



**GREEN DEAL &
GENDER EQUALITY**



Gender Equality Index 2023

Towards a green transition in transport and energy

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Gender Equality Index 2023

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European Institute for Gender Equality

We are an independent centre and the primary source for information on gender equality in the European Union. We contribute to making the European Union become a Union of Equality, where women and men, girls and boys in all their diversity are free to pursue their chosen path in life, have equal opportunities to thrive, and can equally participate in and lead our societies.

EIGE's unique expert knowledge, research, data and tools help policy makers design measures that are inclusive, transformative and promote gender equality in all areas of life. We communicate our expertise effectively and work closely with partners in order to raise awareness at the EU and national levels, as well as in EU candidate countries and potential candidate countries.

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Abbreviations

EU Member State codes

BE	Belgium
BG	Bulgaria
CZ	Czechia
DK	Denmark
DE	Germany
EE	Estonia
IE	Ireland
EL	Greece
ES	Spain
FR	France
HR	Croatia
IT	Italy
CY	Cyprus
LV	Latvia
LT	Lithuania
LU	Luxembourg
HU	Hungary
MT	Malta
NL	Netherlands
AT	Austria
PL	Poland
PT	Portugal
RO	Romania
SI	Slovenia
SK	Slovakia
FI	Finland
SE	Sweden
EU	27 EU Member States

Other country codes

UK	United Kingdom
US	United States of America

Frequently used abbreviations

CEO	Chief Executive Officer
COVID-19	Coronavirus disease 2019
ECEC	Early childhood education and care
EHIS	European Health Interview Survey
EIGE	European Institute for Gender Equality
EIGE WMID	EIGE Women and Men in Decision-Making database
EQLS	European Quality of Life Survey
EU-LFS	European Union Labour Force Survey
Eurofound	European Foundation for the Improvement of Living and Working Conditions
EU-SILC	European Union Statistics on Income and Living Conditions
Eurostat	European Statistical Office
EWCS	European Working Conditions Survey
FGM	Female genital mutilation
FRA	European Union Agency for Fundamental Rights
FTE	Full-time equivalent
ICT	Information and communications technology
ILO	International Labour Organization
IOM	International Organization for Migration
LGBTQI*¹	Lesbian, Gay, Bisexual, Trans, Queer, Intersex
LTC	Long-term care
MEPs	Members of the European Parliament
OECD	Organisation for Economic Co-operation and Development
pp	Percentage Point(s)
PPS	Purchasing Power Standard
PSTD	Post-traumatic stress disorder
SDGs	Sustainable Development Goals
STEM	Science, Technology, Engineering and Mathematics
UN	United Nations
VAW II	Survey on violence against women
WHO	World Health Organization

Note on numerical data

Numerical data in the report are rounded to whole numbers; therefore, small differences in the percentages cited may not show and may not add up to 100 %.

(¹) This report uses the acronym LGBTQI* as it represents the most inclusive umbrella term for people whose sexual orientation differs from heteronormativity and whose gender identity falls outside binary categories. The language used to represent this very heterogeneous group continuously evolves towards greater inclusion, and different actors and institutions have adopted different versions of the acronym (LGBT, LGBTIQ and LGBTQI). The report uses institutions' chosen acronyms when describing the results of their work.

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Gender Equality Index 2023 highlights

- The Gender Equality Index for the European Union (EU) has surpassed 70 points for the first time, showing a growth of 1.6 points since 2022. This increase in the overall EU score is the highest year-on-year rise since the first edition of the Index in 2013. This was primarily due to the update of the domain of time, the first such update since 2016, enabled by the European Institute for Gender Equality (EIGE) 2022 survey on gender gaps in unpaid care, individual and social activities.
- Gender inequalities have grown in economic situation, time spent in social activities, health status and access to healthcare, while some progress in gender equality is achieved in time spent in care activities, segregation and quality of work, participation in decision-making in the economic sphere, and attainment and participation in education.
- Convergence analysis shows a mean improvement in gender equality, accompanied by a decline in disparities among Member States for the period 2010-2021. Despite their different starting points, 15 Member States (BE, BG, DK, IE, EL, HR, IT, CY, LT, MT, NL, PT, SI, FI and SE) have come closer to the EU average over time. The remaining 12 Member States (CZ, DE, EE, ES, FR, LV, LU, HU, AT, PL, RO and SK) have increased their distance from the EU average.
- While full-time equivalent (FTE) employment rates are consistently lower for women, gender gaps are particularly high among couples with children (-26 percentage points (pp)), single women and men (-24 pp), individuals with low education (-20 pp), and those born abroad (-20pp).
- The green transition is set to drive innovation and structural change towards a more environmentally friendly economy and society. However, the gains and costs of adjustment are likely to be unequally distributed (European Commission, 2022e). Most job growth towards green transition is expected in sectors currently dominated by men and may therefore increase inequality between women and men if a gender perspective is not considered. A fair and socially sustainable green transition must account for these aspects.

Domain of money

- The domain of money remains the second-highest ranked Gender Equality Index domain, with a score of 82.6 points. After years of standstill, the domain shows signs of regress in gender equality in economic situation (-0.4 points). This reflects the setbacks predicted due to the consequences of the COVID-19 pandemic, but also warns of possibly longer-lasting consequences for gender inequalities in income.
- Large gender disparities in gross monthly earnings show that women not only struggle to access paid work, but also earn less when they are employed. Women's earnings account to less than 70 % of men's earnings, with the largest gaps observed among the highly educated, those aged 50-64, and those in couples with children. This reflects the strong negative income impact of vertical
- The domain of work has improved slightly and has the third-highest score (73.8 points) in the Gender Equality Index. However, in the EU, gender inequalities in the workforce prevail and gender segregation remains a significant feature of the labour market. Women continue to occupy jobs in sectors with lower remuneration levels, fewer career prospects, and fewer options for upskilling.

Domain of work

gender segregation in the labour market, as well as income penalties stemming from women taking on significant shares of unpaid care duties across the life course.

- Gender gaps in income underpin several other inequality dimensions, such as transport. Limited access to transport or to certain modes of transport can hinder access to employment, education and essential services and thus reinforce gender gaps in poverty and social exclusion. Gender stereotypes play a particularly strong role in men's better access to and use of a car, especially when the car is shared within the household. Gender segregation in the labour market largely explains women's more limited access to low-carbon vehicles. Although women use public transport systems more than men, limited affordability, accessibility, and reliability of public transport systems may restrict their income opportunities, especially in rural areas and/or for those with care responsibilities.

Domain of knowledge

- The score in the domain of knowledge, although relatively high at 63.6 points, has remained quite stable, increasing by +1.1 points compared to the Gender Equality Index 2022. The slight progress is driven entirely by increases in the sub-domain of participation and attainment in education (+2.5 pp), as gender segregation has been stalling.
- Across almost all groups, women tend to be more engaged than men in life-long education and training. Participation in formal and non-formal education and training decreases sharply with age: both women (74 %) and men (69 %) in the 15-24 age group are engaged in education and training, dropping to 15 % (women) and 13 % (men) in the 25-49 age group and decreasing further in later years. Both foreign-born women and men (15 % and 14 %, respectively) are less engaged in life-long education and training compared to native-born women (19 %) and men (18 %).

- The green transition is expected to increase the demand for science, technology, engineering and mathematics (STEM)-educated individuals, as innovation towards a carbon-neutral economy requires highly technical skills. Women are still underrepresented in these educational fields, making them less likely to take advantage of these emerging labour opportunities.

Domain of time

- The domain of time, updated with 2022 data, remains the third lowest-scoring domain of the Gender Equality Index, with a score of 68.5. That low score is largely determined by gender inequalities in social activities, as well as the enduring gender gap in time devoted to housework. However, the sub-domain of care activities shows an improvement of 9.6 points, primarily due to women's lower engagement in unpaid care and housework overall, rather than men's higher participation in such activities.
- The 2022 EIGE survey data on women's and men's involvement in unpaid care shows that more women (34 %) than men (25 %) – both in general and belonging to different groups – are engaged in everyday caring for others. Even higher inequalities are visible in cooking and housework activities, where 63 % of women and 36 % of men report engaging in such work every day. The highest share of women and men with care and housework responsibilities is in the 25-49 age group, i.e. the group most likely to have children.
- Unequal distribution of unpaid care and housework activities within households not only leads to different energy consumption patterns (carbon footprint), but also shapes willingness and capacity to adopt more eco-friendly behaviours. According to the EIGE survey, a higher share of women (59 %) than men (53 %) indicate regularly choosing environmentally friendly options in their housework tasks, such as recycling, using eco-friendly cleaning products, and using renewable energy to reduce carbon

emissions. Younger women and men are more likely to choose environmentally friendly options while providing unpaid care, and particularly while spending their leisure time.

Domain of power

- The domain of power has made most progress among all domains since 2010 (17.2 points), propelling change in gender equality. Nevertheless, it still has the lowest domain score, at 59.1 points, with uneven progress towards equality in decision-making across the EU Member States. Women remain significantly underrepresented in political life (in 2023, 33 % of members of the single/lower house of national parliaments in the EU are women). The EU average masks considerable variation between Member States: despite overall improvements, setbacks in the domain of power took place in eight countries compared to the last Gender Equality Index.
- The gender imbalance does not solely characterise political decision-making, but also broader political participation. According to 2022 EIGE survey data on gender gaps in care, individual and social activities, men are more likely than women to participate in political activities (13 % of men vs 10 % of women), such as contributing to a political campaign, signing a petition, protesting, or contacting an official. Among politically active respondents, men are more likely than women to take part in political life more frequently.
- As climate change continues to unfold and intensify threats to livelihoods worldwide, decision makers such as government officials and influential scientific bodies hold significant responsibility. As of 2022, women in the EU continue to be underrepresented in decision-making on matters concerning the environment and climate change. In addition, a gender perspective is often lacking in related decisions, for instance in the policy areas of transport and energy.

Domain of health

- The domain of health tops the Gender Equality Index 2023, with a score of 88.5 points, a marginal decrease compared to the Index 2022. Lack of progress in gender equality in health status and access to health services contribute to stalling results.
- Excessive alcohol consumption is a key public health issue in the EU and one that disproportionately affects men, across age and education groups. Overall, 11 % of women and 26 % of men in the EU are engaged in harmful drinking behaviour. Prevalence is higher among certain groups, with 31 % of men aged 15-24 and 36 % of men aged 25-34 regularly engaging in heavy episodic drinking. For women, the prevalence of harmful drinking is highest among young women aged 15-24 years (19 %). Research shows that the COVID-19 pandemic increased and solidified drinking patterns among those engaged in harmful drinking.
- Climate change is having profound negative effects on women's and men's health, both directly and indirectly. High rates of urban and aging populations, persistent socioeconomic inequalities, and high prevalence of non-communicable diseases mean that the EU population is highly exposed to health hazards caused by rising temperatures and extreme weather events. Older women are at particular risk of dying from extreme heat. Heatwaves are also negatively affecting the mental health of women and men, exacerbating the severity of mental health issues.

Domain of violence

- In 2021, Eurostat recorded 720 women victims of homicide by a family member or an intimate partner in 17 EU Member States. Data on gender-based violence continues to be scarce and lacks comparability in the EU. Clear, comprehensive, and systematic definitions of all forms of violence against women and girls are crucial for informed decision-making.

- Times of crisis exacerbate gender-based violence, with conflict settings increasing women's vulnerability and exposure to violence. Climate change heightens existing structural inequalities and acts as a risk multiplier: the climate crisis aggravates all types of gender-based violence, including physical, sexual, psychological, and economic violence, especially in the context of intimate partner violence.
- In 2017, the EU signed the Council of Europe Convention on preventing and combating violence against women and domestic violence (the Istanbul Convention). After six years of discussions, the EU formally acceded to the Istanbul Convention in June 2023. EU accession is a strong symbolic commitment and paves the way to improve the legal situation for victims of violence.

Thematic focus

- The EU policy framework of the European Green Deal and other relevant policy (the EU Gender Equality Strategy 2020-2025 and the Recovery and Resilience Facility) puts forward ambitions to incorporate gender and intersecting (in)equalities goals in the green transition, but specific gender measures and systematic gender mainstreaming could be strengthened.
- Gender and intersecting inequalities shape the way in which individuals contribute to, are impacted by climate change, as well as get the opportunity to participate in the labour force and decision-making around the green transition.
 - Gender and income influence contribution to climate change in the form of carbon emission. Higher-income individuals, among which men are overrepresented, tend to produce more carbon emissions through their consumption.
 - EIGE survey data shows that women are slightly more likely to engage in environmentally friendly behaviour with 'avoiding

animal products' and 'avoiding plastic' showing the greatest gender gaps, respectively at 8 and 7 p.p. difference.

- Although evidence seems to suggest that (young) women are at the forefront of climate activism and that women's participation in corporate boards and research is associated with positive results for the green transition, they remain underrepresented in decision-making spaces. For example, in November 2022 in EU MS, only 32 % of government ministers responsible for environmental and climate change policies were women. Also, only 14 % of ministers with responsibilities for transport (under infrastructure) are women. In terms of energy decision-making, women's presence shows a mixed picture. At ministerial level, EIGE's data from November 2022 shows that 43 % of senior ministers with responsibilities for energy in EU Member States are women (EIGE, 2023f). However, in September 2022, the representation of women in national parliamentary committees working on energy was of 29 %. Women were also significantly underrepresented in the parliamentary committees tasked with considering policy issues and scrutinising government action in relation to transport, with women making up just 27 % of members in September 2022. In May 2023, the top positions can be considered gender balanced, as women account for four of the nine Commissioners (44 %) and five of the ten Director-Generals (50 %). Nevertheless, the heads of cabinets were mainly men, with only 22 % headed by women. Also, in international decision-making spaces concerned with climate change, women are underrepresented.
- Encouraging more sustainable energy use among households is key to EU's energy transition goals. It requires an overall reduction of energy consumption as well as more flexible use of energy, including 'load-shifting', which can increase the mental load associated with household and care tasks. In the current context of unequal distribution of unpaid domestic work, this could aggravate women's care burden. Gender influences

also households' decisions on energy-efficiency investments with men being slightly more likely than women to undertake energy-investments, particularly in the high-cost energy efficiency investments.

- Energy poverty is strongly influenced by the existing economic and social inequalities, whereby low income, demographic characteristics, the policy framework, social support mechanisms and the quality of housing, shape who is exposed to energy poverty. Data from Eurofound shows that the majority of lone parents (49 % of lone fathers and 44 % of lone mothers) were anticipating difficulties paying utility bills (electricity, water and gas) (Eurofound, 2022a). For many with lower incomes, higher energy prices can lead to indebtedness, and eventually to disconnection from energy services, 6 % of general population in EU had arrears on their utility bills in 2021 and as many as 13 % of single mothers.
- Developing a competitive and sustainable transport system that reduces the impact on environment and climate is key to a gender-equal green transition. Women and men have diverse travel patterns, resulting in different use of sustainable transport options and, thus, differential contributions to emissions. EIGE data shows that women are slightly more likely than men to opt for low carbon-emission modes of transport on a daily basis (22 % of women and 19 % of men). To go to work on a typical week, 66 % of women and 70 % of men in the EU report using a car among their top three options. Women are more likely than men to walk (46 % versus 43 %) and to use public transportation (34 % versus 29 % for male respondents).
- Affordability of a private car and public transport remain important issues. Women, older people, people with disabilities, people with low income, marginalised ethnic groups and people living in rural and remote areas, are often at a higher risk of transport poverty due to limited transport affordability, availability, and accessibility. As the prices of low-carbon private cars remain too high for most people in the EU, affordability of low-carbon transport is an even greater concern.
- New mobility concepts, such as most notably 'sharing concepts', including car-, ride-, bike- or e-scooter sharing, are expected to reduce users' reliance on an individual car alone and enable them to meet their travelling needs through the combination of multiple, more sustainable mode choices. However, these modes, often being largely concentrated in city centres and unsuitable for carrying certain baggage (such as strollers or mobility devices), are only suitable for people of a certain age, physical ability, and height, mostly excluding older people. As such, they do not necessarily capture the needs of more diverse transport users, including those with care responsibilities.
- Women's contribution to the transport and energy sectors is still largely untapped. With 22 % of the EU transport workers and 24 % of energy sector employees being women, both sectors are still male-dominated and marked by persistent horizontal and vertical gender segregation. For example, in the EU electricity and gas sector, only 20 % of women compared to 34 % of men are employed in supervisory positions. In transport women are slightly more likely than men to hold supervisory responsibilities with 19 % of women employees and 17 % of men in supervisory positions. This average masks important variations by education levels with the likelihood of supervisory responsibilities among women increasing with education levels. The ongoing process of the energy transition, and towards low-carbon transport systems provides new opportunities for a more inclusive workforce. It also calls for more dynamic efforts to attract and retain women workers to both sectors.
- The socially fair transition, including its gender aspects, is not yet reflected in the European statistical system. To date, there are relatively few indicators specifically covering social impacts of the green transition, let alone on gender equality in the EU. EIGE's

suggested scoreboard revolves around four aspects of a gender-sensitive approach to monitoring the leading aspects of the green transition in the EU namely i) public attitudes and behaviours on climate change

and mitigation, ii) energy and transport use iii) Employment in energy and transport sectors; and iv) representation of women in decision-making in climate change, energy, and transport.

Introduction

In recent years, the world has been hit by repeated shocks and multiple crises. The COVID-19 pandemic prompted a global crisis in health and care, the Russian war of aggression in Ukraine has precipitated an influx of refugees, mostly women and children, and a cost-of-living crisis, while climate disasters are increasing in frequency and severity. What remains constant is the fact that when crisis strikes, women and girls suffer disproportionately. They endure an unequal position in society and thus have fewer resources to withstand the impact of upheavals. The crises and shocks continuously threaten to create new challenges and reverse years of progress on women's rights and gender equality.

The Gender Equality Index 2023 presents the EU in relation to gender equality amid crises and uncertainties. For the first time, it incorporates EIGE 2022 survey data on gender gaps in care, individual, and social activities. This data sheds new light on the domain of time, which has not been updated since 2016. The time domain measures gender inequalities in the allocation of time to care, domestic work and social activities, and is characterised by persistent lack of progress and growing inequality. The unequal distribution of paid and unpaid work is considered one of the root causes of gender inequality in society as a whole and in the labour market in particular. As a result, the time domain is closely interconnected with other domains, such as work, knowledge, power, and money, making up-to-date and regular data on time use crucial for better understanding and interpretation of the overall gender (in)equality dynamics measured by the Index. From now on, this recurring survey data will improve the capacity of the Index to capture changes in the time domain regularly and in a conceptually sound and coherent way.

The thematic focus of the Gender Equality Index 2023 is the European Green Deal's socially fair transition and its implications for gender equality. Climate change and environmental degradation are among the main existential threats to Europe and the world. The links between gender

and the environment have been extensively documented, showing different consumption patterns and carbon emissions between women and men, the gendered impact of pollution, the female face of energy poverty, and the risk of a widening gender gap in the green job market, for example (Birgi et al., 2021; EIGE, 2012; Greens, 2021; Kaijser and Kronsell, 2014; Poortinga et al., 2019). Despite being an all-encompassing, comprehensive and transformative policy agenda, the European Green Deal takes a weak stand on gender equality. This report seeks to strengthen the knowledge base on the impact of the green transition towards a low carbon society from a gender and intersectional perspective. It focuses on two specific priority sectors of the European Green Deal's socially fair transition, namely energy and transportation. For each of these sectors, the thematic focus includes an analysis of gender differences in contributions to the sector as users and as workers, including: decision-making; impact of the sector on efforts to reach gender equality and women's economic independence; environmental behaviours and attitudes of diverse groups of women and men; and gender equality concerns and opportunities of the digital transition in the sector. The broader gendered impacts of climate change, for example on health, violence against women, or gender differences in eco-activism, are also very pertinent.

Chapter 1 presents the results of the Gender Equality Index 2023, together with key trends since 2010 and since the 2022 edition. The convergence analysis reveals an evolution in the disparities in gender equality across the Member States and provides a broader context for the main findings. Chapters 2-7 summarise the policy context, key outcomes of core domains, and climate change-related challenges for gender equality. Developments in the domain of violence are covered in Chapter 8, while the thematic focus on the socially fair green transition is explored in Chapter 9. More detailed information on the Gender Equality Index 2023, including country-level data and analysis, is available on EIGE's dedicated webpage, at: <https://eige.europa.eu/gender-equality-index/2023>.

1. Gender equality in the EU at a glance

1.1. New data on time use shows gender equality surpasses 70 points

This edition of the Gender Equality Index records how EU gender equality fared in 2021, which is the reference year for most of the indicators that make up the Index ⁽²⁾.

The average score for the 27 EU Member States is 70.2 points out of 100 (Figure 1). This is a moderate improvement of 1.6 points from last year, representing the highest year-on-year rise since the first edition of the Index in 2013. Since 2010, this overall score has increased by 7.1 points, mainly driven by the very positive evolution of the domain of power in the last decade (17.2 points higher than in 2010).

However, power is the domain that registers the lowest score, at only 59.1 points, 1.9 points higher than the previous year, primarily due to progress in women's participation in economic decision-making (+2.6 points in one year) (Figure 2). This domain has the greatest heterogeneity of scores across countries.

The domain of knowledge has the second-lowest score, at 63.6 points. It shows a rise of 1.1 points in one year and 3.8 points since 2010. Much of those results reflect the continuing deep gender divides in some fields of study in tertiary education in several Member States.

After six years without new data, this edition of the Index updates the domain of time, based on the EIGE's survey on gender gaps in unpaid care, individual and social activities. The score is 68.5 points, 3.6 points higher than the previously available value (2015/2016 data). That progress stems primarily from increased gender equality in unpaid work (+9.6 points), while gender balance in participation in social activities has declined, on average (-1.3 points). The evolution of this domain differs significantly across countries.

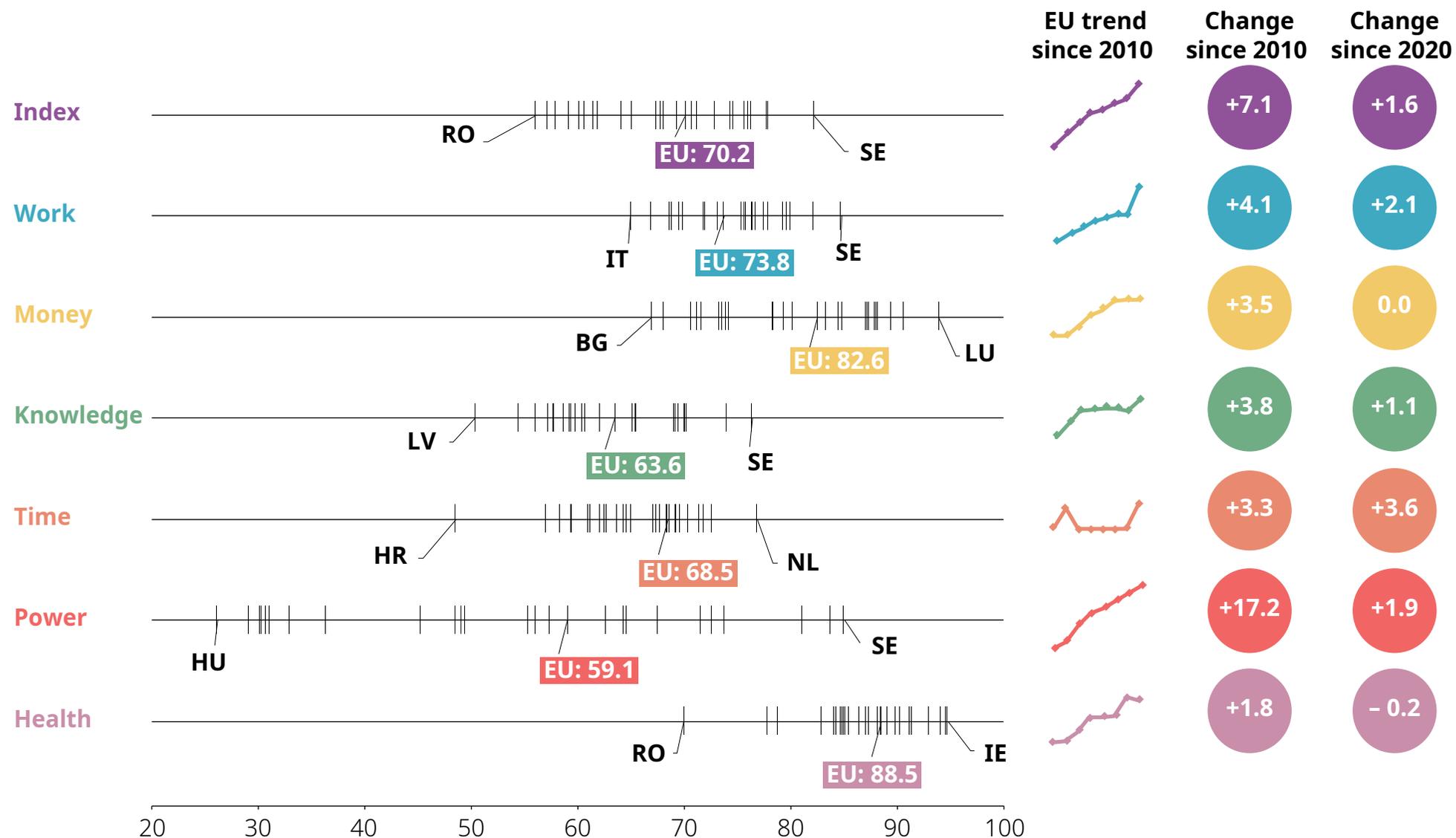
The domain of work scores 73.8 points, increasing by 2.1 points in one year and by 4.1 points since 2010. This reveals persistent challenges for all Member States, with deeply entrenched gender inequalities in participation in the labour market, segregation, and quality of work.

The domain of money, despite having the second highest score, at 82.6 points, is stagnant and reflects fragile progress in the sub-domain of financial resources (+0.3 points in one year) and a worsening in economic situation (-0.4 points). This domain spotlights the incremental overall progress of 3.5 points since 2010.

The domain of health scores 88.5 points, continuing the trend of ranking highest of all domains in the Index. Nevertheless, it is the only domain that shows a decline since the previous edition (-0.2 points) and has made least progress since 2010 (+1.8 points).

⁽²⁾ Several EU-wide surveys used in the computation of the Index have recently undergone changes, necessitating a study of the possible impact of these changes on the Index and on the interpretation of the corresponding time series. Annex 4 details the changes in some of the sources that feed the Index, as well as the statistical analysis carried out to study their impact. The main conclusion is that despite the resulting break in time series, the time series analysis is considered adequate. The interpretation of the time series can be maintained, as the indicators affected by the changes have not significantly changed their distribution and have only a low impact on the Index scores and ranks.

Figure 1. Ranges of Gender Equality Index 2023* scores for Member States, and changes over time

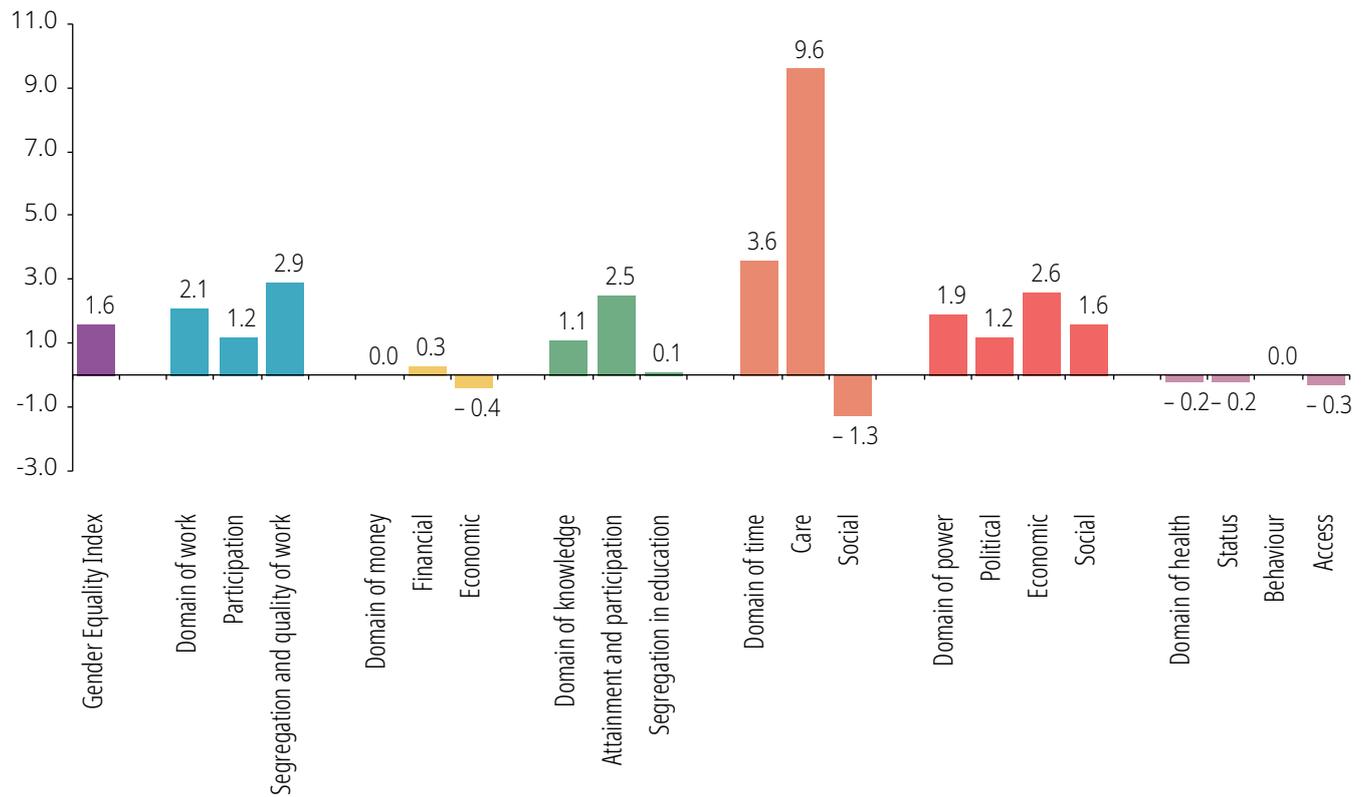


Source: Authors' calculations.

Note: Break in time series in the domains of work, knowledge, and time, due to methodological changes in the source of data (EU Labour Force Survey (EU-LFS), European Working Conditions Telephone Survey (EWCTS), EIGE survey data on gender gaps in care, individual and social activities), see Annex 4.

* Index 2023 uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective.

Figure 2. Changes in scores by domain and sub-domain since Gender Equality Index 2022



Source: Authors' calculations.

