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## **Creating sustainable labour markets through eco-social policies**

Patricia Urban, Francesca Chapman and Vasileios Rizos



# CREATING SUSTAINABLE LABOUR MARKETS THROUGH ECO-SOCIAL POLICIES

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## Summary

Labour markets influence the way we produce and consume, thus playing an important role for both human wellbeing and the environment. Implementing changes in the labour market could help fulfil people's needs within planetary boundaries. This would require an integrated understanding of social-ecological issues. However, despite the EU just transition's aim to address the social impacts of environmental policies, efforts to create a greener and more equal society are often fragmented.

While environmental policies largely focus on technological innovation, *social* innovation is likely to be needed to address interlinked social-ecological challenges. To promote more sustainable labour markets from a production and consumption perspective, income and working time have emerged as crucial levers. Social policies, however, are often compensatory and reactive, rather than preventively creating greener and more resilient welfare states.

To enable a more preventive approach that adequately tackles the interactions of social and ecological challenges, the debate on sustainable welfare has advocated for integrated, eco-social policies. In this CEPS In-Depth Analysis report, we explore the potential of three different policies to create more sustainable labour markets that enhance human wellbeing within planetary boundaries: Working Time Reduction, Universal Basic Income and Universal Basic Services.

Combining desk research with an expert focus group, we find that eco-social policies could have the large potential to lead to beneficial outcomes in both environmental and social areas. Yet these benefits depend on the specific policies, their design and how they are combined with each other. For example, the experts expressed doubts about the feasibility and desirability of Universal Basic Income, given the potential adverse effects of such a policy. While there was more agreement on the advantages of Working Time Reduction and Universal Basic Services, our findings suggest the need for further research into their specific consumption-related effects and potential policy design.

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## 1. Introduction

Although the EU just transition has prioritised mitigating the social impacts of environmental policies, approaches to delivering a ‘greener’ and more equal society are often still conducted in siloes. Welfare policies often overlook the environment as an important factor (Dukelow & Murphy, 2022), while integrating social aspects into environmental and climate policies is still in its infancy despite attempts made in the context of the European Green Deal (Graziano, 2024). Suggestions for more integrated ‘eco-social’ policies simultaneously addressing ecological and social goals exist in the academic debate around sustainable welfare. This paper analyses their potential for improving both environmental and social outcomes in labour markets.

Any economic activity is inherently embedded to a social-ecological system (Ostrom, 2009). Labour markets themselves demonstrate this intrinsic linkage. Labour is a key factor of production, which in turn is a major factor which exacerbates the climate and environmental emergencies. These emergencies are already escalating due to increased resource depletion, ecological deterioration and rising temperatures. This highlights the need for restructuring the way labour is organised, which will become more urgent with the continued escalation of the climate crisis (ILO, 2019).

Existing research shows that longer working hours, for example, lead to more resource use and higher environmental impacts (Kreinin & Aigner, 2022). In addition to this connection to production and related impacts, labour markets also shape consumption patterns that have led to increased resource depletion and ecological impacts. Working time and income are two crucial factors that determine the way people consume, and thus affect both environmental and social outcomes such as human health and inequality (Cieplinski et al., 2021; François et al., 2023; Hoffmann & Paulsen, 2020).

Given the central importance of labour markets to the way societies are organised, they could act as levers to improve human wellbeing *and* reduce environmental impacts of production and consumption simultaneously (Bohnenberger, 2022a). Existing policy approaches to delivering more sustainable labour markets have largely focused on the production side, to incentivise much-needed technological innovation, such as in energy and mobility.

To mitigate the potential impacts of technological innovation and related labour market shifts on unemployment and inequality, there have been attempts to complement environmental policies with social policies. These mainly target either employees in the brown sector or the unemployed, to equip them with the necessary skills to transition into ‘greener’ jobs, or to provide them with ‘green’ compensation (Ding & Hirvilammi, 2024).

While highly relevant for greening labour markets (i.e. reducing their ecological footprint), this focus on re- and upskilling in specific sectors also puts technology and technological innovation centre stage. This reveals a relatively narrow definition of what constitutes a ‘green’ job; one that often focuses on green technology (installing PVs, heat pumps, etc.) and overlooks other jobs that have a low carbon footprint while playing a crucial role for our societies (such as in education or healthcare).

While targeted skills courses are important to mitigate impacts of the green transition and enable the phase-out of brown jobs (Kizu et al., 2018; Mandelli, 2022), existing studies show that focusing uniquely on education and training risks exacerbating existing inequalities (Stephanus & Vero, 2024) and foregoes potential benefits of more integrated concepts (Bohnenberger, 2022a).

In addition to technology, innovation is needed in socio-economic structures, to holistically address the interlinked social-ecological challenges of the climate/environmental emergency and human wellbeing/inequality. Indeed, many scholars have highlighted the need for social innovation in policies, organisations, and collective norms to tackle societal challenges that cannot be tackled by technological innovation alone (Heiskala & Hämäläinen, 2007). This is particularly true when it comes to initiating broad societal change to tackle ecological crises (Haskell et al., 2021).

However, while environmental policies largely focus on technological innovation, current welfare policies in the EU tend to be largely reactive and do not proactively foster societal change (Crespy & Munta, 2023). As such, they have been criticised for their compensatory logic, which addresses social impacts only as negative externalities of environmental policies and lacks a deeper integration of social and ecological goals (Bohnenberger, 2023; Alcidi et al., 2022). Moreover, the approach's emphasis on economic growth and market solutions is seen as inadequate for fostering true socio-ecological transformation, calling for a more integrated and transformative approach that prioritises human wellbeing over economic growth while addressing the root causes of socio-ecological issues (Kreinin, 2020).

Proposals for more innovative and integrated 'eco-social' approaches that could bring about broader societal transformations have been brought forward in the context of the academic debate on sustainable welfare (see, e.g. Koch et al., 2016). Sustainable welfare approaches propose a reform of existing notions of welfare, to achieve synergies between wellbeing, social justice, and respecting planetary boundaries (Gough, 2017). However, the implications of eco-social policies for delivering more sustainable labour markets that improve human wellbeing within planetary boundaries remain a niche topic both in academic and in policy circles. While the labour market impact of technological innovation in the context of the green transition has already been extensively studied (Markandya et al., 2016; Fragkos & Paroussos, 2018; Ortega et al., 2020), eco-social policies and their potential to create more sustainable labour markets have yet to receive sufficient attention ((Bohnenberger, 2023).

This paper therefore discusses the potential of selected eco-social policies to create more sustainable labour markets. These are defined as labour markets that enable enhanced human wellbeing within ecological limits, encompassing both production- and consumption-related aspects.

We analyse the potential challenges and benefits associated with Working Time Reduction (WTR), Universal Basic Income (UBI) and Universal Basic Services (UBS). These policies have been selected for three key reasons: (1) They could induce social innovation by preventively (rather than reactively) creating more sustainable welfare states (see Mandelli, 2022), (2) They are 'innovative' policies in the sense that they have not yet witnessed widespread implementation at the domestic level, and (3) they are related to income and working time, which have been identified as crucial causes of both consumption- and production-related ecological impacts.

Although the design of such strategies involves many different aspects, discussing them all is beyond the scope of this publication. For example, we disregard the different possibilities of financing these schemes (Malmaeus et al., 2020). Furthermore, this paper does not examine informal, unpaid work, such as household care, despite its crucial importance for meeting essential human needs (Hirvilammi & Helne, 2014). The analysis is based on desk research and a focus group consisting of experts in the field of eco-social and labour market policies.

This paper was produced in the context of the TransEuroWorkS EU-funded project<sup>1</sup> that aims to investigate structural labour market transformations and their social implications across the EU. The rest of the report is structured as follows: To contextualise the debate around eco-social policies, Sections 2-4 provide a theoretical background based on existing research. Section 2 briefly summarises the main labour market impacts of the green transition discussed in the literature, while Section 3 reviews current understandings and policy approaches for greening labour markets, including the prevalent debate on green jobs. In Section 4, we outline the main literature on sustainable welfare and eco-social policies. Section 5 explains our methodology. In Sections 6-9, we discuss the results of our analysis, focusing on WTR, UBI, and UBS. Section 10 presents the main conclusions.

## 2. Labour market impacts of the green transition

To understand the potential for eco-social policies to make labour markets more sustainable and support the green transition, it is important to first outline the labour market impacts of the green transition. Petit et al. (2024, p. 15) argue that the green transition is ‘one of the four megatrends currently triggering substantial changes in the European labour market’<sup>2</sup>.

Innovation for the green transition has largely been understood in the technological sense, as evidenced by the growing promotion of green technologies. This has brought labour market risks, as jobs will be lost in declining sectors and the balance of demand for different skills will change (Vandeplass et al., 2022). At the same time, there has been a strong push towards creating ‘green jobs’ (see Section 3.1), as well as several instruments to support upskilling and reskilling (see Section 3.2), as part of a ‘people-centred and inclusive’ transition (European Commission, 2023a, p. 14; Markandya, 2016). In the context of these different dynamics, the green transition is expected to greatly reshape labour markets, creating both ‘winners’ and ‘losers’ (OCED, 2024).

There is a wealth of literature on the employment impact of green technology expansion across the EU and within Member States. The growing interest in the social impacts of technological innovation for the green transition is driven by economic concerns such as the financial crisis, EU competitiveness and the Covid-19 pandemic<sup>3</sup>. Research is also motivated by the idea that concerns about employment risks can dampen support for climate policy efforts (Godinho, 2022; Fragkos & Paroussos, 2018).

However, despite the numerous studies on the relationship between labour markets and the green transition, these studies tend to focus on employment impacts and skill mismatches. Accordingly, less research has been done on the extent to which welfare policies can support social innovation (Haskell et al., 2021) that could foster transformations in labour markets towards positive socio-economic and environmental outcomes (Bohnenberger, 2023; Crespy & Munta, 2023).

Since energy and transport are projected to be among the most impacted sectors of the EU’s decarbonisation efforts (Akgüç et al., 2022), much of the literature has focused on the employment impacts of renewable energy and electric vehicle expansion across the EU, among other sectors.

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<sup>1</sup> For more information about the project, see: <https://transeuroworks.eu/>.

<sup>2</sup> The three are demographic change, automation and shifts in supply chains.

<sup>3</sup> The way labour market impacts are measured depends on the definition and measurement of green jobs (see Section 3.1).

While overall macro-level changes in the energy sector are expected to be relatively small, there is a consensus that the impacts will be felt disproportionately by certain regions and sectors (OECD, 2024; Petit et al., 2024). In an *ex post* study of the employment impacts of RE technologies in the electricity and gas supply sector, Markandya et al. (2016) have found a net positive impact on jobs across 21 Member States between 1995 and 2009, with significant employment gains in Germany, Hungary, Italy, and Poland. Similarly, Ortega et al. (2020) have reported substantial job creation in Denmark, Germany, Italy, and Spain between 2008 and 2012. However, these studies also highlight disparities in job creation among Member States, with some countries experiencing job losses in conventional energy sectors.

Considering that road transport accounts for more than three quarters of transport emissions in the EU (European Environment Agency, 2024), it has also been a key sector for technological innovation, and is therefore expected to experience significant labour market impacts (Tamba et al., 2022).

Existing research highlights potential adjustment costs in the short to medium run, particularly if workers cannot move to different sectors or regions (Celasun et al., 2023). While the exact implications of vehicle electrification are still uncertain (Celasun et al., 2023), the net impact on jobs is expected to be relatively small (Kulmann et al., 2021). Similar to the RE sector, impacts are expected to vary significantly across regions, industries and job types (Kulmann et al., 2021). In general, these sector-specific findings reflect the more general consensus that the key labour market impacts of the green transition will be felt across sectors, jobs and regions, while aggregate employment impacts are likely to be limited (OECD, 2024; Vandeplass et al., 2022).

In this context, studies across a range of sectors emphasise that the key challenge for labour markets is skills mismatches, specifically when it comes to moving from decarbonising industries to those which rely on green technologies, as well as other green jobs (Vandeplass et al., 2022; Petit et al., 2024; p. 15; Akgüç et al., 2022; Tamba et al., 2022).

Accordingly, many studies recommend policies to reduce skills mismatches through increased training (Fragkos and Paroussos, 2018; Tamba et al., 2022; Celasun et al., 2023). For example, Kulmann et al. (2021) emphasise the need for upskilling and reskilling ‘on a tremendous scale’ in the automotive sector, as well as support for workers and those who face adaptation issues (pp. 8-9). Celasun et al. (2023) also highlight the need for active labour market policies beyond skills training to facilitate worker mobility, which are ‘part of Europe’s broader labor market reform needs’ (p. 23), which include employment protection legislation and insurance and minimum wages.

However, while the literature offers policy recommendations, their design and feasibility are rarely discussed in depth and they tend to focus on skills training. There is, therefore, less of a focus on how innovative policies can foster social innovation that transforms labour markets towards more environmentally and socially sustainable outcomes. This is in line with the current EU approach to greening labour markets, as we explain in the following Section.



