed by the experts.

To prepare this input for scenario development, we first filtered out general reflections or commentary that were not directly linked to specific implications. We then grouped similar ideas into core thematic clusters and structured them into a hierarchy of effects. The resulting set of first- and second-order implications provided the foundation for constructing a future-oriented, preferred scenario for the future of work (see Chapter 4).

The scenario reflects a shared vision of what a desirable future of work could look like, assuming that key challenges are addressed and opportunities are actively pursued. It is not a prediction but a normative orientation that synthesizes expert perspectives, institutional knowledge, and stakeholder priorities into a coherent narrative. The goal was to translate trend knowledge into a forward-looking scenario that can guide strategic thinking and inspire policy and research agendas.

This scenario now serves as the basis for the next phase of the foresight process, where pathways, actions, and enabling conditions will be developed to explore how such a future could be realized.

The following two chapters will outline the results of these steps, i.e. the trend collection and the best-case scenario. We deliberately chose to develop a best-case scenario because backcasting requires a clearly articulated, desirable future as a reference point for identifying the strategic steps and enabling conditions needed to achieve it. As a normative foresight approach, backcasting is designed not to anticipate likely developments, but to support goal-oriented planning.

## 3. Trend Collection: The Future of Work

The future of work is shaped by a complex interplay of technological, demographic, economic, and societal forces. Digitalisation, automation, and artificial intelligence (AI) are transforming tasks, roles, and required skills across virtually all sectors. At the same time, demographic shifts, a changing workforce and worker expectations, and the growing demand for sustainability are redefining how, where, and why people work. These transformations do not only affect individual career paths; they will fundamentally reshape social structure and social cohesion, economic resilience, and innovation capacity across Europe. Understanding key trends is therefore essential to proactively shaping work structures that are fair, inclusive, and future-ready.

Based on the foresight activities outlined above, including desk research, an expert survey, and in-depth interviews, this section presents the ten trends identified as most impactful for the future of work. These trends emerged through a combination of quantitative and qualitative validation, and reflect the perspectives of diverse SSH experts and stakeholders across Europe.



#### 3.1 AI in the Workplace Is Raising New Governance and Ethical Challenges

As AI becomes increasingly integrated into workplace processes such as hiring, employee monitoring, and decision-making, it raises significant governance and ethical challenges. Concerns have emerged regarding bias, privacy, and transparency, prompting discussions about regulatory frameworks and ethical safeguards. For instance, the National Institute of Standards and Technology (NIST), an agency of the United States Department of Commerce, has developed the AI Risk Management Framework to help organisations manage risks associated with AI systems, emphasizing trustworthiness and ethical considerations (NIST 2024). Similarly, the OECD (2022) has developed a tool to evaluate AI systems from a policy perspective and provides guidelines on AI principles, advocating for fairness, transparency, and accountability in AI applications.

In the context of recruitment, studies have shown that AI-enabled hiring processes can inadvertently perpetuate bias and discrimination. Research highlights that algorithmic bias in AI recruitment tools can lead to discriminatory hiring practices based on gender, race, and other characteristics (Chen 2023). This underscores the necessity for technical and managerial solutions to mitigate bias and ensure fairness in AI-driven recruitment.

Employee monitoring through AI also presents ethical dilemmas, particularly concerning privacy and consent. A report by the Institute for the Future of Work warns that AI-powered workplace surveillance tools can negatively impact workers' well-being, leading to increased stress and decreased morale (Gilbert & Thomas 2021: 7). The report calls for new regulations to protect workers' privacy and mental health in the face of this "transition from cultures of trust, to cultures of proof" (Gilbert & Thomas 2021: 41).

Beyond surveillance and recruitment, emerging concerns such as data security and accountability also call for more robust regulatory responses. As Dhirani et al. (2023: 1150) point out, "to successfully pave the way for acceptance of these technologies, we must be bound and adhere to ethical and regulatory standards. Presently, with ethical standards still under development, and each region following a different set of standards and policies, the complexity of being compliant increases. Having vague and inconsistent ethical guidelines leaves potential gray areas leading to privacy, ethical, and data breaches that must be resolved."

#### 3.2 Automation and Digital Transformation Are Disrupting Jobs

Automation and digital transformation, accelerated by technological advances and the pandemic, are fundamentally reshaping industries, job roles, and production processes. While these shifts may boost productivity and innovation, they are also expected to drive significant job displacement (Kiss 2021: 4). According to the World Economic Forum (2023: 6), 23% of jobs are projected to change by 2027, with 69 million new roles created and 83 million eliminated, resulting in a net loss of 14 million jobs globally. Nearly all professional groups are likely to be affected, with traditional wage labor in some sectors potentially becoming obsolete (Daheim & Wintermann 2015).

Yet the balance between job creation and destruction remains uncertain. Whether technological change leads to automation (job loss) or augmentation (job transformation) depends on multiple factors (Furendal & Jebari 2023). As the International Labour Organization (2023, 2025) notes, these include the centrality of the automated task within the occupation, how technology is integrated into work processes, and whether management chooses to retain human oversight despite automation's potential.

In addition, the effects of automation are highly context-dependent. The OECD (2023: 116) estimates that, on average, occupations at the highest risk of automation account for about 27% of employment across member countries—but this share varies significantly by sector and region. Institutional environments, labour market structures, and levels of digital preparedness will strongly shape the scope and consequences of the transformation (WEF 2024: 20; Cazzaniga et al.2024).



#### 3.3 Al Is Changing How Work Gets Done

Artificial Intelligence, particularly generative AI, is fundamentally transforming how work is organised and performed. It automates routine tasks, supports complex decision-making, and enables new forms of analysis and creativity. Increasingly, AI systems are no longer limited to specific tasks but are being integrated into broader workflows across a wide range of sectors.

As AI becomes a co-worker rather than a tool, new questions emerge: Who controls the workflow? How are decisions made? To what extent do humans remain in the loop? These developments are changing not only job roles, but also relationships of authority and trust. The success of human–AI collaboration depends on transparency and the worker's ability to understand, question, and (when necessary) override automated decisions.

In many cases, Al enables a shift from execution to oversight, from repetition to strategy. However, this transformation is not automatic. It requires that workers adapt, build new skills, and develop the ability to critically assess Al-generated outputs (Kiss 2021: 5). Organisations are responding to these challenges by investing in skill development and by developing strategies to integrate Al effectively, particularly given the varying degrees of impact across sectors (WEF 2024b).

However, the effects of AI on work are not uniform. They depend on the nature of tasks, sectoral context, and how AI systems are integrated. As Furendal and Jebari (2023) indicate: "On the one hand, technology can increase productivity while also promoting "the goods of work," such as the opportunity to pursue excellence, experience a sense of community, and contribute to society (human augmentation). On the other hand, higher productivity can also be achieved in a way that reduces opportunities for the "goods of work" and/or increases "the bads of work," such as injury, reduced physical and mental health, reduction of autonomy, privacy, and human dignity (human stunting)." According to Murphy and Feeney (2023: 46), "this raises questions as to which further aspects of human work will and/or should be transferred to machines and which aspects will and/or should remain human-centric" (Feeney 2021; Walsh et al. 2019).