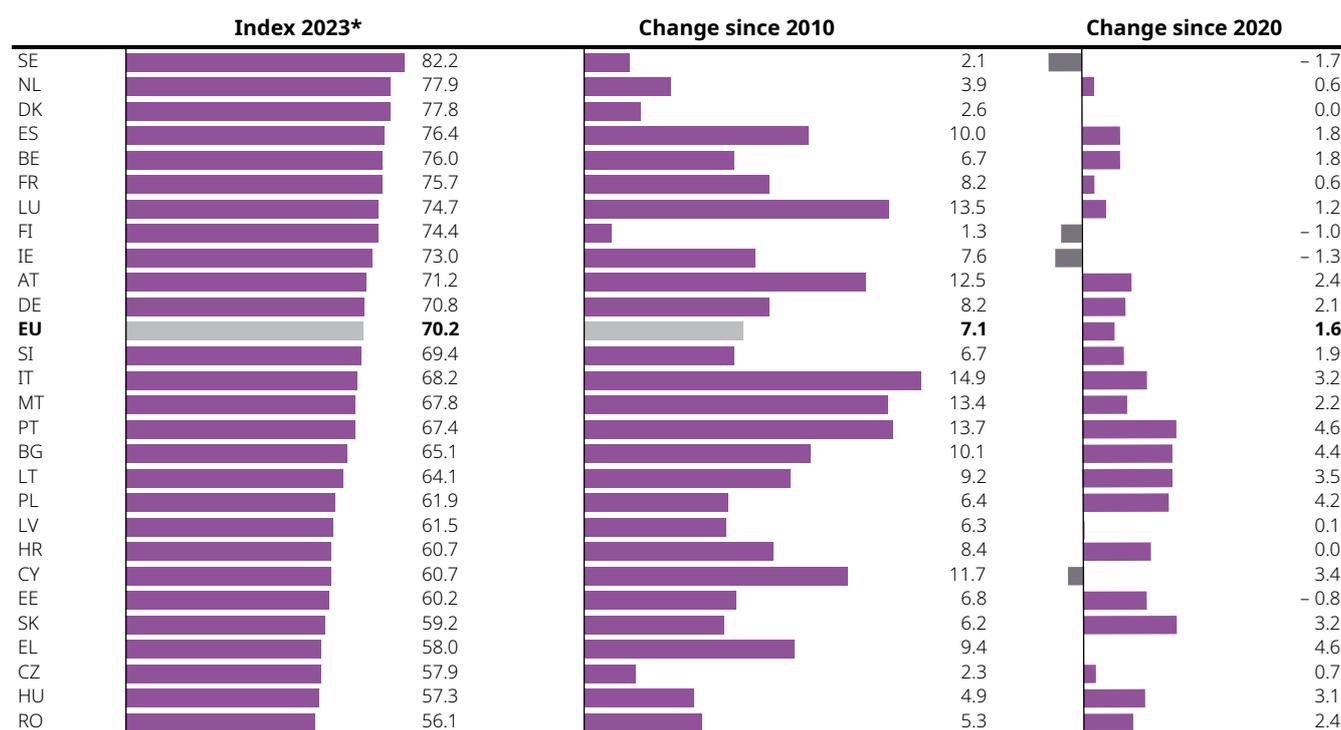
Note: Break in time series in the domains of work, knowledge, and time, due to methodological changes in the source of data (EU-LFS, EWCTS, EIGE survey data on gender gaps in care, individual and social activities), see Annex 4.

1.2. Only 2 % of the EU population is in the home stretch to achieve gender equality

The analysis of the Gender Equality Index by country (Figure 3) shows considerable variability in both the scores and the time evolution. Eleven countries are above the EU average, with Sweden continuing to lead the ranking. With an Index of 82.2, Sweden is the only country to exceed 80 points, meaning that only 2.3 % of the EU population is close to living in a gender equal society. However, Sweden is one of the few countries to register a drop in the last year and is also one of the countries with the lowest growth since 2010. The Netherlands and Denmark occupy the next positions in the ranking, while fourth position is held by Spain, which, with an Index score of 76.4 points, moves ahead of France and Finland for the first time.

Five Member States score below 60 points, with Romania, Hungary and Czechia struggling most to advance gender equality. Romania and Hungary each dropped one place, due to the significant three-place gain of Greece.

The substantial heterogeneity in performance across countries and domains (Table 1) highlights opportunities for progress. The biggest year-on-year changes are in the domain of time, which was expected, given that previously available data was from 2016. Interestingly, the 'most improved' countries are not always best positioned in the rank. Romania, Poland, Portugal, Bulgaria and Greece have increased their time score by around 20 points, while Estonia, Denmark, Ireland and Sweden see their scores reduce by between 10 and 18 points. Improvements in the time domain account for 33 % of the progress in overall gender equality between 2020 and 2021.

Figure 3. Gender Equality Index 2023

Source: Authors' calculations.

Note: Break in time series in the domains of work, knowledge, and time, due to methodological changes in the source of data (EU-LFS, EWCTS, EIGE survey data on gender gaps in care, individual and social activities), see [Annex 4](#).

* Index 2023 uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective.

The rise of women in decision-making is a key driver of gender equality generally, explaining 26 % of improvements in the Index. Since 2020, the share of women in decision-making roles has increased in 19 Member States, with Italy (+5.8 points), Malta (+4.9 points), Luxembourg (+4.8 points) and Belgium and Denmark (+4.6 points each) experiencing the highest rises. However, eight Member States (Romania, Latvia, Estonia, Cyprus, Finland, Slovakia, Bulgaria and Croatia) show a drop in the share of women in decision-making in this period.

Since the 2022 Index, the score for the domain of work has increased by 2.1 points in the EU, reflecting gains by nearly all Member States. Progress is most evident in Hungary (+9 points), Cyprus (+6.6 points) and Slovakia (+5.4 points). Only Austria (-0.8 points), Romania (-0.3 points), Belgium (-0.1 points) and Ireland (-0.1 points) show reversals. Improvements in this domain contribute to nearly one-quarter (23.9 %) of the annual progress on the Index.

Progress in the knowledge domain contributes 15.9 % of the growth in the Gender Equality Index since 2022. Almost all EU countries have improved their scores, with Cyprus (+7.7 points), Malta (+4.9 points) and Slovenia (+4.7 points) showing the greatest increases in performance. Only three countries have seen their scores fall: Finland (-1.0 points), France (-0.3 points) and Denmark (-0.1 points).

Although scores in the domain of money have grown since 2010, progress all but stalled across the EU in 2021. Seventeen Member States show gains, with Germany (+3.6 points) and Bulgaria (+2.0 points) registering the largest increases, and another ten countries seeing their scores fall by between 0.1 and 1.3 points.

The domain of health has the most negative impact on the Gender Equality Index, accounting for a reduction of 0.8 % in its score. Seventeen Member States show worsening inequalities compared to the previous year, with Denmark and Sweden suffering the biggest setbacks (-0.9 and -0.7 points, respectively).

Table 1. Changes in the Gender Equality Index 2023 and domain scores since Index 2022 (points), and contribution of different domains to Gender Equality Index progress scores (%)

MS	Changes in score (points)							MS	Contribution to changes (%)					
	Index	Work	Money	Knowledge	Time	Power	Health		Work	Money	Knowledge	Time	Power	Health
EU	1.6	2.1	0.0	1.1	3.6	1.9	-0.2	EU	23.7	-0.1	16.0	33.4	26.1	-0.8
BE	1.8	-0.1	0.9	4.0	-0.6	4.6	0.0	BE	-1.1	5.3	42.9	-5.2	45.6	0.0
BG	4.4	0.7	2.0	1.6	21.1	-0.3	-0.2	BG	2.8	6.4	8.8	80.5	-1.1	-0.4
CZ	0.7	1.8	0.4	0.9	-0.3	0.5	0.0	CZ	39.9	6.7	25.7	-4.4	22.8	-0.5
DK	0.0	2.6	1.0	-0.1	-10.4	4.6	-0.9	DK	15.2	4.0	-0.8	-47.6	29.9	-2.6
DE	2.1	3.9	3.6	1.4	0.0	2.8	-0.2	DE	32.8	21.6	18.8	0.1	26.2	-0.6
EE	-0.8	4.8	-0.3	0.4	-10.3	-1.0	0.1	EE	29.1	-1.3	3.8	-51.7	-13.7	0.4
IE	-1.3	-0.1	0.5	1.4	-14.7	3.0	-0.2	IE	-0.2	1.6	9.1	-69.5	19.3	-0.3
EL	4.6	3.1	-1.1	1.5	22.4	1.6	-0.3	EL	10.4	-2.9	7.0	67.2	12.2	-0.4
ES	1.8	1.8	-0.4	1.7	6.4	0.5	-0.5	ES	17.6	-2.8	20.7	52.9	4.1	-2.0
FR	0.6	0.0	0.2	-0.3	1.4	2.1	-0.3	FR	0.3	3.8	-10.9	29.8	51.4	-3.8
HR	0.0	2.4	-0.5	0.8	-2.4	-0.2	-0.3	HR	34.7	-5.6	16.1	-37.6	-4.6	-1.4
IT	3.2	1.8	-0.2	1.3	8.1	5.8	0.2	IT	11.4	-0.9	9.6	39.0	38.6	0.5
CY	3.4	6.6	0.2	7.7	7.1	-0.9	0.1	CY	24.8	0.6	38.6	27.2	-8.6	0.2
LV	0.1	2.2	-1.3	2.7	-3.2	-1.8	-0.4	LV	16.0	-8.1	34.3	-20.7	-19.4	-1.5
LT	3.5	1.8	0.8	1.7	11.5	3.2	0.2	LT	8.5	3.4	11.4	52.9	23.4	0.4
LU	1.2	3.3	1.3	1.4	-6.3	4.7	0.0	LU	19.1	5.0	9.8	-32.6	33.4	0.0
HU	3.1	9.0	0.2	0.8	6.9	1.4	-0.1	HU	43.3	0.6	5.4	31.3	19.0	-0.3
MT	2.2	3.0	-0.3	4.9	-4.8	4.9	-0.4	MT	13.0	-0.8	27.5	-19.8	38.0	-0.9
NL	0.6	0.6	1.5	2.1	-7.0	3.8	0.0	NL	4.4	7.8	20.0	-37.5	30.2	-0.1
AT	2.4	-0.8	0.7	1.6	7.2	3.7	0.1	AT	-5.0	3.4	13.9	42.5	34.9	0.4
PL	4.2	2.3	0.3	1.9	19.0	2.0	0.8	PL	9.1	0.8	10.0	63.3	15.6	1.2
PT	4.6	3.1	-1.1	2.0	20.3	1.9	-0.4	PT	10.6	-3.1	10.0	67.2	8.4	-0.6
RO	2.4	-0.3	0.4	2.2	18.9	-1.9	-0.4	RO	-1.3	1.5	13.1	66.0	-17.3	-0.8
SI	1.9	2.4	0.6	4.7	-3.6	2.8	-0.4	SI	14.9	2.7	40.9	-17.2	23.1	-1.2
SK	3.2	5.4	-0.6	1.2	14.7	-0.3	-0.1	SK	23.9	-2.1	6.8	63.2	-3.8	-0.2
FI	-1.0	2.6	-0.1	-1.0	-7.7	-0.4	0.5	FI	23.4	-0.8	-13.0	-56.8	-4.1	2.0
SE	-1.7	1.8	1.3	1.8	-18.2	0.5	-0.7	SE	8.9	5.0	11.3	-71.0	2.3	-1.5

Source: Authors' calculations.

Note: Break in time series in the domains of work, knowledge, and time, due to methodological changes in the source of data (EU-LFS, EWCTS, EIGE survey data on gender gaps in care, individual and social activities), see [Annex 4](#).

1.3. EU countries continue their trend of upward convergence

Analysis of the longer-term developments of the overall Gender Equality Index and its variability across Member States shows a mean improvement in the Index, accompanied by a decline in variation for the period 2010-2021. This means that differences between Member

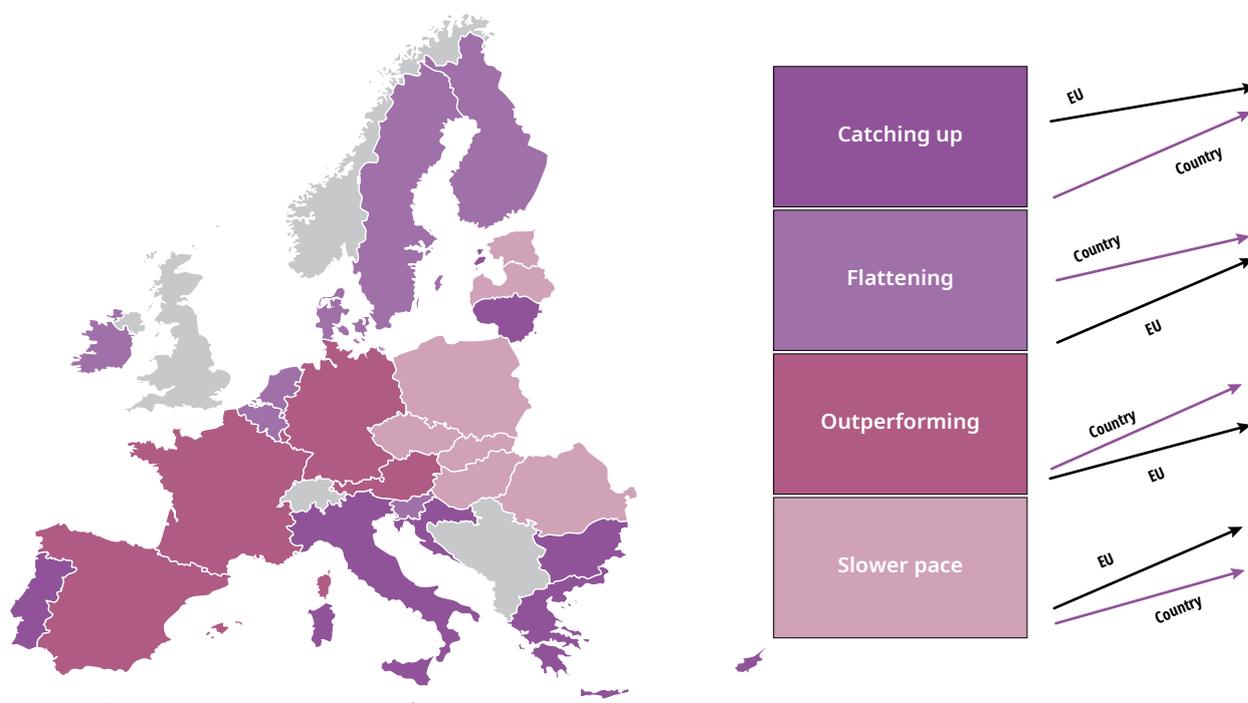
States are decreasing, pointing to a trend of upward convergence.

Comparing each country's trend against the EU average shows patterns of convergence and divergence at Member State level. Between 2010-2021, the following patterns are evident (Figure 4):

1. **Catching-up** – Bulgaria, Cyprus, Greece, Croatia, Italy, Lithuania, Malta and Portugal have Index scores lower than the EU average but with faster improvements, reducing the gap between them over time.
2. **Flattening** – Belgium, Denmark, Finland, Ireland, the Netherlands, Sweden, and Slovenia have improved their Index scores. Their gender equality levels are higher than the EU average but their progress is slower than the EU average. As a result, gaps between these countries and the EU have narrowed over time.
3. **Outperforming** – Austria, Germany, Spain, France and Luxembourg perform better than the EU average on gender equality and progress more rapidly. Consequently, the gap between them and the EU is widening.
4. **Slower pace** – Czechia, Estonia, Hungary, Latvia, Poland, Romania, and Slovakia have improved their Gender Equality Index scores but are consistently and significantly lower than the EU average. In addition, their progress in gender equality is slower, ensuring growing disparities with the EU over time.

Altogether, upward convergence is evident in 15 Member States with catching-up and flattening tendencies, while the remaining 12 Member States display various trends of upward divergence. Figure 5 shows the evolution of Index scores at Member State level over the past 11 years, compared to the EU unweighted mean, and the emergence of different patterns. Most recently, for example from 2015 to 2017, different patterns have emerged for some Member States. Generally, countries with lower levels of gender equality are progressing more quickly, while top-performing countries are slowing down.

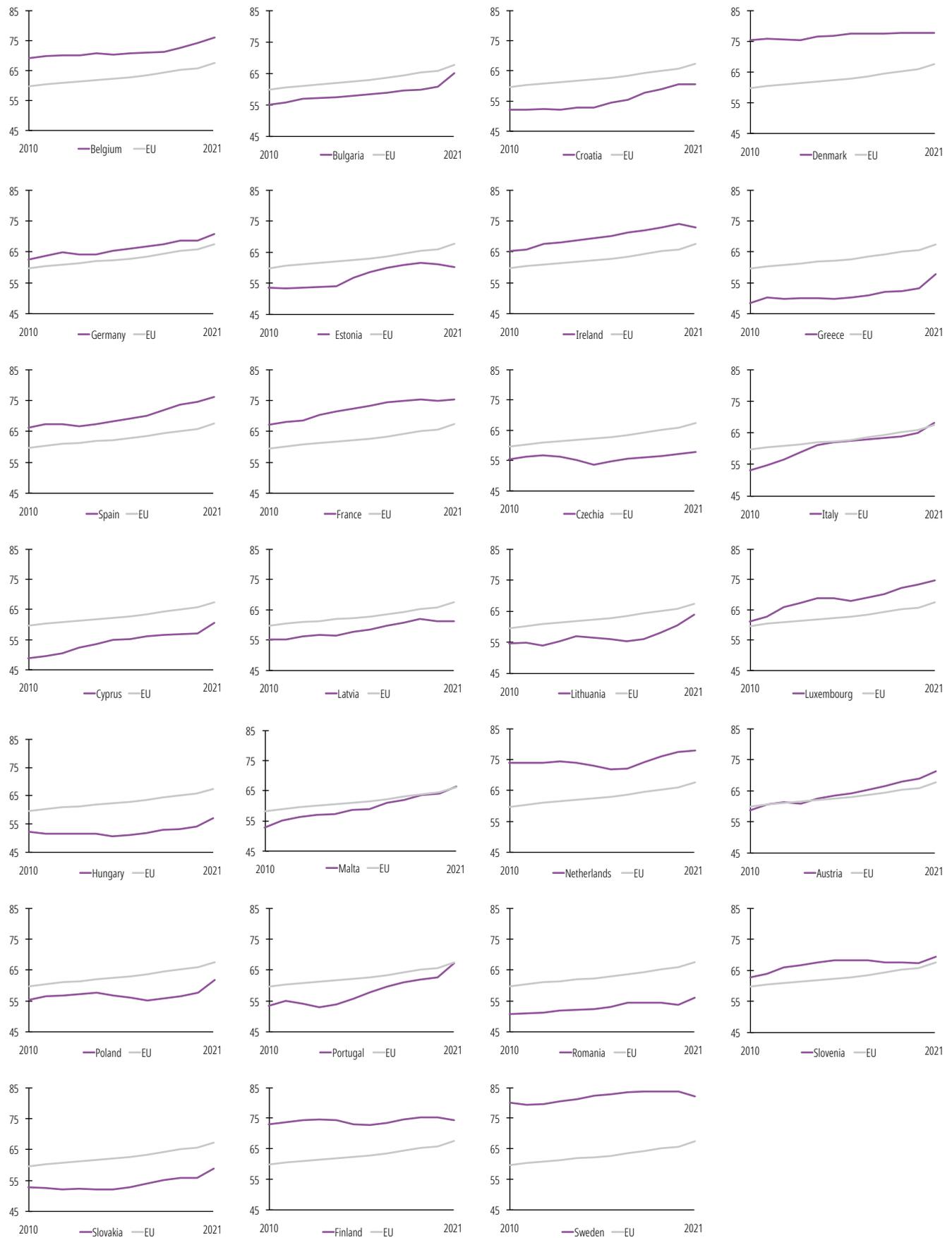
Figure 4. Patterns of convergence in the Gender Equality Index, by EU Member States, 2010-2021



Source: Authors' calculations.

Note: Break in time series in the domain of work, knowledge and time, due to methodological changes in the source of data (EU-LFS, EWCTS, EIGE's survey data on gender gaps in care, individual and social activities), see [Annex 4](#).

Figure 5. Convergence of the Gender Equality Index, by Member State, scores, 2010-2021



Source: Authors' calculations.

Note: These graphs show the unweighted EU average that differs from the EU's Gender Equality score (weighted EU average). Break in time series in the domains of work, knowledge, and time, due to methodological changes in the source of data (EU-LFS, EWCTS, EIGE survey data on gender gaps in care, individual and social activities), see Annex 4.

2. Domain of work

Work plays a pivotal role, not only in fostering the cohesive functioning and advancement of societies, but also in establishing professional, personal, and family autonomy and well-being. Accordingly, women and men's participation in paid work is key to paving the way for further progress in gender equality. Nevertheless, barriers to women joining and remaining in the labour market persist (European Commission, 2023a), including large gender differences in working patterns and deeply entrenched gender-based segregation in employment.

Employment rates for women have increased in recent decades in all Member States, although they remain systematically lower than those of men (EIGE, 2022d). In the EU, women are increasingly well qualified: more women than men graduate from university, but due to care responsibilities, many women feel restricted in their choice of jobs or do not get the same job opportunities as men (European Commission, n.d.). As unpaid caregivers, women's capacity to enter or stay in the labour market is affected far more than that of men (European Commission, 2023a).

There continues to be a strong correlation between segregation in the labour market and women's overrepresentation in lower paid jobs (EIGE, 2018). Gender-based occupational segregation is linked to several factors, such as: differences in knowledge, skills and abilities stemming from education and training; entry barriers; organisational culture and practices; and gender identity, norms, attitudes, and stereotypes (EIGE, 2018).

Gender inequalities in unpaid care are acknowledged to be the 'missing link' (Ferrant et al., 2014) in analyses of gender gaps in labour

market participation and quality of employment (EIGE, 2021f). Discriminatory social norms and gender stereotypes limit women's professional agency because they are often expected to undertake most of the unpaid care and domestic work, limiting the time they have available for paid work (OECD, 2023).

The EU Gender Equality Strategy 2020–2025 points to gender stereotypes as a root cause of gender inequality that affects all areas of society, including the labour market: women often align their decision to work, and how to work, with their caring responsibilities (European Commission, 2020e). The Strategy sets a key priority of closing gender gaps in the labour market and foresees measures to remove policy disincentives to employment among secondary earners (typically women), introduce targeted measures to promote participation of women in innovation, and improve the work-life balance of workers, especially parents. Likewise, the European Pillar of Social Rights Action Plan reaffirms the EU's commitment to equal opportunities for women and men in the labour market, in the terms and conditions of employment and career progression, and in ensuring suitable leave and flexible working arrangements for caregivers (European Commission, 2018).

2.1. Gender segregation remains a significant feature of the EU labour market

Figure 6 shows that the domain of work ⁽³⁾ score is the third highest, after the domains of health and money. Overall, the domain of work sustains the trend of progress, increasing by 2.1 points compared to the Index 2022.

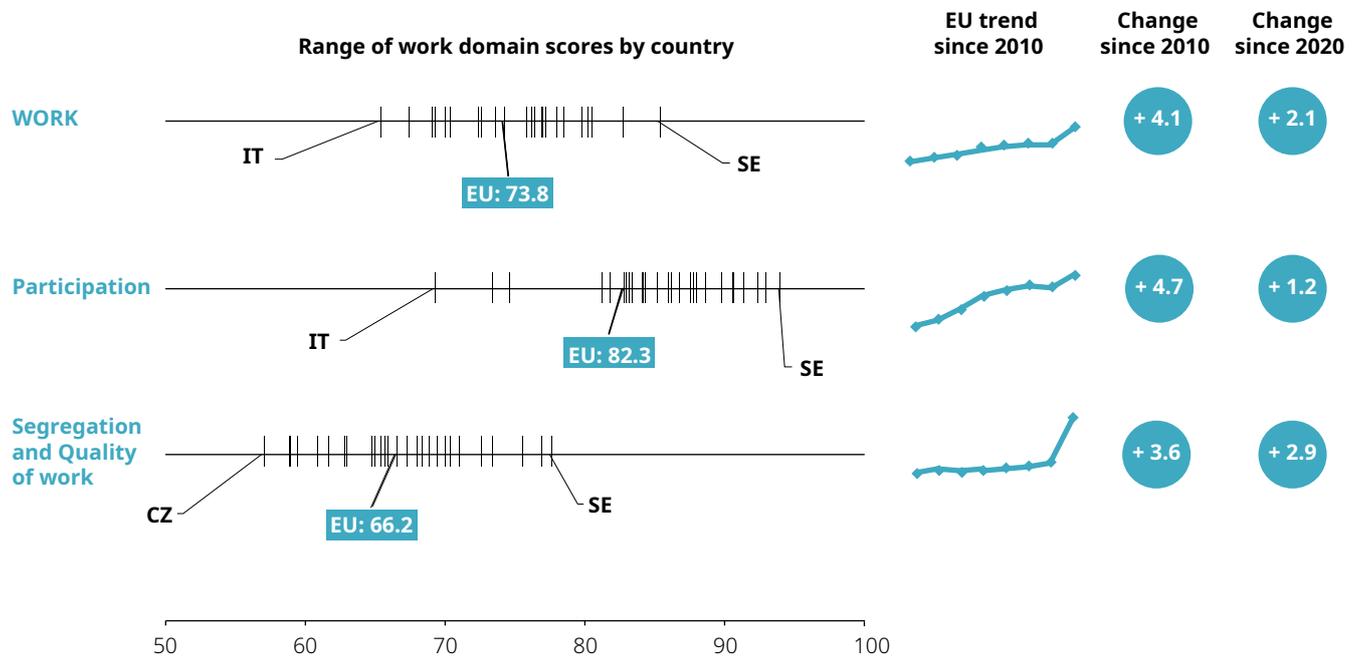
⁽³⁾ The domain of work measures the extent to which women and men can benefit from equal access to employment and good working conditions. The sub-domain of participation combines two indicators: the rate of FTE employment and the duration of working life. Gender segregation and quality of work are included in the second sub-domain. Sectoral segregation is measured through women's and men's participation in the education, human health, and social work sectors. Quality of work is measured by flexible working time arrangements and Eurofound's Career Prospects Index.

The sub-domain of participation scores relatively high, at 82.3 points, but this hides three important aspects. Firstly, the employment participation rates for women are still systematically lower for men in all Member States. Secondly, there are enormous differences between Member States: the score varies from 68.9 in Italy to 93.3 in Sweden. Thirdly, it covers up different forms of employment: a higher proportion of women than men are employed in non-standard and often precarious work, including part-time jobs.

The sub-domain of segregation and quality of work scores 66.2 points, an increase of 2.9 points since the last available data. This change is predominantly driven by an increase in the share of women and, particularly, in the share of men who can take an hour or two during working hours to take care of personal or family matters. Increased flexibility in working arrangements is typically viewed as a positive

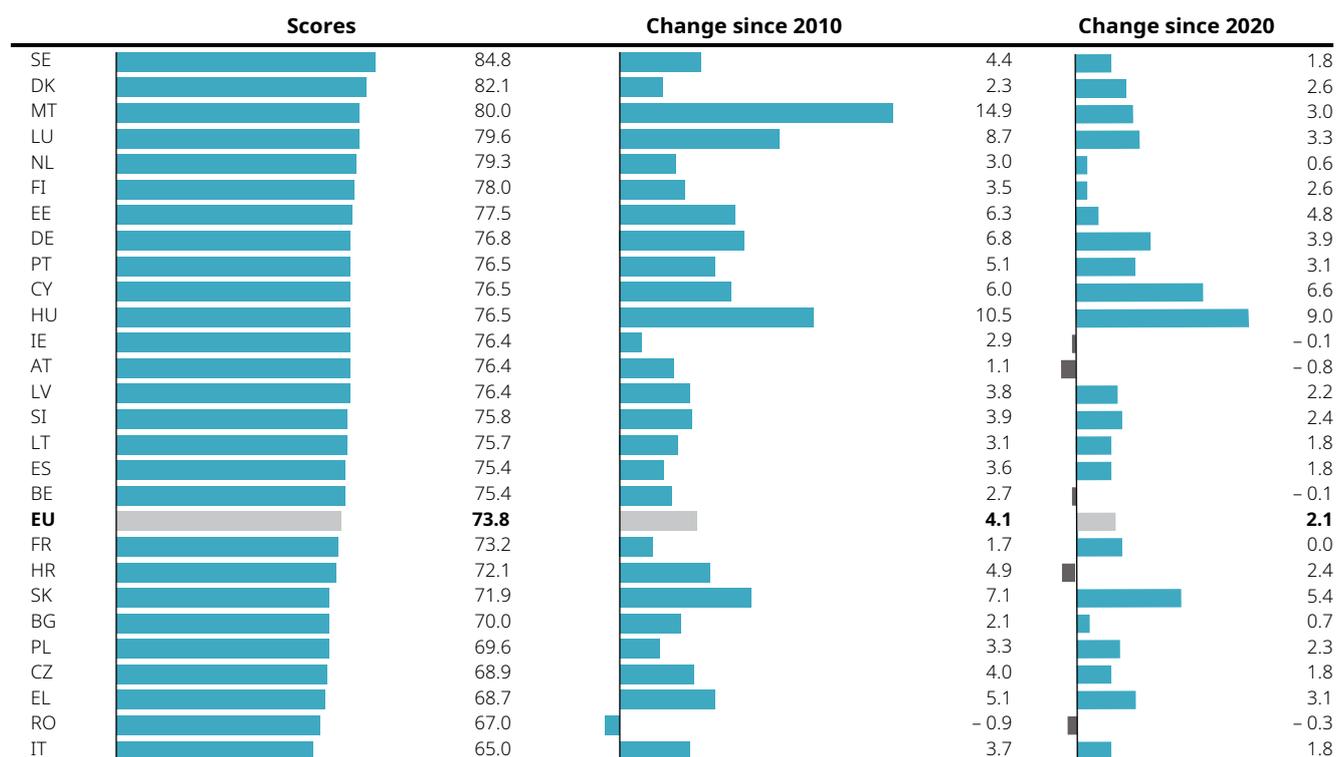
factor for gender equality, as it facilitates work-life balance and thus supports employment of carers, whether women or men (EIGE, 2021d). Despite the fact that employment rates for women have increased in all Member States in recent decades, gender segregation remains a particular challenge at EU and Member State level, driving the overall low score in the sub-domain of segregation and quality of work. Widespread gender segregation continues to restrict life choices and the education and employment options of women and men, determine the status of their jobs, drive the gender pay gap, reinforce gender stereotypes, and perpetuate unequal gender power relations in the public and private spheres (EIGE, 2018). The low score for the sub-domain of segregation and quality of work reflects the fact that women continue to dominate the education, health, and social work employment sectors, even in countries with higher employment participation rates for women.

Figure 6. Scores for the domain of work and sub-domains, and changes over time



Source: Authors' calculations, EU-LFS (2010, 2020, 2021), European Working Conditions Survey (EWCS) (2015), EWCTS (2021), see Annex 1.

Notes: Break in time series in the domain of work, due to methodological changes in the source of data (EU-LFS, EWCTS), see Annex 4; Gender Equality Index 2023 uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective.

Figure 7. Scores for the domain of work, and changes over time, in the EU Member States

Source: Authors' calculation, EU-LFS (2010, 2020, 2021) EWCS (2015), EWCTS (2021), see Annex 1.

Note: Break in time series in the domain of work, due to methodological changes in the source of data (EU-LFS, EWCTS), see Annex 4.