### 3. Prevalent approaches for greening labour markets

A debate has emerged in policy and research circles on how to either mitigate these impacts of the green transition, or to actively create ‘greener’ labour markets. Current EU approaches for a just transition in the labour market mainly focus on green compensation, green jobs, and green skills (Ding & Hirvilammi, 2024).

Green compensation aims to provide income security through social redistribution of wealth, and includes unemployment benefits, pension protection, job replacement as well as unconditional payments. The green jobs approach focuses on promoting employment opportunities in sectors perceived as green through policy incentives for technological innovation and public investments, while the green skills approach highlights that education and training are relevant for moving laid-off workers into green sectors (Ding & Hirvilammi, 2024). These approaches can be designed both in a universal manner or by targeting specific vulnerable groups such as workers affected by the green transition. To better understand these approaches and their potential shortcomings, we discuss prevalent notions of ‘green jobs’ and related skills in the next Section.

#### 3.1. Conceptualising ‘green jobs’

Despite the increasing interest in green jobs, no universally agreed-upon definition of the concept exists (Stanef-Puică et al., 2022). Varying notions have been suggested by the literature, obstructing a debate on common ground and hindering comparison between different assessments of green jobs (Janta et al., 2023). Some existing studies perceive green jobs broadly as jobs in ‘green’ sectors, or jobs producing ‘green’ products. This is reflected in the popularity of the definition by UNEP et al. (2008), which defines green jobs as ‘those that contribute appreciably to maintaining or restoring environmental quality and avoiding future damage to the Earth’s ecosystems’ (UNEP et al., 2008, p. 35).

While this initially appears as a rather broad concept, upon closer examination, it reveals a more narrow focus on (technology-oriented) jobs in the Environmental Goods and Services Sector (EGSS), such as in agriculture, manufacturing and construction, although administrative and service-related activities are also taken into account (UNEP et al., 2008). Based on this definition, different classification frameworks of green jobs have been proposed. These can be categorised as either output or process approaches (Bohnenberger, 2022b).

Output-oriented approaches mainly categorise jobs as green when they are within the EGSS, ignoring other sectors that are essential for meeting people’s basic needs (such as education and care, not to mention unpaid work). More process-oriented approaches, however, focus solely on specific tasks and the (often technical) skills needed to fulfil them. Jobs are defined as green when they help make an organisation’s processes more environmentally sustainable (U.S. Bureau of Labor Statistics, 2013), for instance by using cleaner production technologies (Janser, 2018). Therefore, this definition includes sectors traditionally not viewed as ‘green’, while still acknowledging jobs that may still be relevant to enabling more sustainable labour markets. However, it disregards the overall environmental footprint of work.

The definition by UNEP et al. (2008) does consider social aspects of green jobs, specifying that green jobs also need to be ‘decent’ jobs (i.e. adequate wages, safe working conditions, social protection,

workers' rights etc.). However, despite this acknowledgement of job quality, neither output- nor process-based approaches to green jobs sufficiently tackle the ecological and societal challenges of creating more sustainable labour markets in an interlinked manner. They generally focus on reducing labour-related environmental impacts through technological innovation, thus also narrowly concentrating on production aspects (e.g. output, skills, and tasks).

To overcome the shortcomings of existing approaches while harmonising their benefits, in a previous study, Urban et al. (2023) constructed an integrated taxonomy of green jobs, based on four different pillars: input, processes, output, and job quality.

Input refers to the components entering production processes, i.e. labour (operationalised through skills), capital and other goods, and natural resources. Process encompasses the greenness of tasks and the environmental impacts of processes that transform inputs into outputs. Output refers to the sustainability of goods and services produced, while job quality includes indicators on working conditions.

While attempting to be as encompassing as possible, our taxonomy aims to be quantifiable and thus disregards a number of aspects where data are scarce, such as certain consumption-related social aspects like the impacts of work on individual lifestyles. A more systemic framework that is consistent with the notion of sustainable welfare (see Section 4) has been put forward by Bohnenberger (2022b). According to the author, jobs that can be considered 'green' are those that produce outputs that serve human needs without crossing planetary boundaries. These jobs operate via green workplace activities without compromising sustainable work-lifestyles and do not have more environmental impacts than other jobs that have comparable outputs. Thus, both the greenness of production processes and the sustainability of lifestyles (i.e. consumption) is taken into account. However, such an integrated eco-social understanding of green work is largely absent from existing policy approaches, as discussed in the following Section.

## 3.2. Existing EU approaches to creating socially and environmentally sustainable labour markets

### 3.2.1. The EU just transition framework

As the 'green job' concept suggests, EU policy has long recognised the potential synergies between environmental technologies and labour markets, dating back to documents from 1993 and reinforced by subsequent initiatives. For example, the Communication on the Green Employment Initiative (2014) presents the green transition as an opportunity to create jobs. The revised Renewable Energy Directive (Directive (EU) 2023/2413), highlights that increasing the EU's share of renewable energy can bring a range of broader socio-economic benefits, such as job creation and the promotion of local industries (European Parliament and Council, 2023).

In the context of the green transition's labour market impacts and broader socio-economic risks discussed above, a just transition approach has emerged at the EU level. While the European Green Deal (EGD) is framed as a growth strategy, the EGD Communication calls for a 'socially just transition' that will 'leave no one behind' (European Commission, 2019, p. 16). The EU just transition framework is grounded in various social policy instruments supporting the EGD, including the Just Transition

Mechanism and the Social Climate Fund, which are designed to manage the socio-economic impacts of the green transition (Alcidi et al., 2022; Crespy & Munta, 2023; Petit et al., 2024).

The just transition concept originated in the US labour movement in the 1970s (Petmesidou & Guillen, 2022; Kyriazi & Miro, 2023) and has since been adopted by major international organisations, becoming part of mainstream climate discourses (Kreinin, 2020; Crespy & Munta, 2023). Perhaps unsurprisingly given its origins, the concept is strongly associated with policies that target workers and labour markets (Petmesidou & Guillen, 2022; Kyriazi & Miro, 2023). Thus, it provides a framework for existing EU approaches that support the greening of labour markets from a social policy perspective.

Within this framework, skills and training are a cornerstone of existing EU approaches. Already in 2014, the Communication on the Green Employment Initiative listed ‘Bridging the skills gaps’ as the first policy recommendation (European Commission, 2014, p. 5). Further recommendations included supporting mobility and employment creation.

This focus on skills has continued in more recent policy framings, including the Communication on the European Green Deal and the Green Deal Industrial Plan (GDIP). Relevant initiatives include the European Social Fund+, the Skills Agenda and the Youth Guarantee which are supposed to support skill development and improve employability. Measures promoting green jobs and skills also feature in several Member States’ Recovery and Resilience Plans as part of the Recovery and Resilience Facility.

Alongside these mechanisms, skills training for inclusion in labour markets is supported by the Just Transition Mechanism (JTM) and the Just Transition Fund (JTF). These are discussed in a substantial body of literature. The Just Transition Mechanism (JTM) is part of the GDIP, the investment pillar of the EGD.

The JTF is the first financing pillar of the JTM, which focuses on the socio-economic costs in the regions most impacted by the transition. While it targets several areas, such as energy efficiency investments, it has a strong labour market focus. It aims to fund projects that create new jobs, support businesses, and provide job search and reskilling support for those who have lost their jobs because of the transition (European Commission, 2020). Thus, the JTF is designed to help workers acquire skills and competences for the future job market and support SMEs while also fostering new economic opportunities to generate jobs in these regions.

Thus, the EGD framework and specifically the just transition approach, with its focus on employment and skills, can be seen as an attempt to promote more sustainable labour markets within the context of the green transition, by addressing the social impacts of environmental policies (Kyriazi & Miro, 2023).

### 3.2.2. Critiques of current EU approaches

Although the EGD Communication acknowledges the interconnectedness of economic, environmental, and social objectives, studies have questioned the extent to which the EGD framework can effectively combine them (see Crespy & Munta, 2023; Sabato & Fronteddu, 2020). The EU approach and in particular the JTM and JTF have been described as top-down and not ‘particularly innovative’ (Crespy & Munta, 2023). Moreover, despite its focus on skills, Petit et al.

(2024) argue that the EU approach is insufficient even in this area, emphasising the lack of clarity about and attention to skills-related challenges in the Net-Zero Industrial Act and the Critical Raw Materials Act (which are both key elements of the EGD approach). The implementation of re-employment and retraining schemes also differs across Member States (Galgóczy, 2019).

More generally, the EU approach has been criticised for being too narrow, fragmented and reactive (Mandelli, 2022; Petmesidou & Guillen, 2022; Crespy & Munta, 2023; Akgüç et al., 2022), while paying insufficient attention to social rights and inequality issues linked to climate change and the green transition (Crespy & Munta, 2023; Sabato & Fronteddu, 2020). While this may reflect the limited competence of the EU in social areas (Petmesidou & Guillen, 2022), some of the literature goes further to critique the foundations of the EU approach, introducing novel conceptual framings to explain the EU approach and its shortcomings.

For example, studies have investigated the role of the welfare state and the logic of social interventions in the context of the just transition in the EU (Sabato & Mandelli, 2024; Alcidi et al., 2022; Crespy & Munta, 2023). Alcidi et al. (2022) argue that the EGD is based on a 'compensatory' logic, according to which 'social policy objectives and tools are linked to environmental objectives and tools only by the extent to which the latter produce negative externalities' (p. 188). This is contrasted with an 'integrated' logic, according to which 'social policies and goals are designed together with ecological objectives and goals' (p. 118).

Similarly, Crespy and Munta (2023) highlight that the main purpose of the welfare state in the EU context is to support the green transition through investment in green skills, as well as to cushion the impacts of the transition through services, protection and income policies. According to Ding and Hirvilammi (2024), this compensatory approach reflects the purpose of social security systems to protect citizens from negative changes on the labour market during the green transition. However, they argue that this approach is superficial and has been associated with insufficient attention to how social security systems can increase citizens' agency in decarbonising labour markets. This understanding of the welfare state in mainstream EU approaches reflects the broader trend to view the welfare state a compensatory rather than a transformative system (Bohnenberger, 2023).

More broadly, many studies engage with the just transition concept and its numerous interpretations. Despite the concept's widespread use, Crespy and Munta (2023) emphasise that its definition in Europe is still subject to debate. As the literature highlights, the existing EU approach is one of several possible ways to approach the just transition (and, accordingly, the greening of labour markets).

Kreinin (2020) introduces a typology of just transition approaches. In her analysis of the JTF, she argues that the EU just transition approach combines elements of neoliberal political economy and ecological modernisation. This reveals a limited sectoral focus, an emphasis on market solutions and a focus on economic growth, with environmental issues playing a lesser role. Thus, the EU approach differs from the socio-ecological transformation approach, which is more sceptical about the need for economic growth and the transformative role of technology, among others (Kreinin, 2020). Similarly, Crespy and Munta (2023) argue that the social policy instruments accompanying the EGD maintains a strong commitment to growth, to the detriment of human wellbeing within ecological limits.

Given these limitations, the literature calls for research and policy advances in relevant areas. Mandelli (2022) argues that the just transition should be based on greater integration between welfare policies and green transition policies, moving beyond mere compatibility. If possible, the two sets of policies should be mutually reinforcing.

Similarly, Laurent (2021) calls for more integration between social and environmental policies. He also argues that welfare states should be structured around human wellbeing rather than economic growth, and advocates a greater focus on health rather than employment as an indicator of human development. Many studies emphasise the need to address the root causes of socio-ecological issues rather than just their symptoms (Crespy & Munta, 2023; Petit et al., 2024; Kreinin, 2020).

In this vein, Laruffa (2022) argues that prevailing 'inclusive green growth' approaches – which include the EU approach – embody a particular understanding of the role of work in the green transition. This view does not question the need for more work and more jobs, nor does it challenge the underlying reasons for work. In this sense, the author emphasises, green growth approaches are far from innovative. The author contrasts this approach with the socio-ecological transformation approach, which raises concerns about the concept of work and its role in the green transition, emphasising its impacts on the environment and people's quality of life.

Similarly, Gerold et al. (2023) criticise mainstream notions of work from a post-work perspective, by positioning work as a biophysically intense and consumption-inducing institution leading to socially and ecologically unsustainable outcomes. Thus, they conclude that research should focus on identifying alternative ways to promote social inclusion beyond employment.

Others have critiqued the centrality of work to social security systems (social benefits are generally tied to people's labour market status) without questioning the environmental implications of work (Ding & Hirvilammi, 2024). Therefore, studies have called for a re-evaluation of the importance placed on formal, paid employment – given that a lot of socio-ecologically beneficial work, such as volunteering and care work, is unpaid (Hirvilammi & Helne, 2014; Stamm et al., 2020).