#### 3.4 Lifelong Learning and Digital Training Are Becoming Essential for Career Mobility

As technology rapidly reshapes job requirements, workers must continuously acquire new skills to remain employable. The demand for AI literacy, for example, now extends beyond technical roles. Sectors such as professional services, financial services, and manufacturing increasingly seek AI competencies across a broad range of functions, reflecting the widespread integration of AI into the workplace (Kimbrough et al. 2023). In parallel, organisations are scaling up training initiatives, and younger workers are emphasizing learning and development opportunities when choosing employers.

At the same time, education and training systems are being transformed to meet evolving labour market needs. Institutions are adopting modular, flexible, and technology-driven learning models that offer pathways, micro-credentials, and self-directed learning portfolios (Gubbins et al. 2023: 127). These developments are reinforced by growing collaboration between higher education and industry, which helps ensure that learning remains relevant, accessible, and responsive to changing demands (Davey & Harney 2023: 111). Such innovations support not only initial education but also midcareer upskilling for workers navigating job transitions in dynamic employment landscapes. Such innovations support not only initial education but also mid-career upskilling for workers navigating job transitions in dynamic employment landscapes, underscoring the growing importance of lifelong learning for sustained employability.

#### 3.5 Aging Populations Are Driving Workforce Decline and Transformation

Declining birth rates and increasing life expectancy are leading to a shrinking working-age population in many economies. In the European Union (EU), the share of the working-age population (those aged 15–64) is projected to decrease from 63.9% of the total population in 2022 to 54.4% by 2100, representing a reduction of approximately 57.4 million individuals (European Commission 2023). Concurrently, the old-age dependency ratio in the



EU, defined as the ratio of individuals aged 65 and over to those aged 15–64, has been steadily increasing, reaching 33.9% on January 1, 2024 (European Commission 2025), and is expected to rise to over 50% by 2070 (Kiss 2021: 2). Although this trend has been visible for decades, it remains highly relevant as its labour market effects continue to unfold.

These demographic shifts are already reshaping the size and composition of the workforce. A growing share of the workforce is nearing retirement, and labour force participation among older workers has steadily increased. Between 2014 and 2024, the employment rate of individuals aged 55–64 in the EU rose from 49.7% to 65.5%, reflecting policy efforts to retain older workers and the increasing ability of many to remain economically active later in life (Eurostat 2024). However, this rising participation has not been sufficient to counterbalance the overall decline in the working-age population. This is further compounded by the fact that, due to low birth rates and longer periods of education, fewer young people are entering the labour market — and they are doing so later in life (Deloitte 2018). In sum, the workforce is becoming both smaller and older (Balliester & Elsheikhi 2018).

In response, there is growing emphasis on prolonging working lives and supporting older workers through reskilling, lifelong learning, and adapted working conditions (Dragomir & George 2020: 34). These efforts reflect an evolving understanding of ageing not only as a demographic constraint but also as a factor reshaping how societies structure work and social protection. However, the implications of demographic ageing differ significantly across countries and sectors, depending on population structures, labour market conditions, and the design of national social security systems (Dragomir & George 2020: 34).

#### 3.6 Demand for Digital Skills Is Outpacing Workforce Preparedness

The rapid pace of technological advancement is fundamentally reshaping the skills required in the workplace. Demand is growing for technical competencies in areas such as artificial intelligence, data analytics, and IT, along-side soft skills like critical thinking and problem-solving (WEF 2025: 6; Murphy & Thomas 2023: 36). According to the World Economic Forum, 60% of workers will need training by 2027 to keep pace with evolving job requirements, with analytical thinking cited as the top priority (WEF 2023: 38), while in a 2025 survey, 59% of hiring managers reported that AI is expected to have a substantial or transformational impact on the skills their companies require (Alvarez 2025). By 2030, nearly two-fifths (39%) of workers' existing skill sets are expected to become obsolete or significantly transformed (WEF 2025: 6).

Training systems, however, are struggling to keep pace, resulting in widespread skills gaps across industries (Kiss 2021: 5). Many organisations still rely on traditional models, even as the shift toward adaptive, self-directed learning ecosystems becomes increasingly necessary. As one expert put it, "lifelong learning is no longer just a competitive advantage, it's a necessity for career resilience in the face of rapid technological change." The rise of micro-credentialing and real-time upskilling illustrates this shift. Although labour market demand for "digitalized people" is growing rapidly, readiness levels and needs differ across occupations and regions, making the gap not only widespread but also uneven (Kiss 2021: 5).

#### 3.7 Economic Pressures Are Reshaping Workforce Strategies

Ongoing economic pressures — including inflation, cost-of-living increases, and slower economic growth — are prompting companies to reassess how they manage their workforce. As of early 2025, the global economic outlook is marked by a combination of cautious optimism and persistent uncertainty. According to the World Economic Forum, the rising cost of living is among the most transformative labour market trends globally, with 50% of employers expecting it to drive changes to their business models (WEF 2025: 13). At the same time, among those anticipating change in the economic environment, more expect conditions to worsen rather than improve. Slower growth is also expected to play a significant role, with a general economic slowdown projected to transform



42% of businesses (WEF 2025: 13). Together, these pressures are contributing to a shift in workforce strategy, marked by an increased emphasis on flexibility, resilience, and cost efficiency.

In response, many organisations are adopting more adaptive workforce models, including job restructuring, automation, and new forms of labour flexibility. The International Labour Organization (2023b: 12) notes that, in the context of macroeconomic uncertainty, businesses are increasingly turning to cost-reduction and productivity-enhancing measures — a trend that is often accompanied by a rise in non-standard and more precarious forms of employment. These developments reflect a broader shift in workforce management, as companies seek to maintain operational continuity in the face of continued volatility and evolving economic pressures.

#### 3.8 Work-Life Boundaries Blur as Flexibility Expands

The widespread adoption of remote and hybrid work models has reshaped how and where people work (Kiss 2021: 5). While greater flexibility offers new opportunities for work-life balance, it also blurs the boundaries between professional and personal life, as many workers report difficulties disconnecting from work. This shift has intensified in the wake of the COVID-19 pandemic, with work-life balance now a central concern in public and organisational discourse. As Jon Messenger (2023), lead author of the ILO's global report on working time, observed: "The so-called 'Great Resignation' phenomenon has placed work-life balance at the forefront of social and labour market issues in the post-pandemic world". These developments are driving renewed attention to productivity, mental well-being, and the evolving role of workplace policies in managing work-life integration (Monks, Freeney & Conway 2023: 21).

The International Labour Organization highlights both the opportunities and challenges associated with flexible work arrangements. In its global report Working Time and Work-Life Balance Around the World, the ILO notes that innovative working time models – such as those introduced during the COVID-19 crisis – can bring benefits for economies, businesses, and workers alike, including improved productivity and better work-life balance (ILO 2022). The report concludes that "work-life balance policies provide significant benefits to enterprises, supporting the argument that such policies are a 'win-win' for both employers and employees" (ILO 2022: 3).