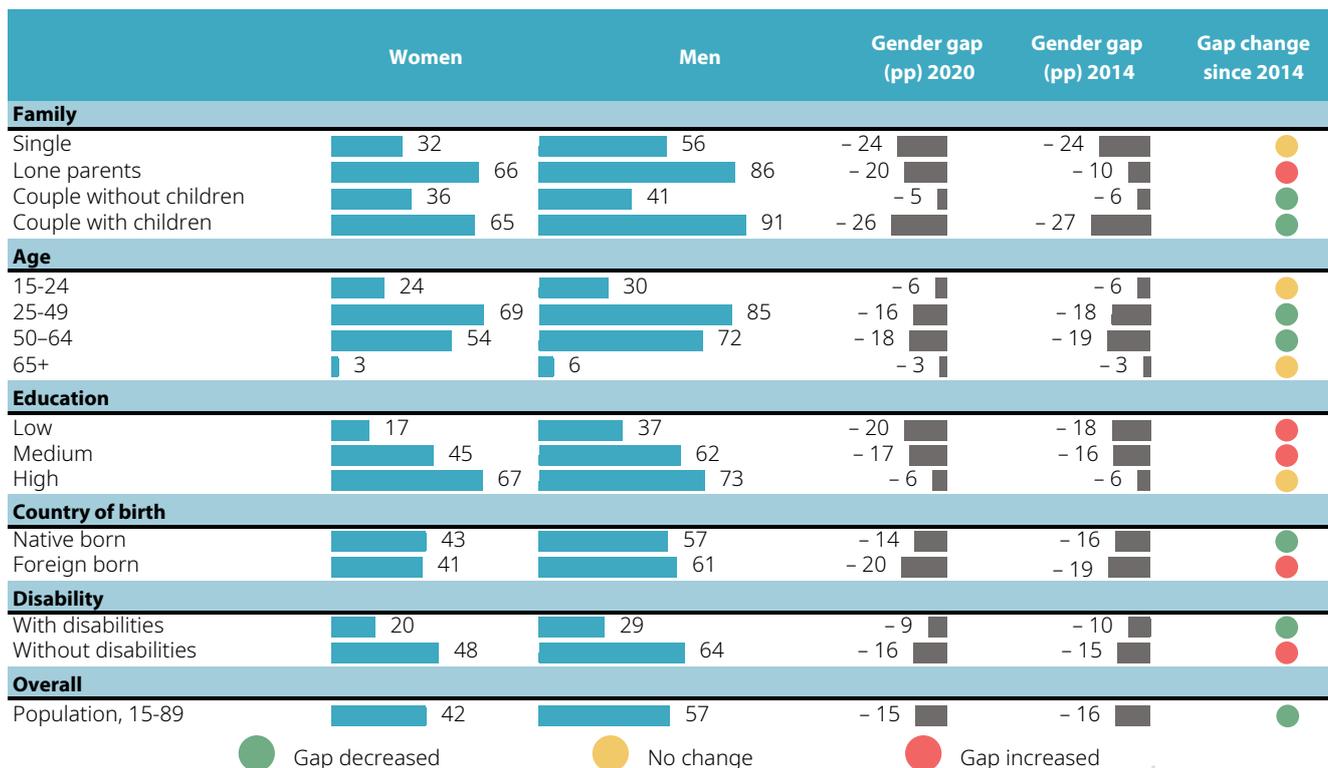
Figure 7 shows considerable variability in the domain of work scores across Member States. The two best performing countries in the domain of work are Sweden and Denmark, while the lowest scores are for Italy and Romania. Overall, since 2020, work domain scores have increased among all Member States, except Austria (-0.8), Romania (-0.3), Belgium (-0.1), Ireland (-0.1) and France (no change). Nevertheless, improvements are evident in some countries: Hungary has improved by 9.0 points, Cyprus by 6.6 points, and Estonia by 4.8 points.

2.2. Having children is linked to lower employment rates for women

In the EU, in general, women are less likely to be involved in paid work than men: FTE rates⁽⁴⁾ for men are always higher than those for women, independent of age group, type of family, education level, country of birth, and presence/absence of a disability. Nevertheless, the intersection of gender with each of these features affects women's and men's access to the labour market differently (Figure 8).

⁽⁴⁾ The FTE employment rate is a unit to measure employed people in a way that makes them comparable even though they may work a different number of hours per week. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours worked by a full-time worker. A full-time worker is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours they work. For example, a part-time worker employed for 20 hours a week where full-time work consists of 40 hours, is counted as 0.5 FTE.

Figure 8. FTE employment rates, by sex, family composition, age, education level, country of birth, and disability (% , 15-89, EU, 2021)



Source: Authors' calculations with microdata, EU-LFS 2021; EU-SILC 2021 used for disability analysis (SK, 2020).

Notes: EU-LFS break in time series.

Groups under dimension of 'age' and 'education' sum to the overall population. For other groups, missing data and/or excluded groups are not fully comparable with the overall population.

Education attainment includes people who have completed ISCED levels 0-2 (Low), ISCED level 3 or 4 (Medium), ISCED levels 5-8 (High). Family type definition is based on the relationships between the members of households, i.e. a couple is defined as two adults living in the same household and declaring themselves to be in a relationship (whether married or not). Children are only those economically dependent household members (i.e. aged below 18, as of 2021, 18-24 in previous years) who are declared to be children or stepchildren of the couple or one parent (in one-parent households) and are not in employment or unemployment; for clarity of interpretation, indicated family types strictly account for the aforementioned types of relationships and the socioeconomic status of children, excluding households with different compositions.

Gap changes: positive, where they have decreased since 2014 (in green, gender gap change ≥ -1); negative, where they have increased since 2014 (in red, gender gap change ≥ 1), and no change since 2014 (in yellow, $-1 < \text{gender gap change} < 1$).

The most acute gender gap in FTE employment rate is observed among couples with children (26 pp), in favour of men. Lone mothers participate in the labour market at the same rate as women with children living in a couple (66 % and 65 % FTE employment rate, respectively). This shows that partnership per se does not affect the labour market participation of women, but, rather, points to the strong influence of other causes, such as due to provision of care to their own children. The participation of lone fathers in the labour market is somewhat lower than that of men in a couple with children (86 % and 91 % FTE employment rate, respectively) (Figure 8), but is much higher than the FTE employment

rate for lone mothers. These figures reveal the extent of gender stereotypes, which provide fathers with better possibilities to participate in the labour market if living in couples. They also show that the arrival of a child has the greatest negative impact on mothers living in couples, highlighting the strong presence of gender stereotypes in relation to the provision of informal childcare, as well as access to formal childcare (EIGE, 2021f).

Very large differences are evident between women's and men's labour market participation for those aged 50-64 years (18 pp) and 25-49 (16 pp). The FTE employment rate for women in

those age groups is just 54 % and 69 % compared to 72 % and 85 % for men, and coincides with the peak times for increasing long-term care (LTC) duties and family formation. Women with low levels of qualifications and foreign-born women also face significant barriers in accessing employment, compared to the equivalent groups of men. Labour market participation of women with low levels of qualifications is less than half the participation of low-qualified men (17 % and 37 %, respectively). Foreign-born women's FTE employment rate is only 41 % (20 pp lower than foreign-born men). This is particularly concerning given that around 7 % of the total population living in the EU Member States are born outside of the EU, half of whom

are women and girls (EIGE, 2020b). Altogether, these gender gaps signal a wider manifestation of gender bias against women, especially if they have children, are foreign born, and have lower education qualifications.

Labour market participation is significantly lower among women and men with disabilities compared to those without. Low labour market participation, low work intensity, and discrimination are among the main underlying factors for the higher risk of poverty and social exclusion among people with disabilities (EIGE, 2016b, 2019c). Nevertheless, while the FTE employment rate for men with disabilities is only 29 %, for women it is even 9 p.p. lower.

Box 1. Even with their increasing labour force participation, women still shoulder most of the family and household responsibilities: women more than men adjust their careers for family life

The 2022 EIGE survey on gender gaps in unpaid care, individual and social activities shows that among individuals – similar for both women and men – who are employed and provide informal care or childcare to their own or other children, 28 % indicate difficulties in reconciling work and care responsibilities ⁽⁵⁾. Gender differences are largest in having to reduce working hours (17 % of women vs 12 % of men) and having less time for their career/studies (15 % of women vs 13 % of men), with women reporting these effects more often. Men are more likely to report increased working hours as a result of their care obligations (10 %, compared to 6 % of women) and to take on additional jobs (8 %, compared to 7 % of women). This is consistent with the body of literature arguing that having children is associated with a 'motherhood penalty' and a 'fatherhood premium' in earnings, reflecting increasing inequalities in care (i.e. women's greater involvement in unpaid care and men's increased participation in the labour market) (EIGE, 2021f; Kellokumpu, 2007; Lundberg and Rose, 2000; Meurs et al., 2010; Trappe and Rosenfeld, 2000).

The EIGE survey shows that among individuals who are employed and involved in informal housework, women experience difficulties in combining paid work with housework more frequently than men: 18 % of women and 12 % of men experience difficulties combining paid work and housework on a daily basis. Men are more likely to report having such difficulties less often, or never.

Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

⁽⁵⁾ The textbox is based on the analysis of two questions: QC14 'Have your caring responsibilities ever had any of the following implications for your working life or career? Please select all categories that apply'; QD6. 'In a typical week, how often do you experience difficulties in combining paid work with housework?'. See survey technical report (EIGE, 2023d).

2.3. Most job growth towards green transition is expected in the sectors dominated by men

The European Green Deal is the EU's strategy to transform into a modern, resource-efficient and competitive economy, ensuring no net emissions of greenhouse gases (GHGs) by 2050, economic growth decoupled from resource use, and with no person or place left behind (European Commission, 2019b). The European Green Deal primarily focuses on energy power generation and use, buildings, waste management, and other parts of the manufacturing sector, such as recycling, plastics and electronics (European Commission, 2019b). The sectors expected to see the largest employment gains are utilities (through increased recycling activities), electricity supply (through increased demand for renewable

energy), manufacturing of appliances/electrical equipment (e.g. for the renewable electricity generation sector, or more-energy efficient appliances), construction, and the sectors that link to these via supply chains (CEDEFOP, 2021). This creates an expectation that employment changes linked to the European Green Deal will be most pronounced in the sectors active in such activities (CEDEFOP, 2021), which are currently dominated by men. Additionally, jobs benefiting from the green transition are often associated with challenges in gender-biased recruitment, namely in engineering and other technology-based study programmes (Chavatzia, 2017; OECD, 2017; Charles and Thébaud, 2018; Beghini and Cattaneo, 2019, *apud* Nordic Council of Ministers, 2023). These perspectives need to be considered when discussing a fair or socially sustainable green transition so that such a transition does not increase inequalities between women and men.

3. Domain of money

Access to financial resources is vital for everyone's economic independence. Despite the income protection and redistributive measures embedded in current social protection systems, and women's increasing participation rates in the labour force, gender disparities persist in wages, pensions and across other income sources, to the detriment of women.

Several factors contribute to the persistent inequalities in the domain of money. Gender stereotypes strongly contribute to the gender pay gap (European Commission, 2020e). The unequal distribution of the unpaid care burden within households undermines women's career progression and limits their opportunities for paid work, especially in full-time employment (EIGE, 2022d). Women's jobs tend to be concentrated in lower-paid economic sectors such as education and healthcare (EIGE, 2021d, 2022d). Throughout the life course, women are more likely to work in precarious jobs, earning wages below the first quintile and/or on the basis of temporary contracts (EIGE, 2017e). The majority of minimum wage earners in the EU are women (Eurofound, 2022b). Finally, an accumulation of gender inequalities in working life leads to large disparities in retirement income (EIGE, 2022d).

Against the backdrop of the European cost-of-living crisis, exacerbated by the ongoing war in Ukraine, subsequent energy shortages, and the persistent inflationary impact of the post-pandemic recovery, it is even more pressing to address inequity in women's and men's access to financial resources. In the context of the European Green Deal, it is crucial to recognise that the costs, benefits, and risks associated with the energy transition may be unevenly distributed between women and men because of

underlying gender inequalities. For instance, due to their lower average incomes, women are disproportionately affected by energy poverty (see [section 9.2.3](#)) and face more difficulties in paying their energy bills (Eurofound, 2022a). Likewise, women are more likely to experience limited access to (eco) transportation options, restricting their opportunities to access paid work and to seek better work-life balance.

The European Pillar of Social Rights enshrines equal opportunities to access financial resources, as well as rights to adequate minimum income benefits and equal opportunities for women and men to acquire pension rights. The EU Gender Equality Strategy 2020-2025 recognizes that eliminating the gender pay gap requires addressing all of its root causes, such as women's lower participation in the labour market, invisible and unpaid work, or labour market segregation resulting from gender stereotypes and discrimination (European Commission, 2020e). The Directive on Adequate Minimum Wages ⁽⁶⁾ places a strong emphasis on the adequacy of minimum wages and should contribute to reducing the gender pay gap and sustaining purchasing power. The Pay Transparency Directive ⁽⁷⁾, which requires employers to disclose the pay range or starting salary of advertised positions with potential candidates, takes a further significant step towards addressing the gender pay and pensions gaps in the EU and increasing women's economic and financial independence.

In line with these EU initiatives, policies addressing the energy transition should further consider the gender dimension in order to guard against the possibility of creating or perpetuating (gender) gaps in income, so as to ensure

⁽⁶⁾ Draft Directive of the European Parliament and of the Council to strengthen the application of the principle of equal pay for equal work or work of equal value between men and women through pay transparency and enforcement mechanisms (first reading) - Adoption of the legislative act, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CONSIL%3AST_7845_2023_INIT&qid=1683787007517

⁽⁷⁾ Directive (EU) 2023/970 of the European Parliament and of the Council of 10 May 2023 to strengthen the application of the principle of equal pay for equal work or work of equal value between men and women through pay transparency and enforcement mechanisms (OJ L 132, 17.5.2023, pp. 21–44).

a fair and socially just transition (Carroll, 2022; Clancy and M. Feenstra, 2019; WECF, 2022). The EU Gender Equality Strategy 2020-2025 notes that gender equality is both an essential condition for an innovative, competitive and thriving European economy and a potential that needs to be realised as the EU embraces the green and digital transitions.

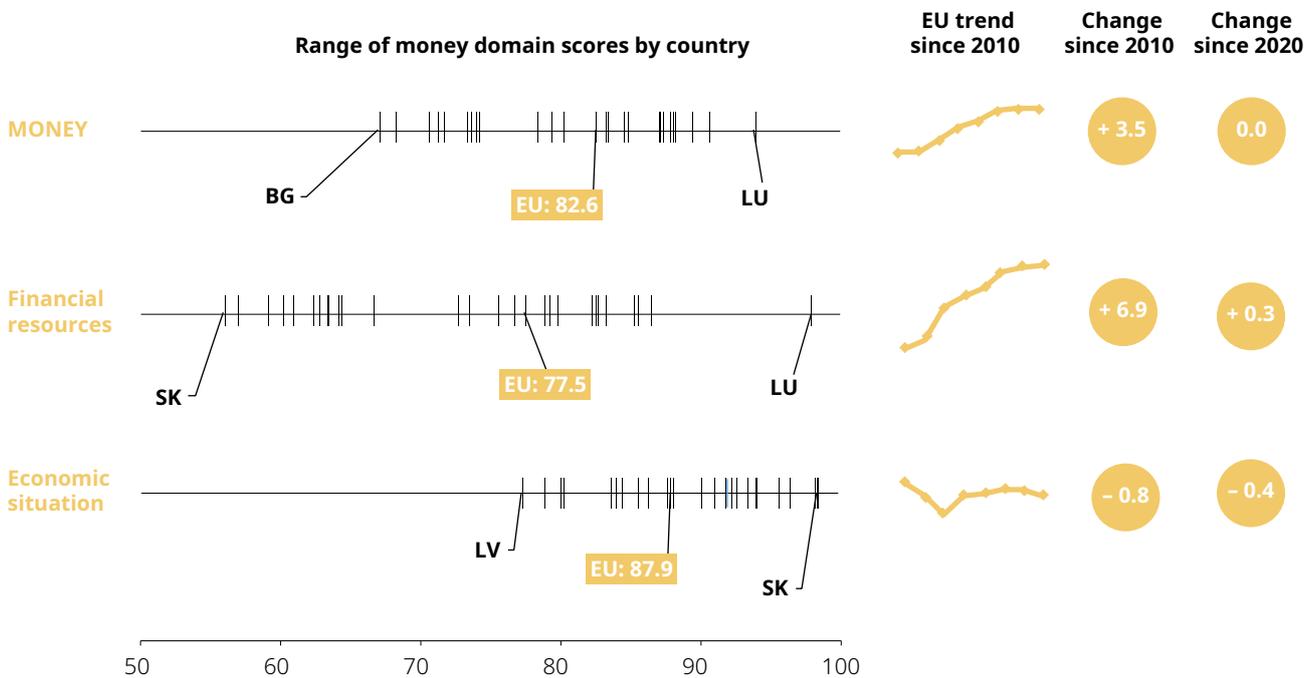
3.1. After years of standstill, there are signs of regress in gender equality in economic situation

Gender equality in the domain of money ⁽⁸⁾ continues to rank second across all Gender Equality Index domains. Yet, this year marks the end of a standstill, with regress noted in one of the two sub-domains. The overall domain score marks '0' growth (Figure 9). This score is the result of two opposing trends: a fall of 0.4 points in

the sub-domain of economic situation, and an improvement of 0.3 points in the sub-domain of financial resources.

These opposing trends at sub-domain level imply that, despite improvements in average income levels among women and men, gender inequalities worsened at the lower 'tail' of income distribution. This is indicated by at-risk of poverty (AROP) rates for women and men: 17 % of women under 65 in the EU and 16.5 % of men under 65 live below the risk of poverty threshold (set at 60 % of median equivalised income after social transfers) ⁽⁹⁾. This corresponds to 29.4 million women and 29.0 million men under 65. The gender gap is even more pronounced for the older population, with 19 % of women over 65 having incomes below the poverty threshold, compared to 14 % of men over 65. This corresponds to 9.8 million older women and 5.4 million older men living at risk

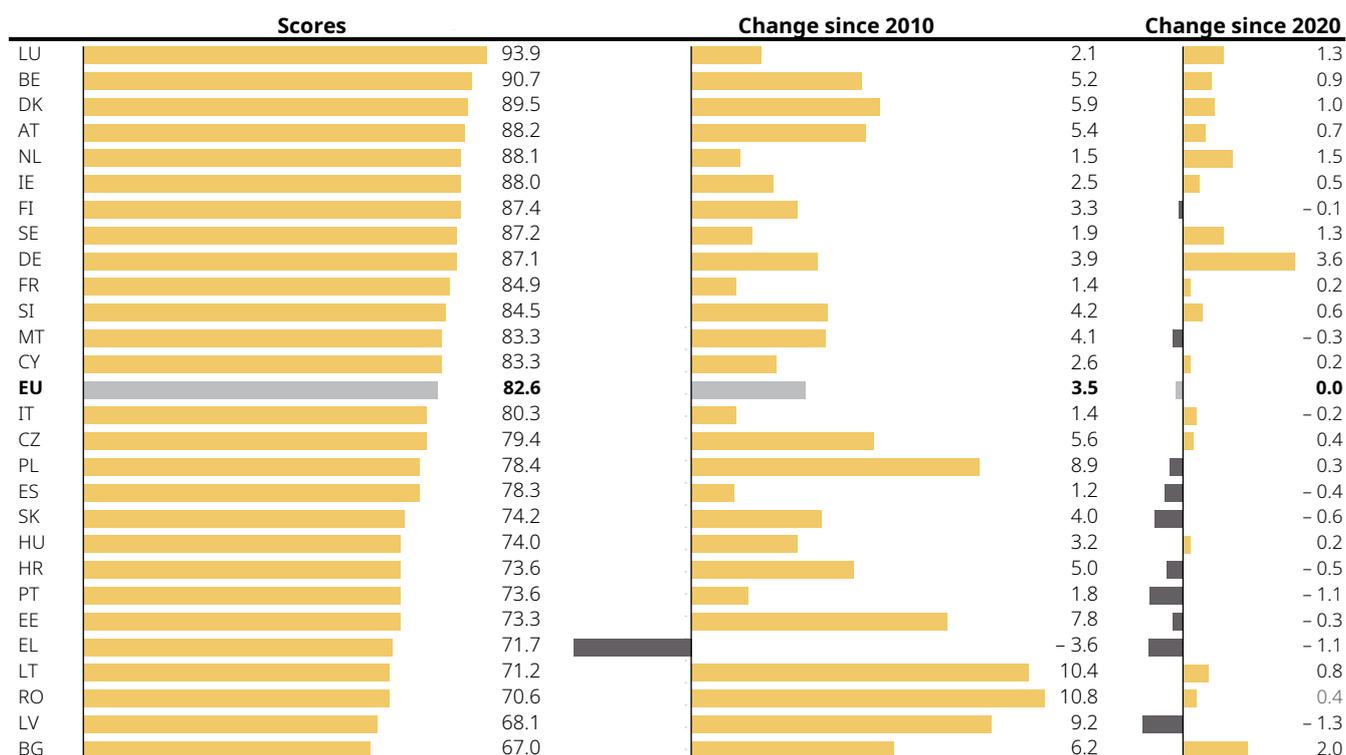
Figure 9. Scores for the domain of money and its sub-domains, and changes over time



Source: Authors' calculation, EU-SILC (2021, 2020, 2021), SES (2010, 2018), see Annex 1.

⁽⁸⁾ The domain of money measures gender inequalities in access to financial resources and economic situation. The sub-domain of financial resources includes women's and men's mean monthly earnings from work and mean equivalised net income (from pensions, investments, benefits and any other source in addition to earnings from paid work). The sub-domain of economic situation captures women's and men's risk of poverty and the income distribution among women and men, as measured by the ratio of S20/S80 income quintiles.

⁽⁹⁾ Eurostat, EU SILC, (ilc_li02) accessed on 23.05.2023.

Figure 10. Scores for the domain of money, and changes over time in the EU Member States

Source: Authors' calculation, EU-SILC (2021, 2020, 2021), SES (2010, 2018), see [Annex 1](#).

of poverty in 2021. The increased income vulnerability of older women reflects the accumulated paid work and income disadvantages for women over the course of their lives.

The three best-performing countries in the domain of money remain unchanged, i.e. Luxembourg, Belgium and Denmark. Notwithstanding a significant improvement since 2020, Bulgaria scores lowest, followed by Latvia and Romania (Figure 10).

Since 2020, only five countries have made progress exceeding one point at domain level – Germany by 3.6 points, Bulgaria by 2.0 points, the Netherlands by 1.5 points, and Luxembourg and Sweden by 1.3 points each. The regress in Latvia by 1.3 points and in Greece and Portugal by 1.1 points might also signal a trend towards divergence in the EU. The most significant progress is predominantly observed in countries with higher scores (except Bulgaria), while

regress is mostly noted among countries with lower scores. This may be due to countries' uneven recovery from the COVID-19 crisis.

EIGE (2023b) shows that the effect of the discretionary policies implemented by EU governments to counteract the adverse impacts of the COVID-19 pandemic on disposable incomes has been primarily positive for both women and men of working age. However, the policy measures adopted to counteract the short-term crisis effects reduced gender income inequality among the working age population in only part of the EU (14 Member States), compared with the no-COVID scenario. The domain of money shows signs of increased income inequality between women and men, which might point to accruing negative consequences of persisting and large gender gaps in unpaid care (see [section 5.2](#)) that continue to obstruct women's access to paid work (see [section 2.2](#)) and thus their income.

3.2. Earnings gap between women and men remains largest among highly educated, older working-age people, and couples with children

Women not only remain less likely to participate in the labour market than men (see domain of work), but also earn less when in employment (Figure 11). Women's gross earnings are consistently lower than men's across various socio-demographic criteria, such as family composition, age, educational attainment, migration status or

(dis)ability. Even where gender gaps in gross earnings are relatively small on entry to the labour market, there is a notable widening of gender gaps in line with family formation (i.e. adding children) and increases in age. These two latter gender gaps illustrate the earnings 'penalties' that women face due to their disproportionate shouldering of life course-related responsibilities, such as childcare and LTC (EIGE, 2019b, 2021e, 2021f). Furthermore, as shown in Figure 11, gender gaps to the detriment of women increase with higher educational qualifications, signalling a negative income influence of strong vertical gender segregation in the labour market (EIGE, 2018).

Figure 11. Mean monthly earnings, by sex, family composition, age, education level, country of birth and disability (purchasing power standard (PPS), working population, EU, 2021)

	Women	Men	Gender gap (PPS) 2021	Gender gap (PPS) 2014	Gap change since 2014
Family					
Single	2 421	2 703	- 282	- 323	●
Lone parents	2 214	3 065	- 851	- 1137	●
Couple without children	2 300	3 199	- 899	- 798	●
Couple with children	2 175	3 280	- 1 105	- 1 015	●
Age					
16– 24	1 473	1 543	- 70	- 134	●
25– 49	2 113	2 723	- 610	- 631	●
50– 64	2 225	3 325	- 1 100	- 918	●
65+	1 994	3 072	- 1 078	- 1 394	●
Education					
Low	1 317	1 878	- 561	- 528	●
Medium	1 777	2 390	- 613	- 568	●
High	2 706	3 985	- 1 279	- 1 101	●
Country of birth					
Native born	2 127	2 849	- 722	- 649	●
Foreign born	1 943	2 657	- 714	- 786	●
Disability					
With disabilities	1 885	2 334	- 449	- 659	●
Without disabilities	2 045	2 658	- 613	- 648	●
Overall					
Working population	2 105	2 823	- 718	- 662	●

● Gap decreased
 ● No change
 ● Gap increased

Source: Authors' calculation, EU-SILC 2021 (SK 2020)

Notes: Gross earnings calculated on the basis of variable PY010G (>0). In the EU, gender gaps in gross earnings are typically larger than gender gaps in net earnings (due to redistributive effects of taxes and social contributions).

Groups under dimension of 'age' and 'education' sum to the overall of 'working population'; groups under other dimensions constitute a partial coverage of the overall of 'working population' due to missing data and/or excluded groups.

Educational attainment includes people who have completed ISCED levels 0–2 (Low), ISCED level 3 or 4 (Medium), ISCED levels 5–8 (High).

Family types are defined based on the relationships between the members, i.e. a couple is defined as two adults living in the same household and declaring themselves to be in a relationship (whether married or not); 'children' refer to economically dependent household members (i.e. aged below 24) who are declared to be own/adopted children or stepchildren of the couple or of a single parent (in case of a one-parent household) and are not in employment or unemployment; for clarity of interpretation, indicated family types strictly account for the aforementioned types of relationships and the socioeconomic status of children, excluding households with different compositions.

Gap changes: positive where it decreased since 2014 (in green, gender gap change ≥ -1); negative where it increased since 2014 (in red, gender gap change ≥ 1), and no change since 2014 (in yellow, $-1 < \text{gender gap change} < 1$).

The biggest gender gap in gross earnings is noted among women and men with high educational qualifications (gap of 1 279 PPS), with highly qualified women's gross earnings constituting only 68 % of equivalently qualified men's gross earnings. The second largest gender gap is noted among women and men living in couples with children (gap of 1 105 PPS), followed

by a similar gender gap among women and men aged 50-64 years (1 100 PPS). These three largest gender gaps not only remain persistently high, but have worsened since 2014. This might signal a worrisome phenomenon of increasing earnings 'penalties' for women, for example due to an uptake of unpaid care duties.

Box 2. Traditional gender roles within households undermine women's economic independence, particularly due to reduced access to formal childcare services

The EIGE survey on gender gaps in unpaid care, individual and social activities (2022) shows that among individuals living with a partner, approximately one-third of both women (33 %) and men (35 %) contribute equally to the household income ⁽¹⁰⁾.

Among women respondents, only 14 % indicate that they contribute more than their spouse/partner, compared to 39 % of men respondents. Economic independence might be particularly at risk among those who do not contribute to household income, which is the case for 9 % of women respondents and 1 % of men respondents. The EIGE survey shows that the share of household budget non-contributing partners increases with the presence of children: about 12 % of men respondents living in a couple with children indicate that their spouse/partner does not contribute financially, compared to 4 % of women living in an equivalent household reporting the same.

The EIGE survey shows that low economic independence has further gendered implications for the affordability of external services, particularly formal care services for younger children. As many as 77 % of men whose spouse is not contributing to household income say that they cannot afford formal ECEC services, compared to only 9 % of women with a non-contributing partner/spouse. Aside from the income dimension, these findings may signal a strongly gendered and subjective assessment of childcare affordability. Although gender gaps are also observed in the expressed affordability of LTC, they are less pronounced than childcare. On the presence of informal LTC duties, 19 % of men whose partner does not contribute financially to household income state that they cannot afford LTC services, compared to only 7 % of women in the same situation.

Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

⁽¹⁰⁾ The text-box is based on the analysis of three questions: QH7. 'How would you assess your contribution to the household income compared to your spouse/partner's contribution?'; QB12.1 'Why did your main care recipient not get all the care that she or he needed from care services? / 1 (reason): can't afford it'; and QC10. 'Why were you unable to access all the formal early childhood education and care services (e.g. kindergarten, day care centre, a crèche) for your children aged 0-5 years that you needed? / 1 (reason): can't afford it' (EIGE, 2023d).

3.3. Gender gaps in income impact other inequality dimensions, such as transport

Gender inequalities in general, and especially in income, are inextricably linked to other inequality dimensions, such as transport. Women's lower earnings put them at a greater risk of transport unaffordability, including transport poverty⁽¹¹⁾. Lower incomes also go hand-in-hand with limited access to optimal modes of transport, which can hinder access to employment, education, and essential services, and thus reinforce poverty and social exclusion (Mejía Dorantes and Murauskaite-Bull, 2022).

Gender plays a particularly strong role in determining who has access to and uses a car, especially if a privately owned car is shared by the whole household (Gil Solá, 2016). This is significant, given that passenger cars account for 87 % of inland passenger transport in the EU⁽¹²⁾. Men in lower-income households have more frequent access to the household car (Tiikkaja and Liimatainen, 2021). Affordability of eco-friendly and adequate transport modes also remains a noteworthy concern from a gender equality perspective (Vilchez et al., 2019). Gender gaps in employment and income, as well as horizontal and vertical gender segregation in the labour market (EIGE, 2018), imply that fewer women than men are given and/or granted use of company cars, alternatively fuelled cars in particular (Frey and Röhr, 2020).

An expansion of public transport infrastructure⁽¹³⁾ may respond to a number of gendered

and sustainable mobility needs across diverse socioeconomic groups, paving the way for the EU's objective of promoting a fair green transition (Mattioli, 2017). Currently, due to a lack of suitable public transport options, about 2 % of women and men in the EU are experiencing forced car ownership⁽¹⁴⁾. Some population groups are particularly affected by this situation, including migrants with 5 % of women and 6 % of men born outside the EU in situation of forced car ownership (see Section 9.4.1).

The mobility needs of women and men who take on an intensive share of unpaid care responsibilities⁽¹⁵⁾, especially if living in areas with limited suitable transport options (e.g. rural areas, districts underserved by public transport systems and essential services), are not yet adequately met (Lucas et al., 2016; Simcock et al., 2021). Suitable transport options, including better access to public transport, would improve carers' ability to meet both their care and paid work objectives. EIGE's research shows that 42 % of women and 33 % of men in the EU regard public transport as 'very important' in enabling their participation in employment, while 40 % of women and 32 % of men see public transport as 'very important' in enabling their participation in education (EIGE, 2020d). In addition to empowering participation in education and employment, women perceive public transport as more important than men in allowing them to take part in leisure time activities, carry out domestic chores and take care of children and/or infirm adults (ibid.).