These critiques reflect the importance of considering more innovative and integrated policies, as well as greater engagement with prevailing assumptions about growth and the role of work, which we discuss in Section 4.

## 4. Eco-social policies for more sustainable labour markets

### 4.1. Integrating ecological and social goals: Sustainable welfare

Given the interlinked nature of environmental and social challenges, an increasing number of scholars have argued for the need to conduct integrated research on environmental and social policy (e.g. Bohnenberger, 2023). In this context, sustainable welfare has emerged as a conceptual framework that aims to reconcile welfare theories with environmental sustainability (Fritz & Lee, 2023).

The field of sustainable welfare has grown in recent years, originating from research on the welfare state<sup>4</sup>, more broadly. It critically examines the trade-off between high levels of material welfare and high levels of ecologically detrimental consumption. Most countries today either deliver on social needs or on environmental objectives, but none have been successful in achieving both goals simultaneously (O'Neill et al., 2018). Higher equality and wellbeing in rich economies are currently correlated with unsustainable levels of resource consumption (García-García et al., 2022).

The sustainable welfare paradigm maintains that it would be possible to enhance wellbeing and equality while lowering resource use (Kongshøj, 2023). Fritz and Lee (2023) define sustainable welfare as 'a new social policy paradigm which deals with the problem of how to provide human welfare without undermining planetary wellbeing, by studying policy solutions that aim to create synergy between social justice, ecological sustainability and democratic participation.' (Fritz & Lee, 2023, p. 320) Provisioning systems like welfare states can help in reaching environmental objectives, by enabling a good life within planetary boundaries<sup>5</sup> (Bohnenberger, 2020; Gough, 2019). For example, high-quality public services, income equality, or universal access to electricity and clean fuels have been identified as key provisioning systems to enable sufficient need satisfaction within sustainable levels of energy use (Vogel et al., 2021).

Since sustainable welfare seeks to satisfy human needs within ecological limits while considering global perspectives, it evaluates policy goals and material welfare standards in terms of their generalisability for *everyone* (Bohnenberger, 2022b; Gough, 2015). By prioritising environmental sustainability over material welfare that exceeds human needs, sustainable welfare often challenges the traditional emphasis on economic growth. While other approaches embracing the green growth paradigm exist (Mandelli, 2022), many advocate for the establishment of biophysical parameters to guide economic development at global, regional, national, and local levels (Koch, 2018). As such, concepts of sufficiency and degrowth are often central to sustainable welfare approaches (Fritz & Lee, 2023).

For example, Gough (2017) proposed a three-stage gradual process aimed at reconciling societal welfare with planetary boundaries. This process involves progressing from equitable green growth to 'recomposing consumption', ultimately culminating in a final 'post-growth' stage characterised by a

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<sup>4</sup> There is abundant literature on welfare states that exceeds the limits of this study. For the purposes of this report, welfare states are defined as those that directly provide social services, like social security, health, education and housing, regulate private activities and provide cash benefits (García-García et al., 2022).

<sup>5</sup> The planetary boundaries framework was introduced by Rockström et al. (2009). It defines nine critical earth systems and their planetary boundaries (such as climate change, land-system change and ocean acidification). A 'safe operating space' for humanity exists within these boundaries, while crossing these limits implies a zone of uncertainty and increasing risk of system collapse and of reaching irreversible tipping points.

global steady-state economy. Beyond a growth-critical stance, human needs theory is thus critical to sustainable welfare (Gough, 2015). According to Koch et al. (2018), sustainable welfare recognises that needs, aspirations and wants must be reviewed and maybe restrained. The objective is to operate in a safe and just place below the ecological ceiling and above the floor of meeting people's basic needs (Raworth, 2017).

Another aspect is the notion of intergenerational welfare. Koch and Mont (2016) emphasise the long-term implications of production and consumption patterns on welfare. According to them, sustainable welfare re-evaluates *whose* welfare should be prioritised in current policies, taking into account critical thresholds and limitations imposed by ecological constraints. Central to this perspective is the recognition that basic human needs must be met within ecological limits for both present and future generations (Koch et al., 2017).

Sustainable welfare, thus, calls for the equal distribution of welfare across various dimensions, such as between rich and poor countries, different socio-economic subsets within populations, and across generations (Mandelli, 2022). Büchs and Koch (2017) highlight the importance of an eco-welfare governance network that redistributes carbon emissions as well as work, time, income, and wealth within and between countries.

Bohnenberger (2020) distils six main features of sustainable welfare from the literature: Sustainable welfare aims to meet basic human needs (like avoiding poverty and providing food and water), supports social inclusion, respects ecological limits, enables citizens to determine their own lifestyle, provides benefits that are economically viable and independent from economic growth, and promotes a transformation of lifestyles and socio-economic conditions towards sustainability.

## 4.2. Eco-social policies for more sustainable labour markets

To tackle the integrated nature of social-ecological challenges, the concept of eco-social policies has emerged from the sustainable welfare literature. Defined as public policies that explicitly seek to fulfil environmental and social policy objectives in an integrated way (Mandelli, 2022, p. 340), the existing literature has suggested a range of different policy options and classifications.

After examining the current state of eco-social policies, Mandelli (2022) suggests a typology for conceptualising such policies. Consisting of two different dimensions, his typology differentiates between varying 'directions' of eco-social policy integration and different links to economic growth. The former allows for a distinction between *reactive* and *preventive* eco-social policies.

Reactive policies address environmental hazards after they have occurred, and aim to redistribute the costs and benefits of the green transition. Preventive policies aim to reduce and prevent environmental degradation through various levers, such as reducing the welfare state's ecological footprint or promoting sustainable consumption. Reactive policies usually have a narrower scope, addressing urgent challenges and targeting benefits at those most heavily impacted by the green transition. In contrast, protective policies, enable broader societal change towards developing more sustainable welfare states.

The second dimension distinguishes between eco-social *protection* policies, which aim to redistribute or compensate for costs incurred in the green transition and do not contribute to economic growth,

and *investment* policies, which aim to increase labour market and economic participation and actively contribute to economic growth (Mandelli, 2022).

Thus, Mandelli's (2022) typology of eco-social policies distinguishes between four different dimensions: (1) *Reactive* eco-social *protection* policies, such as sector-specific unemployment benefits, (2) *reactive* eco-social *investment* policies, such as sector-specific reskilling and assistance in job search, (3) *preventive* eco-social *protection* policies, like long-term income support that enables reduced working time, and (4) *preventive* eco-social *investment* policies, such as investment in creating green jobs.

While growth-compatible policies still fall within the scope of Mandelli's typology of eco-social policies, the bulk of the sustainable welfare literature takes a very growth-critical stance (Koch, 2018). Preventive eco-social protection policies have been identified as crucial for promoting sustainable welfare and advancing social security (Bohnenberger, 2023), and have therefore been increasingly investigated by sustainable welfare authors.

For instance, Bohnenberger (2022a) discusses eight different labour market policies in light of their potential to green employment. Using her taxonomy of sustainable employment, discussed in Section 3.1 (see Bohnenberger, 2022b), the author identifies how these policies could contribute to different dimensions of greening employment. Beyond more traditional approaches such as the conversion of plants and businesses, the author also investigates the potential of innovative policies. For example, environmental labour law could protect workers from being forced to conduct environmentally destructive tasks or allow the unemployed to reject employment at environmentally harmful companies without loss of unemployment benefits (Bohnenberger, 2022a). Similarly, environmental decommodification (Bohnenberger, 2022a; Kongshøj, 2023), i.e. providing social protection independent of employment status, could allow workers to leave brown jobs for environmental reasons.

Environmental decommodification could be achieved through income replacement schemes, such as Universal Basic Income (UBI) or Universal Basic Services (UBS), which would also allow for a reduction of working time (WTR). Falling within Mandelli's typology of preventive eco-social protection policies, these three policies have emerged as particularly relevant, yet still heavily debated strategies, to create more sustainable labour markets.

First, WTR refers to a broad set of policies to decrease working time. As the literature highlights, WTR can take a variety of forms (de Spiegelaere et al., 2017). It may target the general working population, specific sectors, companies or individuals. It can be measured using different units of working time, including at the daily, weekly, monthly or annual level (Lukács and Antal, 2023). It can also be implemented via working time redistribution or sharing. These are just some of the variables in the design and implementation of WTR policies. Thus, discussions of WTR involve considering various policy options, which come with different sets of expected outcomes and challenges.

Second, UBI is a type of welfare benefit that can take different forms, but is commonly understood as *unconditional* basic income. It consists of regular cash payments by the government to every resident (not household) of a country (i.e. not means-tested), regardless of factors such as their willingness to work, current income, or living arrangements (Ghatak & Maniquet, 2019). While UBI is not a new concept, the discussion of its environmental implications has so far remained relatively limited (MacNeill & Vibert, 2019). Nevertheless, its potential to increase social security and fairness



while reducing environmental impacts associated with economic activities has received renewed attention in the sustainable welfare literature (Büchs, 2021). **Bohnenberger (2022a)** also highlights the potential of UBI to decouple income from employment volume and, thus, production levels.

Third, the concept of UBS has emerged in recent years as an alternative option to UBI that prioritises collective ways of meeting peoples' needs rather than individual consumption benefits (Büchs, 2021). Drawing lessons from the UK's declining public services, the concept has at its core the need for basic services 'defined as collectively generated activities that serve the public interest'. Such basic services should be available to people in order to give them the opportunity to 'survive and thrive, think for one's self and participate in society' (Coote, 2021, p. 33). Similar to UBI, the concept has been framed within the sustainable welfare debate offering – at least in theory – potential for better equality and sustainability gains. The latter are to be derived through an increased emphasis on sufficiency, which can act as a preventive factor for excessive consumption (Coote, 2021).

Given the ongoing academic debate on these three preventive eco-social protection policies, this paper analyses their potential for creating sustainable labour markets from both a production and a consumption perspective. The methodology for the analysis is described in the next Section.

## 5. Methods

This report was developed using a qualitative research methodology that comprised both desk research and an expert focus group. The initial stage involved conducting desk research to provide context and inform subsequent stages. We first reviewed the literature on innovations related to the green transition and found that there has been little research on policy innovations for socio-economic structures of labour markets. Having identified this gap, we conducted a more focused literature review of existing policy approaches, which emphasised the need for further research on eco-social policies. Based on our further research of the literature on eco-social policies, we identified two main groups of policies for deeper examination in the focus group: Working Time Reduction and Universal Basic Income.

In this initial phase, we chose to focus on WTR and UBI for the following key reasons: (1) their 'innovative' nature, in the sense that they had not yet been widely implemented at the domestic level and have the potential to bring about social innovation; (2) income and working time play a crucial role in the interaction between labour markets and environmental outcomes; (3) the two policies are debated in the literature; (4) it has been argued that UBI and WTR are complementary (Gerold et al., 2023); (5) they fall within Mandell's (2022) classification of preventive eco-social protection policies. Given the literature's critique of existing reactive policy approaches at the EU level, we decided to focus on preventive policies. Moreover, aligning with the growth-critical stance of sustainable welfare, we decided to focus on protection rather than investment policies.

We did not explicitly suggest other policies for the focus group to leave sufficient time for in-depth discussions. However, the experts discussed Universal Basic Services (UBS) at length during the focus group. Therefore, we subsequently chose to include UBS in the analysis, as it also met the criteria which guided our initial policy selection.

The second stage involved conducting an online expert focus group. Focus groups are a useful method in policy research (Manzano, 2023; Fischer et al., 2014). Consulting experts in a group setting has several advantages. It can stimulate dynamic discussions among the participants and tap into

their collective understanding of a topic. Additionally, participants listen to and respond to differing opinions, which can prompt them to reconsider their own perspectives.

By creating an environment in which participants are challenged to articulate and defend their positions, this process encourages them to think critically and engage in constructive debate. This ultimately leads to a more complex exploration of the topic than could be achieved through one-to-one interviews (Manzano 2023; Clark et al., 2021, p. 454). Finally, conducting the focus group online enabled access to a broader range of experts, with the additional benefit of being both time and cost-effective.

We used non-probability purposive sampling to select the experts, which ‘enables you to use your judgement to select cases that will best enable you to answer your research question(s) and to meet your objectives’ (Saunders et al., 2009, p. 237). The expert participants were selected based on their expertise on eco-social policies. In order to obtain a broad range of insights and avoid bias, we aimed to include experts from a range of backgrounds. Nine experts from policy and research institutions agreed to participate. This number is considered to be within the ideal range, as it ensures that a variety of views can be represented while allowing sufficient time for in-depth discussion (Morgan, 1998, pp. 71-82). A table listing the participants’ names and institutional affiliations can be found in Annex 1.

Prior to the focus group, participants received: (1) an informed consent form and (2) a focus group guide, which provided further information to support their preparation for the focus group. This included an overview of the two eco-social policies and questions to think about.