However, the ILO also cautions that such benefits are not automatic. Teleworking and other flexible arrangements need to be properly regulated to avoid negative effects such as excessive working hours, stress, and burnout. The report highlights the importance of legal frameworks, including maximum daily working hours, statutory rest periods, and "right to disconnect" policies, to protect workers' health and well-being over the long term (ILO 2022: 134-136; also Seeber & Erhard 2023).

As work becomes increasingly decoupled from traditional time and place, the challenge of managing work-life boundaries is likely to intensify. Organisations and policymakers alike are called upon to ensure that flexible work models remain sustainable, equitable, and compatible with long-term well-being and productivity.

#### 3.9 Freelancing, Gig Work, and Flexible Jobs Are Reshaping Employment Models

Traditional full-time employment is increasingly giving way to diverse and flexible work arrangements. The growing gig economy, freelance opportunities, and project-based work reflect a broader move away from conventional employment contracts and redefine how individuals engage with employers (Kiss 2021: 2; McRae 2025). These shifts are enabled by technological innovation, the expansion of platform-based work, and evolving worker preferences for greater autonomy and flexibility.

As organisations adopt these models, they face new challenges in managing heterogeneous workforces that include independent contractors, part-time workers, and hybrid employees across borders (Lynn et al. 2023: 1). According to a 2023 World Bank policy note, non-standard forms of employment (NSE) – such as gig work, freelance contracting, and on-demand labour – are on the rise globally, with particularly rapid growth in developing countries. While these models create new economic opportunities, they also raise concerns around job security, social protections, and regulatory oversight (Zeid et al. 2024: 2-4; Crouch 2018: 51-64).



The International Labour Organization similarly highlights the dual nature of platform-based and flexible work arrangements. On one hand, digital labour platforms provide income opportunities and flexible scheduling; on the other, they often come with lower earnings, irregular hours, and limited access to social security. The ILO underscores the need for policy responses that extend worker protections to these growing segments of the labour market (ILO 2021: 3-4).

A 2023 study in the International Journal of Research Publication and Reviews further underlines this trade-off. While flexible work can enhance individual autonomy, it may also undermine job quality, particularly in the absence of institutional safeguards. The study stresses the importance of establishing clear rights and responsibilities in order to ensure that gig and freelance work remains both sustainable and equitable (Mamatha 2024: 3028).

#### 3.10 Employees Expect More Autonomy in Where, When, and How They Work

Employees are increasingly seeking greater control over how, when, and where they work. This growing expectation spans not only working time and location, but also task selection and self-directed learning. Flexible working arrangements – once an organisational benefit – are becoming a baseline expectation, particularly among younger and highly skilled workers.

According to the World Economic Forum, 73% of employees now desire permanent flexible work options, with younger workers especially prioritising autonomy in work arrangements (WEF 2022). Similarly, Eurofound reports that work–life balance, autonomy, and flexibility are now central to public debate and national labour policies across Europe. It highlights that flexible working time allows employees to tailor their schedules around personal responsibilities and preferences, while remote work enables greater location independence. These shifts, accelerated during the COVID-19 pandemic, have reshaped employee preferences and raised expectations for continued autonomy post-crisis (Eurofound 2024). Together, these developments point to a structural shift in how employment is negotiated. Autonomy in time, place, and career development is no longer viewed as a privilege, but increasingly as a defining feature of high-quality work.

# 4. First- and Second-Order Implications

The following tables present the first- and second-order implications associated with the ten prioritised trends. These implications were identified through the online survey, expert interviews, and the trend workshop. To prepare this material for scenario development, we filtered out general reflections not directly linked to specific trends, grouped related ideas into thematic clusters, and structured them into a hierarchy of effects. The resulting implications provided the analytical foundation for the desirable future scenario outlined in Chapter 5.

#### 1. Al in the Workplace Is Raising New Governance and Ethical Challenges

#### 1.1. Enforceable Regulation of Workplace AI Becomes a Political Priority

- 1.1.1. Need for clear, enforceable AI regulation at EU or national levels
- 1.1.2. Regulations should be simple to validate and implement
- 1.1.3. GDPR and data protection must be strengthened and tailored to Al
- 1.1.4. Al hiring decisions must be clearly disclosed
- 1.1.5. Regulation should guarantee workers' information sovereignty

#### 1.2. Algorithmic Decision-Making Triggers Legal and Ethical Risks

- 1.2.1. Al hiring tools lead to flawed decisions due to inflexible logic
- 1.2.2. Human decisions must remain final in ethically sensitive cases
- 1.2.3. Ethical guidelines and audit standards must be mandatory
- 1.2.4. Risk of bias and discrimination in AI systems must be mitigated



#### 1.2.5. Systems like AI watermarking become legal necessities

#### 1.3. Employee Rights Must Be Redefined

- 1.3.1. Workers need the right to challenge Al-driven decisions
- 1.3.2. Al's role must be co-shaped by workers via co-determination
- 1.3.3. Awareness and educational campaigns must be sector-tailored
- 1.3.4. Ethical AI frameworks must include workers' protection, not just technical soundness

#### 1.4. Workplace Trust and Participation Depend on Transparency and Oversight

- 1.4.1. Trust in AI tools grows with transparency
- 1.4.2. Oversight (internal or third-party) needed at every stage of AI deployment
- 1.4.3. Social sciences and humanities bring essential context to tech ethics
- 1.4.4. Organisational guidelines (e.g. universities, public agencies) are critical

#### 1.5. Dependence on BigTech Undermines Employer Autonomy

- 1.5.1. Employers may lose control over worker rights due to reliance on external platforms
- 1.5.2. Power shifts from firms to tech vendors without clear regulation
- 1.5.3. Raises questions about who controls employment rights in platform work

#### 2. Automation and Digital Transformation Are Disrupting Jobs – Eliminating Some, Creating Others

#### 2.1. Job Displacement and Creation Are Unevenly Distributed

- 2.1.1. Rise in unemployment among low-skilled or hard-to-retrain workers
- 2.1.2. Increase in freelance, short-term, or platform-based work (more precarity)
- 2.1.3. Talent shortages and competition for AI and digital expertise
- 2.1.4. Regional and firm-level inequality deepens

#### 2.2. Work Is Restructured Around Tasks, Not Roles

- 2.2.1. Routine and repetitive tasks automated; human roles shift to creative, supervisory, or relational work
- 2.2.2. New roles emerge in data analysis, Al development, and system management
- 2.2.3. Algorithmic management becomes common, raising ethical and legal concerns

#### 2.3. Upskilling and Digital Literacy Become Central to Employability

- 2.3.1. Lifelong learning and vocational reskilling become essential across sectors
- 2.3.2. Employers and states invest more in training ecosystems
- 2.3.3. Digital divide becomes a major barrier to equitable participation