⁽¹¹⁾ In line with Regulation (EU) 2023/955 of the European Parliament and of the Council (<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32023R0955&qid=1686722239510>), transport poverty is usually caused by one or more factors, such as low income, high fuel expenditure, or a lack of affordable or accessible private or public transport. Transport poverty means individuals' and households' inability or difficulty to meet the costs of private or public transport, or their lack of/limited access to the transport needed to access essential socioeconomic services and activities, taking into account the national and spatial context.

⁽¹²⁾ Eurostat transport data, 2020 [TRAN_HV_PSMOD], accessed on 15.05.2023.

⁽¹³⁾ Motor coaches, buses, trolley buses and trains constituted around 13 % of all inland passenger transport in 2020, compared to 18 % in 2013 and 17.5 % in 2019. [TRAN_HV_PSMOD], accessed on 15.05.2023.

⁽¹⁴⁾ Forced car ownership is where people own a vehicle despite financial difficulties. It affects about 2 % of women and men in the EU (Mattioli, 2017).

⁽¹⁵⁾ See thematic focus of Gender Equality Index 2022 (EIGE, 2022d).

4. Domain of knowledge

Access to and participation in education and training is crucial for everyone's social mobility and changes in the labour market. Despite progress in participation, gender inequalities and segregation persist in the field of education, limiting women's and men's access to certain sectors of the labour market.

The EU Gender Equality Strategy 2020-2025⁽¹⁶⁾, the EU Digital Education Action Plan 2021-2027⁽¹⁷⁾ and the new European Strategy for Universities⁽¹⁸⁾ seek to address the underrepresentation of women in STEM. While access to tertiary education remains fundamental, the European Skills Agenda⁽¹⁹⁾ emphasises the importance of lifelong learning, upskilling, and reskilling to enable European citizens and economy to reap the full benefits of the green and digital transition. The European Pillar of Social Rights Action Plan⁽²⁰⁾ emphasises the importance of upskilling and reskilling adults, particularly those from disadvantaged groups. The strategic framework in the European Education Area notes that inclusive education and training entails developing gender sensitivity in the learning processes to challenge gender stereotypes in education and educational careers, especially in STEM fields. For example, traditionally male-dominated or

female-dominated professions should be promoted to the underrepresented sex. The framework also highlights the need for further work towards a proper gender balance in leadership positions in education and training institutions⁽²¹⁾.

A socially just move to reduce carbon emissions in the EU requires people to have the knowledge and skills to cope with profound change. Education and training systems and institutions can act as catalysts and support a shift to a more sustainable society⁽²²⁾. EU labour market forecasts show significant future demand for highly skilled workers in STEM fields to complete the green transition in carbon-emission heavy sectors, such as transport (Janta et al., 2023), See [section 9.3.3.](#) and [2.3.](#)). In STEM, women are often viewed as an underrepresented group of potential students. Although less prevalent in these views on a greener future for Europe, there are shortages in skilled personnel in female-dominated and traditionally low-carbon sectors (Heffernan et al., 2021; Littig, 2017) such as healthcare. This shortage is expected to be exacerbated by demographic changes in the EU (EIGE, 2020c).

⁽¹⁶⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Union of Equality: Gender Equality Strategy 2020-2025, COM 2020/152 final.

⁽¹⁷⁾ Digital Education Action Plan (2021-2027), <https://education.ec.europa.eu/focus-topics/digital-education/action-plan>

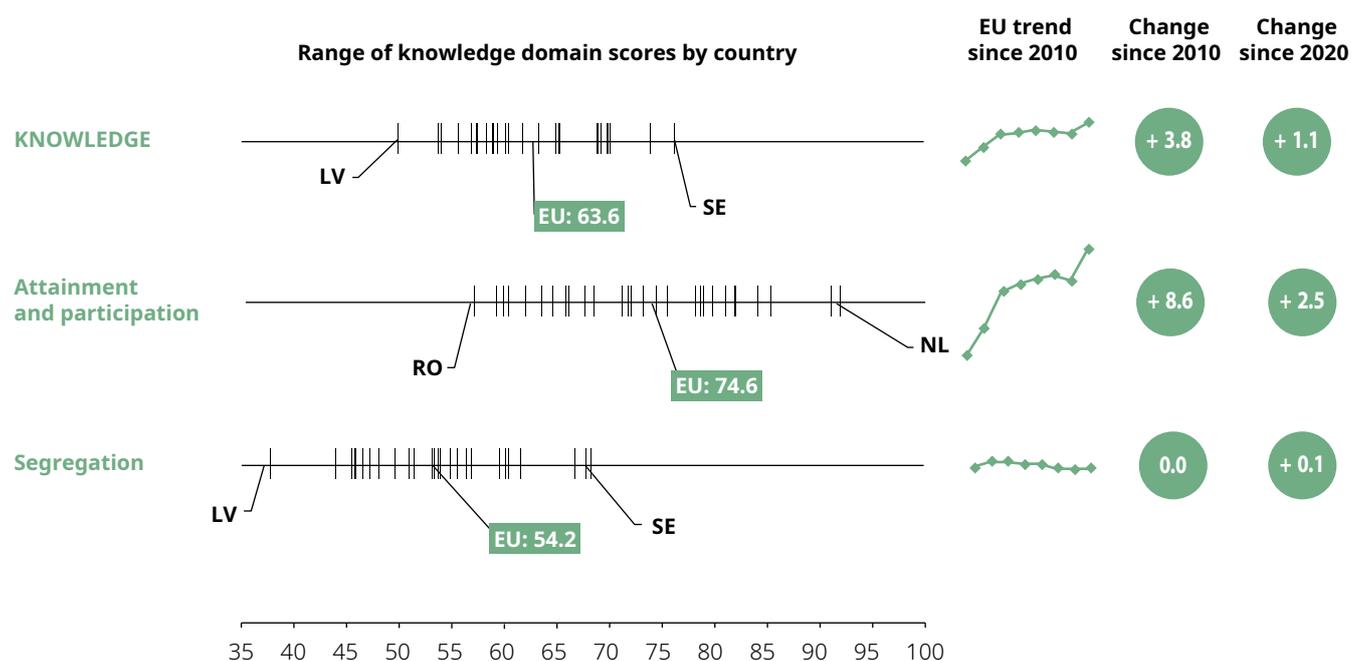
⁽¹⁸⁾ Communication from the Commission on a European Strategy for Universities, <https://education.ec.europa.eu/sites/default/files/2022-01/communication-european-strategy-for-universities-graphic-version.pdf>

⁽¹⁹⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, European Skills Agenda for sustainable competitiveness, social fairness and resilience, COM 2020/274.

⁽²⁰⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, European Pillar of Social Rights Action Plan, COM 2021/102.

⁽²¹⁾ Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030) 2021/C 66/01; Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030), 2021/C 66/01.

⁽²²⁾ <https://education.ec.europa.eu/focus-topics/green-education/about-green-education>

Figure 12. Scores for the domain of knowledge and its sub-domains, and changes over time

Source: Authors' calculations, EU-LFS (2010, 2020, 2021), Eurostat education statistics (2010, 2020, 2021), see [Annex 1](#).

Note: Break in time series in the domain of knowledge, due to methodological changes in the source of data (EU-LFS), see [Annex 4](#); Index 2023 uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective.

4.1. Slight progress in knowledge domain is driven by attainment and participation, but gender segregation remains a problem

The longer-term trend in the domain of knowledge ⁽²³⁾ shows slight progress (+3.8 points) between 2010 and 2021. In the short-term, however, this domain shows little progress since 2020 (+1.1 points). This progress is driven solely by the sub-domain of attainment and participation, which is 2.5 points higher than in 2020 (Figure 12). This is clear when looking at the sub-domain of segregation, which remains stable (+0.1 points) compared to 2020.

The slight average improvement of +1.1 points in 2021 contains variations between Member States, with increases ranging from +0.4 points in Estonia to +7.7 points in Cyprus. Only Denmark, France and Finland show a slight decrease overall in the domain of knowledge.

Sweden (76.4 points) continues to lead the ranking, followed by Belgium (74.1 points) and Luxembourg (70.3 points). The three lowest-ranking countries in the domain of knowledge are Romania (54.4 points), Croatia (54.2 points), and Latvia (50.4 points) (Figure 13).

The EU average for the sub-domain of attainment and participation is 74.6 points (Figure 12). The Netherlands scores highest (91.9 points), followed by Luxembourg (91.0 points) and Sweden (85.4 points). The lowest-scoring country in this

⁽²³⁾ The domain of knowledge measures gender inequalities in educational attainment, lifelong learning, and gender segregation in education. The sub-domain of educational attainment is measured by two indicators: the percentages of women and men tertiary graduates and the participation of women and men in formal and non-formal education and training over the life course. The second sub-domain targets gender segregation in tertiary education by looking at the percentages of women and men students in the fields of education, health and welfare, humanities and arts.

Figure 13. Scores for the domain of knowledge, and changes over time in the EU Member States

Source: Authors' calculations, EU-LFS (2010, 2020, 2021), Eurostat education statistics (2010, 2020, 2021), see Annex 1.

Note: Break in time series in the domain of knowledge, due to methodological changes in the source of data (EU-LFS), see Annex 4.

sub-domain is Romania, with 57.6 points. Bulgaria scores 59.7 points in attainment and participation, and Croatia is third from the bottom with 60.4 points. Between 2021 and 2022, the largest increases in this sub-domain are evident in Slovenia (+10.1 points), Belgium (+8.1 points) and Cyprus (+7.3 points). Only Finland shows a decrease (-1.7 points). The smallest increases in this sub-domain are recorded in Estonia (+0.2 points), France (+0.3 points) and Denmark (+0.7 points).

The sub-domain of segregation in education remains an obstacle to further progress in the domain of knowledge, and the score remains in line with scores from both 2010 and 2020 (Figure 12). This sub-domain has an EU score of 54.2 points, with Sweden scoring highest, at 68.4 points, followed by Malta (68.0 points) and Belgium (67.0 points). The lowest-scoring countries in the sub-domain of segregation are Latvia (38.5 points), Finland (44.6 points) and Greece (46.0 points).

4.2. Women engage slightly more in formal or non-formal education and training

Women seem to engage more in formal or non-formal education and training across almost all groups. Looking at family composition, the biggest gender gap (3 pp) occurs in women and men who are lone parents, where 15 % of women and 12 % of men participate in education and training. Among couples without children (9 % of women vs 7 % of men) and in couples with children (12 % of women vs 10 % of men), women seem to outperform men in participating in education and training (Figure 14). However, a larger proportion of men choose to work on improving their skills and competences during their leisure activities (Box 3).

Participation in training decreases sharply with age. Women and girls in the 15-24 age group are most engaged in education and participation, at 74 %, in contrast to 69 % of men and

boys. The 25-49 age group shows a gender gap of 2 pp, with 15 % of women in this age range participating in education and training, compared to 13 % of men. In the 50-64 age group, 7 % of women engage in education and training, compared to 6 % of men. In the 65+ age group, 2 % of both women and men participate in education and training (Figure 14).

There is a significant gap between native-born and foreign-born women and men. Native-born people seem to participate more in education

and training (19 % of women and 18 % of men) than their foreign-born counterparts (at 15 % and 14 %, respectively) (Figure 14). Third-country individuals, especially newly arrived refugees, face bigger challenges in accessing education and training in comparison to EU citizens and highly skilled third-country nationals, due to problems related to refugee status, cultural and language barriers, and risk of stigmatisation and discrimination (not limited to refugees alone) ⁽²⁴⁾.

Box 3. EIGE time use survey shows that men are more likely to use their leisure activities for ‘improvement of skills and competences’ across all levels of education

The EIGE survey on gender gaps in unpaid care, individual, and social activities (2022) shows that 21 % of women and 25 % of men choose ‘improvement of skills and competences’ as one of their top three options for leisure activity ⁽²⁵⁾. Men thus show a slightly higher inclination to spend their leisure time enhancing their skills and competences.

When considering different education levels, there are no notable differences in the likelihood of women and men to choose skill improvement as a leisure activity. The propensity to allocate free time for skill enhancement appears consistent across all education levels.

However, gender gaps are evident across all education levels, with disparities most pronounced among individuals with low and high levels of education. Within the lower education bracket, approximately 19 % of women and 25 % of men report engaging in activities to improve skills and competences during their leisure time. Among individuals with a medium-level education, about 22 % of women and 25 % of men share the same inclination. Finally, among those who have completed a higher level of education, 20 % of women and 26 % of men report pursuing skill enhancement during their leisure hours.

Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

⁽²⁴⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Action Plan on the integration of third country nationals, COM/2016/0377.

⁽²⁵⁾ The text box is based on the analysis of two survey questions from the survey: QE3. ‘What is the objective of your leisure activities?’; and QA2. ‘What is the highest level of education you have successfully completed?’ (EIGE, 2023d).

Figure 14. People participating in formal or non-formal education and training, by sex, family composition, age, education level, and country of birth (% , 15-74, EU, 2021)



Source: Author's calculation with microdata, EU-LFS 2021. EU-SILC 2021 is used for disability analysis (SK, 2020).

Notes: EU-LFS break in time series.

Groups under dimension of 'age' and 'education' sum to the overall population. For other groups, missing data and/or excluded groups are not fully comparable with the overall population.

Education attainment includes people who have completed ISCED levels 0–2 (Low), ISCED level 3 or 4 (Medium), ISCED levels 5–8 (High). Family type definition is based on the relationships between the members of households, i.e. a couple is defined as two adults living in the same household and declaring themselves to be in a relationship (whether married or not). Children are only those economically dependent household members (i.e. aged below 18, as of 2021, 18-24 in the previous years) who are declared to be children or stepchildren of the couple or one parent (in case of a one-parent household) and are not in employment or unemployment; for clarity of interpretation, indicated family types strictly account for the aforementioned types of relationships and the socioeconomic status of children, excluding households with different compositions.

Gap changes: positive, where it decreased since 2014 (in green, gender gap change ≥ -1); negative, where it increased since 2014 (in red, gender gap change ≥ 1), and no change since 2014 (in yellow, $-1 < \text{gender gap change} < 1$).

4.3. Green transition demands skills and education in sectors where gender inequality is significant

There is high demand for a STEM-educated workforce in important sectors linked to the European Green Deal, such as energy and transport. The European Commission states

that the development of new digital skills through upskilling and reskilling of the EU workforce is crucial to deliver on the European Green Deal and the twin transition ⁽²⁶⁾. The position of women warrants attention in the green transition, despite their higher levels of educational attainment ⁽²⁷⁾. European Green Deal measures are often directed towards investments in renewable energy and low-carbon transport, which remain male-dominated

⁽²⁶⁾ European Commission, European Skills Agenda for sustainable competitiveness, social fairness and resilience, <https://education.ec.europa.eu/focus-topics/green-education/about-green-education>

⁽²⁷⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A strong Social Europe for Just Transitions, COM 2020/14.

sectors (Culot and Wiese, 2022). Most of the funds allocated so far have indirectly targeted a predominantly male workforce (Heffernan et al. 2021).

The European Training Foundation (ETF) (2023) ⁽²⁸⁾ states that because digitalisation affects all aspects of life and technological innovation, digital literacy, and skills (especially STEM) are crucial components of the skills packages for sustainability challenges. The ETF notes that the green transition requires higher technical knowledge and skills, while simultaneously recognising that this poses a greater challenge for women, who are underrepresented in STEM

disciplines and programmes (ETF 2023). In 2020, across the Member States, only 19 % of students in ICT and 27 % of students in engineering, manufacturing and construction were women (see [section 9.3.3](#)).

However, the lack of women in STEM fields is only one consideration – underlying gender stereotypes must also be addressed. Similar to women in STEM, men are severely underrepresented in tertiary education in the fields of education and health. These sectors are not often recognised as relevant for the green transition and having potential for ‘green jobs’ (Greens, 2021; Littig, 2017).

⁽²⁸⁾ ETF (2023), Skilling for the green transition, available at: https://www.etf.europa.eu/sites/default/files/2022-11/Edited%20green%20transition%20policy%20brief_EN.pdf

5. Domain of time

The time domain aims to capture the gendered nature of the time distribution between economic, care, and social activities. It is an important area from a gender perspective, given the imperative to ensure better work-life balance. Over the years, this area has been characterised by a persistent lack of progress and growing inequality. The unequal share of paid and unpaid work is considered one of the root causes of gender inequality in society as a whole and in the labour market specifically, as it raises questions about women's limited access to resources and power. As a result, the time domain is closely interconnected with other domains of the Index.

The COVID-19 crisis highlighted the essential nature of care in our society and the urgent need for stronger national care systems. In 2022, the Commission presented a new European Care Strategy⁽²⁹⁾, which sets an agenda to improve the situation for carers and care receivers. It presents a framework for policy reforms to guide the development of sustainable and resilient LTC⁽³⁰⁾ and ECEC⁽³¹⁾ systems. The Strategy aims to ensure quality, affordable and accessible care services, with better working conditions, gender equality, and work-life balance of carers. It will also help to advance the implementation of the [European Pillar of Social Rights](#) and the [2030 EU headline targets](#) on employment, skills and poverty reduction. The European Recovery and Resilience Facility⁽³²⁾

also acknowledges that women have been particularly affected by the COVID-19 crisis and that investment in a robust care infrastructure is essential for gender equality and women's economic empowerment.

The EU Gender Equality Strategy 2020-2025 sees improving the work-life balance as an important precondition to closing gender gaps in the labour market, income, and care. The Strategy aims to support Member States in their efforts to achieve equal sharing of care responsibilities between women and men, including through improved availability and affordability of quality formal care services. The adoption of the Work-life Balance Directive⁽³³⁾ is an important milestone, setting legally binding minimum standards for family leave and flexible working arrangements. The findings of the Index provide a strong base for evidence-based policy-making in the area of work-life balance in order to comply with the provisions of the Directive.

This year sees the domain of time updated for the first time since 2016, based on EIGE's unique EU-wide survey on unpaid care, individual and social activities in 2022. Over 60 000 respondents were interviewed across the EU-27⁽³⁴⁾. The survey not only collected new data for the indicators used in the time domain, but also shed light on broader gender differences in the involvement in informal LTC, childcare and housework, leisure and social activities,

⁽²⁹⁾ A European Care Strategy for caregivers and care receivers, available at: <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&furtherNews=yes&newsId=10382#navItem-relatedDocuments>

⁽³⁰⁾ Proposal for a Council Recommendation on access to affordable high-quality long-term care, COM/2022/441 final.

⁽³¹⁾ Proposal for a Council Recommendation on the revision of the Barcelona Targets on early childhood education and care, COM(2022) 442.

⁽³²⁾ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, OJ L 57, 18.2.2021, pp. 17–75.

⁽³³⁾ Directive (EU) 2019/1158 of the European Parliament and of the Council of 20 June 2019 on work-life balance for parents and carers and repealing Council Directive 2010/18/EU, OJ L 188, 12.7.2019, pp. 79–93.

⁽³⁴⁾ In most countries, data was collected via Computer Assisted Web Interviews (CAWI) using established online access panels. In Malta and Luxembourg, respondents were interviewed via Computer Assisted Telephone Interview (CATI) due to a lack of robust online access panels. The survey targeted respondents from 16-74 years of age, with the exception of Romania, Malta and Luxembourg. In Romania, there was undercoverage of older populations in online access panels, caused by limited internet penetration across the country, leading to a reduced age range (16-64 years) of respondents. In Malta and Luxembourg, due to use of CATI interviews, the target population was defined as all residents older than 16 years who could either be reached via a landline or a mobile phone number.

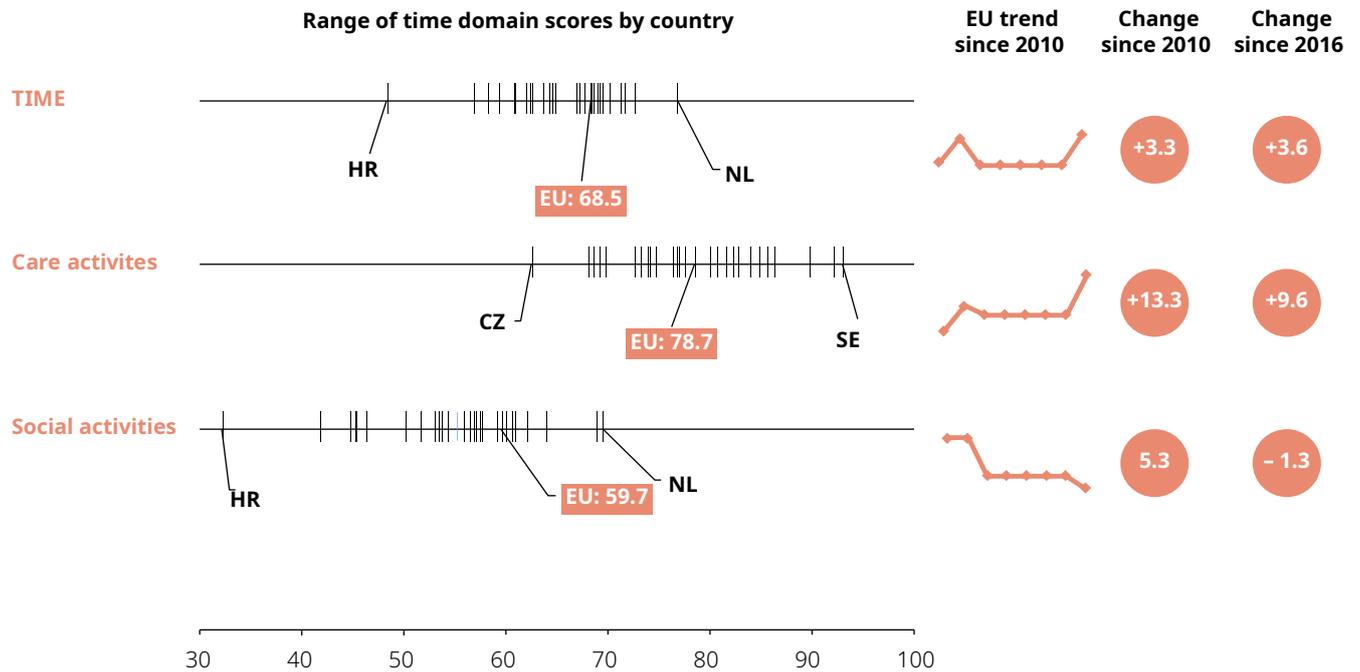
work- life balance, use of digital tools, and environmentally sensitive choices in care. The survey provides data for interpretation of the Index scores across all domains, with more focused analysis presented in this section.

5.1. New scores confirm enduring trends in gender inequalities in unpaid care and social activities

The domain of time ⁽³⁵⁾, updated with the most recent data from 2022, remains the third lowest-scoring domain of the Gender Equality Index. The low score is largely determined by gender inequalities in social activities (Figure 15) as well as the enduringly large gender gap in time

devoted to care and housework. The domain has a broad dispersion of countries' scores (Figure 16). The best-performing countries overall are the Netherlands, Denmark and Sweden, while the worst-performing countries are Croatia, Czechia and Cyprus. The highest improvements since 2016 are recorded by Greece (+22.4 points), Bulgaria (+21.1 points), Portugal (+20.3 points), Poland (+19.0 points) and Romania (+18.9 points). In each case, these positive changes are driven by sharp decreases in gender gaps in daily cooking and housework activities and by higher participation of both women and men in leisure activities. The highest drops are evident in Sweden (-18.2 points), Ireland (-14.7points) and Denmark (-10.4 points), largely due to the sharp decrease in participation in leisure activities by both women and men.

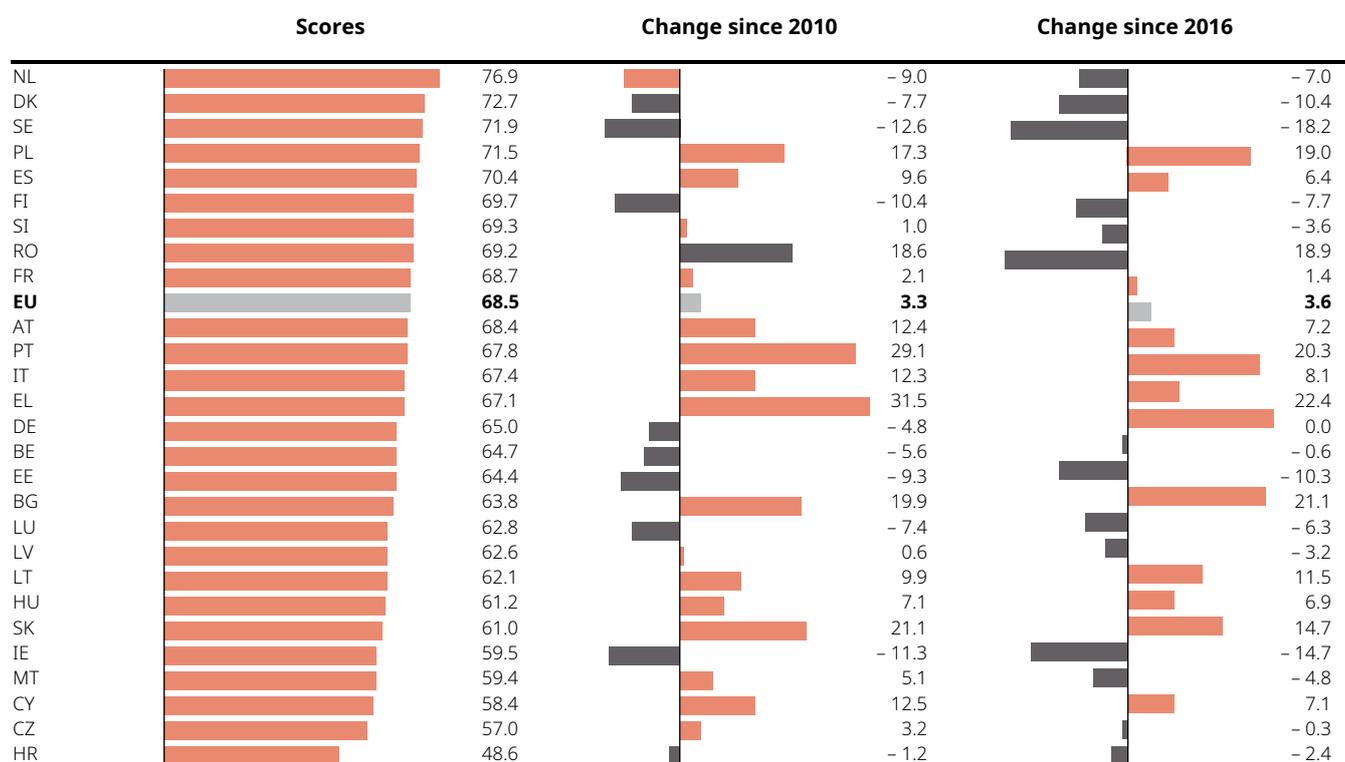
Figure 15. Scores for the domain of time and its subdomains, and changes over time



Source: Authors' calculation, EIGE survey on gender gaps in unpaid care, individual and social activities (2022). Sub-domain of care activities EQLS (2007, 2016); sub-domain of social activities EWCS (2010, 2015), see Annex 1.
 Note: Break in time series in the domain of time, due to methodological changes in the source of data (EIGE survey data on gender gaps in care, individual and social activities), see Annex 4.

⁽³⁵⁾ The domain of time measures gender inequalities in the allocation of time for care and domestic work and social activities. The first sub-domain of care activities measures gender gaps in women's and men's everyday involvement in the care and/or education of their children, their grandchildren, older people, or people with disabilities. It also measures their involvement in cooking and housework. The second sub-domain of social activities explores gender gaps in women's and men's participation in sport, cultural or leisure activities outside of their home, combined with their engagement in voluntary and charitable activities.

Figure 16. Scores for the domain of time, and changes since 2010 and 2016 in the EU Member States



Source: Authors' calculations, EIGE survey on gender gaps in unpaid care, individual and social activities (2022), European Quality of Life Survey (EQLS) (2007, 2016); EWCS (2010, 2015), see Annex 1.

Note: Break in time series in the domain of time, due to methodological changes in the source of data (EIGE survey data on gender gaps in care, individual and social activities), see Annex 4.

The sub-domain of care activities scores 78.7 points, a significant improvement (+9.6 points) since 2016, the last time the scores of this sub-domain were updated. The highest gender equality in daily housework and everyday care for family members is evident in Sweden (93.1 points), Estonia (92.2 points) and Finland (89.9 points). The biggest gender inequalities are seen in Czechia (62.8 points), Lithuania (68.2 points) and Slovakia (69.3 points). Gender inequalities in caring and housework activities have narrowed substantially in Greece (+23.9 points) and Bulgaria (+20.8 points), prompting both countries to have the highest overall progress in the domain of time. However, inequalities have grown substantially in Latvia (-19.9 points) and slightly in Denmark (-3.7 points). Overall, progress in this sub-domain at EU level is largely driven by reducing shares of women engaged in daily caring and housework activities, with only marginally increasing shares of men engaging in these tasks.

The sub-domain of social activities remains almost the same as in 2015, with a score of 59.7 points. However, the relative stability of the sub-domain hides a substantial country variation in progress or regress during that period. The highest and most gender-equal engagement in social activities, such as sport, cultural, leisure, voluntary or charitable activities, is observed in the Netherlands (69.7 points), Poland (69 points) and Denmark (64.1 points). By contrast, Croatia (32.5 points), Ireland (42.1 points) and Estonia (45 points) are the worst-performing countries in this sub-domain. Since 2015, the sub-domain score has improved most in Poland (+26 points), Romania (+23.6 points) and Portugal (+21.6 points), almost exclusively due to higher engagement in leisure activities of both women and men. Scores have fallen most significantly in Sweden (-33.7 points), Ireland (-30 points) and Estonia (-20 points), with negative trends driven by lower engagement in leisure activities by both women and men.

5.2. Unequal division of care and housework tasks prevails among different groups of women and men

The EIGE survey data on women's and men's involvement in unpaid care show that more women (34 %) than men (25 %), both in general and belonging to different groups, engage in everyday caring for others (Figure 17). Even higher inequalities are visible in cooking and housework activities, where 63 % of women and only 36 % of men report doing such tasks every day. Since 2016, the gender gap has reduced slightly for involvement in unpaid care (-3 pp) and by a large margin for housework and cooking activities (-19 pp). In both cases, that drop reflects women's lower engagement, rather than men's higher engagement in such activities overall.

The highest share of women and men with care responsibilities is in the 25-49 age group (48 % of women compared to 34 % of men), as the group most likely have children (Figure 17). In addition to higher involvement in care, 64 % of women and only 36 % of men in this age group cook or do housework every day – double the gender gap as for caring activities. This large gender gap in daily housework activities remains fixed across older age groups, as both women and men in the 50-64 and 65+ age groups report similar levels of engagement.