The focus group lasted two hours, which maximised the discussion time without overburdening the participants. The discussion was structured along three 30-minute blocks: Working Time Reduction, Universal Basic Income and an open discussion in which experts were invited to either discuss connections between the two policies or suggest alternative policy options. As moderators, we intervened only to organise the timing and outline the focus of the discussions, giving experts the space to shape the discussion (Clark et al., 2021).

We used thematic analysis to identify and analyse patterns in the focus group data (Clark et al., 2021). This included the following phases: familiarisation (including transcribing the data), initial coding, identifying themes, reviewing and labelling themes, and writing up the analysis. The transcription process was based on the digital recording of the discussion, to which participants had consented.

The data were coded using a bottom-up or ‘open’ approach. The identification of themes was a collaborative process, during which we compared themes with codes and refined them into sub-themes. This was an iterative process, which was guided by a variation of the Framework approach, using a matrix to organise the data around themes, sub-themes and codes and match them to each participant (Ritche et al., 2003). Throughout the process, we revisited the literature to contextualise and inform our findings by existing scholarship.

In the following Sections, we elaborate on the potential of WTR, UBI and UBS for inducing innovation in social structures that would allow for more socially and environmentally sustainable labour markets, according to the experts and the existing literature.

## 6. The potential of Working Time Reduction

The growing number of WTR<sup>6</sup> experiments in Europe and beyond reflects the popularity of the policy across various stakeholders. These range from business-led endeavours such as ‘[4 Day Week Global](#)’ which aims to incentivise and support other businesses in adopting WTR programmes, to national-level government approaches around the world which demonstrate opportunities for policy innovation.

Many of these initiatives have led to positive results across economic, social, and environmental spheres, reflecting the multifaceted objectives driving WTR policies. Environmental sustainability and social wellbeing are prominent among the envisaged benefits. For this reason, WTR is viewed as a vital social innovation alongside technological advancements for facilitating the green transition (Cieplinski et al., 2021; Pullinger, 2014; Antal et al., 2024). In particular, it has been understood as an eco-social policy due to its potential to improve human wellbeing, while reducing the environmental footprint of work, by decreasing production, and individual consumption (Gerold et al., 2023). However, debates and concerns exist about the potential for WTR policies to achieve the desired objectives. These challenges were highlighted by the experts during the focus group, alongside potential policy design solutions.

### 6.1. Benefits of WTR

Most experts agreed that WTR policies could have both social and environmental benefits. Some thought they had the potential to promote social and gender equality and benefit society more generally. One expert noted the positive impact on wages that WTR policies have already had in practice. The experts also referred to the potential of WTR policies to improve human wellbeing, notably when it comes to health and burnout issues. The emphasis on positive social outcomes reflects the findings of numerous experiments and trials, according to which WTR has many social benefits.

In a study of the impacts of a six-hour day (by reducing weekly working time by nine hours) among healthcare and daycare nursery workers in Sweden, Åkerstedt et al. (2001) found positive impacts on health and wellbeing.

More recently, during two trials of a shorter working week in Iceland, which involved more than 1% of the country’s working population, it was found that workers’ wellbeing and work–life balance had significantly improved (Hararldsson and Kellam, 2021). Specific benefits included reduced stress levels, more time for themselves and with their families and friends, as well as gender equality benefits such as more equal divisions of household tasks between partners.

The results of a four-day week pilot project undertaken in the United Kingdom in 2022, which left companies free to design their own models, but required them to maintain full employee incomes and offer ‘meaningful’ WTR, also suggested lower stress and burnout levels, as well as positive mental

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<sup>6</sup> While WTR can either refer to an overall reduction in total hours worked, or a reduction in individual hours worked at stagnating or increasing working time, achieved through a redistribution of working time across more people, the focus group participants generally discussed the former as an option to decrease the ecological footprint of production processes.

and physical health outcomes (Schor et al., 2023). Studies also suggest that having more leisure time can enhance wellbeing by enabling workers to focus on personal development (Kallis et al., 2013).

From an environmental perspective, several experts thought that WTR policies were 'necessary' for reducing production and consumption. This is in line with the literature, which finds evidence that shorter working times tend to be associated with lower environmental outcomes, notably ecological footprints, carbon footprints and carbon dioxide emissions (Knight et al., 2013).

The authors distinguish between the 'scale effect' (reducing working time can decrease economic output and consumption, and thus lower environmental impacts) and the 'compositional effect' (reducing working time can make consumption less resource-intensive). They find a positive association between greater working hours and the three environmental indicators, suggesting evidence for the scale effect.

They also find some evidence for the compositional effect. **Bohnenberger (2022a)** discusses that reducing working hours could lead to lower energy and resource use both in the production process and in workers' lifestyles, i.e. on the consumption side. The 'compositional effect' is supported by studies finding that WTR would give workers more time to pursue low-carbon activities, including when it comes to mobility and food choices (Kallis et al., 2013).

Conversely, Devetter and Rousseau (2011) find that longer working hours are associated with more energy-intensive consumption, as well as conspicuous consumption and unsustainable lifestyles. Greater opportunities to focus on 'personal growth and community connection' may also make workers less inclined to engage in material consumption (Stronge & Harper, 2019). In this sense, the wellbeing and environmental impacts of WTR may be mutually reinforcing.

Similarly, WTR might reduce emissions by reducing work-related mobility (see Wiedenhofer et al., 2023), which could reduce environmental impacts while increasing personal wellbeing, though further research is required to understand the relationship between working time and work-related transport emissions.

Another expert suggested an additional environmental benefit of WTR, arguing that WTR should be seen as an enabler, i.e. that it could be used as a supporting policy to make explicitly environmental policies more 'socially sustainable and politically palatable'.

## 6.2 Challenges of WTR

Despite the benefits associated with WTR policies, the discussion revealed several challenges related to their impacts and possible obstacles to their implementation.

First, more than half the experts argued that the impacts of WTR were uncertain and could even be negative. One expert emphasised that the evidence was inconsistent and complicated in both the social and environmental dimensions. On the social side, WTR could be detrimental to workers' rights and the quality of their jobs. Several experts expressed concern that if WTR reduction led to reduced incomes, it might actually exacerbate social inequality and reduce wellbeing. This is because some people might no longer be able to have their social needs met and there might be more pressure on workers to meet company targets within shorter working hours.

The experts therefore concluded that WTR alone was not sufficient to achieve the desired objectives and that additional policies would be required to make it less damaging to workers. The EU's recent report (European Commission, 2023b) follows this more cautious understanding of the impacts of WTR policies. Although it recognises the potential benefits of WTR, it questions the feasibility of WTR policies and warns that they have unequal benefits and may even make work more intense and increase pressure on employees.

On the environmental side, experts again recognised the lack of clear evidence. One expert pointed out that studies of the environmental impacts of WTR tend to focus narrowly on particular groups that have undergone WTR. However, if WTR is implemented at the societal level, the society-wide impact is likely to be different, which suggests that these studies may be misleading. Another expert emphasised that although WTR could reduce production and consumption to more sustainable levels, the actual impact of WTR on output depends on the policy design.

Some experts questioned whether sustainable consumption as a result of WTR was realistic. According to one expert, this was due to the challenges of influencing consumer decision-making. Furthermore, the case for promoting sustainable consumption assumes that consumers are aware of what constitutes ecologically sustainable behaviour and have access to sustainable products and services, which is not always guaranteed. Once again, these concerns suggest that WTR is unable to promote the desired objectives of its proponents without the presence of supporting policies. While emphasising the need for supporting policies, experts also questioned the feasibility of implementing WTR policies without broader societal discussion and change.

The experts' concerns about the environmental impacts of WTR, particularly through the consumption channel, reflect the discussion of the literature. The impact of WTR on consumption may be uncertain, as specific household and sectoral characteristics may lead to varying environmental outcomes (Bohnenberger, 2022a). Despite finding evidence for the 'compositional effect', Knight et al. (2013) also suggest that more leisure time may instead encourage more resource-intensive consumption, such as more frequent vacations.

In this sense, the 'compositional effect' is an empirical matter and may be unpredictable. Thus, Gerold et al. (2023) argue that Working Time Reduction (WTR) should be investigated in terms of reduced production-based environmental impacts, rather than those stemming from consumption. They highlight the need for additional research on the interactions of work and unsustainable consumption patterns (Gerold et al., 2023).

More generally, the experts' views reflect the argument in the literature that the empirical evidence for the impacts of WTR remains mixed and further background policies are necessary to create the appropriate incentives (Pullinger, 2014). More broadly, studies find trade-offs between different goals underlying WTR policies, which reflects the fact that they may not all be compatible (de Spiegelaere et al., 2017; Cieplinski 2021; Kallis et al., 2013). In this sense, WTR is not a silver bullet.

Beyond the complex impacts of WTR policies, the experts identified a number of obstacles to their successful implementation, particularly those related to their acceptability and feasibility. First, one expert identified a lack of interest in and support in WTR policies in several EU Member States, both among experts and individuals. The same expert argued that the likely right-wing tendencies of the next EU leadership would dampen the potential for the EU to play a supporting role in the implementation of WTR policies.

The lack of support and general feasibility were explained by several factors. One expert emphasised the existence of unfavourable incentives at the company and household levels, which do not support eco-socially beneficial outcomes. For example, the expert suggested that some companies may have an incentive to push employees to their limits to extract as much labour as possible. Moreover, in many Member States households have an incentive to allocate their working time such that one person works full-time while the other works part-time, instead of sharing working time. These unfavourable incentives are exacerbated by unfavourable tax and social security systems, which conflict with the implementation of WTR policies.

Moreover, some experts highlighted the significance of labour shortages, which could lead companies to position themselves against WTR policies. Shortages were identified as a self-reinforcing problem, as fewer people working puts further pressure on current workers, leading to greater strains on social wellbeing and even fewer workers. In this context, implementing WTR is likely to be difficult. At the same time, labour shortages might give certain workers more bargaining power. This may have social equality implications which could be amplified depending on the design of WTR policies (see Section 6.2.2).

One expert also argued that differences across Member States impact the feasibility of and popular support for WTR policies. These differences refer not only to the differences between countries but also to the ways in which politicians, experts and individuals view WTR policies. This is linked to both the economic situation of the country and its inhabitants, and its political culture and intellectual traditions.

One expert highlighted that the material realities of people living across EU Member States are very different. For example, the high inflation in Estonia keeps WTR firmly off the agenda. In this context, another emphasised that when talking about flexible working hours, we must ask ‘whose flexibility?’ In low-income countries, people’s dependency on their incomes limits their choice over their working hours. Similarly, King and van den Bergh (2017) argue that material priorities may reduce the political feasibility of WTR policies even in the UK.

Furthermore, one expert argued that differences in history and intellectual traditions influence the acceptability of WTR policies in countries. For example, while German experts tend to have a more favourable view of WTR policies due to the country’s long history of discussing such policies and its relatively strong labour movement, other Member States have far more cautious outlooks. Eastern European countries with post-Soviet histories, such as Latvia, have a much stronger ‘aversion to state involvement’.

These challenges are also discussed in the literature on WTR, which highlights that preferences over working time and their determinants vary across groups (Mullens & Glorieux, 2024; Antal et al., 2024). Indeed, while the European Union sets minimum standards in the Working Time Directive (2003/88/EC), legal and actual working hours vary across Member States. More generally, the success of policies depends on the broader context (King & van den Bergh 2017), which points to the need to consider the conditions which enable positive outcomes (Antal et al., 2024).

Beyond public resistance to WTR policies, implementation is complicated by further uncertainties highlighted by the academic literature. For example, even though EU Directive (2003/88/EC) defines ‘working time’, the definition and quantification of the concept are contested and vary widely across

sectoral and national contexts (Lukács & Antal, 2023). This is further exacerbated by the trend towards remote work and flexibility, which ‘blurs the boundaries between work and non-work’ (p. 1). This is a key concern given that the definition and measurement of working time has implications for optimal policy implementation and likely outcomes.

In sum, the experts identified numerous challenges associated with WTR policies, which reflect debates in the broader literature. Nonetheless, the experts generally agreed that WTR would be a useful and even necessary policy, and suggested a number of policy design and implementation approaches to address the challenges discussed above.

## 6.2. Policy design and implementation of WTR

### 6.2.1. General issues

The literature highlights that the feasibility outcomes of WTR policies depend on their objectives, design and implementation (de Spiegelaere et al., 2017). Relevant questions include: the extent and format of reduction; the timeframe of WTR policies; the cost incidence and compensation across different social groups; the role of the public versus the private sector, as well as legislative versus cultural approaches; and the necessity of complementary policies (de Spiegelaere et al., 2017).

Many experts emphasised the importance of policy design and implementation for achieving the desired objectives of the policy. One expert also called for a firmer grounding in reality to inform debates about policy design and implementation. Given the differences between EU Member States and their inhabitants, the expert argued that policymakers need to consider the local context. The same expert argued that WTR policies should also be discussed by referring to specific jobs and sectors. Two experts discussed the potential impacts of different types of WTR, depending on the unit of working time. For example, one argued that daily WTR would incentivise men to engage more in unpaid care than weekly WTR.