#### 2.4. Work Conditions Improve but Also Polarize

- 2.4.1. Improved work-life balance and flexible schedules for high-skilled workers
- 2.4.2. Increased surveillance and reduced autonomy in lower-tier jobs
- 2.4.3. Growing divide between high-autonomy creative roles and task-monitored labour

#### 2.5. Productivity and Efficiency Gains Reshape Business Models

- 2.5.1. Companies optimize processes and cut operational costs
- 2.5.2. Environmental trade-offs from AI infrastructure emerge (e.g., energy costs, e-waste)

#### 3. Al Is Changing How Work Gets Done

#### 3.1. Task Automation Shifts Human Focus

- 3.1.1. Reduction in repetitive, low-value tasks
- 3.1.2. Workers focus on communication, creativity, and emotional labour
- 3.1.3. Increased job satisfaction for those in high-value tasks
- 3.1.4. Al frees time for skill development or research

#### 3.2. AI Reshapes Roles and Skills

- 3.2.1. White-collar roles evolve; new roles in AI oversight and governance
- 3.2.2. Formal qualifications decrease in importance vs. Al literacy
- 3.2.3. Continuous reskilling becomes essential; lifelong learning accelerates
- 3.2.4. Skill gaps widen across generations and socio-economic groups

#### 3.3. Increased use of AI in Decision-Making



- 3.3.1. Faster decisions with improved data flow
- 3.3.2. Overreliance on AI risks biased or opaque outcomes
- 3.3.3. Human judgment still needed to interpret and correct outputs
- 3.3.4. Ethical and regulatory frameworks become critical

#### 3.4. More Workforce Polarization

- 3.4.1. Greater inequality between high- and low-skill workers
- 3.4.2. Diverging experiences of autonomy, flexibility, and satisfaction
- 3.4.3. Calls for universal protections and inclusive labour policies
- 3.4.4. Increased risk of social fragmentation and political tension
- 3.4.5. Unequal ability to influence workplace AI and technology use

#### 3.5. Al Integration Reshapes Work Coordination and Communication

- 3.5.1. New coordination models: human-Al collaboration
- 3.5.2. Trust, transparency, and cultural adaptation become critical
- 3.5.3. Global AI tools increase interdependence
- 3.5.4. Less admin work, instead more cognitive, knowledge-based activity

#### 4. Lifelong Learning and Digital Training Are Becoming Essential for Career Mobility

#### 4.1. Pressure on Workers to Continuously Upskill Intensifies

- 4.1.1. Workers struggle to balance learning with job and life demands
- 4.1.2. Motivation becomes a personal burden rather than a shared system goal
- 4.1.3. Self-directed learning becomes essential, but hard to sustain without support
- 4.1.4. Career flexibility increases—but also uncertainty about long-term pathways

#### 4.2. Employers Expand Short-Term Training, but Underinvest in Broader Development

- 4.2.1. Companies focus on immediate digital skills, not long-term adaptability
- 4.2.2. Broader skill development (e.g., critical thinking, creativity) is neglected
- 4.2.3. Vulnerability to future disruptions increases when strategic learning is missing

#### 4.3. Digital Learning Technologies Redefine How Skills Are Acquired

- 4.3.1. Micro-credentials and Al-powered platforms become standard
- 4.3.2. Peer learning, informal videos, and self-paced formats gain prominence
- 4.3.3. Customization increases, but depth and retention may suffer

#### 4.4. Limited Access to Lifelong Learning Reinforces Structural Inequality

- 4.4.1. Training deserts emerge in precarious jobs and low-income sectors
- 4.4.2. Digital skill gaps worsen across age, income, and geography
- 4.4.3. Employers face growing hiring difficulties in underserved regions
- 4.4.4. Governments face pressure to offer inclusive learning guarantees

#### 4.5. Employers Increasingly Prioritize AI Literacy and Digital Competence

- 4.5.1. Workers without Al fluency face exclusion from core job markets
- 4.5.2. Public education systems are pressured to include AI in core curricula
- 4.5.3. Cross-disciplinary understanding of AI becomes a competitive advantage

#### 5. Aging Populations Are Driving Workforce Decline and Transformation

#### 5.1. Worsening Labour Shortages Across Key Sectors

- 5.1.1. Increased Reliance on Automation and AI
- 5.1.2. Pressure on Education and Training Systems to meet current labour market needs
- 5.1.3. Delays in Project Timelines and Delivery due to resource constraints

#### 5.2. Growing Demand for Age-Inclusive Workplaces

- 5.2.1. Greater Investment in Upskilling Older Workers
- 5.2.2. Workplace Design shifts toward Flexibility/Accessibility to support cognitive/physical needs of employees
- 5.2.3. Policy Emphasis on Retention and Engagement



#### 5.3. Immigration Policy Becomes a Strategic Workforce Level

- 5.3.1. Mismatch Between Immigration Policy and Labour Demand
- 5.3.2. Public Debate Intensifies Around Migration and Workforce Sustainability.

#### 6. Demand for Digital Skills is Outpacing Workforce Preparedness

#### 6.1. Digital Skills Gaps Amplify Structural Labour Market Inequalities

- 6.1.1. Socio-economic disparities deepen as digital access and training vary
- 6.1.2. Generational and gender divides in AI and tech skills widen
- 6.1.3. Underqualified workers risk long-term unemployment
- 6.1.4. Digital skill shortages inflate salaries, widening income inequality

#### 6.2. Institutions Struggle to Adapt Education and Training Fast Enough

- 6.2.1. Curricula reform urgently needed to integrate hybrid and Al-relevant skills
- 6.2.2. Educators require upskilling and ongoing development
- 6.2.3. Overreliance on small elite of AI professionals leads to bottlenecks
- 6.2.4. Missed economic and societal opportunities due to talent mismatch

#### 6.3. Policy and Employer Strategies Shift to Accelerate Reskilling

- 6.3.1. Governments and firms implement large-scale training programs
- 6.3.2. Micro-credentials and Al-powered online learning expand access
- 6.3.3. Inclusive programs are developed to integrate vulnerable groups
- 6.3.4. Collective bargaining evolves to address training access and AI oversight

#### 6.4. Labour Market Polarization and Task Restructuring Intensify

- 6.4.1. Roles are restructured around available digital skill sets
- 6.4.2. Some employees gain flexibility to craft growth-oriented roles
- 6.4.3. Skill mismatches increase as tech evolves faster than workers adapt
- 6.4.4. New demands for digital labour rights (e.g., disconnection, data protection)

#### 7. Economic Pressures Are Reshaping Workforce Strategies

#### 7.1. Automation and Cost Pressures Drive Algorithmic Control Over Workforces

- 7.1.1. Algorithmic management spreads but often makes flawed or opaque decisions
- 7.1.2. Workers experience loss of autonomy and increased surveillance
- 7.1.3. Mental and physical health risks emerge under Al-driven management
- 7.1.4. Productivity gains in tech-intensive firms widen inequality across firms