A large gender gap is also observed in couples living with children, with men reporting spending significantly less time caring for or educating a child or other dependent person (65 %, compared to 46 % for women). The gender gaps are much lower among lone parents, at 51 % of lone mothers and 43 % of lone fathers. Housework and cooking activities are much more equally distributed between single women and men than those living in couples with/without children. As many as 55 % of single women and 48 % of single men are involved in such activities daily, while in couples without children, the division of tasks increases sharply, to 65 % of women and 32 % of men. The gender gap is even higher among couples with children, with 72 % of women reporting daily housework activities, compared to 35 % of men.

The distribution of care and housework activities between women and men varies significantly by education and country of birth of the carer. Across all education levels, more women than men are involved in both unpaid care and daily housework activities. Foreign-born women and men share care activities more equally than native-born people, but not daily housework activities. The share of native and foreign-born women involved in unpaid care is similar (33 % and 36 %, respectively), but a higher share of foreign-born men than native men are involved in educating their children or grandchildren, older people, or people with disabilities every day (31 % and 24 %, respectively).

Figure 17. People caring for and educating their children or grandchildren, older people or people with disabilities every day, by sex, family composition, age, education level, country of birth and disability (% , 18-74, EU, 2022)

	Women	Men	Gender gap (pp) 2022	Gender gap (pp) 2016	Gap change since 2016
Family					
Single	7	9	-2	5	●
Lone parents	51	43	8	34	●
Couple without children	11	9	2	5	●
Couple with children	65	46	19	18	●
Age					
15-24	24	31	-7	11	●
25-49	48	34	14	22	●
50-64	20	18	2	6	●
65+	15	8	7	5	●
Education					
Low	33	27	6	10	●
Medium	32	23	9	14	●
High	36	26	10	14	●
Country of birth					
Native born	33	24	9	12	●
Foreign born	36	31	5	15	●
Disability					
With disabilities	35	30	5	8	●
Without disabilities	33	21	12	14	●
Overall					
Population, 18-74	34	25	9	12	●

Source: Author's calculations, EIGE survey on gender gaps in unpaid care, individual and social activities (2022); EQLS (2016).

Notes: Break in time series.

Education attainment includes people who have completed ISCED levels 0–2 (Low), ISCED level 3 or 4 (Medium), ISCED levels 5–8 (High). Family type definition is based on certain household's members. A couple is defined as two adults living in the same household and declaring themselves to be in a relationship (whether married or not). Other adults in the household are excluded from the definition. Children are all children in the household, not just those who are the respondent's own children. For clarity of interpretation, indicated family types exclude households with a different composition.

Gap changes: positive, where it decreased since 2014 (in green, gender gap change ≥ -1); negative, where it increased since 2014 (in red, gender gap change ≥ 1), and no change since 2014 (in yellow, $-1 < \text{gender gap change} < 1$).

Box 4. More men than women use formal care services, which remain inaccessible or unaffordable for many

Access to ECEC services (such as kindergartens, creches and daycare) and LTC services (such as residential long-term care facilities, daycare centres, care services provided by home-based personal care workers, health care assistants and live-in carers) is key to reducing the burden of highly time-intensive informal care, typically provided by women. According to the EIGE survey⁽³⁶⁾, 64 % of women and 66 % of men with children under six years of age use ECEC services, while 61 % of women and 75 % of men LTC carers indicated that their main care recipient uses formal care services at least one day a week.

Despite increasing demand for ECEC and LTC services, they remain unaffordable, unavailable or inaccessible for many people. Among parents who use ECEC services, about 14 % of women and 10 % of men caring for children under six cannot access all the services they need. The main reasons behind unmet needs for services reported by parents are long waiting lists (26 % of women and 31 % of men) and the unavailability of required services (20 % of women and 30 % of men). In addition, 16 % of women and 27 % of men report that they cannot afford the necessary care services.

Many LTC caregivers and care recipients in the EU also struggle to access the services they need. Approximately 27 % of women and 24 % of men who provide LTC and use formal care services report difficulties in accessing all of the required LTC services for their care recipient. Affordability is the main barrier, with 34 % of women and 31 % of men reporting being unable to afford formal care services. Most LTC carers who cannot afford to pay for formal care services have lower incomes, with a large gender gap (45 % of women and 27 % of men). Other barriers include the care recipient not meeting eligibility criteria (28 % of women and 23 % of men), administrative burdens in accessing services (22 % of women and 23 % of men), or unsatisfactory service quality (21 % of women and men, respectively).

Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

5.3. Young women and men are more likely to adopt sustainable caring and leisure practices

Unequal distribution of unpaid care and household activities within the household not only leads to different energy consumption patterns

(carbon footprint), but also shapes willingness and capacity to adopt more eco-friendly behaviours. Available literature suggests that women are more likely to adopt sustainable household practices, such as food sustainability, energy saving, recycling, and waste reduction, which aligns with the growing popularity of 'zero-waste' practices that primarily focus on household activities (predominantly carried out by

⁽³⁶⁾ The text-box is based on the analysis of the following survey questions: QC7. Do you currently use formal early childhood education and care services (e.g. kindergarten, day care centre, a crèche) for your children aged 0-5 years?; QC9. During the last 3 months, were you able to access all the formal early childhood education and care services (e.g. kindergarten, day care centre, a crèche) that you needed for your children aged 0-5 years?; QC10. Why were you unable to access all the formal early childhood education and care services (e.g. kindergarten, day care centre, a crèche) for your children aged 0-5 years that you needed? (reasons for unmet needs: 1) Can't afford it; 2) No such care services are available; 3) Waiting list is too long); QB9. How frequently does your main care recipient currently use the following care services? (at least one day a week of any of the following services: 1) Residential long-term care facilities/ institutions; 2) Daycare centre; 3) Home-based personal care workers; 4) Nurse and/or health care assistants; 5) Domestic cleaners and helpers; 6) Live-in carers (paid professionals living in the household); 7) Social worker; 8) Volunteer; 9) Other healthcare professionals); QB11. In your opinion, during the last 3 months was your main care recipient able to get all the care that she or he needed from care services?; QB12. Why did your main care recipient not get all the care that she or he needed from care services? (reasons for unmet needs: 1) Can't afford it; 3) The person needing service is not eligible; 4) Administrative burden to access services is too heavy; 6) The quality of the services available is not satisfactory) (EIGE, 2023d).

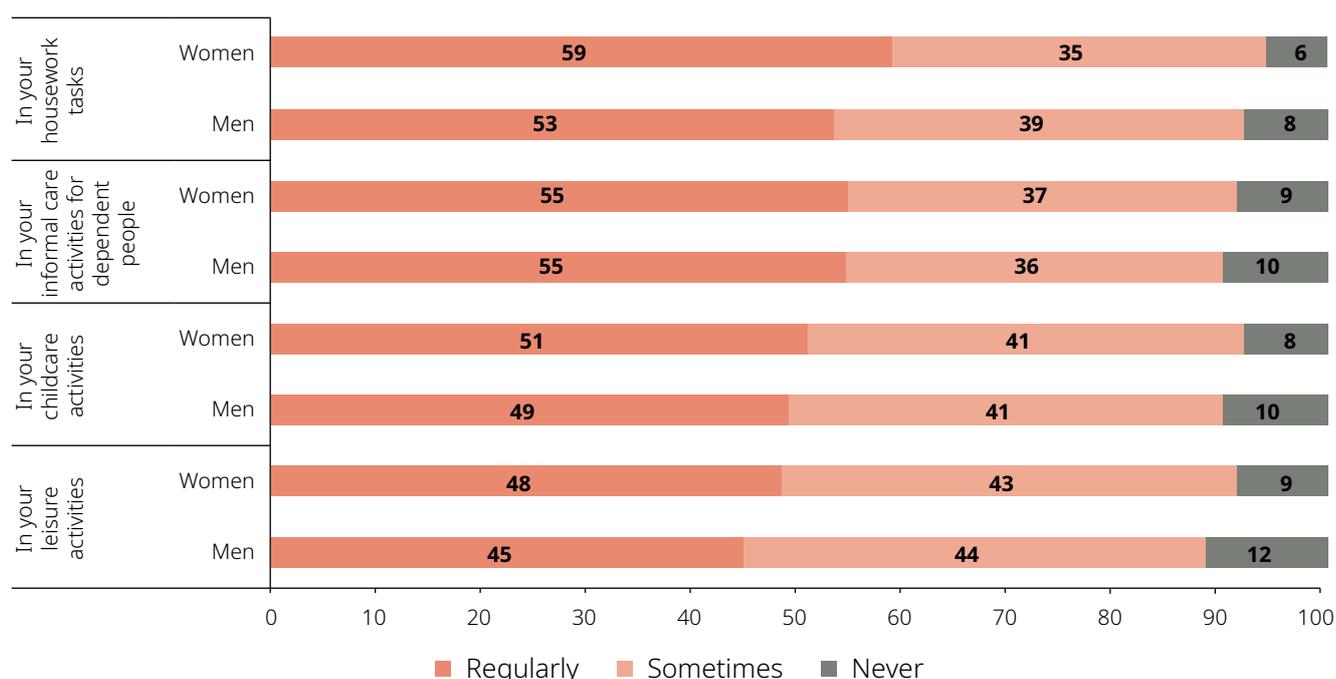
women), such as cooking, cleaning, and grocery shopping (Carlsson Kanyama et al., 2021; Wilde & Parry, 2022) (see section 9.1.3).

The EIGE survey on gender gaps in unpaid care, individual and social activities corroborate these findings, as a higher share of women (59 %) than men (53 %) indicate regularly choosing environmentally friendly options in their housework tasks, such as recycling, using eco-friendly cleaning products, and using renewable energy to reduce carbon emissions (Figure 18). However, gender differences almost disappear when it comes to choosing environmentally friendly options in informal care. Around half of women (51 %) and men (49 %) regularly apply environmentally friendly actions in their childcare activities, such as avoiding single-use items, shopping for second-hand items, and educating on environmental issues. The same share of women and men (55 %) report similar choices in their informal care activities for people with disabilities or older people (e.g. prioritising eco-friendly care products and services).

A closer look at different intersections reveals that younger women and men are more likely to choose environmentally friendly options in unpaid care, and particularly in leisure activities. Housework activities are an exception, with those aged 65+, especially women, more likely to apply environmentally friendly actions. Across different activities, respondents with higher incomes (especially women) are somewhat more likely to choose environmentally friendly options, although the trend is not as clear as among the younger population.

Due to evolving climate conditions, the demand for formal and informal care is likely to grow, alongside the importance of sustainable and environmentally friendly actions in these activities. Extreme weather events will likely have the highest impact on the most disadvantaged groups (e.g. children, people with limitations in their daily activities, and older people) and they are likely to require more intense and extensive informal care. Similarly higher pressure will be put on already overburdened formal care systems (see section 9.1.2).

Figure 18. Share of women and men opting for environmentally friendly options, by task and frequency (% , EU, 16-74, 2022)



Source: Author's calculations, EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

Note: QG4: 'And now more specifically thinking about your role as a carer or during your housework and leisure activities, how often do you choose environmentally friendly options in...'; QG4.1 those that reported providing informal long-term care; QG4.2 individuals providing childcare for own/other children; QG4.3 those that reported being involved housework; QG4.4 individuals involved in leisure activities.

6. Domain of power

Despite progress in gender equality in decision-making, women continue to be outnumbered by men in decision-making bodies in political, economic, and social spheres throughout the EU.

Gender balance in decision-making is one of the priorities of the EU Gender Equality Strategy 2020-2025 (European Commission, 2020e). In this framework, the European Commission is pushing for more action to improve gender balance in decision-making, particularly in politics.

In September 2022, the European Parliament adopted a Commission proposal to make the funding of European political parties more transparent, including provisions on improving gender equality⁽³⁷⁾.

Ahead of the next European Parliament elections in 2024, the persistent underrepresentation of women in politics remains a cause for concern. In 2022, the European Parliament adopted a proposal for a Council Regulation on the election of the Members of the European Parliament, with the aim of ensuring common rules for European Parliament elections in the Member States, through quotas or so-called zipped lists, where women and men alternate on candidate lists⁽³⁸⁾. The proposal is in line with some Member States' introduction of binding

measures to increase women's participation in politics, as well as in economic decision-making.

In the second quarter of 2023, the share of women among Members of the European Parliament (MEPs) was almost 40 %. Less than half of the Member States (11 of 27) had at least 40 % of each gender among their MEPs⁽³⁹⁾. In 10 Member States, at least two-thirds of MEPs are men⁽⁴⁰⁾.

The Commission became gender balanced (at least 40 % of each gender) for the first time following the appointment of Ursula Von der Leyen as President in December 2019. As of June 2023, the European Commission continues to demonstrate gender parity, with 12 women (46 %) and 14 men (54 %) among commissioners.

The proportion of women on the boards of the largest listed companies in EU Member States reached an all-time high of 33 % in 2023⁽⁴¹⁾. However, that progress is largely driven by legislative actions in a small number of Member States⁽⁴²⁾. In 2023, women accounted for 38 % of board members of the largest listed companies in countries with gender quotas, compared to 33 % in countries where only soft measures have been applied, and just 19 % in countries that have taken no gender balancing action at all.

⁽³⁷⁾ Proposal for a Regulation of the European Parliament and of the Council on the statute of funding of the European political parties and European political foundations (recast), COM(2021), 734 final.

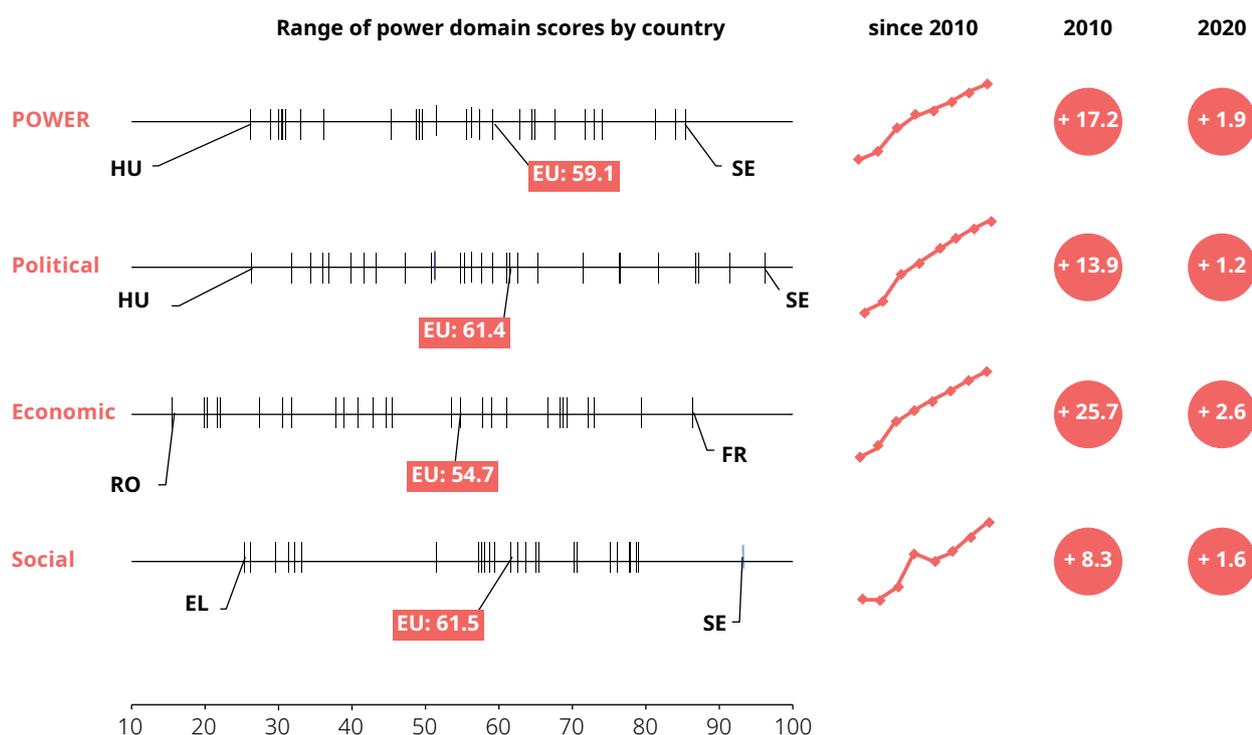
⁽³⁸⁾ Proposal for a Council Regulation on the election of the Members of the European Parliament by direct universal suffrage, repealing Council Decision 76/787/ECSC, EEC, Euratom and the Act concerning the election of the members of the European Parliament by direct universal suffrage annexed to that Decision ('EU Electoral Law').

⁽³⁹⁾ Sorted by share of women MEPs, starting from the highest: Finland, Sweden, Luxembourg, Latvia, France, Portugal, Spain, Italy, the Netherlands, Denmark, Austria.

⁽⁴⁰⁾ Sorted by share of women MEPs, starting from the lowest: Romania, Cyprus, Greece, Lithuania, Estonia, Slovakia, Bulgaria, Czechia, Croatia, Malta.

⁽⁴¹⁾ The European Parliament and the EU Council reached agreement on a directive to improve gender balance on corporate boards, proposed by the EU Commission in 2012. From 2026, women must make up at least 40 % of non-executive boards or 33 % of all directors of listed companies. https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3478

⁽⁴²⁾ Currently, eight countries apply legislative gender quotas to the boards of listed companies: France and Italy (40 %); Belgium, the Netherlands and Portugal (33 %); Germany and Austria (30 %); and Greece (25 %).

Figure 19. Scores for the domain of power and its sub-domains, and changes over time

Source: Authors' calculations, EIGE Gender Statistics Database, Women and Men in Decision-Making (WMID) (2009-2010-2011, 2019-2020-2021, 2020-2021-2022).

Note: The 2023 Index uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective. For the domain of power, the three-year average for each indicator is used (see Annex 1).

6.1. Uneven progress towards equality for women and men in decision-making across the Member States

The EU score in the domain of power ⁽⁴³⁾ increased by 1.9 points between 2020 and 2021, and by 17.2 points since 2010 (the most significant progress registered across all domains), in small but consistent annual increments (Figure 19). However, the score of the domain of power remains the lowest of all the domains. Sweden has topped the ranking since 2010, while Hungary is in last position since 2015.

The EU average masks considerable variation between Member States. The most improved scores between 2020 and 2021 include Italy (+

5.8 points), Malta (+4.9 points) and Luxembourg (+ 4.7 points). In these three countries, the greatest improvements are evident in the economic sub-domain, particularly more equitable compositions of central bank boards.

Setbacks in the domain of power are seen in eight countries during the same one-year time-frame. The scores of Romania (-1.9 points), Latvia (-1.8 points) and Estonia (-1 point) have decreased most, along with five other countries (Cyprus, Finland, Slovakia, Bulgaria, Croatia). In Latvia and Estonia, this decrease is driven by a decline in the indicator on central bank board members. In Romania, the sharpest declines stem from the falling share of women ministers.

Since 2010, three countries have improved by more than 30 points: Luxembourg (+38.8 points), Italy (+37.5 points) and France (+31.4 points).

⁽⁴³⁾ The domain of power measures gender equality in the highest decision-making positions across the political, economic and social spheres. The sub-domain of political power looks at the representation of women and men in national parliaments, governments, and regional/local assemblies. The sub-domain of economic power examines the proportions of women and men on the corporate boards of the largest nationally registered companies and national central banks. The sub-domain of social power includes data on decision-making in research funding organisations, public broadcasters, and the most popular national Olympic sport organisations.

The scores of two countries have decreased, however: Czechia (by 0.8 points) and Romania (by 0.1 points) (Figure 20).

At EU level, the political decision-making sub-domain scores 61.4 points. The score increased by 13.9 points between 2010 and 2021, and by 1.2 points between 2020 and 2021. The biggest improvements since 2020 are seen in Belgium (+6.1 points), Croatia (+4.8 points) and Estonia (+4.7 points). Negative changes are evident in seven countries (Romania, Czechia, Latvia, Bulgaria, Spain, Greece, Cyprus), most notably in Romania (-4.3 points), Czechia (-2 points) and Latvia (-1.9 points).

Although the economic sub-domain, with a score of 54.7 points, has the lowest score of the sub-domains of power, it is characterised by the fastest pace of change, increasing by 25.7 points between 2010 and 2021, and by 2.6 points between 2020 and 2021. The greatest improvements since 2020 are in Luxembourg (+10.5 points), Denmark (+9.3 points) and Belgium (+9.2 points). The score for this sub-domain has decreased in 11 countries

(Bulgaria, Latvia, Croatia, Estonia, Portugal, Finland, Romania, Hungary, Cyprus, Sweden, Slovakia). Countries showing the greatest decrease since 2020 are Bulgaria (-4.7 points), Croatia (-3.9 points) and Latvia (-3.7 points).

At EU level, the social sub-domain scores 61.5 points, the highest in the domain of power. The score increased by 8.3 points between 2010 and 2021, and is up by 1.6 points since 2020. Progress in this domain is slowed by the particularly unequal representation of women and men in sports: in 2022, on average in the EU, only 25 % of members of the highest decision-making bodies of national Olympic sport organisations were women. The biggest improvements in the social sub-domain since 2020 are in Portugal (+8.3 points), Austria (+8.1 points), and the Netherlands (+7.2 points). Negative change is also evident in this sub-domain, most prominently in Cyprus (-2.3 points), Luxembourg (-2 points) and Slovenia (-1.7 points), along with five other countries (Spain, Estonia, Slovakia, Croatia, Belgium).

Figure 20. Scores for the domain of power, and changes over time in the EU Member States



Source: Authors' calculations, EIGE Gender Statistics Database, WMID (2009-2010-2011, 2019-2020-2021, 2020-2021-2022).

Note: The 2023 Index uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective. For the domain of power, the three-year average for each indicator is used (see Annex 1).

6.2. Gender inequalities persist in political participation

Women are consistently underrepresented in political life in the EU. This imbalance is not confined to political decision-making, but is also evident in broader political participation. The

EIGE survey on gender gaps in unpaid care and individual and social activities shows that men are more likely than women to participate in political activities, such as contributing to political campaigns, signing petitions, protesting, or contacting officials (Box 5).

Box 5. Men are more likely than women to participate in political activities in the EU

Women's underrepresentation in decision-making roles is not the only form of gender imbalance in political life in the EU. The EIGE survey on gender gaps in unpaid care, individual and social activities (2022) shows that participation in other political activities, such as running in or supporting political campaigns, signing a petition, protesting, or contacting officials, is also gendered ⁽⁴⁴⁾. In all EU Member States except Lithuania, Slovakia and Romania, men are more likely than women to take part in political activities. Around 13 % of men and 10 % of women in the EU report being involved in political activities.

In terms of intensity of political participation, in all EU Member States except France and Cyprus, politically active men engage in political activities more often than politically active women.

At EU level, while young people (16-24-year-olds) are more politically active than older age groups, they also display the largest gender gap, with 23 % of young men engaging in political activities, compared to 17 % of young women. People with low levels of education are less likely to be politically active, and also show the largest gender gap versus other education levels, with just 11 % of men with low education and 7 % of women with low education engaging in political activities.

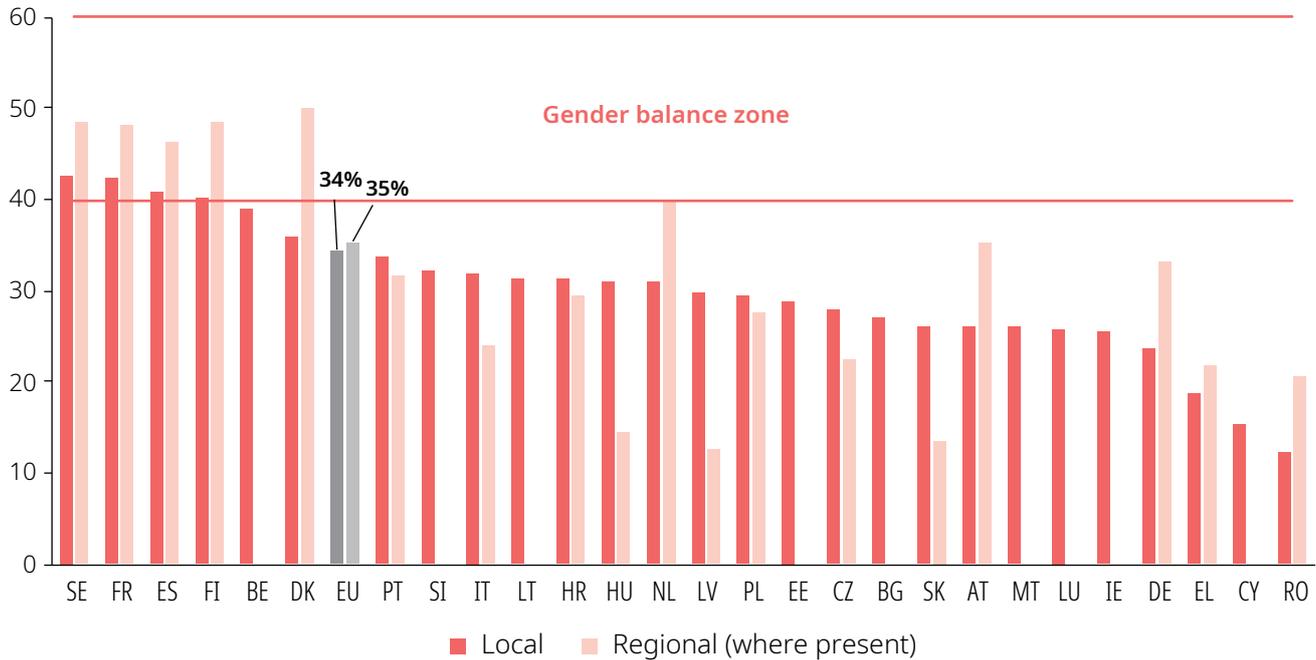
Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022).

Women are underrepresented in local/municipal and regional assemblies, where they account for just over one-third of members (Figure 21). The burden of caring activities may prevent women from taking a more active role in political life,

as exemplified by the lower percentage of politically active women among mothers caring for children at higher intensity (i.e. for more hours per day). Gender inequality affects women's political participation at all levels.

⁽⁴⁴⁾ The textbox is based on the analysis of two survey questions: QF1. 'In the last 6 months, have you been involved in voluntary, charitable or political activities outside of paid work?' (Answer options: Yes, No, Prefer not to answer); QF2.3. 'How often are you involved in the following voluntary, charitable or political activities outside of paid work? Being actively involved in political activities (e.g. running or helping a political campaign, signing a petition, protesting, contacting officials, etc.)' (Answer options: Every day, 4 to 6 days a week, 1 to 3 days a week, Less often, Never, Don't know; The text box is based on the analysis of two survey questions from the survey: QE3. 'What is the objective of your leisure activities?'; and QA2. 'What is the highest level of education you have successfully completed?' (EIGE, 2023d). Concerns for sample size in the following countries (politically active women >50): Cyprus, Estonia, Latvia, Slovakia, Slovenia, Luxembourg, Malta.

Figure 21. Share of women in local/municipal councils (2022) and regional assemblies (2023) by country (% , EU)



Source: EIGE Gender Statistics Database, WMID.

Note: EIGE data covers the elected assemblies of regions endowed with powers of self-government and acting between the central government and local authorities. The following countries do not have any regions conforming to this definition: Bulgaria, Estonia, Ireland, Cyprus, Lithuania, Luxembourg, Malta, Slovenia.

The gender imbalance is more severe for national-level political roles: as of the second quarter of 2023, 33 % of members of the single/lower house of national parliaments in the EU are women. The Member States whose parliaments comprise at least 40 % women are Belgium, Denmark, Spain, Finland and Sweden, down from eight gender-balanced parliaments in the corresponding quarter of 2022. In addition, in Hungary, Cyprus, Romania and Greece, the share of women in parliament is considerably lower, at 14 % (Hungary, Cyprus) and 21 % (Romania, Greece). Analysis of the application of legislated quotas confirms their positive impact on women's representation in parliament (EIGE, 2021e) ⁽⁴⁵⁾. Evidence of accelerated progress after the adoption of a quota can be seen in Ireland, Spain, Luxembourg, Poland and Slovenia.

As of June 2023, five out of 27 Member States had women prime ministers: Denmark, Estonia, France, Italy and Lithuania ⁽⁴⁶⁾. The prime ministers of Estonia and Italy are the first women in their countries to serve in this role. In early 2023, four countries had women presidents, in all cases the first women in their countries to serve in the role: Greece, Hungary, Slovenia and Slovakia. As of the second quarter of 2023, less than one-third of senior ministers in national governments are women. Governments are gender balanced in 11 Member States: Belgium, Germany, Estonia, Spain, France, Latvia, Lithuania, the Netherlands, Portugal, Finland and Sweden. Governments are overwhelmingly male (over 80 %) in Bulgaria, Czechia, Greece, Hungary, Malta, Poland, Romania and Slovakia.

⁽⁴⁵⁾ Since 2000, 11 Member States (led by France) have introduced legislation setting minimum gender quotas on candidate lists put forward by political parties in national parliamentary elections. The most recent legislation was adopted in Luxembourg (2016) and Italy (2017). In 2019, both Greece and Portugal raised their quotas from 33 % to 40 %.

⁽⁴⁶⁾ Data as of June 19th 2023.

6.3. Women are under-represented in climate change decision-making

As climate change continues to unfold and intensify threats to livelihood worldwide, decision makers such as government officials and the scientific bodies who influence decisions hold significant responsibility for reversing current trends and leading systems and communities towards sustainability. 2022 data from EIGE's Gender Statistics Database shows that women in the EU continue to be underrepresented in decision-making on the environment and climate change. In addition, a gender perspective is often lacking in related decisions, for instance in the policy areas of transport and energy.

At national level, 67 % of senior ministers in EU Member States with an environment or climate change portfolio are men. Senior ministerial administrators dealing with environment and climate change show greater balance, with 44 % women senior administrators in the EU. 70 % of members of parliamentary committees dealing with the environment and climate change are men. In six countries (Latvia, Romania, Cyprus, Slovenia, Slovakia, Estonia), fewer than 20 % of committee members are women. Sweden, Italy and Malta all have gender-balanced parliamentary committees on these issues.

Political positions within environment-related directorates-general (DGs) of the European Commission are largely gender balanced for commissioners and members of the cabinet (with the exception of DG Environment, whose cabinet is 71 % women). However, all heads of cabinet of the four relevant DGs are men (Climate Action, Energy, Mobility and Transport, and Environment).

Considering environment-related committees in the European Parliament, two of three presidents/leaders of relevant committees are men (Environment, Public Health and Food Safety Committee and Industry, Research and Energy Committee), with one woman leader (Transport and Tourism Committee).

Turning to the European agencies working in areas related to environment and climate change, five out of eight have a man as president/chair. All eight relevant agencies have a male majority among members of the highest decision-making body. Overall, only 27 % of members of the highest decision-making bodies are women. All executive heads are men, with the exception of the European Maritime Safety Agency, which is headed by a woman.

Greater gender balance in decision-making on environmental matters is necessary for a socially fair process towards climate adaptation, mitigation, and resilience.

7. Domain of health

The EU is now grappling with multiple effects of years of a global pandemic on women's and men's health, ranging from social isolation and mental stressors to disruption to healthcare services. Over 1.2 million lives were lost to COVID-19 in the EU ⁽⁴⁷⁾, a significant excess of mortality, especially among men (EIGE, 2021e; Islam et al., 2021), with millions of people left in poor health (WHO Regional Office for Europe, 2023). In addition, many healthcare workers and other essential workers, the majority of whom are women ⁽⁴⁸⁾, are experiencing poor physical and mental health, dealing with the consequences of burnout and trauma (WHO Regional Office for Europe, 2023).