At the same time, experts called for deeper discussions about social values and overall societal change. This included considering ‘What do we need as a society in order to have a good life and what are the tasks that need to be done? What type of work needs to be reduced and what type of work do we actually need? What kinds of work are environmentally and socially harmful? What should we produce and what should we not produce?’ The expert who recommended this kind of reflection noted that it could also help to address broader problems with labour shortages and reallocating labour to the sectors which we need most.

### 6.2.2. Universality

A major debate that emerged was over the issue of universality of WTR. One expert strongly advocated for universality, on the basis that the alternative might increase inequality and the gender pay gap in particular. Furthermore, the expert highlighted that the absence of universality could reinforce unequal power dynamics in labour markets. For example, workers with specific skills which are particularly in demand might be able to negotiate shorter working times at the same wage. This bargaining power may not be available to workers in other occupations. Similarly, in the literature, Stronge and Harper (2019) argue for universality on the basis that an alternative approach might create a “new dualism’ between those who can afford free time and those who cannot.’ (p. 13).

However, not all experts agreed with this perspective. One argued that universality was both unnecessary and undesirable. This is because it is necessary to maintain expansion in some sectors, such as those related to care, health and services. Accordingly, WTR should be targeted towards specific problems, instead of ‘creating new ones’.

One expert also argued that such an approach could support the specific goal of reducing production and consumption. The expert called for a sectoral approach, reducing ‘working time in sectors which are environmentally destructive’. This could be reinforced by a broader discussion of what kinds of production are actually needed, as highlighted above. Moreover, the expert highlighted that to foster sustainable consumption, WTR should be complemented by environmentally friendly provisioning systems (see Section 9).

### 6.2.3. Role for the EU

Experts had differing opinions on whether the EU could contribute to the design and implementation of WTR policies. One expert argued that the EU could support WTR in a number of ways, including by creating incentives to support working less and making WTR more feasible for people with low incomes.

Another expert also highlighted that the EU is already playing a positive role by analysing the potential effects of WTR. The expert reported that the EU had recently launched a pilot project with Eurofound, which aims to ‘investigate the economic and social outcomes, including workers’ health and wellbeing, work–life balance and wages’. However, another expert was more sceptical about the role the EU could play. According to this expert, such discussions merely illustrate that WTR debates are often not grounded in reality, especially given that the EU leadership appears to be heading in a more conservative direction. The expert argued that discussions about the EU need to be more specific, by referring to different roles which could be taken on by specific EU actors.

In sum, the expert analysis, supported by the literature, suggests several key lessons for academics and policymakers regarding WTR policies. While WTR has the potential to promote social and gender equality, improve wellbeing, and reduce negative environmental impacts through its effects on production and consumption, its implementation faces significant challenges. Experts note that the impacts of WTR are uncertain and context-dependent, with potential negative effects on income, and job quality, especially without appropriate supporting policies. The feasibility of WTR varies across countries due to differences in economic conditions, political cultures, and social values. The feasibility of WTR policies depends on their design and implementation. Experts specifically recommended taking into account local contexts, specific sectors, and complementary policies. Moreover, some suggested having wider societal discussions on social values and the purpose of work. This suggests that although WTR has potential to make labour markets more sustainable, it is not a silver bullet and should be part of a more comprehensive strategy.



## 7. The potential of Universal Basic Income

While the literature has highlighted several potentially positive outcomes of UBI, there is still an ongoing debate about whether or not such a policy could in fact make a positive contribution towards social-ecological objectives (Coote, 2021). Different arguments in favour and against UBI were also made by the participants of the focus group organised in the context of this study. These are presented in the following Sections.

### 7.1. Benefits of UBI

Whereas experts generally concurred on WTR advantages – at least in theory – there was much disagreement regarding the potential benefits of implementing UBI. One of the key benefits of UBI that was emphasised is its potential to enhance people's freedom in various ways, which could subsequently result in improved social and ecological outcomes. Specifically, decoupling income from employment is considered one of the main advantages discussed in existing literature. (Afscharian et al., 2022).

For example, the experts noted that by making people less dependent on their regular income, UBI can improve overall wellbeing through increased leisure time. To be more specific, this independence has the potential to enhance the living standards of marginalised groups such as those facing poverty and social obstacles. By providing security and establishing a consistent source of income, it can help people working in precarious conditions or with irregular incomes. The emancipation of women was another example highlighted by one of the experts, as UBI can potentially make them less financially reliant on their partners.

While the experts mostly discussed potentially positive social outcomes, the literature also proposes some desirable environmental effects. Similar to the WTR discourse, proponents of UBI emphasise that this decreased dependence on paid employment would free up time for resource-light and meaningful leisure time instead of material-intensive consumption of goods (Lawhon & McCreary, 2020; Malmaeus et al., 2020). It could also reduce the supply of labour as well as associated material throughput because people would be less reliant on their regular income for satisfying basic needs (Büchs, 2021; Malmaeus et al., 2020).

Adding to this environmental debate, one expert stated that UBI could also give workers the freedom to leave brown jobs without the fear of falling into poverty. This could positively contribute to the greening of labour markets, given that the phase-out of brown jobs was highlighted by the literature as a crucial aspect to this process (Bohnenberger, 2022b).

### 7.2. Challenges of UBI

Despite the potential advantages of UBI, many experts remain sceptical about its effectiveness. Some experts believe that UBI may be ineffective or even counterproductive in achieving eco-social objectives. The very advantage of increasing people's individual freedom could also engender risks and challenges surrounding UBI. Recipients of UBI would be fully free in choosing how to spend it.

Given this lack of environmental conditionality to UBI, there is uncertainty around how people would spend this money. According to the experts, it cannot be determined whether this would lead to eco-

friendly consumption or not – which was also highlighted by the literature (McGann & Murphy, 2023). This argument highlights a parallel with the uncertain consumption-related benefits of WTR, as it cannot be guaranteed how people would spend the freed-up time.

While the UBI literature also discusses potential effects of reducing work-related consumption and thus environmental impacts (MacNeill & Vibert, 2019), this point was not raised by the focus group participants, underlining their scepticism about such an effect.

On the contrary, one expert stressed that UBI may, in fact, increase demand and lead to overconsumption. Instead of a reduction in working time (which could reduce work-related consumption and associated environmental impacts, as well as free up time for more sustainable leisure time), the additional income may lead to increased purchasing power and unsustainable consumption (see also McGann & Murphy, 2023). This, the focus group participant stressed, would have detrimental ecological outcomes and would fail to help people meet their basic needs within planetary boundaries.

Apart from risks in the ecological sphere, many experts also noted difficulties with implementing UBI for achieving social benefits. One participant noted that it was challenging to design UBI in a way that would actually reduce poverty. Rather, several experts expressed the view that there was a risk of increasing existing inequalities across several dimensions. For example, one expert argued that in a profit-oriented production and provisioning system, there was a risk that UBI would ‘land in the pockets of the powerful’. This reiterated some of the arguments related to WTR, where experts highlighted the need for broader systemic changes to realise the benefits of this policy.

Moreover, one participant mentioned that, depending on the broader social system, UBI might reduce women’s emancipation: The increased independence from jobs might result in women focusing more on family and household life instead of actively participating in society. Thus, as a result of the current gendered division of labour, UBI may even strengthen patriarchal gender roles and encourage women to leave employment (see also Robeyns, 2001).

Experts warn that implementing UBI alongside a reduction of current redistributive measures could have significant social risks. This reduction might be a political decision to fund basic income, but it could impact those who depend on existing redistributive policies. While some authors acknowledge potential poverty alleviation in the short term (Ghatak & Maniquet, 2019), the experts’ concerns are mirrored in existing studies. According to UBI critics, such a flat-rate system might occur at the cost of more socially just and targeted welfare state services (Coote, 2021).

In a similar vein, two experts noted that UBI did not reflect the lives of people living in poverty or facing other social barriers, and failed to address their real-life challenges or to effectively empower them. The complexity and diversity of human needs might not be addressed by such a flat-rate strategy. Moreover, focus group participants also criticised that the notion of UBI was very much removed from the current political reality, where even less controversial minimum income schemes are a highly disputed topic among policymakers. Another expert emphasised that UBI failed to acknowledge the cultural and societal significance attributed to employment, stressing that income was not the only reason for people to stay within (inherently resource-intensive) labour structures.

Given these different complicating factors, the potential of UBI to reduce negative environmental impacts and improve social wellbeing depends on its implications for labour supply and consumption,

which remain unclear and depend on the institutional context and policy design (MacNeill & Vibert, 2019).

### 7.3. Policy design and implementation of UBI

#### 7.3.1. Universality

The specific design of income schemes was hotly debated among the experts. The question of universality sparked much discussion, given that it was unclear whether an unconditional income for everyone would actually lead to improved human wellbeing within planetary boundaries.

One expert emphasised that the primary aim of designing UBI should be to ensure universal but equitable access to essential goods and services. This should be done while considering the limits of sustainable consumption. Another participant stressed that universality was relevant for different reasons, mainly to ensure that benefits would actually reach people. An underlying issue of existing targeted benefit schemes based on means-testing, according to the experts, was low uptake: Many people who are entitled to benefits do not claim them because the procedures are too lengthy and complicated.

Another expert mentioned that people often faced discrimination and dehumanising treatment when interacting with social security offices. This is along the lines of the pro-UBI argument that it could prevent poverty without the hurdles of bureaucracy (Malmaeus et al., 2020). The expert argued that people should receive universal, regular cash transfers. The key challenge, according to the expert, is to design a system that makes people independent of these social security offices, ensuring that they receive the income benefit without having to overcome barriers related to bureaucracy and discrimination.

However, an expert pointed out that these discriminatory issues were not restricted to social service institutions but also existed in the private sector. For example, recipients of UBI could also face discrimination when grocery shopping, i.e. when spending the cash benefit. Therefore, if the aim was to reduce discriminatory structures, UBI would not be an appropriate solution and other regulatory approaches should be considered.

A further argument in favour of the universality criterion was the assumption that universality in income schemes would foster community and mutual interest in maintaining the system. By ensuring that everyone receives the same benefits, a collective investment in the system was created. However, another expert challenged this notion, arguing that wealthy individuals often seek to dismantle the benefit system because they do not need it and view it as a burden on public resources. Still, the first expert stressed the sense of community between lower- and middle-income groups, maintaining a uniform system that serves both groups, thereby ensuring broader support and stability for the system.

Another concern regarding the universality criterion was its ability to actually meet people's basic needs. One expert noted that a UBI that allocates everyone the same level of income would need to be impossibly high to cover everyone's varying cost of living – influenced by, for example, whether households had children or were living with disabilities. This was countered by another expert saying that UBI should not replace health insurance and existing systems of provisioning that were supposed

to cover these differences. The expert also suggested that children should receive the same UBI as adults.

This discussion among the focus group participants reflects an existing debate in the UBI literature. Some authors argue that the success of UBI for eco-social benefits depends on whether UBI would complement or replace existing public services like, social insurance, healthcare and education (Bohnenberger, 2020; McGann & Murphy, 2023). However, others fear that a flat-rate system could not properly be adjusted to special needs (Coote, 2021).

To resolve distributional justice issues (rich households receiving UBI as well), it was suggested that UBI could be taxed: 'That way you can increase justice and make sure that those who really do not need the income are being taxed respectively at the end of the year.' Indeed, UBI is often proposed through the use of progressive taxation to ensure that the net purchasing power of the poor for vital goods and services is not decreased (MacNeill & Vibert, 2019; Malmaeus et al., 2020).

### 7.3.2. Unconditionality

Another fundamental aspect of UBI is the unconditional nature of the cash transfer. This means that people would receive it without needing to fulfil any prerequisites. One expert argued that the unconditionality criterion was essential to basic income schemes, as well as alternative strategies such as basic vouchers or services, to unlock the increased freedom and independence discussed in the previous Section.

However, several experts questioned the effectiveness of an unconditional policy design for environmental objectives. Pointing to the discussion around the uncertain ecological outcomes of UBI, an expert mentioned the possibility of introducing a conditionality criterion to such an income scheme, to avoid money being spent on ecologically unsustainable goods and services. At the same time, the expert acknowledged that conditionality might also come with pitfalls.

MacNeill & Vibert (2019), for example, pointed out that conditions for green consumption could be a prerequisite for receiving the funds, but that this might negate the scheme's advantage of increased personal freedom, which has been highlighted not only for ethical reasons but also to improve personal wellbeing. They also discussed the potential of providing additional funds above the basic level to people who behave in an environmentally friendly manner (MacNeill & Vibert, 2019).

### 7.3.3. Alternative income-related policies

Considering the potential challenges and drawbacks of UBI, several experts argued that a minimum income guarantee would be a better approach to achieve eco-social objectives. According to one expert, the significant disparities in income and cost of living do not morally justify a flat-rate policy, making a minimum income guarantee more appropriate.