#### 7.2. Labour Market Volatility Exacerbates Inequality and Political Risk

- 7.2.1. Low-income and precarious workers are most affected by inflation and instability
- 7.2.2. Inequality grows between sectors (e.g., tech vs. traditional industries)
- 7.2.3. Increased risk of social unrest and political polarization

#### 7.3. Governments Adapt Social and Labour Policy to Address Structural Shifts

- 7.3.1. Universal basic income and new welfare models enter political debate
- 7.3.2. Wage protection and unemployment benefits expand in scope
- 7.3.3. Public reskilling programs introduced to boost employability
- 7.3.4. Data protection regulations evolve to cover digital labour systems

#### 7.4. Small Firms and Social Economy Actors Are Disproportionately Affected

- 7.4.1. Small firms struggle to compete with large, tech-intensive players
- 7.4.2. Social economy models lose visibility and public support
- 7.4.3. Global economic slowdown hits small and regional players hardest

#### 8. Work-Life Boundaries Blur as Flexibility Expand

#### 8.1. Greater Worker Autonomy Requires Self-Regulation

- 8.1.1. Employees must actively set personal boundaries to prevent overwork
- 8.1.2. Preventing burnout becomes a personal responsibility



8.1.3. Rise in mental health awareness and coping practices (e.g., yoga, nature walks)

#### 8.2. Non-Traditional Work Models Increase Precarity

- 8.2.1. Freelancing and gig work lead to job insecurity and loss of benefits
- 8.2.2. Flexibility benefits employers more than workers
- 8.2.3. Difficulty accessing labour rights (e.g., healthcare, paid leave)
- 8.2.4. Workers compensate for instability through overwork

#### 8.3. Home Becomes a Site of Both Work and Inequality

- 8.3.1. Remote work reshapes gender roles and caregiving responsibilities
- 8.3.2. Spatial inequality increases due to need for home offices
- 8.3.3. Emotional effects of isolation and blurring (happiness, dissatisfaction)

#### 8.4. Institutions and Policies Struggle to Adapt

- 8.4.1. Policies enforcing disconnection are difficult to implement
- 8.4.2. Work-life tension emerges when schools and care systems still follow rigid hours
- 8.4.3. Policies lag behind flexible work realities

#### 9. Freelancing, Gig Work, and Flexible Jobs Are Reshaping Employment Models

#### 9.1. Employment Protections and Legal Frameworks Are Strained

- 9.1.1. Gig workers lack bargaining power and legal protections
- 9.1.2. Companies sidestep traditional labour laws via nonstandard contracts
- 9.1.3. Regulatory systems struggle to keep pace with new employment models
- 9.1.4. Policy discussions emerge around portable skills and social protections

#### 9.2. Flexibility Increases Worker Autonomy, But Also Long-Term Instability

- 9.2.1. Workers choose when/where/how they work (greater autonomy)
- 9.2.2. Long-term gig work makes it harder to return to traditional employment
- 9.2.3. Income security is uncertain and varies dramatically

#### 9.3. Task-Based Platforms Globalize and Fragment Job Markets

- 9.3.1. Companies source talent globally through platforms
- 9.3.2. Growing use of skill databases to match people with tasks
- 9.3.3. Hiring becomes more transactional and demand-driven
- 9.3.4. Opens access to work but undermines stable job structures

#### 9.4. Non-Traditional Work Environments Erode Social and Structural Support

- 9.4.1. Workers experience increased social isolation
- 9.4.2. Unclear boundaries cause emotional strain and disconnection
- 9.4.3. Absence of institutional well-being structures leaves gaps in support

#### 10. Employees Expect More Autonomy in Where, When, and How They Work

#### 10.1.Increased Autonomy Boosts Job Satisfaction

- 10.1.1. Enhanced work-life balance reduces burnout and stress
- 10.1.2. Higher engagement and motivation due to control over schedule
- 10.1.3. Sense of ownership and freedom at work increases performance

#### 10.2. Managerial and Organisational Models Shift Toward Output-Focused Structures

- 10.2.1. Managers shift toward trust-based and results-driven models
- 10.2.2. Managers adopt new roles focused on coordination, not supervision
- 10.2.3. Micromanagement declines; accountability increases
- 10.2.4. Tech flexibility requires better planning to avoid task overload

#### 10.3. Uneven Access to Autonomy Deepens Labour Market Polarization

- 10.3.1. Professionals gain autonomy; service and manual workers do not
- 10.3.2. Gig and hourly workers face unstable hours and compensation gaps
- 10.3.3. Flexibility is harder to apply in team-dependent roles
- 10.3.4. Polarization emerges between job types with/without flexibility



#### 10.4. Societal and Policy Systems Respond to Structural Autonomy Shifts

- 10.4.1. Legislation pushes for fair, predictable hours across job types
- 10.4.2. Proposals for shorter working weeks gain political traction

## 5. Best-case Scenario for the Future of Work

#### 4.1 Human-Centered and Ethically Governed Digital Transformation

By 2040, the integration of AI and automation into Europe's workplaces has matured into a model of accountable and human-centered digital transformation. Rather than displacing workers, AI supports them, handling repetitive and data-intensive tasks while enhancing decision-making and collaboration. This shift is made possible by a **robust legal and ethical framework at the EU level**, co-developed with social partners, which governs the design, deployment, and oversight of workplace technologies.

**Every worker has the right to understand and challenge Al-driven decisions**, and algorithmic systems are subject to **mandatory transparency audits**. Human judgment is protected in ethically sensitive areas, and **employers are legally required to maintain final responsibility** for high-stakes outcomes. These protections foster trust and ensure that Al tools serve as assistants, not authorities.

**Co-determination mechanisms** involving workers are embedded in technology governance, especially in public institutions and large enterprises. Workers help shape the digital tools they use, supported by tailored training and transparent communication. This participatory approach is reinforced by strong institutional guidelines and third-party oversight bodies that prevent misuse and ensure compliance.

Dependence on external tech vendors is reduced through the development of sovereign European digital infrastructure and open-source platforms, particularly in the public sector. As a result, **employers regain control** over employment conditions, and **data sovereignty becomes a pillar of European labour markets**.

Social sciences and humanities are not peripheral observers but essential partners in this transformation, providing the ethical, legal, and cultural frameworks that guide technology integration in diverse work environments. The result is a digitally advanced yet human-centric labour landscape, where innovation strengthens rights, autonomy, and trust rather than eroding them.

#### 4.2 Inclusive Learning Ecosystems and Adaptable Careers

By 2040, Europe has established a truly inclusive and dynamic learning ecosystem, enabling individuals to navigate a rapidly evolving world of work with confidence and agency. **Lifelong learning is no longer a privilege, but a structural right**, guaranteed through coordinated action by governments, employers, education providers, and social partners.

Al literacy and digital competence are embedded in public education systems from an early age, and microcredentialing platforms provide modular, stackable learning paths across career stages and sectors. Formal degrees remain relevant, but adaptability, curiosity, and cross-disciplinary thinking are widely recognized as equal indicators of employability.