In the context of economic and social recovery, a robust care infrastructure is essential for gender equality and women's economic empowerment. The new European Care Strategy ⁽⁴⁹⁾ includes measures to improve and expand the provision of quality, affordable and accessible LTC services in the EU ⁽⁵⁰⁾. EIGE's analysis of the national plans developed by EU countries to access European Recovery and Resilience Facility funds ⁽⁵¹⁾ shows that a cross-cutting

approach to gender equality is largely absent from national plans (EIGE, 2023b). While several national plans feature investments in care systems, these typically focus on infrastructure rather than on the working conditions of care workers, or access to services ⁽⁵²⁾.

Gender norms and roles shape people's attitudes towards climate change and their likelihood of adopting low-carbon lifestyles, including through diet and active mobility. Climate change and environmental degradation also have differential impacts on various population groups (EEA, 2018; Ganzleben and Kazmierczak, 2020; Kim R van Daalen et al., 2022), with gender being an important determinant of vulnerability (EEA, 2020a).

7.1. Gender equality progress in the domain of health has halted

The Gender Equality Index 2023 captures the effects of the COVID-19 pandemic through 2021 data for some indicators, particularly in the

⁽⁴⁷⁾ As of week 19 of 2023, European Centre for Disease Prevention and Control (ECDC) data (based on national weekly data) shows 1 234 034 deaths from COVID-19 in the EU, dating from the first week of 2020 (authors' calculations from The European Surveillance System (TESSy), Alt. Epidemic Intelligence, national weekly data, available at: <https://www.ecdc.europa.eu/en/covid-19/data-collection>. Data extracted on 23 May 2023.

⁽⁴⁸⁾ Women are overrepresented among essential workers. Eurostat data shows women represent 88 % of personal care workers, 84 % of cleaners and helpers, 73 % of education workers, and 72 % of health professionals in EU countries (EU Labour Force Survey (EU-LFS), 2018).

⁽⁴⁹⁾ A European Care Strategy for caregivers and care receivers, available at: <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&furtherNews=yes&newsId=10382#navItem-relatedDocuments>

⁽⁵⁰⁾ Proposal for a Council Recommendation on access to affordable high-quality long-term care, COM/2022/441 final.

⁽⁵¹⁾ The European Recovery and Resilience Facility is the mechanism put in place to disburse the EU unprecedented financial support EU countries towards economic and social recovery from the COVID-19 pandemic.

⁽⁵²⁾ While the pandemic shed light on the difficult working conditions faced by health professionals, many of whom are women, only a few Member States (Ireland, Italy, Luxembourg, Romania, Sweden) are considering reforms and investments in this regard. A number of Member States (Germany, Estonia, Greece, Spain, Croatia, Cyprus, Latvia, Lithuania, Poland, Portugal, Slovenia, the Netherlands, Finland) have prioritised investments to improve and create new healthcare infrastructure. Another large proportion of investments targeting the health sector is directed towards the digitalisation of services, administration and information (Belgium, Denmark, Germany, Ireland, France, Lithuania, Romania). Although these may contribute to a better working environment and address some of the challenges to accessing healthcare faced by women and disadvantaged groups, the link is not explicitly recognised in the national Recovery and Resilience Plans.

domain of health ⁽⁵³⁾. The score is lower by 0.2 points compared to 2020, and reveals a stagnation in gender equality in terms of the three sub-domains of health status, behaviour and access. The score remains the highest of all six core domains of the Gender Equality Index. The three sub-domains of health status, behaviour and access all reveal similar trends. Compared to 2020, the score for behaviour remains stable due to lack of new data, while the scores for health status and access have stalled (-0.2 points and +0.3 points, respectively) (Figure 22).

At EU level, the score for the sub-domain of health status has fallen slightly since 2020, by 0.2 points. Slovenia shows the most long-term progress, improving its score by 5.3 points since 2010. It is followed by Hungary (+4.2 points) and Italy (+3.5 points). In the EU, 67 % of women and 72 % of men rate their own health as 'good' or 'very good' ⁽⁵⁴⁾. In all Member States except Ireland (which shows no difference between genders), a smaller percentage of women than men rate their health as 'very good' or 'good'. Ireland has the highest self-reported health status (81 % of both women and men report very good or good health) and the smallest gender gap. The self-perceived health status gap is largest in Latvia (9 pp), Romania (8 pp) and Bulgaria (8 pp). Women in Lithuania are least likely to rate their health as 'very good' or 'good' (45 %), followed by women in Latvia (46 %) and in Portugal (47 %).

The sub-domain of health behaviour improved by 3 points between 2014 and 2019 (latest data

collection), to 77.8 points. However, the health behaviour score continues to lag behind the other two sub-domains (Figure 22). Further data collection efforts are needed to gain insight into behavioural changes in the post-pandemic EU. High performers include Sweden (91.2 points), Finland (90.7 points), the Netherlands (89.9 points) and Ireland (98.7 points). The Member States with the lowest scores are Romania (40.7 points), Bulgaria (54.4 points) and Latvia (64.9 points).

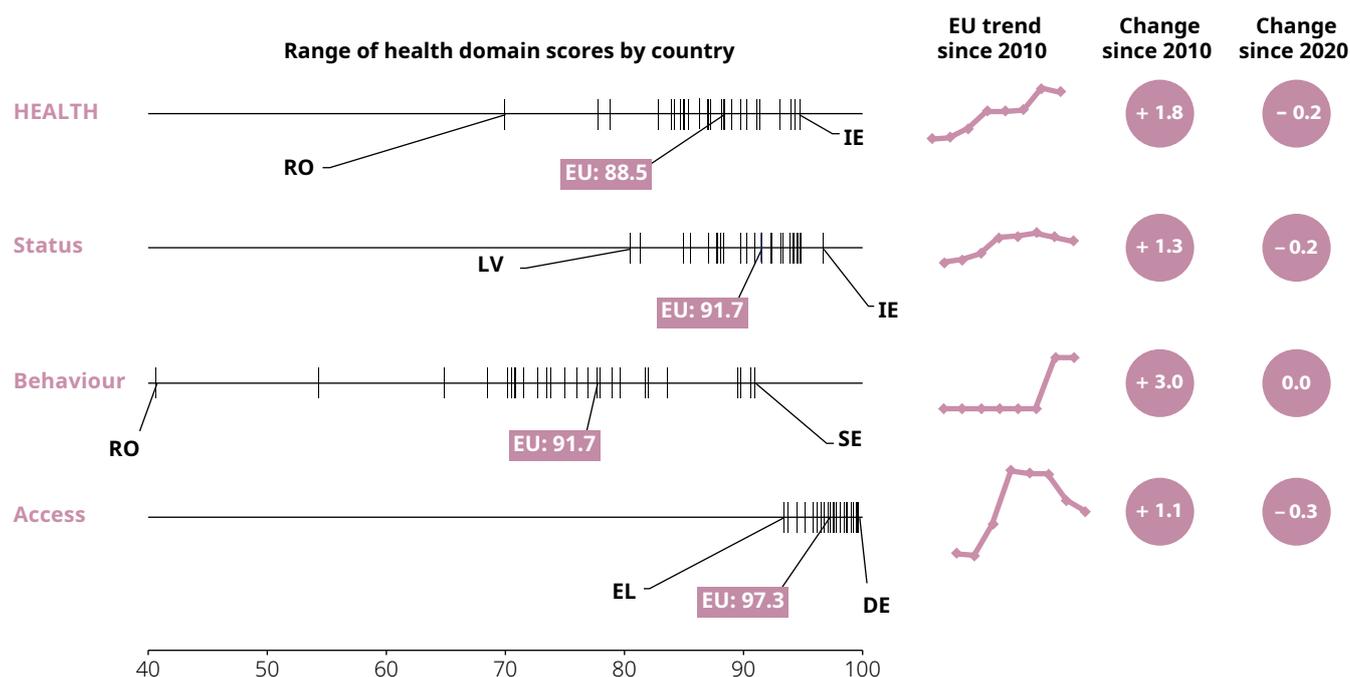
The access to health services sub-domain continues to have the highest score in the health domain, at 97.3 points. However, the marginal change of -0.3 points since 2020 continues the downward trend that has characterised this sub-domain since 2017, and more markedly since the COVID-19 pandemic. The most pronounced declines are seen in Slovenia (-1.8 points), Denmark (-1.4 points) and France (-1.1 points). Only Poland saw an increase of more than 1 point (+2 points).

Changes since 2020 are marginal in all Member States. Four countries show an improvement, with Poland the most improved (+0.8 points), followed by Finland, Lithuania, and Italy. Ireland is the top-performing country, followed by Sweden and the Netherlands. Finland, Austria, Spain and Luxembourg also record scores over 90 points. The Member States with most room to improve on gender equality in health are Romania, Bulgaria and Latvia (Figure 23).

⁽⁵³⁾ The domain of health measures three health-related aspects of gender equality: health status, health behaviour and access to health services. Health status looks at the gender differences in life expectancy, self-perceived health and healthy life years (also called disability-free life expectancy). This is complemented by a set of health behaviour factors based on World Health Organization (WHO) recommendations: fruit and vegetable consumption, engagement in physical activity, smoking and excessive alcohol consumption. Access to health services looks at the percentages of people who report unmet medical and/or dental needs.

⁽⁵⁴⁾ Eurostat, EU-SILC (hlth_silc_01), 2021.

Figure 22. Scores for the domain of health and its subdomains, and changes over time



Source: Authors' calculations, EU-SILC (2010, 2020, 2021), EHIS (2014, 2019), Eurostat (life expectancy at birth, healthy life years – 2010, 2020, 2021), see Annex 1.

Note: Index 2023 uses 2021 data for the most part and traces progress from a short-term (2020-2021) and longer-term (2010-2021) perspective.

Figure 23. Scores for the domain of health, and changes over time in the EU Member States



Source: Authors' calculations, EU-SILC (2010, 2020, 2021), European Health Interview Survey (EHIS) (2014, 2019), Eurostat (life expectancy at birth, healthy life years – 2010, 2020, 2021), see Annex 1.

7.2. Excessive drinking harms men's health across all groups and young women's health

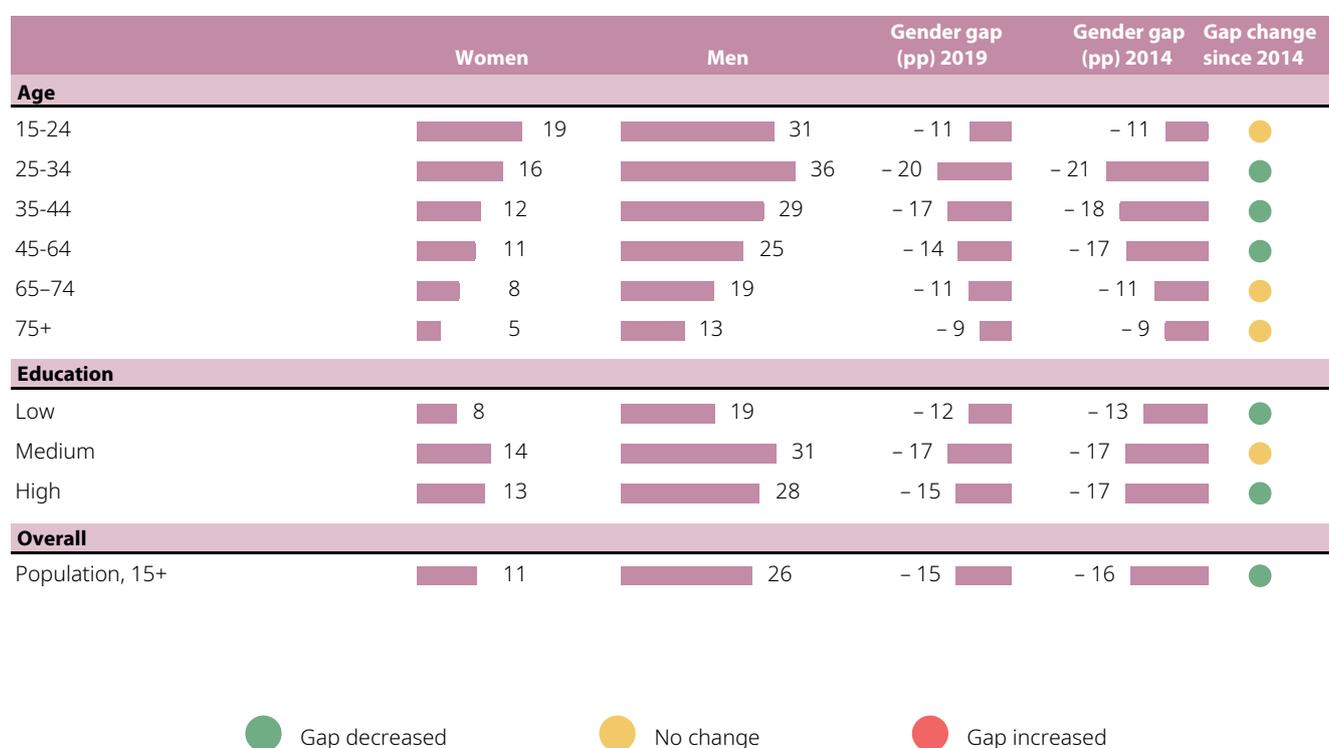
Alcohol consumption is an important risk factor not only for early mortality but for a number of diseases, accidents and injuries. It is the leading cause of premature death and disease among adults in Europe (Griswold et al., 2018). Prevalence of harmful drinking as health-damaging behaviour – much like regular exercise as a health-promoting behaviour – is very gendered in the EU (Box 5).

Men's conformity to traditional masculinity norms can exacerbate harmful drinking behaviour in several ways. It can lead to their inability to recognise their own depressive symptoms and displays of atypical symptoms of depression, such as violence, anger and substance and alcohol abuse (Gough and Novikova, 2020). Excessive alcohol consumption often constitutes

self-medication in situations of psychological distress, especially by men reluctant to seek professional help (Seidler et al., 2016). It can be also a coping mechanism for women experiencing intimate partner violence (WHO Regional Office for Europe, 2020).

Figure 24 shows that harmful drinking behaviours are prevalent among significant segments of the male and female population. Overall, 11 % of women and 26 % of men in the EU are engaged in harmful drinking behaviour. This overall prevalence is higher among certain groups of men, with 31 % of men aged 15-24 and 36 % of men aged 25-34 regularly engaging in heavy episodic drinking. For women, the prevalence of harmful drinking is highest among young women aged 15-24 years, with about 19 % engaging in heavy episodic drinking. This points to a pattern of young women's alcohol consumption catching up that of young men (WHO Regional Office for Europe, 2020).

Figure 24. Population involved in harmful drinking, by gender, education level, and age (% , 15+, EU, 2019)



Source: Eurostat, hlth_ehis_al3e.

Note: Harmful drinking refers to an intake of six drinks or 60+ grammes of pure alcohol on one occasion, monthly or more often, during the past 12 months. A drink is defined as a glass of wine, glass of beer, shot of whiskey, etc.

Gap changes: positive, where it decreased since 2014 (in green, gender gap change ≥ -1); negative, where it increased since 2014 (in red, gender gap change ≥ 1), and no change since 2014 (in yellow, $-1 < \text{gender gap change} < 1$).

Education attainment includes people who have completed ISCED levels 0–2 (Low), ISCED level 3 or 4 (Medium), ISCED levels 5–8 (High).

Men are more likely than women to drink excessively across all population groups (Figure 24). Gender gaps to the detriment of men are most marked among adults aged 25–34 (gap of 20 pp), aged 45–64 (gap of 17 pp) and among people with medium and higher education (gaps of 17 pp and 15 pp, respectively). Levels of prevalence of harmful drinking are lower among women and men with low education (8 % among women and 19 % among men)

than among groups with higher education levels. Among people with medium and high education levels, prevalence rates are similar. However, research points to excessive drinking causing greater harm to health among people with lower income and socioeconomic status (WHO, 2018). Research has shown that the majority of people engaging in excessive drinking prior to the COVID-19 pandemic increased their consumption of alcohol during the pandemic-related lockdowns (Kilian et al., 2022; Matone et al., 2022). Since 2014, gender gaps have decreased among most groups, including the overall population.

Box 6. Women’s leisure time is geared towards health benefits, but they are less likely than men to spend time on physical activities

The EIGE survey on gender gaps in unpaid care, individual and social activities (2022) sheds light on women’s and men’s lifestyles in shaping their physical and mental health⁽⁵⁵⁾. When asked about the objective of their leisure activities, the majority of survey respondents choose ‘health benefits’, with women slightly more likely to provide that answer (55 % of women and 52 % of men).

Family composition does not seem to significantly impact the objectives of leisure activities. Across the different groups, women and men in couples without children are most likely to seek health benefits from their leisure activities (59 % of women and 56 % of men in couples without children). About 54 % of lone mothers report seeking health benefits from their leisure time, which is on par with responses from partnered mothers (54 %) and single women (56 %). For men, the situation is similar, with 49 % of single men and of lone fathers reporting that health is the main objective of their leisure activities.

Time spent on health-enhancing physical activities (e.g. sports, jogging, cycling) outside of work also varies by sex. Over one-quarter of women in the EU do not engage in any health-enhancing physical activities (27 %), compared to over one-fifth of men (20 %).

The majority of women (53 %) and men (49 %) spend between one and seven hours per week on physical activities, which could fall short of the WHO recommendations on regular exercise⁽⁵⁶⁾. Men’s higher propensity to spend time on physical activities becomes more marked with more time spent. About 21 % of men report spending between 8 and 21 hours exercising per week, compared to 14 % of women.

Source: EIGE survey on gender gaps in unpaid care, individual and social activities, 2022.

⁽⁵⁵⁾ The textbox is based on the analysis of the following survey items: QE3.1: Share of women and men having answered ‘health benefits’ to QE3 ‘What is the objective of your leisure activities?’ and QE5: Share of women and men spending time on health-enhancing (non-work-related) physical activities (e.g. sports, jogging, cycling) by sex and time spent. The text box is based on the analysis of two survey questions from the survey: QE3. ‘What is the objective of your leisure activities?’; and QA2. ‘What is the highest level of education you have successfully completed?’ (EIGE, 2023d).

⁽⁵⁶⁾ WHO recommends that all adults aged between 18 and 64 years engage in at least 150–300 minutes of moderate-intensity aerobic activity or between 75 and 150 minutes of vigorous-intensity aerobic exercise every week (WHO, 2020).

7.3. Health risks of extreme heat affect women disproportionately

A vast body of research points to multiple, serious and gender-specific impacts of climate change on physical and mental health (Global Gender and Climate Alliance, 2016b). Health impacts linked to climate change are likely to affect certain groups of women and men disproportionately, with socioeconomic status, age, disability and health status, ethnic background, migration status, and education being important factors in understanding which groups are likely to be hardest hit (EEA, 2022a).

According to the World Meteorological Organization (WMO (2022), temperatures in Europe are increasing faster than anywhere else in the world, making heatwaves more frequent, longer, and more severe. The conjunction of urban and aging populations – about 75 % of the EU population – lives in urban areas⁽⁵⁷⁾ and 21 % are aged 65+⁽⁵⁸⁾, against the backdrop of persistent socioeconomic inequality and prevalence of non-communicable diseases, makes the EU population particularly exposed to health impacts of climate change (Doherty et al., 2017; Kazmierczak et al., 2022; Romanello et al., 2021). The most socioeconomically disadvantaged groups, including Roma and racialised minorities, tend to live in the most urbanised areas, which are already most exposed to environmental hazards, e.g. water pollution, air pollution, and toxic waste (EEA, 2020a; EEB, 2020).

Older women, primarily those with pre-existing health conditions, are very vulnerable to

heatwaves (Romanello et al., 2021). This translates to higher mortality rates for older women than men due to extreme heat events, despite women's longer life expectancy (Rey et al., 2007; D'Ippoliti et al., 2010; van Steen et al., 2019; Folkerts et al., 2022). Higher mortality rates among older women are attributed to gendered socioeconomic marginalisation, including living alone, leading to physical and social isolation, which is a known risk factor in hot weather (Folkerts et al., 2022). Women from marginalised and under-resourced communities might also be at a higher risk due to poor housing and lack of access to cooling mechanisms or quality health-care (Romanello et al., 2021). Energy poverty affects women disproportionately, especially in old age or when raising children alone, and can have far-reaching consequences on health (see [section 9.3.3](#)).

Heatwaves are associated with higher prevalence and severity of mental health disorders. Pre-existing mental health issues tend to be exacerbated by extreme temperatures, with heatwaves shown to increase suicide risks among men (Thompson et al., 2018). About 20 % of women and 18 % of men in the EU suffer from a mental health disorder (EIGE, 2021e, p. 89), with important variations based on gender and age.

Loss and damage associated with extreme weather events and natural disasters such as floods or wildfires, as well as the extra unpaid care burden caused by adverse climate events, are important mental health strains. The European Climate and Health Observatory (2022) found that young people, especially women, are vulnerable to increasing levels of eco-anxiety.

⁽⁵⁷⁾ According to Eurostat EU SILC, in 2021, 39, 1 % of the EU population lived in cities and 35.1 % lived in towns and suburbs (online data code: ILC_LVHO01, accessed on 2 June 2023).

⁽⁵⁸⁾ Eurostat (2023), Population structure and ageing, available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Population_structure_and_ageing

8. Domain of violence

Violence against women caused by structural inequalities between women and men is the most drastic manifestation of gender inequality. That violence can take different forms, such as physical, sexual, psychological or economic violence (EIGE, 2017c). Perpetrators of violence against women are most commonly those in close social proximity, such as intimate partners (EIGE, 2017c).

Ending gender-based violence is one of the key objectives of the EU Gender Equality Strategy 2020-2025 (European Commission, 2020e). In 2017, the EU signed the Council of Europe Convention on preventing and combating violence against women and domestic violence (the Istanbul Convention). After six years of discussions and negotiations, the European Council approved the EU's accession to the Istanbul Convention on 1 June 2023. The EU's ratification of the Istanbul Convention is not only a strong symbolic commitment, but also paves the way to improving the legal situation for victims of violence (European Parliament, 2020). Another recent development is the European Commission's proposed Directive on combating violence against women and domestic violence ⁽⁵⁹⁾, which criminalises certain forms of violence that disproportionately affect women, strengthens provision of specialised support for women, and facilitates their access to justice and rights to appropriate protection.

Violence is an additional domain in the Index's conceptual framework (EIGE, 2017c). It is conceptually different as it focuses solely on women, rather than on gender gaps. As a result, the domain of violence does not contribute to the Gender Equality Index score. The domain of violence contains three sets of indicators allowing assessment of the extent and nature of violence against women at EU level and in the Member States (EIGE, 2017c).

(1) Indicators for the composite measure capture prevalence, severity and disclosure of the most common and widely criminalised forms of violence against women: physical violence, sexual violence, and femicide. The higher the score of the composite measure, the greater the extent of the violence against women. The composite measure was populated only once, in 2017, based on data from an EU-wide survey on gender-based violence (FRA, 2014). At that time, the EU score was 27.5 out of 100 (EIGE, 2017c). The 2024 Gender Equality Index will include an update of the composite score, revealing the trend in extent of violence against women in the last decade.

(2) Additional indicators measure seven forms of violence against women, such as psychological violence or sexual harassment. Limited availability of reliable and harmonised data does not allow robust comparisons across Member States.

(3) Indicators for contextual factors cover some of the root causes of violence against women (e.g. gender attitudes) and contain information on governments' efforts in prevention, protection and prosecution of violence against women.

8.1. Data is outdated and fails to reflect the full extent of violence against women

Comparable data assessing the prevalence of violence against women ⁽⁶⁰⁾ in the EU-27 is scarce. Data from the last EU-wide survey on violence against women is almost a decade old (FRA, 2014). To close this data gap, Eurostat is currently undertaking a survey on gender-based violence (EU-GBV survey) in 19 Member States ⁽⁶¹⁾. EIGE

⁽⁵⁹⁾ Proposal for a Directive of the European Parliament and of the council on combating violence against women and domestic violence, COM/2022/105 final.

⁽⁶⁰⁾ Violence against women and girls refers to 'all acts of gender-based violence that result in, or are likely to result in, physical, sexual, psychological or economic harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life' (Council of Europe, 2011). Hereafter, it is used interchangeably with gender-based violence.

⁽⁶¹⁾ Italy's data is based on its national survey.

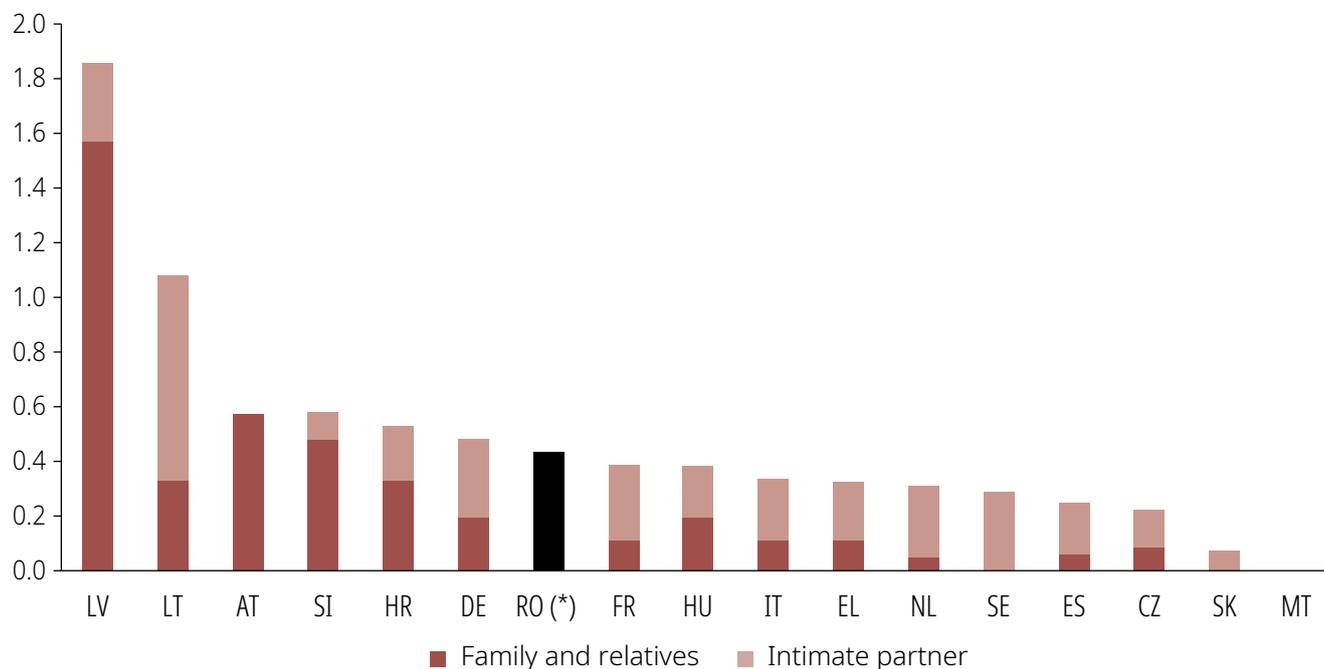
and FRA have agreed to complement this effort by carrying out a survey in the remaining eight Member States (VAW II). Comparable data across the EU-27 will be used to update the composite measure of the domain of violence in 2024 ⁽⁶²⁾.

The only regularly updated indicator of the domain of violence captures the extent of femicide. EIGE defines femicide as ‘[the] killing of a woman by an intimate partner and the death of a woman as a result of a practice that is harmful to women’ (EIGE, 2021b). Additionally, EIGE has published a classification system measuring specific forms of femicide (EIGE, 2021c) and assessed the feasibility of measuring these forms in selected Member States (EIGE, 2022c). However, across the EU Member States, femicide is generally not recognised as a separate criminal offence, including the gender-related motive (EIGE, 2023c). Therefore, EIGE uses

intentional homicide of a woman by an intimate partner or family member as a proxy measure for femicide (Figure 25).

In 2021, Eurostat recorded 720 women victims of homicide by a family member or an intimate partner in 17 EU Member States ⁽⁶³⁾. On average, almost two women every day were killed by an intimate partner or family member in those Member States (Figure 25). In the remaining 10 Member States, there is no available comparable data disaggregated by sex or by the relationship between victim and perpetrator, thus the magnitude of the phenomenon is not fully known. The country with the highest rate of femicide (calculated per 100 000 women) is Latvia, with Malta recording the lowest rate, at zero women victims of intentional homicide by an intimate partner or family member in 2021 (Figure 25).

Figure 25. Women victims of intentional homicide by an intimate partner or family member/relative (by 100 000 female population, 2021)



Source: Eurostat (crim_hom_vrel).

Note: Data on the number of women victims of intentional homicide by an intimate partner in 2021 is not available for Austria. Data on the number of women victims of intentional homicide by family and relatives in 2021 is not available for Sweden and Slovakia. Malta recorded zero women killed in 2021.

(*) Romania (RO) provided the total number of women victims of intentional homicide, but the data was not disaggregated by type of perpetrator.

⁽⁶²⁾ Eurostat has published new data for some countries: <https://ec.europa.eu/eurostat/web/gender-based-violence/database>

⁽⁶³⁾ Eurostat data collection on intentional homicide victims by victim-offender relationship and sex is not conducted in all Member States (Belgium, Bulgaria, Denmark, Estonia, Ireland, Luxembourg, Poland and Portugal are not covered). No 2021 data was available for Cyprus and Finland.

'We talk about the victim [the murdered woman], and we talk about the perpetrator. However, occasionally, it is mentioned that the victim has a son or daughter, a father or a mother ... they are entirely invisible' (psychologist, Portugal).

Researchers underline the fact that many instances of suicide among women can be attributed to repeated psychological violence by their partner or former partner (EIGE, 2022b). EIGE's research based on interviews with professionals and victims – family members of murdered women – underlines the urgent need to improve legal responses in preventing femicide. Institutional responses to reports of domestic violence need to be designed to accurately assess and manage the risk of femicide, as well as protecting victims from further violence. The results also stress the need to protect family members' rights, such as recognising them as victims, regulating compensation, and avoiding revictimisation during legal proceedings (EIGE, 2023c).

'... they [victims' entourage] must undergo traumas inherent to violence, there you have it, femicide. But the criminal procedure is also a trauma to overcome. So it is a double burden for the victims' (criminal lawyer, France)

With reliance on digital communication technologies increasing in our everyday activities, the digital dimension of violence is becoming ever more prominent. EIGE's research suggests a new harmonised definition of cyber violence against women and girls and the five most widespread forms: cyber stalking, cyber harassment, cyber bullying, online gender-based hate speech, and non-consensual intimate image abuse (EIGE, 2022a). The aim of this definition is to facilitate harmonised data collection. Accordingly, EIGE defines cyber violence against women and girls as 'a range of different forms of violence perpetrated by ICT [information and communications technology] means on the grounds of gender or a combination of gender

and other factors (e.g. race, age, disability, sexuality, profession or personal beliefs). Cyber violence can start online and continue offline, or start offline and continue online, and it can be perpetrated by a person known or unknown to the victim' (EIGE, 2022a). Cyber violence is often used intentionally to silence women who dare to speak up and raise issues of social justice (EIGE, 2017a, 2022a). EIGE is developing a measurement framework for collection of comparable data on cyber violence, and conducting an assessment of social media platforms' rules, mechanisms and actions in place to deal with any form of cyber violence occurring within their virtual spaces (EIGE, Forthcoming).