Another focus group participant noted that reforming existing minimum income schemes was simply more realistic than implementing UBI in current political circumstances. Two experts also highlighted the role of minimum income in both enhancing the green transition and protecting from its effects. In a similar vein, another participant suggested that offering targeted incomes along with different unemployment benefits might be a more effective way to reduce consumption levels while meeting basic needs.

Other income-specific policies have also been suggested by the literature. An ecological transition income could be given only to citizens who are particularly affected by or contribute to the green transition (Bohnenberger, 2020). A participation income would require recipients to participate in socio-ecologically relevant activities, thus attaching conditionality to basic income (McGann & Murphy, 2023). François et al. (2023) discuss the potential of income caps to help satisfy people's needs and reduce the economy's environmental impact, given that large wealth and high environmental footprint often go hand in hand.

In sum, UBI encompasses both potential benefits and significant challenges. Proponents argue that UBI can increase individual freedom by decoupling income from employment, thereby improving overall wellbeing and providing financial security, especially for marginalised groups such as those in precarious working conditions or women financially dependent on their partners. It is also suggested that UBI could encourage environmentally friendly behaviours by reducing dependence on paid employment and freeing up time for sustainable leisure activities. Additionally, UBI might facilitate the transition to greener jobs by providing financial support for those leaving environmentally harmful industries.

However, most of the experts were sceptical about UBI's effectiveness in achieving eco-social objectives. There are concerns that without conditions attached, recipients may not necessarily spend the money in environmentally sustainable ways, potentially leading to increased consumption and exacerbating ecological issues.

Furthermore, some argue that UBI could inadvertently increase inequalities by failing to address the diverse needs of different populations and potentially reducing existing redistributive measures. Experts also highlighted that the implementation of UBI faces significant political and practical challenges. Given these complexities and the high level of disagreement on the potential benefits of UBI, several of the experts preferred another eco-social policy: Universal Basic Services.

## 8. The potential of Universal Basic Services

Universal Basic Services (UBS) is an additional concept that was brought forward by several participants, although it was not originally foreseen to be part of the focus group discussions (as explained in Section 5). However, it too falls within the scope of preventive eco-social protection policies (Mandelli, 2022) that could potentially induce broader societal changes to create more sustainable labour markets.

### 8.1. Benefits of UBS

UBS generally received positive feedback during the workshop, with some participants considering it as a more promising policy compared to UBI in terms of social and ecological outcomes. In the experts' view, while there may be cases where providing a basic income (for example, in the form of an unemployment benefit) would be recommended, priority should be given to providing people with accessible services that support their overall quality of life. To further support this argument, an expert provided an example of individuals residing in remote areas who require dependable public transportation services. Providing heating services was another example raised, which can be combined with incentives for heating using renewable energy sources, thereby leading to better

ecological outcomes. Overall, many experts argued that UBS were a more direct way of meeting people's basic needs than UBI.

## 8.2. Challenges of UBS

Although several experts had a favourable view towards UBS, especially compared to UBI, some expressed concerns over its effectiveness and potential impact. One expert specifically argued that while such a scheme could cover services in the areas of mobility and healthcare, individuals have further needs that would need to be supported through other means and policies. This emphasises the need for looking into the challenge in a holistic way and designing a mix of policies that would target the different needs of people.

Following a similar line of argument, another expert argued that we should not rule out the option of using UBS in complementarity with UBI, since there may be cases where UBI can address needs that cannot be covered by UBS (see Section 9). It was also suggested that it could be more politically difficult to implement UBS than WTR.

Similar to the discussion about UBI, there were doubts about whether UBS could lead to any environmental benefits. In this context, it was suggested that drawing any such conclusions would require a careful assessment of the types of services offered and their impact. In addition, one expert raised concerns about the bureaucracy entailed by such a potential scheme, while another expert pointed to the complexity of deciding which specific services should be prioritised.

## 8.3. Policy design and implementation of UBS

As with the case of UBI, a significant part of the discussion was dedicated to the design of UBS. The first key step would be to define what kind of services should be included under a UBS policy which is inherently a complex task given the plethora of services that could be considered as basic. This complexity is further accentuated by the divergent existing welfare systems across the EU Member States. A further aspect that needs to be considered in the design is how to minimise bureaucracy and avoid having a laborious scheme that will not serve peoples' needs in practice.

There was a discussion about the possibility of the community providing basic services with less state involvement in the scheme. Two inspiring examples were groups that come together to share childcare services and community energy projects. Some experts discussed the possibility of providing public service roles to local governments and non-state actors. This discussion reflects an ongoing debate in the literature on state power versus the potential of decentralisation and bottom-up approaches to provisioning systems. For example, Coote (2021) argues that citizen engagement and local action are actually crucial to the UBS framework.

In sum, several experts argued that UBS could lead to better social and ecological outcomes than UBI by emphasising sufficiency and preventing excessive consumption. During the focus group, participants highlighted the advantages of UBS in providing essential services like public transportation and renewable energy heating, which directly meet people's needs and promote sustainability.

However, experts also identified challenges with UBS, including its effectiveness and the potential complexity of implementation. While UBS can cover many basic needs, some experts argued it must

be part of a broader mix of policies to address diverse individual requirements. The political feasibility of UBS was also questioned, with concerns about bureaucracy and deciding which services to prioritise. The discussion emphasised the importance of careful policy design, minimising administrative burdens, and considering community-based approaches to service provision. Overall, experts highlighted the potential of UBS but stressed the need for holistic and context-sensitive policy frameworks to ensure its success.

## 9. Policy mix

Although there was some disagreement among the focus group participants regarding the specific choice and design of eco-social policies, they generally concurred that a combination of policies would be needed to achieve the objective of more sustainable labour markets. It was suggested by three experts that these policy combinations should be needs-based, i.e. aiming to cover different human needs given that one single policy was unlikely to be all-encompassing.

As discussed above, most experts agreed that WTR on its own and in itself was not sufficient to deliver on its desired social and environmental objectives. As a result, they proposed supporting policies that would supplement the implementation of WTR. To achieve favourable environmental outcomes, one expert suggested utilising environmentally friendly provisioning systems to promote sustainable consumption, given the possibility that workers with more free time due to WTR policies might still engage in environmentally harmful consumption practices. These recommendations are supported by the literature. For example, Kallis et al. (2013) argue that environmental benefits are highly dependent on supporting policies and conditions which will prevent time being allocated to environmentally harmful consumption.

One expert proposed to combine a general WTR with targeted incomes or UBI. This argument is also raised in the literature (Gerold et al., 2023). By reducing the dependence on paid employment, UBI could enable people to reduce their working hours and engage more with meaningful activities outside of formal employment. A similar argument has been proposed for combining WTR with UBS (Gerold et al., 2023; Stronge and Harper, 2019).

On the social side, one expert called for further measures to ensure that WTR would not increase inequality and pressure on workers. In general, however, experts merely highlighted the importance of such supporting policies, without discussing their details. Similarly, studies have emphasised the needs for additional policies to ensure that wages do not fall significantly as a result of WTR (Stronge and Harper, 2019). Beyond calling for supporting policies, one expert also suggested that discussions about WTR were an *opportunity* to implement further social changes, such as fairer wage distributions and minimum wage floors.

On the debate between UBI and UBS, a focus group participant highlighted that UBS could only cover basic needs in certain sectors, whereas cash transfers may be preferable in others. In this regard, one expert emphasised the importance of deciding ‘what are the kind of needs that we seek to meet through giving people money and what are the ones that we see through other means.’ There is an ongoing debate in the literature on whether and how UBI and UBS could be combined with each other. While some authors argue that it would be possible to combine UBS with a partial UBI at lower level of income that contributes to satisfying needs (see, e.g. Büchs, 2021), others question its feasibility, arguing that a focus on individual income and high levels of taxation might lead to financial competition and threaten the public provision of services (Coote, 2021).

Although the focus group generally agreed that policies based on money might be necessary to meet certain needs, opinions diverged on the specific policy. As mentioned earlier in the discussion on UBI, one expert suggested combining UBI with social security systems to cater to more specific needs. Another participant instead proposed non-general-purpose currencies (i.e. only usable within predetermined contexts that are not ecologically destructive) in addition with a minimum income guarantee as a transitional policy.

One expert made a very concrete suggestion on combining four different measures to achieve human wellbeing within planetary boundaries: (1) An intervention on the labour side in the form of working time reductions, but also a stronger public-sector provision of jobs in terms of eco-social job guarantees that could improve wages and working conditions as well; (2) an intervention in terms of cash transfer, which could take the form of UBI or of a more needs-dependent provision such as a minimum income guarantee; (3) An intervention on the cost-of-living side through public service provision and price controls (e.g. on rent); and (4) a fundamental rethinking of profit orientation and ownership structures in the private sector. While acknowledging that the last point, in particular, was not a small task, the expert wanted to emphasise that labour markets and cost of living were crucially affected by this paradigm of profit orientation and that economic democracy was a potentially interesting way of questioning the current system.

Another expert noted that any eco-social policy needed to consider the geography of work (see Wiedenhofer et al., 2023), given that work is among the main causes of mobility. The expert stated, 'I think an eco-social labour policy would need to turn around this question, to actually bring the work to the people and not the people to the work.' To achieve this, a different set of economic policies and active industrial policies were needed. The participant stressed that this could remove pressure from provisioning mobility and reduce emissions. Moreover, since the green transition likely induces geographical changes anyway, it would be important to guide such a process in a socio-ecologically beneficial way.

## 10. Conclusions

Labour markets shape production systems and consumption patterns, both of which are major contributors to the climate and ecological emergencies. In addition, labour markets play a crucial role in structuring people's lives. Thus, they could be pivotal in enhancing human wellbeing and reducing environmental impacts simultaneously. However, despite the EU just transition's aim to address the social impacts of environmental policies, efforts to create greener and more equal society are often fragmented.

Current environmental policies that aim to create more sustainable labour markets often prioritise technological innovations in production processes. However, we argue that we should not solely rely on technological advancements, but should also promote *social* innovations in the labour market structures that affect the social-ecological impacts of human production and consumption. In this regard, income and working time have emerged as crucial levers.

However, social policies are largely compensatory and reactive, aiming to mitigate the impacts of the green transition on employment by providing retraining and upskilling opportunities. This narrow approach often overlooks other more climate friendly jobs in crucial sectors like education and healthcare (as well as the importance of work that exists outside of formal labour market structures).



Moreover, it may fail to properly address the potentially increasing inequalities in labour markets induced by the green transition. As a result, there have been calls from authors to complement the compensatory and reactive approach to interlinked social-ecological issues with more integrated and preventive policies. These policies have the potential to induce social innovation, which is needed for broader societal change.

The field of sustainable welfare advocates for holistic welfare state reforms to balance wellbeing, social justice, and environmental limits. The existing literature proposes various eco-social policies aimed at developing more sustainable labour markets, which enhance people's wellbeing while reducing the environmental impacts of work. These policies aim to address the dual challenges of more sustainable and equitable production and consumption by integrating ecological considerations into social welfare frameworks. By promoting sustainable welfare, such policies encourage creating more sustainable labour markets that allow meeting human needs within planetary boundaries.

### 10.1. The potential of eco-social policies for creating sustainable labour markets

Given the existing bias towards reactive welfare policies, we decided to investigate 'preventive eco-social protection policies' following the classification of eco-social policies proposed by Mandelli (2022). These policies aim to reduce the ecological footprint of welfare states, thus preventing environmental degradation and related social risks. They also aim to compensate for risks and redistributing opportunities arising from ecological aspects. Specifically, this paper explores the potential of three different eco-social policies, Working Time Reduction (WTR), Universal Basic Income (UBI), and Universal Basic Services (UBS), to foster sustainable labour markets. We analysed the benefits, challenges, and policy design of these policies through desk research and a focus group consisting of nine experts in the field of eco-social or labour market policies.

WTR is seen as a potentially valuable policy for creating improvements in work–life balance, stress levels, and gender equality. Environmentally, WTR has the potential to decrease production and consumption alongside their ecological impacts – but existing evidence on social-ecological benefits remains inconsistent. Experts emphasised that the success of WTR depends on careful policy design, local context consideration, and supporting measures to maximise its positive impacts. However, the implementation of WTR policies faces significant challenges, such as labour shortages, varying national contexts, and political resistance. Moreover, achieving sustainable consumption through WTR requires complementary policies and broader societal changes. Experts, therefore, called for a deeper discussion on societal values and the essential nature of work. The EU's role in supporting WTR was debated, with some experts advocating for EU-level incentives and analysis, while others questioned the EU's capacity to influence WTR policy effectively.