Crucially, access to up- and reskilling opportunities is universal and regionally balanced. Investment flows into underserved areas and demographics, reversing digital divides and giving rise to a more geographically and socio-economically diverse workforce. Older workers benefit from age-inclusive training programmes tailored to both physical



and cognitive needs, and employers are incentivized to support learning through protected time and clear career pathways.

Learning is increasingly personalized. **Al-powered platforms adapt to individual learning styles**, while peer networks, local hubs, and public institutions foster community-based, participatory learning. Publicly funded advisory services help individuals plan and navigate lifelong learning journeys, especially those transitioning between sectors, returning to work, or facing redundancy.

**Employers, particularly SMEs, collaborate with public actors to co-develop training that aligns with long-term societal and labour market needs**, rather than short-term productivity goals. A shared understanding of workforce adaptability as a public good guides policy and investment decisions.

The result is a resilient, inclusive, and opportunity-rich labour market, where no one is left behind, and learning is a collective commitment, not a personal burden.

#### 4.3 Resilient and Equitable Work Models

By 2040, Europe has redefined flexibility and resilience in the world of work, not as privileges for the few, but as rights for all. **Employment protections now extend across all contract types**, including freelancers, gig workers, and platform-based roles. **Legal frameworks have adapted to ensure social security portability, predictable income, and access to benefits** regardless of employment status.

Flexible work is no longer synonymous with precarity. **Policies enforcing fair scheduling, the right to disconnect, and inclusive leave arrangements have become standard**, and are applied across sectors and occupations. This has improved well-being and reduced the health risks associated with overwork, isolation, and economic insecurity.

**Social partners and workers have stronger bargaining power** in shaping work conditions across decentralized and digitally mediated workplaces. Collective agreements increasingly cover remote and platform-based work, while **labour inspectorates and digital monitoring tools ensure compliance in fragmented employment contexts**.

Structural inequalities in flexibility have been addressed. **Support structures and regulation ensure that low-in-come, care-dependent, and team-based professions also benefit from fair flexibility**, including childcare-aligned schedules, location autonomy, and digital infrastructure in underserved areas.

New models of work organisation – output-oriented and trust-based – are now widespread. **Managers focus on enabling rather than supervising**, and organisations measure productivity in terms of impact, not presence. These models support worker autonomy while safeguarding against overload through **task planning tools and mental health protocols**.

In this landscape, flexibility is not traded against security. Instead, the two reinforce each other, creating a labour market that is not only more efficient and adaptable, but also fundamentally fairer.

#### 4.4 Sustainable Economic and Organisational Transformation

By 2040, Europe's economies have evolved toward a model that balances innovation, competitiveness, and social and environmental sustainability. **Digital and green transitions are no longer parallel agendas but intertwined strategies**, supported by regulatory alignment and coordinated public-private investment.



Small and medium-sized enterprises (SMEs) and social economy actors thrive within a fairer digital market, thanks to targeted support for open-source tools, equitable procurement, and responsible data infrastructure. These measures reduce dependence on monopolistic platforms and enable broader participation in digital value creation.

Firms across sectors have restructured their operations to prioritize long-term value over short-term profit. **Al and automation are used to complement - not replace - human labour**, increasing efficiency while protecting job quality. Resource use, energy consumption, and digital emissions are actively managed as part of corporate accountability frameworks.

**Productivity gains are reinvested in workforce development and community engagement**, reversing the pattern of extractive growth. Organisations are incentivized through tax systems and ESG criteria to demonstrate social impact, workforce inclusion, and resilience to external shocks. These indicators are now central to competitiveness, not a secondary concern.

**Public institutions play a catalytic role by setting standards for ethical digital infrastructure**, including requirements for energy efficiency, human oversight, and open accessibility. Governments act not just as regulators, but as lead users and innovators—testing and scaling sustainable practices.

This transformation also reshapes workplace culture. **Shared-purpose organisations attract talent by aligning economic success with societal contribution**, and worker participation in strategic decision-making has become common. The economy is no longer only judged by growth—but by what, how, and for whom it grows.

## 6. Next steps: Backcasting

Following the completion of all four foresight cycles, we will initiate the next major phase of the process: translating the developed trend insights and scenarios into strategic policy options. This will take place in a backcasting workshop, currently planned for January 2026, which will bring together experts from across disciplines and sectors.

The workshop will start from the four desirable best-case scenarios developed for each impact area. Using the widely established approach of backcasting, participants will work backwards from these desirable futures to today, systematically identifying the necessary steps, enabling conditions, and interventions needed to move towards the envisioned futures. The guiding question will be: What kind of future is imaginable and desirable in each impact area—and how can we work strategically towards achieving it?

Backcasting is an approach that starts by defining a desirable and plausible future scenario. It should be ambitious enough to inspire innovation, but realistic enough that concrete pathways can be identified to reach it. Choosing a preferred scenario helps focus attention on what stakeholders want to achieve, rather than merely reacting to what seems most probable. Starting with a bold scenario encourages more creative thinking, while keeping the steps needed to achieve it grounded and actionable. Backcasting is not about ignoring potential problems; rather, it focuses on overcoming obstacles in a proactive, solution-oriented way, even in the face of uncertainty.

This method allows us to focus not only on what is likely, but on what is possible and desirable, helping to formulate proactive, solution-oriented pathways even in the face of uncertainty. Starting from a bold but plausible scenario encourages all stakeholders to think creatively, while maintaining a realistic view on the steps and conditions needed to achieve these outcomes. Rather than ignoring challenges, the backcasting approach explicitly addresses obstacles, fostering a strategic and action-oriented mindset.

The action steps developed through this process will provide a strong evidence base for the formulation of the SRIA for the European Partnership on Social Transformations and Resilience. Through its innovative Strategic Foresight approach,





the SRIA will provide a framework for issues and activities not only for the short and medium term, but also for the long term, allowing for changing needs and iterations.



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## **ANNEX**

#### Long list of 34 Trends:

#### The Future of Workplace Technology: How AI and Automation Are Changing How We Work

Highlights how AI and technology are reshaping jobs, productivity, and skills, setting the stage for broader workforce transformations