8.2. Women and girls fleeing the war in Ukraine face difficulties in accessing sexual and reproductive health services

Violence is a result of structural inequalities that affect all women, but some groups of women are more vulnerable to experiencing violence along multiple axes of oppression (Crenshaw, 1989; EIGE, 2017c, 2017f), such as women with disabilities (FRA, 2014; Meseguer-Santamaría et al., 2021), lesbian women (FRA, 2014, 2020), trans women⁽⁶⁴⁾ (FRA, 2020), or migrant women (FRA, 2014, 2019).

While 11 % of women have experienced sexual violence in their lifetime in the EU (FRA, 2014), conflict settings increase women's vulnerability and exposure to violence (Special Representative of the Secretary-General on Sexual Violence in Conflict, 2022). Women and girls fleeing war are at risk at all stages of their journey: during conflict, prior to flight, when seeking safety, and on arrival in their country of destination.

The UN defines conflict-related sexual violence as 'rape, sexual slavery, forced prostitution, forced pregnancy, forced abortion, enforced sterilisation, forced marriage, and any other form of sexual violence of comparable gravity perpetrated against women, men, girls or boys

⁽⁶⁴⁾ FRA refers to 'trans people' and does not disaggregate by gender.

that is directly or indirectly linked to a conflict' (UN, 2022a).

On 24 February 2022, Russia started a war of aggression by invading Ukraine. Since then, reports of human rights violations, including violence directed against civilians, have surged (OHCHR, 2022). Among these are multiple reports of Russian soldiers sexually assaulting women, showing that the military is systematically using sexual violence as a weapon of war (Insecurity Insight, 2022; UN Women, 2022).

Conflict-related sexual violence has devastating impacts on victims, which go beyond physical injuries, severe mental conditions, or behavioural changes (WHO, 2012), to adverse consequences to their sexual and reproductive health and rights. Forthcoming research from EIGE maps available specialised healthcare services in the EU-27 and investigates barriers to access for women and girls as victims of conflict-related sexual violence fleeing the war in Ukraine. The study focuses on six services that are considered essential in care provided after sexual violence: obstetric gynaecological care; emergency contraception; sexually transmitted infection (STI) prevention and treatment; safe abortion and post-abortion care; and long-term and short-term psychological counselling (EIGE, 2023a).

The findings highlight that while EU Member States have adopted specific laws or policies to facilitate access to healthcare for those fleeing war in Ukraine, women and girls affected by conflict-related sexual violence still face significant challenges. According to government officials surveyed, most common structural barriers include: legal restrictions, such as parental consent or age restrictions for minors, and costs related to limited insurance coverage for selected services, in particular emergency contraception. Experts point to additional barriers to sexual and reproductive health, such as restrictive legislation on abortion, a mandatory 'reflection period' or use of 'conscientious objection', which in extreme cases force women and girls to travel back to Ukraine to seek abortion care or resort to unsafe and potentially unlawful care options in their host country. More general

access gaps are linked to healthcare system inoperability and insufficient provision, which delay access to appointments. These barriers are further exacerbated by difficulties in navigating the system, compounded by language difficulties and insufficient information (EIGE, 2023a).

8.3. Spoils of climate crisis affect the likelihood of experiencing gender-based violence

Climate change exacerbates existing structural inequalities and acts as a risk multiplier (OHCHR, 2023). Special Rapporteur on violence against women and girls, Reem Alsalem, argues that the climate crisis and accompanying environmental degradation aggravate all types of gender-based violence, including physical, sexual, psychological and economic violence, especially in the context of intimate partner violence (UN, 2022b). In the aftermath of natural disasters, risks and experiences of intimate partner violence, mediated through increased mental stress, are particularly pronounced. Evacuations and placements in emergency shelters often amplify women's risk of experiencing violence (Kim Robin van Daalen et al., 2022). In addition, access to support mechanisms such as social protection, law enforcement or health services is impeded in crisis settings (UN, 2022b; Kim Robin van Daalen et al., 2022).

Although usually discussed in relation to the global south, evidence suggests that an increase in gender-based violence in times of crisis, such as in the context of post-disaster settings or extreme weather, also applies to the 'developed world' (Caridade et al., 2022; EIGE, 2021a; Kim Robin van Daalen et al., 2022). Evidence from Spain suggests that heatwaves are associated with an increase in intimate partner violence (Sanz-Barbero et al., 2018), while a study in Australia found increasing incidences of violence against women, including psychological and economic violence, associated with drought and income-related stress (Whittenbury, 2013). Another prominent example of natural disaster-induced peaks in intimate partner violence

was evident in the wake of Hurricane Katrina, which hit New Orleans in 2005 (Harville et al., 2011; Jenkins and Phillips, 2008).

More broadly, concerns about safety from gender-based violence and sexual harassment often shape women's patterns of use of

public transportation (Afesojoye et al., 2022; EIGE, 2017b; FRA, 2014; ITF, 2018) (see section 9.14). Gendered safety concerns, especially those related to sexual harassment, are often overlooked in transport planning and strategies to encourage greater use of public transportation.

9. Thematic focus: gender equality and the socially fair transition of the European Green Deal

Climate change is one of the greatest environmental and development challenges facing the world today. The Intergovernmental Panel on Climate Change (IPCC) ⁽⁶⁵⁾ has identified the key risks for Europe resulting from global warming. These include increased mortality and morbidity of people, and ecosystems disruptions due to heat; loss in agricultural production due to heat and drought; increased water scarcity; and increased impacts of floods (IPCC, 2022). These climate challenges pose social and economic threats, as they directly impact people's health and wellbeing. They also disproportionately affect vulnerable households, impact productivity and viability of different economic activities, including food production, and may damage critical infrastructure (European Commission, 2022 (European Commission, 2022b).

The IPCC Sixth Assessment Report (AR6) underlines how gender can compound vulnerability to climate change. It points to the need to examine structures, processes, and relationships of power between groups of women and men as well as potential intersectionalities with other social categories (IPCC, 2022). The EU's 2022 Strategic Foresight Report lists climate change and other environmental challenges as the main threats for Europe in the coming decades, highlighting that pressure on water and food security will continue to intensify (European Commission, 2021a).

The overall objective of this thematic focus is to contribute to building the knowledge base on the impacts of the transition towards a low-carbon society from a gender and intersectional perspective. Alongside the broader trends,

it focuses on two key green transition areas: energy and transport.

Across these sectors the key focus areas are gender (in)equality in decision-making, education, and training, as well as unpaid care and different usage of transport and energy. The report aims to raise awareness among policy-makers of the importance of integrating a gender perspective into public policies related to climate change and the European Green Deal's Socially Fair Transition. From the outset, it is recognised that while equal representation in decision-making and politics matters, it is not sufficient to ensure a socially fair transition. Awareness of gender and intersecting inequalities perspective is also needed in policy on climate change, energy, and transport.

The methodology of this report includes literature reviews, EU policy analysis and quantitative analysis of EU-wide data ⁽⁶⁶⁾. The report will close with a proposed scoreboard to assess climate change's social impacts and the green transition in transport and energy with a gender perspective, as well as monitoring green transition measures considering gender equality. The scoreboard consists of a collection of relevant, sex-disaggregated, and EU-level indicators, which are also highlighted through the text. The research shows that in addition to gender, other inequalities along other axes of social differences, such as age, income, ethnicity, race, migrant status, disability, household composition and educational attainment, compound the people's specific vulnerabilities in relation to climate change, transport, and energy.

⁽⁶⁵⁾ The IPCC is the United Nations body for assessing the science related to climate change.

⁽⁶⁶⁾ The report relies on multiple data sources, particularly EIGE's 2022 survey on gender gaps in care, individual and social activities, EIGE's women and men in decision-making data, EU-Labour Force Survey (EU-LFS), EU-Survey on Income and Living Conditions (EU-SILC), Eurobarometer and the National Energy and Climate Plans (NECPs).

EIGE strives to bring an intersectional perspective to climate change that further unlocks how gender disparities are experienced by different individuals and groups. Where possible, their situatedness in the power structures will be considered based on context-specific and dynamic social categorisations.

Section 9.1 explains the international framework for combatting climate change, as well as the European Green Deal, delivering on these commitments. Policy measures targeting the just and socially fair dimensions of the green transition will be highlighted, as well as efforts to mainstream gender and intersecting inequalities perspectives into climate action. Section 9.2 highlights the links between gender equality, climate change and the transition towards a low-carbon economy. It touches upon the gendered impacts of climate change, gendered patterns in environmentally friendly behaviours and attitudes and gendered opportunities to contribute to the green transition in political and economic decision-making, research, and activism. Section 9.3 focuses on gender and intersecting inequalities within the energy sector, highlighting inequalities in consumption patterns, in the labour force in the energy sector, and in decision-making bodies. It will also briefly consider energy poverty and the relevant EU policies to bring about green transition in this sector. Section 9.4 looks at gender and intersecting inequalities in the transport sector by highlighting inequalities in transport use patterns, the transport labour force, and decision-making in this sector. It will also highlight the relevant EU policies for the green transition. Section 9.5 presents the recommended scoreboard to measure, monitor and report on progress towards a socially fair transition under the European Green Deal from a gender and intersectional perspective, including in energy and transport. The Thematic Focus concludes with some key messages based on the main findings of the report.

9.1. The EU's commitment to lead on global climate action: policy context

In a time of unprecedented environmental challenges, the EU has set out a blueprint for transformational change and commitment to carbon neutrality by 2050.

This chapter analyses the policy context from a gender perspective, highlighting efforts to mainstream gender and intersecting inequalities perspectives into the EU climate action policy agenda, as well as climate change concerns in gender equality policies at EU level. The policy context of the European Green Deal is explained, with targeted policies for the energy and transport sectors addressed in Chapters 9.3 and 9.4, respectively.

The EU ⁽⁶⁷⁾ and its Member States have ratified the UN Framework Convention on Climate Change (UNFCCC) and later the Kyoto Protocol, which provide an international framework to tackle climate change. In 2016, the EU ratified the legally binding global climate framework, the Paris Agreement, which aims to limit global warming to well below 2°C and pursue efforts to keep it to 1.5°C. Following the climate targets set in the Agreement, the European Commission put forward the European Green Deal.

Presented in 2019, this growth strategy aims to set the EU on the path to a green transition and tackle the current climate challenges. Together with the EU's 8th Environment Action Programme ⁽⁶⁸⁾, it emphasises the need for an integrated, transformative response across all policy areas to enable fundamental structural transformation towards a climate-neutral, resource-efficient, and regenerative economy. The European Green Deal sets out three key objectives. Firstly, it focuses on reducing net GHG emissions to zero by 2050 across all sectors, and by 55 % by 2030 (compared to 1990 levels), particularly in the production and use of energy, which accounts for more than 75 %

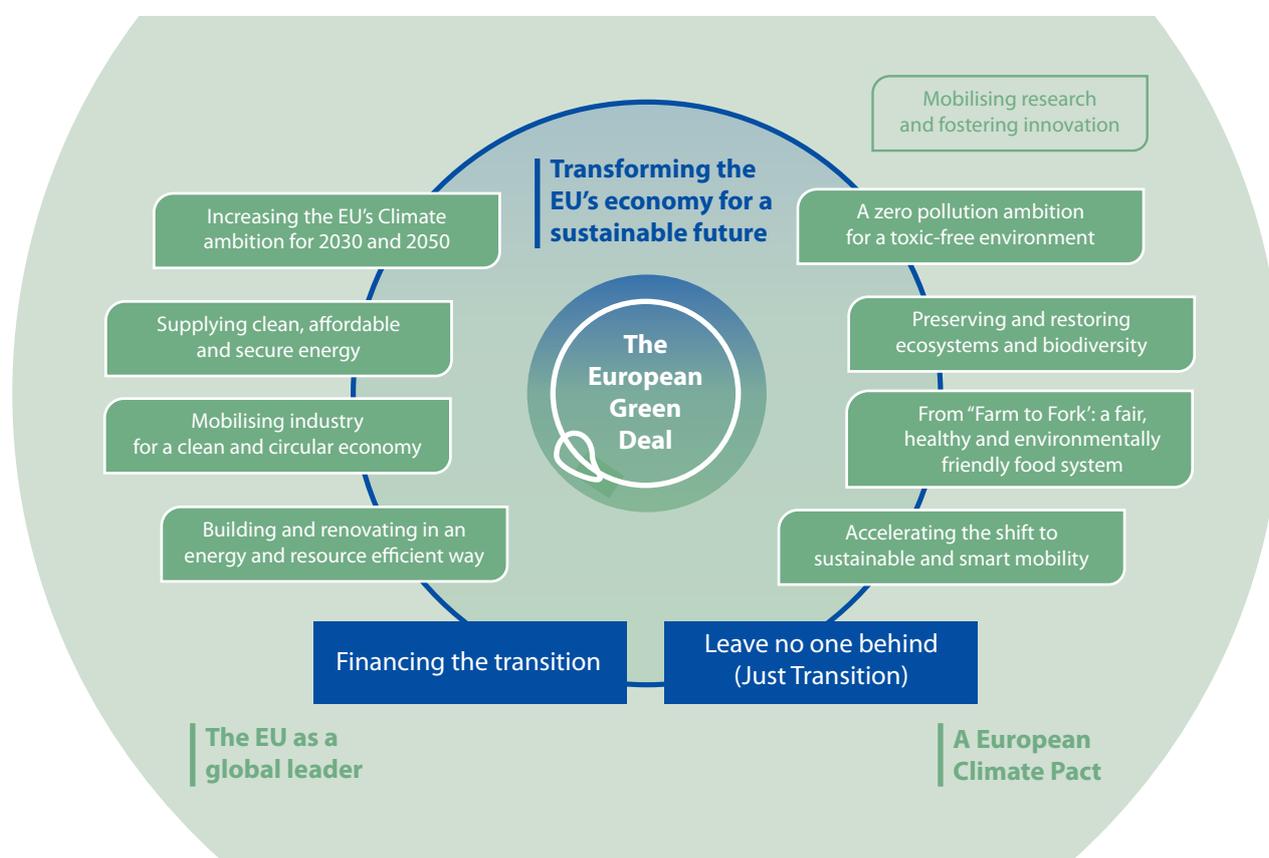
⁽⁶⁷⁾ The EU signed the UNFCCC in 1992 and approved it in 1993. The Kyoto Protocol was ratified by the EU in 2002.

⁽⁶⁸⁾ The 8th Environment Action Programme (in force from May 2022) is the EU's legally agreed common agenda for environment policy until 2030. It feeds into the EU's long-term 2050 vision of living well, within planetary boundaries.

of the EU's GHG emissions. In 2022, MEPs and EU countries even agreed to increase the EU carbon sinks target for land use and the forestry sector, effectively raising the EU's 2030 target from 55 % to 57 % GHG reduction (European Parliament, 2022). Secondly, it outlines an objective to decouple economic growth from resource use, while acting to protect, conserve and enhance the EU's natural capital (European Commission, 2019). Thirdly, it outlines a vision to ensure that the green transition is fair and inclusive and built on the principle of leaving no

person and no place behind. Figure 26 shows the comprehensive nature of the European Green Deal, which encompasses eight policy areas: climate action, clean and affordable energy, sustainable and smart mobility, energy and resource-efficient building and renovation, food systems, pollution, ecosystems, and biodiversity. It also puts forward the need for action on research and innovation, financing the transition and making the transition just (European Commission, 2019).

Figure 26. The European Green Deal



Source: European Commission (2019).

The EU Emissions Trading System (ETS) is the cornerstone of achieving the EU's climate ambition and its key tool for reducing GHG emissions. In operation since 2005, it is the world's first – and remains its largest – carbon market. It covers about 40 % of the EU's GHG emissions and about 5 % of global GHG emissions. The EU ETS functions as a 'cap and trade' system, with caps set for the total amount of certain GHGs that can be emitted by operators covered by the system. To reduce emissions, this cap will be reduced over time. The ETS covers the following gases and sectors:

- Carbon dioxide (CO₂) from electricity and heat generation and energy-intensive industry sectors, including oil refineries, steel works, and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids, and bulk organic chemicals, aviation within the European Economic Area (EEA) and departing flights to Switzerland and the United Kingdom (UK), maritime transport.
- Nitrous oxide (N₂O) from production of nitric, adipic and glyoxylic acids and glyoxal.
- Perfluorocarbons (PFCs) from the production of aluminium (European Parliament and Council of the European Union, 2003).

The Fit for 55 package ⁽⁶⁹⁾ strengthens the ETS, including on aviation, and extends it to new sectors, including maritime transport as of 2024. It also allows for setting-up a second ETS for buildings, road transport and fuel combustion in industries not covered by the existing ETS (ETS II) (Council of the European Union, 2023a).

Via the ambitious targets of the European Green Deal, the EU aims to position itself as a global leader by setting a credible example and following-up with diplomacy and external policies to accelerate climate action and transition towards climate neutrality. In the context of the UNFCCC, the EU and its Member States

have committed to the ongoing implementation of the Lima Work Programme on Gender (LWPG) and its gender action plan (GAP). In addition to the UNFCCC processes, a key part of the EU's international engagement is framed by the EU Gender Action Plan III. It establishes that EU regional action should address gender-related challenges with a cross-border dimension, such as climate change, migration and forced displacement. The EU also aims to act on the gender dimension of environmental degradation and climate change in fragile situations, being mindful of the specific needs and roles of indigenous women directly relying on natural resources (European Commission, 2020b).

9.1.1. The European Green Deal aims at a just and socially fair transition

The European Green Deal recognises that all EU actions and policies should work together to help the EU to achieve a successful and just transition towards a sustainable future, and highlights that the impacts of climate change are not neutral. As part of the **Sustainable Europe Investment Plan**, the Commission set up a **Just Transition Mechanism (JTM)**, containing specific measures to support regions with the most carbon-intensive industries or with the greatest numbers working in fossil fuels through financial support and technical assistance. The financing of the JTM includes a Just Transition Fund, a just transition scheme under InvestEU, and a public sector loan facility with the European Investment Bank (EIB), backed by the EU budget (European Commission, 2020c).

Although the JTM addresses the specific regions, many more disadvantaged groups across the EU are disproportionately impacted by climate change and green transition measures. The **2021 EU Adaptation Strategy** adopts a broader perspective and acknowledges that differentiated exposure and vulnerability to climate impacts among socioeconomic groups and specific regions worsen pre-existing inequalities

⁽⁶⁹⁾ 'Fit for 55' refers to the EU's target of reducing net GHG emissions by at least 55 % by 2030. The proposed package aims to bring EU legislation in line with the 2030 goal.

and vulnerabilities. It calls for ‘just resilience’, reducing the unequal burden of climate risk and ensuring equity in the distribution of benefits (and burdens) of adaptation actions (European Commission, 2021d).

In the context of creating a ‘just’ or ‘socially fair transition’, the **ETS II** (section 9.1.) has raised concerns about potential negative social impacts, particularly for vulnerable households (Heffernan et al., 2021). Research suggests that the ETS extension could increase the cost of gas-fuelled domestic heating by up to 30 % in 2030 (European Climate Foundation and Cambridge Econometrics, 2020). Low-income households, among which those headed by women, lone parents and older women are overrepresented, are likely to be hit hardest (BEUC, 2021; Heffernan et al., 2021; Maj et al., 2021). Most of the proposals in the package refer to vulnerable households, with only sporadic references to gender equality and women. Using general terms such as ‘vulnerable households’ without analysing the socioeconomic and political circumstances that create vulnerability risks lead to policies that do not fully address the causes of energy poverty, for example (Clancy et al., 2022).

To mitigate the socioeconomic impacts of the extended ETS, the European Commission foresees a new **Social Climate Fund** (SCF). This Fund will provide dedicated financial support to Member States to assist the most disadvantaged groups, in particular households, micro-enterprises and transport users, facing energy or transport poverty. The SCF will be funded primarily by the EU’s own resources through a proportion (25 %) of ETS revenue accrued by the EU from the two new sectors, buildings and road transport, with an equivalent required from Member States (25 % of the estimated costs of their plans). The SCF mobilises a total of €65 billion for the period 2026-2032. Each Member State will submit a Social Climate Plan to

the Commission containing the measures and investments it intends to undertake to cushion the impacts of the new ETS on disadvantaged groups. Pending the impact of the investments on reducing vulnerable groups’ emissions and energy bills, Member States will also be able to provide direct income support, amounting to up to 37.5 % of the Social Climate Plans (Council of the European Union, 2023c; European Parliament and Council of the European Union, 2023).

The SCF Regulation ⁽⁷⁰⁾ notes that women are particularly affected by energy and transport poverty as they have lower incomes and represent 85 % of single-parent families. It also notes that gender equality and equal opportunities for all, including mainstreaming of those objectives and questions of accessibility for persons with disabilities, should be considered and promoted throughout the implementation of the SCF. The template for Social Climate Plans asks Member States to explain how the support given will aim to address gender equality (European Parliament and Council of the European Union, 2023).

However, research shows that the budget will not be enough to both protect the most disadvantaged groups from the costs of the transition and meet the need for green investment to help people switch to net zero solutions (Defard, 2021). Given the higher incidence of energy poverty among women and the particular vulnerability of certain groups of women (e.g., single mothers, older women and women in social housing), the Fund’s allocations should follow **gender budgeting principles** if it is to be an effective and fair compensation mechanism ⁽⁷¹⁾.

The extent to which the European Green Deal promotes a ‘just’ and ‘socially fair’ transition has been called into question, with scholars and civil society organisations suggesting that ‘climate justice’ and ‘gender justice’ are limited (EEB WECF, 2021; Heffernan, Matthews Wang, 2021).

⁽⁷⁰⁾ Regulation of the European Parliament and of the Council establishing a Social Climate Fund, COM(2021) 568 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0568>

⁽⁷¹⁾ EIGE developed guidance for mainstreaming gender into the EU Funds, including a step-by-step toolkit aims to assist managing authorities in the European Union to apply gender budgeting tools in the processes of the European Union Funds under shared management. It offers a variety of tools and highlights promising practices from different EU Member States. More details can be found here: https://eige.europa.eu/gender-mainstreaming/toolkits/gender-budgeting?language_content_entity=en

Others have noted that the **social dimension of the European Green Deal remains under-developed**, with many employment and distributional challenges addressed in a fragmented or ad hoc manner (Akgüç, Arabadjieva Galgoczi, 2022).

Addressing gender and intersecting inequalities is key to a just and socially fair transition

Inequalities across the axes of social difference, such as gender, race, class, ethnicity, sexuality, indigenous identity, age, disability, income, and migration status compound vulnerability to environmental and climate risks (Kaijser Kronsell, 2014; Versey, 2021), which in turn reinforce existing power inequalities (Heffernan, Matthews & Wang, 2021).

The relevance of gender to environmental issues has been discussed since the early 1970s, when the growing debate on environmental changes intersected with the emergence of studies on women's roles in development and development policy strategies within the international women's rights' movement (Global Environmental Facility, 2009; OECD, 2021). The linkages between gender, environment and climate change have been acknowledged, and extensively researched and analysed.

The **Beijing Declaration and Platform for Action (BPfA)** ⁽⁷²⁾ was adopted by the Fourth World Conference on Women in 1995. It identifies 'Women and the Environment' as one of 12 critical areas of concern and notes that 'the strategic actions needed for sound environmental management require a holistic, multi-disciplinary and intersectional approach. Women's participation and leadership are essential

to every aspect of that approach' (EIGE, 2020a) ⁽⁷³⁾. Despite some progress in climate change policy, key areas of EU environmental policy still provide little or no gender perspective (EIGE, 2020a).

Gender equality and the empowerment of all women and girls are also universally recognised in the 2030 Agenda for Sustainable Development. The European Green Deal is central to the EU's strategy to implement the **2030 Agenda and the UN's Sustainable Development Goals (SDGs)**. The 2030 Agenda establishes the indivisibility of the economic, social and environmental dimensions of sustainability. While the EU has advanced on many goals, more effort is needed to fully achieve the SDGs, especially in the area of climate and environment and social inequalities (European Commission, 2019a). In the framework of the 2030 Agenda, links between environment and gender equality are insufficiently visible or inadequately prioritised in policy design, implementation and evaluation (OECD, 2021) and many critical sectors and policy areas need more effective integration of the gender-environment-climate nexus consideration, especially in light of current discussions on nature restoration at EU level. In June 2023, the Council reached agreement on a proposal for a Nature Restoration Law ⁽⁷⁴⁾, with the next step being negotiations with the European Parliament to reach a final version of the Law, after which it will have to be adopted by both the Council and Parliament (Council of the European Union, 2023b). The discussions around the Nature Restoration Law were tense; it was subject to a tight vote in the European Parliament's Environment Committee, only narrowly avoiding a motion to reject, tabled by the European People's Party (Liboreiro and

⁽⁷²⁾ In December 1995, the European Council acknowledged the EU's commitment to the BPfA and expressed its intention to review implementation across the Member States on a yearly basis. Since 1999, quantitative and qualitative indicators have been developed by successive presidencies of the Council to monitor progress towards achieving the BPfA goals.

⁽⁷³⁾ The sixty-sixth session of the UN Commission on the Status of Women (CSW) was specifically dedicated to the theme on 'Achieving gender equality and the empowerment of all women and girls in the context of climate change, environmental and disaster risk reduction policies and programmes'. CSW reaffirmed the BPfA and stressed the need to further strengthen its implementation. In December 1995, the European Council acknowledged the EU's commitment to the BPfA and committed to review its implementation across the Member States on a yearly basis.

⁽⁷⁴⁾ EIGE developed a checklist to promote gender-sensitive screening of proposals for European Union directives aimed to support the work of the European Parliament. More details here: <https://eige.europa.eu/publications-resources/publications/checklist-gender-sensitive-screening-proposals-european-union-eu-directives>

Zsíros, 2023). However, in July the plenary session of the European Parliament took a position on the draft Nature Restoration Law, paving the way for negotiations with the Council (European Parliament, 2023).

An important document linking the European Green Deal and gender equality, the **EU Gender Equality Strategy 2020-2025** acknowledges that the core challenges affecting the EU today – including the green and digital transitions and demographic change – all have a gender dimension. It recognises that there are fewer possibilities for women as climate refugees, more women face energy poverty, and that women are affected differently by policies targeting emission-free transport. It also emphasises the remarkable role of (young) women in leading the push for climate action. It adds that the European Commission will integrate a gender perspective in all major Commission initiatives under the current mandate, including the policies under the European Green Deal (European Commission, 2020e).

9.1.2. Recovery and resilience plans - an ambitious commitment towards climate-friendly reforms but commitment to gender equality is lacking

In response to unprecedented disruptions resulting from the COVID-19 pandemic, the EU mobilised funds under the **Recovery and Resilience Facility** (RRF). It finances measures (investments ⁽⁷⁵⁾ and reforms ⁽⁷⁶⁾) aimed at countering the effects of the COVID-19 crisis and regaining sustainable growth. The RRF Regulation sets up several mechanisms to ensure that national Recovery and Resilience Plans (RRPs) contribute to the green and digital transitions, such as earmarked funding, tracking measures and assessment criteria.

The RRF is at the heart of financing the **REPowerEU Plan**, which the European Commission adopted in May 2022 in response to Russia's war of aggression in Ukraine and its ramifications for the European energy system (European Commission 2022c). The main purpose of REPowerEU is to speed up the EU's independence from Russian fossil fuels, and thereby accelerate the clean transition and the resilience of the EU energy system. The Plan builds strongly on the ambition for a green, clean energy transition and increased energy security in the EU, as outlined in the Fit for 55 package. It also includes further actions towards energy saving, diversification of energy supplies, rapid substitutions of Russian fossil fuels as part of the green transition, and combined energy investments and reforms (European Commission, 2022d).

In its recital, the RRF Regulation calls on Member States to consider and promote gender equality and equal opportunities for all, and the mainstreaming of those objectives throughout the preparation and implementation of RRFs, in line with principles 2 and 3 of the European Pillar of Social Rights (EPSR), UN SDG 5 and, where relevant, with the national gender equality strategy ⁽⁷⁷⁾. Overall, however, the RRF Regulation falls short of the legal and policy commitments to gender equality by the EU and Member States (EIGE, 2023b).

Article 3 of the RRF Regulation provides a framework for financing the measures around six broad policy areas or 'pillars': green transition; digital transformation; smart, sustainable, and inclusive growth; social cohesion; health, and economic, social and institutional resilience; and policies for the next generation. In the RRF, at least 37 % of Member States' funds should be allocated to climate objectives. In most national RRFs transport sector reforms are central, as they provide direction to support sustainable

⁽⁷⁵⁾ Investments are understood as expenditure on an activity, project, or other action within the scope of the RRF Regulation that is expected to bring beneficial results to society, the economy and/or the environment (i.e. investment in fixed capital, human capital, natural capital, also covering intangible assets such as R&D, data, intellectual property and skills).

⁽⁷⁶⁾ Reforms are understood as actions or processes of making changes and improvements with significant impact and long-lasting effects on the functioning of a market or policy, the functioning or structures of an institution or administration, or on progress towards relevant policy objectives, such as growth and jobs, resilience, and the twin transition.

⁽⁷⁷⁾ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, ELI: <http://data.europa.eu/eli/reg/2021/241/oj>.

urban mobility and collective transport. In the RRF, sustainable mobility makes up 32 % of total expenditure under the green transition pillar (European Commission, 2022a). Analysis of the national RRFs shows that a gender perspective is largely missing from the measures proposed under the digital and green pillars, thus risking an EU-funded non-gender-sensitive twin transition (EIGE, 2023b).

Despite potentially impactful policy initiatives to build a resilient and sustainable continent, such as the RRF and the European Green Deal, the EU can only fulfil its climate and sustainability objectives and commitment to a just and fair transition if gender and intersecting inequalities are placed at the heart of all transition policies. Gender mainstreaming is a cross-cutting principle within the Paris Agreement, which highlights the obligations of the Parties in relation to human rights, gender equality and empowerment of women. The implementation of the European Green Deal and the overall green and digital transition provide an opportunity to deliver on the commitment to mainstream gender and an intersectional perspective in all EU policies and at all stages of the policy cycle, as laid out in the EU Gender Equality Strategy 2020-2025, and as required in the Communication on Better Regulation ⁽⁷⁸⁾.

9.2. Links between gender equality, climate change and the transition to low-carbon societies in the EU

Structural gender inequalities, together with gender norms and roles, shape access to and control over resources, services, information and knowledge, and decision-making. The result is that women and men living in the EU are affected differently by climate change, and often display different behaviours and attitudes in relation to its impacts. They also contribute differently to the causes of climate change, have different preferences for solutions to mitigate

climate change, and different options, as well as possibilities, to deal with its consequences.

This chapter provides the general context for the gender and climate nexus. It highlights the gendered causes of climate change, gendered behaviours and attitudes to climate-friendly behaviours, and the gendered opportunities for women and men to contribute to the green transition.