Even more debated among the experts, UBI exhibits both potential benefits and significant challenges. Proponents argued that UBI can enhance individual freedom by decoupling income from employment, thereby improving overall wellbeing. They also suggested that UBI could promote environmentally friendly behaviour by reducing dependence on paid work, allowing more time for sustainable activities, and supporting transitions to greener jobs. However, many experts were sceptical about UBI's potential for creating sustainable labour markets. Concerns included the risk of increased consumption without environmental conditions, potentially worsening ecological issues, and the possibility of exacerbating inequalities by not addressing diverse needs or undermining existing redistributive measures. Political and practical challenges of implementing UBI were also noted. Therefore, some experts suggested alternative income-related policies such as minimum

income guarantees and ecological transition incomes, or Universal Basic Services, which may be better suited to achieving sustainable welfare goals.

Advocates in the focus group argued that UBS could yield better social and ecological outcomes than UBI by emphasising sufficiency and preventing excessive consumption. Moreover, through providing essential services, UBS could directly meet people's needs and promote sustainability. However, challenges debated by the experts included the complexity of implementation and the question of ensuring effectiveness. Experts suggested that UBS must be part of a broader policy mix to address diverse needs and questioned its political feasibility due to potential bureaucracy issues. Overall, experts saw potential in UBS but emphasised the need for holistic and context-sensitive policy design.

Overall, there was no consensus on the specifics of different policies regarding their potential to create more sustainable labour markets. However, most experts appeared to favour WTR if design challenges could be overcome. The debate around UBI and UBS was more complex, with no agreement on which of the two policies would be preferable (or whether they might be combined). Ultimately, it was suggested that a combination of different policies would best address people's needs, thus improving wellbeing, while also creating more sustainable labour markets.

## 10.2. Future avenues for research and policy action

Our analysis highlights the need for further research in a range of areas. First, the experts' diverging opinions on potential benefits and disadvantages of the analysed policies suggest that more clarity is needed. This specifically relates to the effects that WTR and UBI have on consumption. While many agreed on the positive environmental effects of these policies on the production side, mainly through reducing overall hours worked, it is still uncertain how WTR and UBI, specifically, would impact on individual consumption behaviour and related ecological outcomes. This uncertainty has also been highlighted by existing research, emphasising the need for both further empirical research and policy pilot projects. These pilot projects could also be useful for studying the effects of different policy design options, given that the experts also disagreed on key design criteria, such as universality.

Furthermore, more research is needed on the potential combinations of different eco-social policies, such as WTR, UBI and UBS. Our analysis has shown that synergies may be unlocked through implementing several policies at once, as these may be mutually reinforcing. At the same time, there are concerns that trade-offs between policies could hamper their individual potential for achieving more sustainable labour markets. Beyond combining eco-social policy proposals, the more innovative policies studied in this paper could also complement existing social policy. Future research could further substantiate these interrelated effects, leading to the development of a policy mix that synergistically fosters positive eco-social outcomes.

To determine the individual roles of actors in eco-social policy implementation, more research should be conducted to account for their distinct preferences, constraints, and competencies. Additionally, it is necessary to investigate the impact of economic and political differences within and among Member States and explore strategies for customising eco-social policies to fit the unique contexts of different locales. At the EU level, research should explore the specific roles that different EU actors can play, in order to remain grounded in existing political realities and competences.

Our research already suggests potential avenues for policy action to create more sustainable labour markets that enhance human wellbeing within planetary boundaries. Member States have a primary

role to play in implementing eco-social policies. However, their diverse economic, historical and political contexts shape their preferences and constraints when it comes to implementing eco-social policies. To make eco-social policies more inclusive and fair, policymakers should prioritise addressing the needs of vulnerable groups, such as those facing social barriers or those who are in unstable employment. This would ensure that these policies are widely accepted and feasible without creating additional pressure on citizens.

Furthermore, Member States could begin by reassessing current social policies through an eco-social lens. For instance, despite the challenges associated with UBI, policymakers could explore alternative social policies such as minimum wage guarantees. They could also reevaluate the current understanding of 'green jobs' by taking into account the ideas presented in eco-social policies, which highlight the interconnection between the environment and society. Additionally, they should consider the significance of job quality and leisure time in ensuring the sustainability of work.

Despite the EU's more limited social policy competences and some experts' scepticism about political will at the EU level, opportunities exist for the EU to support greater understanding and implementation of eco-social policies. In the short term, the EU could build on existing frameworks, notably those focusing on skills development and social protection, by integrating elements of eco-social policies. This could help make the broader concept of eco-social policies more feasible and acceptable. However, as the literature argues, the EU should move beyond reactive and compensatory approaches as part of a more transformative and integrated just transition approach.

As a first step, this could involve mainstreaming eco-social policy goals across various EU initiatives. Moreover, the EU could coordinate and fund pilot projects aimed at enhancing wellbeing within planetary boundaries, building on existing successful initiatives. These could include projects on WTR, UBI, UBS, and hybrid policy combinations. This would have the dual benefit of promoting better understanding of the benefits and challenges of eco-social policies and making them more acceptable to workers and European citizens.

As highlighted above, entrenched political and intellectual trajectories at the Member State level may pose further challenges for policy implementation. In this context, the EU has the potential to play a role in navigating differences across Member States and promoting dialogue on eco-social policies. For instance, the EU could incentivise and support the implementation of WTR, especially in low-income settings.

Although less explicitly discussed by the experts, the EU might also support advancing UBI and UBS policies, for example by exploring ways to mitigate gender inequality risks and support greater alignment of welfare standards across Member States. These approaches could be supported by providing transnational platforms for Member States to engage on these issues. Given the experts' emphasis that further debate is needed on the importance of work and the value of different forms of production, such platforms could provide opportunities for broader discussion. Such discourse could help to facilitate a transition towards more innovative labour market structures and transformative welfare systems that will support the green initiative.

Finally, our research is linked to the more fundamental discussion about the future of welfare states. It may seem overly optimistic to talk about the best way to offer such ambitious sustainable welfare support as we have considered in this report, especially at a time when welfare states are already struggling to resolve current societal challenges. Nevertheless, the growing complexity of social-

ecological crises means that efforts by researchers and policymakers alike will be needed to increase resilience and provide welfare for people within planetary boundaries. Our report suggests that eco-social policies present a promising approach for initiating such transformative change, thus making them worthy of further attention.

## References

Afscharian, D., Muliavka, V., Ostrowski, M. S., & Siegel, L. (2022), 'The state of the UBI debate: Mapping the arguments for and against UBI', *Basic Income Studies*, Vol. 17, No 2, pp. 213-237.

Åkerstedt, T., Olsson, B., Ingre, M., Holmgren, M., & Kecklund, G. (2001), 'A 6-hour working day-- effects on health and well-being', *J Hum Ergol (Tokyo)*, Vol. 30, No 1-2, pp. 197-202.

Akgüç, M., Arabadjieva, K., & Galgoczi, B. (2022), 'Why the EU's patchy 'just transition' framework is not up to meeting its climate ambitions', *SSRN Electronic Journal*.

Alcidi, C. (2022), 'Towards a Socially Just Green Transition: The Role of Welfare States and Public Finances', in Cerniglia, F., & Saraceno, F. (ed.), *Greening Europe: 2022 European public investment outlook*, Open Book Publishers, Cambridge, UK, pp. 187-200.

Antal, M., Lehmann, B., Guimaraes, T., Halmos, A., & Lukács, B. (2024), 'Shorter hours wanted? A systematic review of working-time preferences and outcomes', *International Labour Review*, Vol. 163, No 1, pp. 25-47.

Bohnenberger, K. (2020), 'Money, vouchers, public infrastructures? A framework for sustainable welfare benefits', *Sustainability*, Vol. 12 No 2, p. 596.

Bohnenberger, K. (2022a), 'Greening work: Labor market policies for the environment', *Empirica*, Vol. 49, No 2, pp. 347-368.

Bohnenberger, K. (2022b), 'Is it a green or brown job? A taxonomy of sustainable employment', *Ecological Economics*, Volume 200.

Bohnenberger, K. (2023), 'Peaks and gaps in eco-social policy and sustainable welfare: A systematic literature map of the research landscape', *European Journal of Social Security*, Volume 25, No 4, pp. 328-346.

Braun, V., & Clarke, V. (2006), 'Using thematic analysis in psychology', *Qualitative Research in Psychology*, Vol. 3, No 2, pp. 77-101.

Büchs, M. (2021), 'Sustainable welfare: How do universal basic income and universal basic services compare?', *Ecological Economics*, Vol. 189.

Büchs, M., & Koch, M. (2017), *Postgrowth and wellbeing*, Springer International Publishing, Cham, Switzerland.

Celasun, O., Sher, G., Topalova, P., & Zhou, J. (2023), 'Cars and the Green Transition: Challenges and Opportunities for European Workers', IMF Working Paper No. 116, IMF, June.

Clark, T., Foster, L., Sloan, L., & Bryman, A. (2021), *Bryman's social research methods*, Oxford University Press, Oxford.

- Cieplinski, A., D'Alessandro, S., & Guarnieri, P. (2021), 'Environmental impacts of productivity-led working time reduction', *Ecological Economics*, Vol. 179.
- Crespy, A., & Munta, M. (2023), 'Lost in transition? Social justice and the politics of the EU green transition', *Transfer: European Review of Labour and Research*, Vol. 29, No 2, pp. 235-251.
- Coote, A. (2021), 'Universal basic services and sustainable consumption', *Sustainability: Science, Practice and Policy*, Vol. 17 No 1, pp. 32–46.
- De Spiegelare, S., & Piasna, A. (2017), *The why and the how of working time reduction*, ETUI, Brussels.
- Devetter, F.-X., & Rousseau, S. (2011), 'Working hours and sustainable development', *Review of Social Economy*, Vol. 69, No 3, pp. 333-355.
- Ding, J., & Hirvilammi, T. (2024), 'Three pillars of just transition labour market policies', *Contemporary Social Science*, Vol. 19, pp. 244-261.
- Dukelow, F., & Murphy, M. P. (2022), 'Building the future from the present: Imagining post-growth, post-productivist ecosocial policy', *Journal of Social Policy*, Vol. 51, No 3, pp. 504-518.
- European Commission, (2014), *The Green Employment Initiative*, COM(2014) 446 final, Brussels, 2 July.
- European Commission, (2019), *The European Green Deal*, Communication, COM(2019) 640 final, Brussels, 11 November.
- European Commission, (2020), 'The European Green Deal Investment Plan and Just Transition Mechanism explained', European Commission, Press Corner, 14 January.
- European Commission (2023a), *A Green Deal Industrial Plan for the Net-Zero Age*, Communication, COM(2023) 62 final, Brussels, 1 February.
- European Commission (2023b), *Labour market and wage developments in Europe – Annual review 2023*, Publications Office of the European Union, Luxembourg.
- European Parliament and Council (2003), *Directive (EU) 2003/88 concerning certain aspects of the organisation of working time*, Brussels.
- European Parliament and Council, (2023), *Directive (EU) 2023/2413, amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652*, Brussels.
- Fischer, A.R.H., Wentholt, M.T.A., Rowe, G., & Frewer, L.J. (2014), 'Expert involvement in policy development: A systematic review of current practice', *Science and Public Policy*, Vol. 41, No 3, pp. 332-343.
- François, M., Mertens De Wilmars, S., & Maréchal, K. (2023), 'Unlocking the potential of income and wealth caps in post-growth transformation: A framework for improving policy design', *Ecological Economics*, Vol. 208.

- Fragkos, P. & Paroussos, L. (2018), 'Employment creation in EU related to renewables expansion', *Applied Energy*, Vol. 230.
- Fritz, M., & Lee, J. (2023), 'Introduction to the special issue: Tackling inequality and providing sustainable welfare through eco-social policies', *European Journal of Social Security*, Vol. 25, No 4, pp. 315-327.
- Galgóczi, B. (2019), 'Introductory overview: Two faces of (a) just transition: The coal story and the car story' in Galgóczi, B. (ed.), *Towards a just transition: coal, cars and the world of work*, ETUI, Brussels, pp. 7-29.
- García-García, P., Buendía, L., & Carpintero, Ó. (2022), 'Welfare regimes as enablers of just energy transitions: Revisiting and testing the hypothesis of synergy for Europe', *Ecological Economics*, Vol. 197.
- Gerold, S., Hoffmann, M., & Aigner, E. (2023), 'Towards a critical understanding of work in ecological economics: A postwork perspective', *Ecological Economics*, Vol. 212.
- Ghatak, M., & Maniquet, F. (2019), 'Universal Basic Income: Some Theoretical Aspects', *Annual Review of Economics*, Vol. 11 No 1, pp. 895-928.
- Godinho, C. (2022), 'What do we know about the employment impacts of climate policies? A review of the ex post literature', *WIREs Climate Change*, Vol. 14 No 11,
- Gough, I. (2015), 'Climate change and sustainable welfare: The centrality of human needs', *Cambridge Journal of Economics*, Vol. 39, No 5, pp. 1191-1214.
- Gough, I. (2017), *Heat, greed and human need: Climate change, capitalism and sustainable wellbeing*, Edward Elgar Publishing, Cheltenham, UK.
- Gough, I. (2019), 'Universal Basic Services: A theoretical and moral framework', *The Political Quarterly*, Vol. 90, No 3, pp. 534-542.
- Graziano, P. (2024), 'The politics of the EU eco-social policies', *European Political Science*, Vol. 23, No 1, pp. 27-38.
- Haraldsson, G. D., & Kellam, J. (2021), *Going public: Iceland's journey to a shorter working week*, Alda and Autonomy, June.
- Haskell, L., Bonnedahl, K.J. and Stål, H.I. (2021), 'Social innovation related to ecological crises: A systematic literature review and a research agenda for strong sustainability', *Journal of Cleaner Production*, Vol. 325, 129316.
- Heiskala, R. and Hämäläinen, T.J. (2007), 'Introduction: Historical transformation challenges established structures', In: *Social innovations, institutional change and economic performance*, Edward Elgar Publishing.
- Hirvilammi, T., & Helne, T. (2014), 'Changing paradigms: A sketch for sustainable wellbeing and ecosocial policy', *Sustainability*, Vol. 6, No 4, pp. 2160-2175.
- Hoffmann, M., & Paulsen, R. (2020), 'Resolving the 'jobs-environment-dilemma'? The case for critiques of work in sustainability research', *Environmental Sociology*, Vol. 6, No 4, pp. 343-354.