- 1. **Automation and Digital Transformation Are Reshaping Working Life:** Automation and digital transformation, accelerated by technological advancements and the pandemic, are fundamentally changing industries, job roles, and production processes. While these shifts boost productivity and innovation, they also drive job displacement. By 2025, up to 85 million jobs could be lost, while 97 million new roles may emerge in AI, big data, and green technologies. This transformation is projected to affect nearly all professional groups, with traditional wage labor in some sectors potentially becoming obsolete.
- 2. **Al Is Changing How Work Gets Done:** Artificial Intelligence, particularly generative Al, is revolutionizing productivity by automating tasks, enhancing decision-making, and enabling creative outputs across industries. Its integration into workplaces is reshaping job functions, improving efficiency, and redefining professional practices. While Al enhances accuracy and allows professionals to focus on strategic responsibilities, it also necessitates workforce adaptation to new technologies and raises concerns about job displacement.
- 3. **Al Is Creating New Jobs:** Al is not just replacing jobs but also creating new roles in fields like Al development, big data, and environmental management. As automation advances, millions of new jobs are expected to emerge globally, shifting workforce demands. However, many employees feel uninformed about Al's impact on their careers, highlighting the need for greater awareness and skill development.
- 4. **Demand for Al-Related Jobs Is Growing:** The rise of Al and automation is driving increased demand for Alfocused roles across industries, particularly in Al development, big data, and environmental technologies. As workforce priorities shift, adapting to this demand requires greater emphasis on technical skills and specialized expertise. To meet this growing demand, significant workforce upskilling and education efforts will be required, emphasizing technical adaptability and specialized expertise.
- 5. **Data Analytics Is Transforming Decision-Making:** Data analytics is becoming a key driver of decision-making, helping organisations understand market trends, customer behavior, and operational efficiencies. However, the pace of automation is slower than previously expected, indicating a continued reliance on human skills for reasoning and decision-making.
- 6. **AI-Powered Tools Are Improving Workplace Collaboration**: AI-driven technologies, such as virtual coaching systems and augmented workforce tools, are revolutionizing teamwork and communication. By optimizing workflows and providing real-time insights, these tools enable seamless collaboration, personalized support, and improved efficiency in increasingly complex work environments.
- 7. **Al Literacy Becomes a Critical Workforce Competency**: The demand for Al skills is not confined to technical roles; sectors such as Professional Services, Financial Services, and Manufacturing are increasingly seeking professionals with Al literacy in both technical and non-technical positions. This trend indicates a broadening scope for Al integration across various industries.
- 8. Wearable Technology Is Enhancing Workplace Connectivity & Employee Monitoring: Wearable technology is expected to become more integrated into the workplace, potentially offering benefits such as real-time health monitoring and personalized performance feedback. By 2033, a "born-mobile" workforce will be constantly connected to both work and home life, using devices that are wearable or even implantable. This, in turn is being taken advantage of by some employers to monitor their employees.



9. **Growing Need for AI Regulation and Ethical Guidelines in the Workplace**: As AI plays a greater role in hiring, employee monitoring, and decision-making, the need for clear regulations and ethical guidelines is increasing. Organisations must navigate concerns around bias, privacy, and transparency to ensure responsible AI use in the workplace.

#### The Future of Skills: What Workers Need to Stay Competitive

These trends highlight the growing demand for upskilling and adaptability in a rapidly changing job market.

- 10. **The Digital Skill Gap is Growing**: As technology rapidly evolves, demand for AI, data analytics, and IT expertise is rising, alongside soft skills like critical thinking and problem-solving. However, workforce training is struggling to keep up, leading to a widening skills gap across industries and increasing the need for large-scale reskilling and upskilling initiatives.
- 11. **Lifelong Learning Is Increasingly Important for Career Development**: As technology reshapes job requirements, continuous skill development is becoming crucial for career advancement. Employees increasingly prioritize lifelong learning, while organisations invest in training programs to equip their workforce for evolving roles and attract talent.
- 12. **Employers Are Hiring Based on Skills More Than Degrees**: Employers are increasingly prioritizing skills and adaptability over formal degrees, widening access to job opportunities. This shift is driven by labor market demands and the recognition that many capable candidates may not have traditional educational credentials.
- 13. **Social and Emotional Skills Are Gaining Importance**: As workplaces become more collaborative and technology-driven, the demand for social-emotional skills is rising across all industries. This includes abilities like empathy, communication, and emotional intelligence, which are critical for teamwork, leadership, and navigating complex interpersonal dynamics. However, a growing concern about the erosion of these skills, particularly among younger generations, highlights the urgent need for targeted training and development programs.
- 14. **Conflict Resolution Becomes a Key Leadership Skill**: With rising ideological tensions and external crises affecting workplace dynamics, conflict resolution skills are becoming essential for managers. A significant number of employees report differing opinions on socio-political issues, which can hinder team performance. Organisations must equip managers with training in conflict resolution to foster a respectful environment where diverse viewpoints can coexist.
- 15. **Technology Is Transforming How People Learn and Train for Jobs**: Education and workforce training are evolving with personalized, flexible, and technology-driven learning models. Industry-academia partnerships play a growing role in ensuring that training programs remain relevant and equip individuals with the skills needed for a rapidly changing job market.

#### The Future of Employment: How Careers, Hiring, and Work Models Are Changing

These trends focus on evolving work arrangements and the increasing demand for flexibility and innovation in how work is structured.

16. **Remote and Hybrid Work Are Becoming the New Normal:** The COVID-19 pandemic accelerated the adoption of remote work, and this trend is likely to continue, albeit less intensely, making hybrid setups a lasting feature of modern workplaces. The shift towards remote and hybrid work models is expected to persist, with 70% of employers indicating that flexible work arrangements will become a standard practice. Advances in technology are further shaping how and where work is conducted, while organisations navigate challenges related to collaboration, regulation, and work-life balance.



- 17. **Freelancing, Gig Work, and Flexible Jobs Are Reshaping Employment Models:** Non-traditional work arrangements—freelancing, gig work, and project-based jobs—are becoming more common, shifting the nature of employment. Driven by technology, platform economies, and demand for flexibility, these models are redefining how individuals and organisations engage in the workforce.
- 18. **Work-Life Boundaries Blur as Flexibility Expands:** The shift to remote work has sparked both opportunities and challenges for work-life balance. While flexibility can enhance balance for some, the blurring of boundaries often leads to longer hours and difficulty disconnecting from work. To address these challenges, organizations must promote clear boundaries, flexible policies, and encourage employees to prioritize breaks and time off for overall well-being.
- 19. **The Four-Day Workweek Gains Momentum:** The four-day workweek (4DWW) is moving from an experimental concept to a more widely adopted practice. Increasingly seen as a way to improve work-life balance and attract talent, this shift is prompting organisations to rethink traditional work structures and productivity models
- 20. **Companies Are Filling Job Gaps by Reskilling Their Existing Employees:** Organisations are increasingly addressing talent shortages by reskilling and redeploying existing employees rather than relying solely on external hiring. This approach, sometimes called "quiet hiring," helps retain talent and adapt to shifting skill demands.
- 21. **Employees Expect Companies to Address Rising Work-Related Costs:** Rising costs related to commuting and other work-related expenses are becoming a significant concern for employees, potentially influencing their job choices and employer expectations. Return-to-office mandates are leading workers to be more acutely aware of the financial burdens incurred in the process of going to work.
- 22. **Employees Expect More Autonomy in Where, When, and How They Work**: Employees increasingly seek more control over their work schedules, projects, and skill development, driving a shift toward self-directed and flexible work models. This includes choosing when and where they work, selecting hours, tasks that align with their strengths, and pursuing personalized learning pathways to advance their careers.
- 23. Careers Are Becoming More Flexible and Skills-Based: The changing landscape of work is challenging traditional career stereotypes, with more individuals pursuing non-linear paths and diverse roles. This shift reflects broader societal changes, valuing varied experiences over conventional career paths. Simultaneously, job definitions are moving away from rigid titles to being skill- and task-oriented, emphasizing adaptability and skill diversity.
- 24. **Companies Are Struggling to Attract and Retain Employees**: Organisations, especially in high-demand sectors like technology and healthcare, are facing growing challenges in hiring and retaining employees. This trend is reshaping how companies compete for talent in an evolving labor market.

#### The Future of the Workforce: How Demographics and Economics Are Reshaping Jobs

These trends address large-scale economic and demographic changes influencing labor markets.

- 25. **Rising Economic Pressures Are Changing How Companies Manage Jobs:** The global workforce is facing significant challenges from economic pressures such as inflation, rising costs, and job market instability. By 2050, global unemployment rates could rise to 24% or higher if substantial adaptations are not made. These pressures are exacerbated by automation and technological transformation, which displace traditional roles even as new opportunities emerge.
- 26. **Aging Populations and Labor Shortages Are Changing the Workforce**: Declining working-age populations, especially in regions like China and the EU, are contributing to labor shortages and workforce shifts. As



- the share of older workers grows, employers and policymakers are adapting workplace practices and labor policies to address these demographic changes.
- 27. **Remote Work Is Allowing Companies to Hire Talent Globally**: The rise of remote work has allowed companies to tap into global talent pools, enabling them to recruit skilled workers from different geographic locations without the constraints of physical presence.
- 28. **Al and Automation Are Increasing Job Risks for Women:** Al and automation are reshaping industries unevenly, with some job sectors more vulnerable than others. Research suggests that women are more likely to work in roles at higher risk of automation, such as administrative and service jobs, while men are more concentrated in fields that may see increased demand, such as technology and engineering. This shift could widen gender disparities in employment opportunities and career stability.

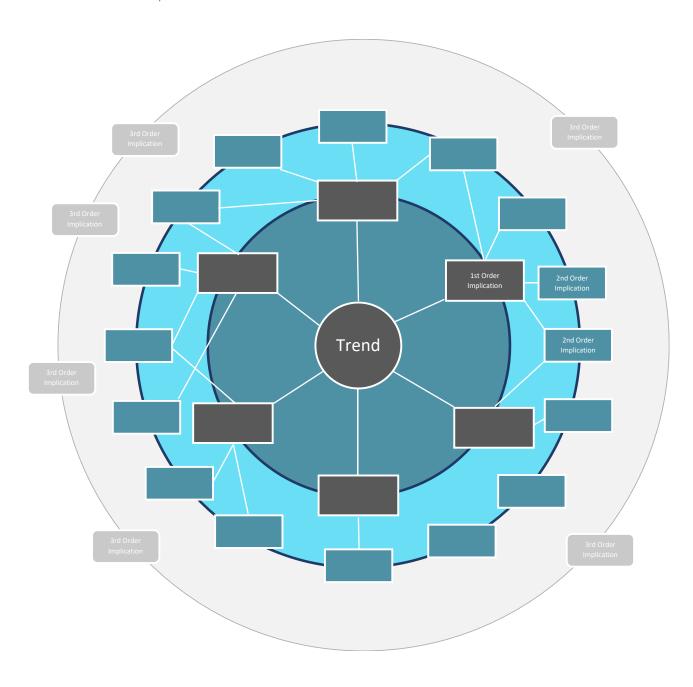
#### The Future of Workplace Expectations: Well-Being, Trust, and Inclusion

This selection of trends emphasizes the importance of workplace culture, inclusivity, and trust, showing how human-centric approaches can address employee needs.

- 29. **Companies Are Increasingly Focused on Employee Well-Being**: Companies are placing greater emphasis on employee well-being, with many implementing mental health initiatives and wellness programs. However, despite these efforts, many workplaces face risks to employee dignity due to mounting pressures from automation, cost-cutting, and transactional workplace cultures. This dual reality highlights the need for leaders to balance well-being initiatives with efforts to maintain a respectful, engaging, and dignified work environment.
- 30. **Diversity and Inclusion Efforts Are Becoming Core Workplace Priorities**: Diversity, Equity, and Inclusion (DEI) efforts are evolving from standalone initiatives to integral parts of workplace culture. Employee Resource Groups (ERGs) are playing a key role in fostering inclusivity, creating spaces for underrepresented employees, and driving both employee satisfaction and business success. While DEI is becoming more embedded in organisations, some efforts face resistance.
- 31. **Concerns About Data Privacy and Workplace Monitoring Are Impacting Trust**: As smart technologies and data analytics become more integrated into workplaces, employee concerns about privacy and surveillance are growing. While these tools can enhance productivity and performance management, they also raise ethical questions and may erode trust between employees and employers.
- 32. **Employees Expect Companies to Align with Social and Environmental Values**: Employees are increasingly seeking workplaces that reflect their social and environmental priorities, with sustainability and climate action becoming key expectations. Many, especially younger generations, prefer employers who demonstrate a commitment to diversity, equity, and inclusion (DEI), environmental responsibility, and corporate social impact.
- 33. **Jobs That Require Empathy and Creativity Are Growing in Demand:** New job roles are emerging in sectors such as leisure, healthcare, and technology, emphasizing human aptitudes like empathy and creativity. These roles will require a different skill set compared to traditional jobs.
- 34. **Employees Expect Greater Pay Transparency and Action on the Gender Pay Gap:** Workers are increasingly demanding pay equity, pushing companies to be more transparent about wages and take concrete steps to close gender and racial pay gaps. As expectations for fair compensation grow, pay transparency is becoming a key workplace issue.



### Futures Wheel Template:





#### Expert Interview Guideline – Future of Work:

#### 1. Introduction

- Duration & Structure: Interview will last 30–60 minutes, covering:
  - o General perspective on the Future of Work
  - Trend validation and refinement
  - o Implications for future research
  - o Closing & next steps

#### 2. General Perspective on the Future of Work

- What do you perceive the most significant shifts shaping the Future of Work in your field in Europe?
- Imagine it's ten years from now: What scenarios do you see unfolding in the Future of Work?
- Are there any important trends we may have overlooked?
- Have you observed any counter-trends or unexpected/surprising developments?
- What's not yet on most people's radar but should be? Could you highlight any emerging or weak signals that may not yet be widely discussed?

#### 3. Trend Validation and Refinement

Trend #1 & #2 & #3 (chosen by you as expert): Respective questions for each of the selected trends:

To what extent do you agree with the trend?

- Is this trend accurate and relevant from your perspective?
- Is it overestimated, underestimated, or missing nuances?

#### 4. Implications for future research

- How should research in Social Sciences and Humanities address these trends?
- What research priorities do you see to respond to these trends? Where do you see the most critical knowledge gaps?

#### 5. Closing & Follow-up

- Is there anything else you would like to add that we haven't covered?
- Is there anything you should've asked that you didn't?
- Can you name additional experts, who we could contact to interview or engage in the Foresight process?
- Follow-up: Would you be open to reviewing preliminary findings or participating in future discussions?
- Next steps