- ILO. (2019), *Working on a warmer planet: The impact of heat stress on labour productivity and decent work*, ILO, Geneva.
- Janser, M. (2018), *The greening of jobs: Empirical studies on the relationship between environmental sustainability and the labor market*, Doctoral Dissertation, Otto-Friedrich-Universität Bamberg, Fakultät Sozial-und Wirtschaftswissenschaften.
- Janta, B., Kritikos, E., & Clack, T. (2023), *The green transition in the labour market: How to ensure equal access to green skills across education and training systems*, EENE Analytical Report, Publications Office of the European Commission, Luxemburg.
- Kallis, G., Kalush, M., O'Flynn, H., Rossiter, J., & Ashford, N. (2013), *"Friday off": Reducing working hours in Europe*, *Sustainability*, Vol. 5, No 4, pp. 1545-1567.
- King, L.W., & Van den Bergh, J.C.J.M. (2017), *Worktime reduction as a solution to climate change: Five scenarios compared for the UK*, *Ecological Economics*, Vol. 132, pp. 124-134.
- Kizu, T., Mahmud, T., Saget, C., & Strietska-Ilina, O. (2018), *Skills for the green transition*, *World Employment and Social Outlook*, Vol. 2018 No 2, pp. 129-155.
- Knight, K.W., Rosa, E.A., & Schor, J.B. (2013), *Could working less reduce pressures on the environment? A cross-national panel analysis of OECD countries, 1970-2007*, *Global Environmental Change*, Vol. 23, pp. 691-700.
- Koch, M. (2018), *Sustainable welfare, degrowth and eco-social policies in Europe* in Vanhercke, B., Ghailani, D., & Sabato, S. (2023), *Social policy in the European Union: state of play 2018*, ETUI, pp. 35-50
- Koch, M., Buch-Hansen, H., & Fritz, M. (2017), *Shifting priorities in degrowth research: An argument for the centrality of human needs*, *Ecological Economics*, Vol. 138, pp. 74-81.
- Koch, M., Gullberg, A. T., Schoyen, M. A., & Hvinden, B. (2016), *Sustainable welfare in the EU: Promoting synergies between climate and social policies*, *Critical Social Policy*, Vol. 36, No 4, pp. 704-715.
- Koch, M., & Mont, O. (2016), *Sustainability and the political economy of welfare*, Routledge, Abingdon, UK.
- Kongshøj, K. (2023), *Social policy in a future of degrowth? Challenges for decommodification, commoning and public support*, *Humanities and Social Sciences Communications*, Vol. 10, No 1.
- Kreinin, H. (2020), *Typologies of "Just Transitions": Towards social-ecological transformation*, Vienna: WU Vienna University of Economics and Business, Ecological Economic Papers, No. 35.
- Kreinin, H., & Aigner, E. (2022), *From "decent work and economic growth" to "sustainable work and economic degrowth": A new framework for SDG 8*, *Empirica*, Vol. 49, No 2, pp. 281-311.
- Kulmann, K., Küpper, D., Schmidt, M., Wree, K., Strack, R., & Kolo, P. (2021), *Is E-mobility of green boost for European automotive jobs?*, BCG, August.

- Kyriazi, A., & Miró, J. (2023), 'Towards a socially fair green transition in the EU? An analysis of the Just Transition Fund using the Multiple Streams Framework', *Comparative European Politics*, Vol. 21, No 1, pp. 112-132.
- Laruffa, F. (2022), 'The dilemma of “sustainable welfare” and the problem of the future in capacitating social policy', *Sustainability: Science, Practice and Policy*, Vol. 18, No 1, pp. 822-836.
- Laurent, E. (2021), 'The European Green Deal: From growth strategy to social-ecological transition?', In Vanhercke, B., Spasova, S., & Fronteddu, B. (Eds.), *Social policy in the European Union: state of play 2020. Facing the pandemic. Twenty-first annual report*, ETUI, OSE, Brussels, pp. 97-113.
- Lawhon, M., & McCreary, T. (2020), 'Beyond jobs vs environment: On the potential of universal basic income to reconfigure environmental politics', *Antipode*, Vol. 52, No 2, pp. 452-474.
- Lewis, K., Stronge, W., Kellam, J., Kikuchi, L., (2023), *The results are in: The UK's four-day week pilot*, Autonomy.
- Lukács, B., & Antal, M. (2023), 'The practical feasibility of working time reduction: Do we have sufficient data?', *Ecological Economics*, Vol. 204.
- MacNeill, T., & Vibert, A. (2019), 'Universal basic income and the natural environment: Theory and policy', *Basic Income Studies*, Vol. 14, No 1.
- Malmaeus, M., Alfredsson, E., & Birnbaum, S. (2020), 'Basic income and social sustainability in post-growth economies', *Basic Income Studies*, Vol. 15, No 1.
- Mandelli, M. (2022), 'Understanding eco-social policies: A proposed definition and typology', *Transfer: European Review of Labour and Research*, Vol. 28, No 3, pp. 333-348.
- Manzano, A., (2023), 'Focus Groups', in Revillard, A., (Ed.), *Policy Evaluation: Methods and Approaches*, Éditions science et bien commun, Quebec City.
- Markandya, A., Arto, I., González-Eguino, M., Román, M.V., (2016), 'Towards a green energy economy? Tracking the employment effects of low-carbon technologies in the European Union', *Applied Energy*, 179, pp..1342-1350.
- McGann, M., & Murphy, M. P. (2023), 'Income support in an eco-social state: The case for participation income', *Social Policy and Society*, Vol. 22, No 1, pp. 16-30.
- Morgan, D.L., Scannell, A.U., (1998), *Planning focus groups*, SAGE.
- Mullens, F., Glorieux, I., (2024), 'Reducing working hours: shorter days or fewer days per week? Insights from a 30-hour workweek experiment', *Cambridge Journal of Economics*, 48(1), pp.41-68.
- OECD (2024), *OECD Employment Outlook 2024: The Net-Zero Transition and the Labour Market*, OECD Publishing, Paris.
- O'Neill, D. W., Fanning, A. L., Lamb, W. F., & Steinberger, J. K. (2018), 'A good life for all within planetary boundaries', *Nature Sustainability*, Vol. 1, No 2, pp. 88-95.



- Ortega, M., Río, P.D., Ruiz, P., Nijs, W., Politis, S., (2020), 'Analysing the influence of trade, technology learning and policy on the employment prospects of wind and solar energy deployment: The EU case', *Renewable and Sustainable Energy Reviews*, Vol. 122, No 3.
- Ostrom, E. (2009), 'A general framework for analyzing sustainability of social-ecological systems', *Science*, Vol. 325, No 5939, pp. 419-422.
- Petit, M., Sirenko, M., Obersteiner, M., (2024), 'Expected labour market effects of the green deal industrial plan', FEPS Policy Study, FEPS, April.
- Petmesidou, M., Guillén, A.M., (2022), 'Europe's green, digital and demographic transition: a social policy research perspective', *Transfer: European Review of Labour and Research*, Vol. 28, No 3, pp. 317-332.
- Pullinger, M., (2014), 'Working time reduction policy in a sustainable economy: Criteria and options for its design', *Ecological Economics*, 103, pp.11-19.
- Raworth, K. (2017), *Doughnut economics: Seven ways to think like a 21st century economist*, Chelsea Green Publishing, US.
- Ritchie, J., Lewis, J., (2003), *Qualitative research practice: a guide for social science students and researchers*, SAGE.
- Robeyns, I. (2001), 'Will a basic income do justice to women? A contribution to the symposium on P. Van Parijs's "Real Freedom for All"', *Analyse & Kritik*, Vol. 23, No 1, pp. 88-105.
- Rockström, J., Steffen, W., Noone, K., Persson, Å., Chaplin III, F. S., Lambin, E., Lenton, T. M., Scheffer, M., Folke, C., Schellnhuber, H. J., Nykvist, B., & et al. (2009), 'Planetary boundaries: Exploring the safe operating space for humanity', *Ecology and Society*, Vol. 14, No 2.
- Sabato, S., Fronteddu, B., (2020), *A socially just transition through the European Green Deal?*, ETUI Research Paper – Working Paper No 8, ETUI, Brussels, September.
- Sabato, S., Mandelli, M., (2024), 'Towards an EU framework for a just transition: welfare policies and politics for the socio-ecological transition', *European Political Science*, Vol. 23, No 1, pp.14-26.
- Saunders, M., Lewis, P., Thornhill, A., (2009), *Research Methods for Business Students*, Pearson Education Limited, Edinburgh.
- Stamm, I., Matthies, A.-L., Hirvilammi, T., & Närhi, K. (2020), 'Combining labour market and unemployment policies with environmental sustainability? A cross-national study on ecosocial innovations', *Journal of International and Comparative Social Policy*, Vol. 36, No 1, pp. 42-56.
- Stanef-Puică, M.-R., Badea, L., Şerban-Oprescu, G.-L., Şerban-Oprescu, A.-T., Frâncu, L.-G., & Creţu, A. (2022), 'Green jobs—A literature review', *International Journal of Environmental Research and Public Health*, Vol. 19, No 13.
- Stephanus, C., & Vero, J. (2024), 'Reskilling and inequalities of capabilities in France: How socio-economic groups matter', In M. Milana, P. Rasmussen, & M. Bussi (Eds.), *Research Handbook on Adult Education Policy*, pp. 242–256, Edward Elgar Publishing.

Stronge, W., Harper, A., (2019), *The Shorter Working Week: A Radical and Pragmatic Proposal*, Autonomy, January.

Tamba, M., Krause, J., Weitzel, M., Ioan, R., Duboz, L., Grosso, M., Vandyck, T., (2022), 'Economy-wide impacts of road transport electrification in the EU', *Technological Forecasting and Social Change*, Vol. 182.

UNEP, ILO, IOE, & ITUC. (2008), *Green jobs: Towards decent work in a sustainable, low-carbon world*, Publishing Services Section United Nations Office, Nairobi.

Urban, P., Rizos, V., Ounnas, A., Kassab, A., & Kalantaryan, H. (2023), *Jobs for the green transition: Definitions, classifications and emerging trends*, CEPS In-Depth Analysis No 12, CEPS, Brussels, September.

U.S. Bureau of Labor statistics, 'Measuring green jobs', <https://www.bls.gov/green/>

Vandeplass, A., Vanyolos, I., Mauro, V., & Vogel, L., (2022), *The Possible Implications of the Green Transition for the EU Labour Market*, European Commission Discussion Paper No 167, Publication office of the European Union, Luxembourg, December.

Vogel, J., Steinberger, J. K., O'Neill, D. W., Lamb, W. F., & Krishnakumar, J. (2021), 'Socio-economic conditions for satisfying human needs at low energy use: An international analysis of social provisioning', *Global Environmental Change*, Vol. 69, 102287.

Wiedenhofer, D., Plank, B., & Antal, M. (2023), *Declining Household Greenhouse Gas Footprints in Germany: Decomposing the Contributions of Working Time, Consumption, Mobility, Energy Efficiency and Decarbonization between 2000 – 2019*, Preprint.

4 Day Week Global, <https://www.4dayweek.com>

## Annex I

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About the TransEuroWorkS project



TransEuroWorkS is a multi-disciplinary EU-funded research project that conducts analysis and policy recommendations for the future world of European work and social protection. It will provide new, more integrative understandings of how fundamental changes to the labour market and European context can be better and more proactively managed through national and European Union (EU) level social protection policies. At the centre of TransEuroWorkS are three critical structural labour market transformations: green transition and decarbonisation, technological change, and the internationalisation of the workforce. For more information, see <https://transeuroworks.eu/>.



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