9.2.1. Income and gender influence carbon emission levels

Feminist scholars have long underscored the power inequalities within the global system in the area of climate change (Terry, 2009). They have highlighted the key role of rich countries, businesses, corporations and political actors in contributing to the emission of GHGs and derailing mitigation efforts (Denton, 2002; Agostino Lizarde, 2012; Vowles Hultman, 2021). Climate change is linked to the prevalent imperative of continuous, profit-driven economic growth, which has led to increases in GHG emissions (Nelson, 2008; Irwin, 2015; Bell, Daggett, Labuski, 2020). Most fossil fuel consumers are in sectors that are instrumental for the green transition, such as transport and energy. In these carbon-intensive sectors, men are overrepresented in the work force and as decision-makers, while women are overrepresented in areas such as the commercial and institutional industries, which account for a marginal percentage of total industrial GHG emissions (Christensen Brengaard, 2021; Cohen, 2014).

Feminist researchers and advocates for climate justice have challenged the energy-intensive and resource-intensive lifestyles of the global middle and affluent classes that are especially present in the Global North (Johnsson-Latham, 2010). In many countries, men are overrepresented among the highest income groups, due to intersections of class, gender, and other social categories, while women in marginalised situations are overrepresented among the lowest income groups (Gore and Alestig, 2020;

⁽⁷⁸⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Better regulation: Joining forces to make better laws, COM/2021/219 final.

Ortiz-Ospina and Roser, 2018). Research by Oxfam and the Stockholm Environment Institute (Gore and Alestig, 2020) reveals that the richest 10 % of the world's population was responsible for 52 % of the cumulative carbon emissions between 1990 and 2015, while the poorest 50 % was responsible for just 7 %.

Studies suggest that men are likely to have a larger carbon footprint than women (Bel Rosell, 2017; EIGE, 2012). Differences are closely linked to gender roles and responsibilities, which translate into consumption patterns and behaviours. A recent study in Sweden found that an average single man has 10 tonnes of consumption related GHG emissions per year, compared to 8.5 tonnes for single women. The study suggests that the difference is due to expenditure patterns, rather than expenditure itself. Single men spend only 2 % more money than single women, but cause 16 % more consumption-related GHG emissions. Women's expenditure is more typically on low-emitting products and services, such as healthcare, furnishings, and clothes, while men spend a lot (70 %) more on GHG-intensive items, such as fuel (Carlsson-Kanyama et al., 2021; Rätty and Carlsson-Kanyama, 2010).

9.2.2. Impacts of climate change are influenced by and exacerbate existing gender inequalities

Research suggests that climate change does not affect women and men in the same way (Djoudi et al., 2016; Global Gender and Climate Alliance, 2016a; OECD, 2021). It also recognises that vulnerability to environmental and climate hazards is a result of historical and contemporary political and socioeconomic inequality (IPCC, 2022; Romanello et al., 2021). For example, as displacement due to climate change increases, women are at greater risk of different types of violence, such as sexual violence (Office of the High Commissioner for Human Rights, 2022). Inequalities across the axes of social difference, such as gender, race, class, ethnicity, sexuality, indigenous identity, age, disability, income, and migration status, are recognised as factors compounding vulnerabilities to environmental

and climate risks (Kaijser Kronsell, 2014; Versey, 2021).

The effects of climate change on livelihoods are documented across sectors, such as agriculture, forestry, fisheries, food security, water resource management, energy, urban livelihoods, and migration (Global Gender and Climate Alliance, 2016). The exposure to risks of environmental and climate hazards have multi-fold effects on the livelihoods of the most disadvantaged groups of society, including single mothers, older women, and women from marginalised groups (EEA, 2018, 2022b). Extreme weather events may disrupt the already fragile energy or water infrastructure, cutting off access to essential resources and increasing the risk of poverty and food insecurity. Socially disadvantaged groups have less capacity to recover quickly from such disruptions, which could result in increased long-term exclusion (EEB, 2020). In the EU, the most commonly identified vulnerable groups are low-income and disadvantaged communities, older people, women, children, ethnic minorities, migrants, or displaced persons, or those with disabilities and underlying health conditions (EEA, 2022b).

Research suggests that in the aftermath of extreme climate and weather events, the care burden for women and girls is likely to intensify, as those most vulnerable to extreme weather events (e.g., children, sick and older people) will require more intensive and extensive care and caregivers are still predominantly women. Increased risks of natural disasters create risks of serious injuries and disabilities that could further expand the need for LTC (EIGE, 2012; MacGregor et al., 2022). Similarly, climate change increases pressure on already overburdened formal care systems, as it expands the work involved in caring for people, animals, plants, and places, especially in resource-based societies. Given the ongoing 'care crisis' – the lack of care workers, the undervaluation of care work, a higher demand for healthcare and care services is likely to burden the existing infrastructure further (MacGregor et al., 2022).

Amplifying these concerns are the multiple climate change impacts on health, such as

differing mortality rates during extreme heat events, impacts on mental health, reproductive and maternal health, and women's safety and security (Global Gender and Climate Alliance, 2016) (Section 7.3). Climate change impacts on health are inequitable, with disproportionate effects on the most disadvantaged groups in every society, including people with low incomes, members of minority groups, women, children, older adults, people with chronic diseases and disabilities, and outdoor workers (EEA, 2022b; Levy, 2019; Romanello et al., 2021).

Many urban areas are also more exposed to climate hazards, such as extreme heat or flooding. This often results from urban planning policies, whereby fewer resources and investments are allocated to neighbourhoods inhabited by poor and marginalised people, resulting in impoverished housing conditions and dilapidated infrastructure, limited services, lower access to green and blue spaces and close proximity to hazardous waste (Breil et al., 2018).

Climate change affects women's safety and security by increasing the risks of gender-based violence (Section 8.3). In the immediate post-disaster period, during and after extreme weather events, women worldwide face a heightened exposure to one or several forms of gender-based violence, often due to economic instability, food insecurity, mental stress, disrupted infrastructure, increased exposure to perpetrators, exacerbated gender inequality, and thus exacerbated vulnerabilities to climate change (Van Daalen et al., 2022). More research is needed to thoroughly examine the gendered impacts of extreme weather events and climate change, especially on the prevalence of gender-based violence in the EU and globally.

9.2.3. Women are slightly more likely to engage in climate friendly behaviour but underrepresentation in certain sectors prevent them from shaping the transition

Evidence suggests that women are slightly more likely to feel the responsibility to combat climate

change and act on this urge, for example by consuming low-carbon products more often. At the same time, gender and intersectional inequalities prevent women from participating equally in shaping the green transition in the EU. Gender roles shape attitudes, and behaviours towards the environment and climate. Those attitudes and behaviours, in turn, contribute to the so-called 'eco gender gap' (Mintel, 2018).

Structural changes in the labour market (e.g. the proliferation of 'green jobs') and the demand for new skills will require focused policy efforts to ensure that women and men possess the relevant skills to thrive in the green economy. More specifically, this will require breaking down current gender inequalities and stereotypes in the labour market, as women tend to be less represented in study fields and occupations mostly targeted within the green transition⁽⁷⁹⁾. In addition, women are overrepresented in informal economies, such as care work and hospitality, which do not benefit from the same investment and reskilling opportunities as target sectors of the green transition, where men are more represented (ILO, 2022).

From a consumer perspective, the changes in commodity prices and household costs will warrant gender-sensitive considerations to explore the differences between women and men in access to housing (including energy and water), transport, and food. However, as decisions about environment and climate policy tend to exclude a share of the directly affected population and are therefore not likely to adequately address the issues faced by these groups, better representation is needed, especially for women, in these decision-making spaces (GenderCC, 2021).

Gender norms shape probability to conduct sustainable behaviour

Women and men tend to differ in their carbon consumption patterns. Women are more likely to move towards more sustainable household practices in the areas of food, energy saving, recycling, and waste reduction (Carlsson-Kanyama et al., 2021). Increasingly popular

⁽⁷⁹⁾ Such as science and technologies and engineering. For more details see Section 9.3.3 and 9.4.3

'zero-waste' practices typically target household activities such as cooking, cleaning, and grocery shopping, which are primarily done by women (Wilde Parry, 2022).

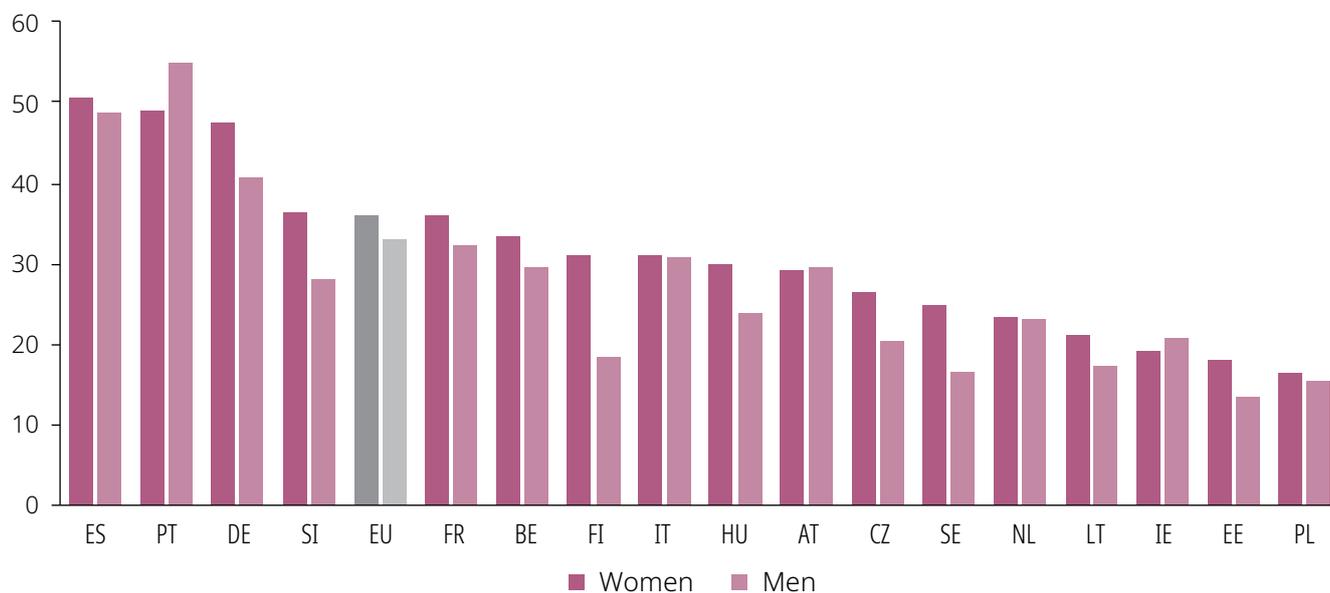
Similarly, men may resist green practices, such as vegetarian or vegan diets or recycling practices, as they might be perceived as endangering their masculinity (Brough et al., 2016; Daggett, 2018; Pulé and Hultman, 2019). Thus, gender roles and norms shape if and in what area people are willing to take up low-carbon practices.

Eurobarometer survey (2021) results reveal that climate change is a growing concern among women and men in Europe, with 80 % of women and 76 % of men considering climate change a very serious problem. The survey shows that women are slightly more likely to act against climate change than men (66 % and 62 %, respectively) with the type of action also influenced by

gender. For example, women (37 %) are more likely than men (26 %) to say they buy and eat less meat (European Commission, 2021k).

Similarly, the 2016-2017 European Social Survey (ESS) – Round 8⁽⁸⁰⁾ contained questions on personal responsibility to reduce climate change, worry about climate change, and the impact of climate change. A larger percentage of women respondents expressed worrying more intensely about climate change than men (Figure 27), except in Portugal, Austria, and Ireland. In the Netherlands and Italy, it was more or less equal. On average, 36 % of women reported being very or extremely worried⁽⁸¹⁾ about climate change, compared to 33 % of men. The survey broke down the differences between women and men along the intersections of age and levels of education. The gender gap appeared largest in the 15-24 age range, at 9 pp, with 39 % of women extremely worried about climate change, compared to 29 % of men.

Figure 27. Share of women and men who are very or extremely worried about climate change, by Member State (% , 15+, 2018) – Scoreboard.

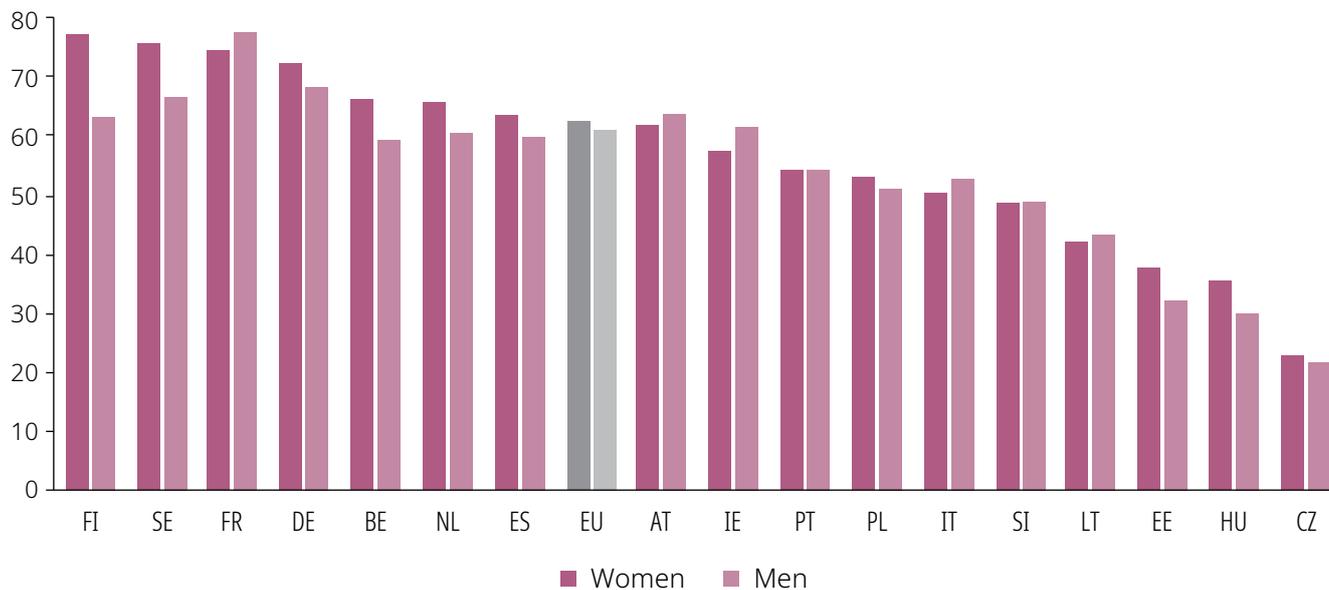


Source: ESS Round 8 (2016-2017), Question D24 'How worried are you about climate change? Very worried (4/5) and Extremely worried (5/5).'

⁽⁸⁰⁾ The geographical scope of this survey was not bound to the EU, but included the countries Austria, Belgium, Czechia, Estonia, Finland, France, Germany, Hungary, Iceland, Ireland, Israel, Italy, Lithuania, Netherlands, Norway, Poland, Portugal, Russian Federation, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

⁽⁸¹⁾ Scoring: 1 = not at all worried, 2 = not very worried, 3 = somewhat worried, 4 = very worried, 5 = extremely worried, in response to the question 'How worried are you about climate change?'

Figure 28. Share of women and men who feel personal responsibility to try to reduce climate change, by Member State (% , 15+, EU, 2018)



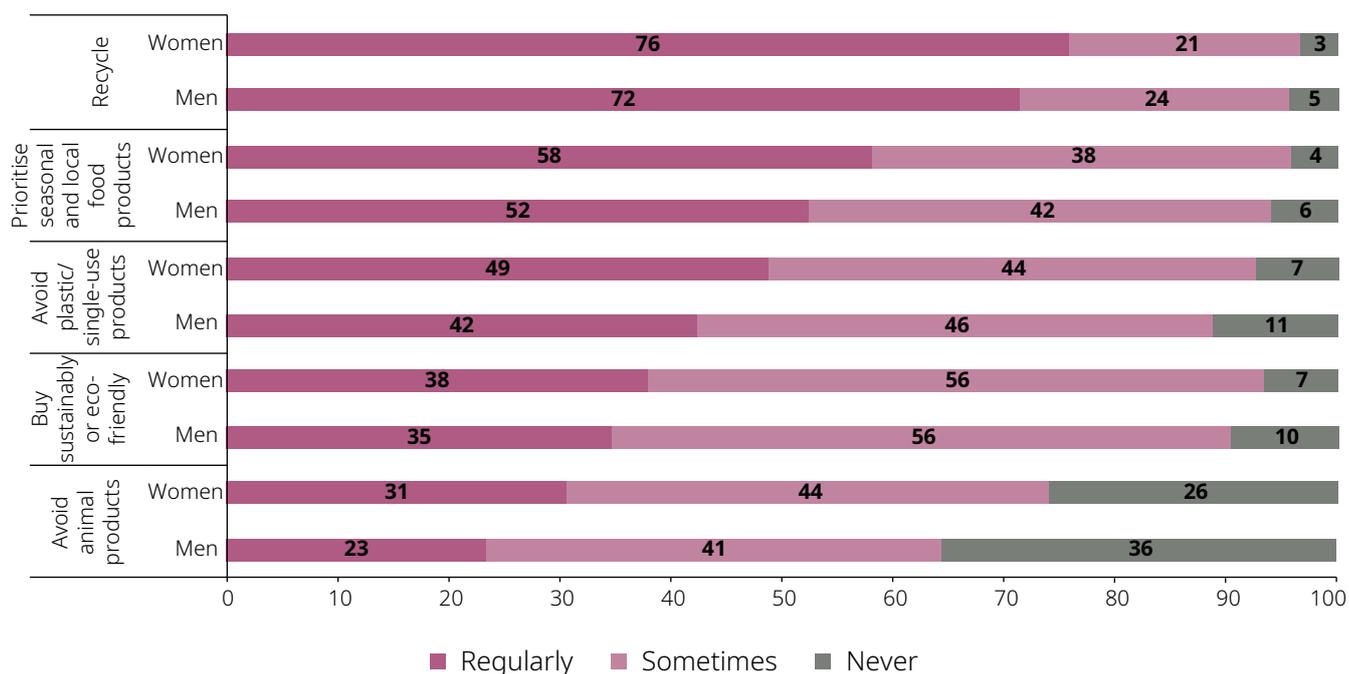
Source: ESS Round 8 (2016-2017), Question D23. 6/10 'To a great deal'.

In the Member States surveyed, an average 61 % of men and 62 % of women feel a great deal⁽⁸²⁾ of personal responsibility to reduce climate change (Figure 28), with gender gaps varying between Member States. In most Member States, women feel more responsible to reduce climate change. The largest gender gaps are found in Finland (13.7 pp) and Sweden (9.2 pp). In seven Member States (Ireland, France, Italy, Austria, Lithuania, Slovenia, Portugal), men feel a stronger responsibility. Looking at the intersection with education, being very or extremely worried about climate change seems to be slightly more prevalent among women across all recorded levels of education, compared to men across all levels. More than age, education level intersects with gender to shape people's feelings of personal responsibility to mitigate climate change, at 72 % of women with higher education and 71 % of men. This is about 10 pp higher than the overall average and almost 20 pp higher than women and men with lower education levels (52 % of men and 53 % of women).

Overall, women are more likely than men to be very or extremely worried about climate change, as well as to feel more personal responsibility to reduce climate change. This echoes existing research suggesting that women experience more eco-anxiety than men (Coffey et al., 2021), although more research is warranted.

Considering the impact of human society on the global environment, the EIGE survey on gender gaps in unpaid care, individual and social activities points to women behaving more environmentally consciously than men (Figure 29). Women tend to practice environmentally friendly behaviours and consumption patterns more regularly and consistently. Regularly avoiding animal products and avoiding plastic show the greatest gender gaps, at 8 pp and 7 pp difference, respectively. Among all environmentally friendly behaviour categories, men are less likely than women to ever adopt the behaviour.

⁽⁸²⁾ Responses to the survey question 'To what extent do you feel a personal responsibility to try to reduce climate change?' A score of 6-10 on a scale of 0-10, where 0 is Not at all and 10 is a great deal.

Figure 29. Frequency of adopting environmentally friendly behaviours, by sex (% , 16-74, EU, 2022) - Scoreboard

Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022). Regularly combines the answer categories 'Daily' and 'Several times a week' and sometimes combines 'Several times a month' and 'Less often'.

Men are more likely to benefit from growth in 'green jobs' while traditionally low-carbon sectors with a high representation of women are overlooked

Research indicates that gender inequalities and stereotypes mean that women are worse-off than men when it comes to adapting their skills and taking advantage of the emerging job opportunities resulting from the green transition (Dhir, 2017). The European Green Deal primarily focuses on the carbon-intensive sectors where women are underrepresented. For example, women account for less than one-quarter (22 %) of the conventional energy sector workforce (European Commission, 2021b) and a little under one-third (32 %) of the workforce in the renewable energy sector (IRENA, 2019). Women also account for only 22 % of workers in the EU transport sector and are significantly underrepresented in jobs such as pilots, lorry drivers, and engine drivers (Section 9.4).

The International Renewable Energy Agency (IRENA) ⁽⁸³⁾ (2019) has calculated that, worldwide, the number of jobs in the renewable energy sector will increase from 10.3 million in 2017 to almost 29 million in 2050. The challenge for labour markets and human capital agendas globally is to maximise the benefits for workers and help to assure fair sharing of unavoidable adjustment costs, such as direct and indirect job losses, employee skills shortages, and bottlenecks as a result of the rise of new technologies and digitalisation disrupting traditional employment patterns, job quality and gender considerations (Eurofound, 2021; IEA 2022; ILO, n.d.). Due to the pre-existing gender gaps in the labour market (both sectoral and occupational), women are less likely than men to take advantage of the newly emerging jobs. While CEDEFOP (2021) forecasts an increase in women's employment in the service sector, additional measures need to be taken to ensure that women can take advantage of emerging

⁽⁸³⁾ IRENA is an intergovernmental organisation that supports countries in their transition to a sustainable energy future. It serves as a platform for international cooperation and knowledge exchange on issues of renewable energy.

opportunities in the sectors directly targeted by the European Green Deal.

Sectors in which women are overrepresented, especially the healthcare and services' sectors, are often overlooked in the green transition (EEB & WECF, 2021). The European Green Deal is based on a notion of 'green jobs' as activities that reduce carbon emissions through more efficient use of energy and resources. Yet, 'green jobs' can also have a broader conceptualisation and can be defined as not only those with low or zero emissions, but also those that provide broader environmental benefits, as well as ensuring adequate, safe, and healthy working conditions for people (Greens, 2021; Littig, 2017). Recognising the need for STEM skills in the green transition, as well as the underrepresentation of women in STEM-related education and training remains important (Janta et al., 2023). However, green skills should be seen more broadly than solely from a technical perspective (Janta et al., 2023; Kwauk and Casey, 2021). Kwauk and Casey (2021) advise against a narrow approach that assumes that people not possessing the technical skills rooted in STEM fields should be automatically excluded by and from 'skills for green jobs'. Focusing on sectors other than traditionally STEM-dominated (and often male-dominated) sectors, such as the care and health sectors is particularly pertinent given the expected increase in the toll on healthcare sector and workers due to climate change, for example due to new emerging sicknesses or disaster aftermaths, and an ageing population (MacGregor et al., 2022).

More research needed on gender, environmental attitudes and voting behaviour

The gender disparities in climate change attitudes and mitigation actions are widely documented (Bush and Clayton, 2023; European Commission, 2021k; Mintel, 2018). However, there is a lack of research exploring the relationship between gender and environmental attitudes in influencing political participation, such as voting behaviour (Papp, 2022; Poortinga et al., 2019).

Gender patterns are observed in voting behaviour more generally. For example, research has found a gender gap in voter turnout, with women less likely to vote than their male counterparts (Beauregard, 2014). The observed gender difference in electoral participation can largely be accounted for by controlling for different levels of political engagement. It suggests that the gender gap reflects women's overall lower levels of interest in politics, possibly stemming from cultural perceptions of traditional gender roles, where politics is viewed as a stereotypically male domain (Green and Shorrocks, 2023; Nelson, 2020). More research is needed to ascertain if gender differences in interest in politics are abating among young people.

Conversely, there is research to suggest that women tend to be more left-leaning in their voting choices (Abendschön and Steinmetz, 2014; Inglehart and Norris, 2000). In Western Europe, beliefs and concerns about climate change are significantly associated with left-right political orientation, beyond the influence of economic egalitarianism and other political values (Fisher et al., 2022). Nevertheless, it is unclear whether gender differences in such beliefs and concerns are related to the gender gaps observed in vote choice.

A study examining the drivers of climate-friendly behaviours found gender to be a significant determinant for distinct types of actions to mitigate climate change: women are more likely to engage in less visible conservation efforts in the private sphere, whereas men were more likely to be involved in visible, political behaviours (Thaller et al., 2020). This finding offers some support for the idea that gender norms impact women's and men's involvement in the political arena (Dassonneville and Kostelka, 2021; Thaller et al., 2020). More research is needed on the nexus between climate, gender and voting to establish whether women's greater concern for climate change translates into environmentally conscious participation in politics.

Women are underrepresented in governing environmental and climate policies

In November 2022, in national governments, only 32 % ⁽⁸⁴⁾ of senior ministers responsible for environmental and climate change policies were women. However, a breakdown of these posts ⁽⁸⁵⁾ suggests that the allocation of ministerial portfolios is not gender neutral, and that women are still underrepresented amongst ministers with a higher profile policy area. Compared to the overall share of senior ministers' posts held by women, they are underrepresented among ministers with basic (29 %) and economy (25 %) responsibilities and portfolios. However, women are passably represented in infrastructure, holding 31 % of the ministerial positions with that portfolio, and their representation reaches the parity zone for posts concerned with socio-cultural files (43 %) ⁽⁸⁶⁾. Within the eight policy areas ⁽⁸⁷⁾ of the European Green Deal, a variation of women representation in government functions is noticeable. In the field of Infrastructure, there exists gender parity amongst senior ministers who have responsibilities linked to climate (50 % are women) and a gender balance amongst those who are responsible for energy (43 % are women). Compared to their overall share (32 %), women are somewhat better represented in the area of environment and oceans (35 %). In other Green Deal areas, women are underrepresented. Only 15 % of ministers with responsibilities for agriculture (falling under economy) are women, and they make up 14 % of ministers with responsibilities for transport (under infrastructure). In terms of senior ministers dealing

with research and innovation, women make up 36 % of the posts, this is also the only Green Deal area classified as a socio-cultural portfolio (EIGE, 2023f).

In September 2022, the share of women among members of all national parliaments in the EU member states was 33 %, this was also reflected in the composition of parliamentary committees, where they made up 36 % of members and 32 % of heads of committees ⁽⁸⁸⁾. Considering only the committees who are working on issues related to the Green Deal, data suggests that compared to the overall picture, women are somewhat better represented in committees dealing with the area of research and innovation (37 %), but less represented in the other areas. Women account for a smaller share of committees dealing with energy (29 %), finance and regional development (28 %) and transport (27 %). Also, women are underrepresented among chairs of committee dealing with Green Deal areas compared to their overall presence. In particular, in agriculture, transport and energy, where women only make up 16 %, 13 % and 8 % respectively. Additionally, in May 2023, committees with responsibilities in the areas of the European Green Deal had a gender balanced representation, except for those working on finance and regional development area (ECON & REGI), where women accounted for 31 % of the combined members. Still, with the exception of the transport and tourism Committee (TRAN) and economic and monetary affairs committee (ECON), committees ⁽⁸⁹⁾ dealing with topics related to Green Deal topics are chaired by men (EIGE, 2023f).

⁽⁸⁴⁾ Source: EIGE, Gender Statistics Database (unpublished microdata).

⁽⁸⁵⁾ Based on the BEIS-typology which includes four types of state functions: B – basic (foreign and internal affairs, defence, justice, etc.), E – economy (finance, trade, industry, agriculture, etc.), I – infrastructure (transport, communication, environment, etc.), and SC – socio-cultural functions (social affairs, health, children, family, youth, elderly people, education, science, culture, labour, sports, etc.). Source: Review of the implementation by the Member States and the European Institutions of the Beijing Platform for Action, Council of the European Union, 1999, <http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2011829%201999%20REV%201>.

⁽⁸⁶⁾ https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_gov_wmid_natgov_minis/datatable

⁽⁸⁷⁾ Climate, Energy, Environment & Oceans, Transport, Agriculture, Industry, Finance and Regional Development and Research and Innovation.

⁽⁸⁸⁾ https://eige.europa.eu/gender-statistics/dgs/indicator/wmidm_pol_parl_burcom_wmid_parlcom

⁽⁸⁹⁾ Committee on Environment, Public Health and Food Safety (ENVI), Committee Industry, Research and Energy (ITRE), Committee on Fisheries (PECH), Committee on Transport and Tourism (TRAN), Committee on Agriculture and Rural Development, Committee on Economic and Monetary Affairs, Committee on Regional Development (REGI).

In May 2023, women held a third or less of key positions in cabinets of Commissioners and key staff of Director-Generals (DGs) working on agriculture, in contrast with the directors of the DG responsible for climate and in the cabinets of the Commissioners responsible for environment and oceans and research and innovation, where 71 % are women. The top positions can be considered gender balanced, women account for four of the nine Commissioners (44 %) and five of the ten Director-Generals (50 %). Nevertheless, the heads of cabinets were mainly men, with only 22 % headed by women (EIGE, 2023f).

Women are still underrepresented in international climate negotiations. Attendance numbers from the primary decision-making space for global climate policy, the Conference of Parties (COP) from the UNFCCC suggest a lack of progress in women's representation. At COP27, women accounted for 36 %⁽⁹⁰⁾ of the national Party delegates, after limited progress in the past decade (during COP19, in 2013 women accounted for 34 % of delegates⁽⁹¹⁾). The percentage of women delegates in the EU delegation⁽⁹²⁾ was consistently higher than the general percentage of women delegates, averaging 40 % women in the EU delegation over the past decade and reaching 45 % in 2022 (EIGE, 2023f). At the country level, national delegations counted at least 30 % women in all cases except Luxembourg (28 %), whilst the Estonian delegation was predominantly women (79 %). The percentage of women heads of delegation in general ranged from 9 % in 2015 (COP21) to 26 % in 2017 (COP23)⁽⁹³⁾.

Within the UNFCCC, the Secretariat reports that changes in gender balance are inconsistent and tend to vary from year to year across constituted bodies. On average, women occupied 39 % of all constituted body positions in 2022, compared to 34 % in 2021. A broader finding is

that representation of women has increased in nine constituted bodies, decreased in three, and remained unchanged in four bodies in recent years (UNFCCC Secretariat, 2022).

Strengthening women's participation in corporate boards and research associated with positive results for the green transition

Corporate firms and banks play an increasingly important role in addressing environmental and climate issues. Several studies have shown the positive relationship between gender diversity on boards of publicly listed companies in Europe and their commitment to environmental and sustainability issues. The studies found that increasing gender diversity on boards improved firms' carbon performance (Nuber & Velte, 2021), enhanced firms' Environmental, Social and Governance (ESG) disclosures (Nicolò, Zampone, Sannino, & De Iorio, 2022) and disclosure of biodiversity initiatives (Haque & Jones, 2020), and led to higher environmental and social performance (Orazalin & Baydauletov, 2020). In terms of gender diversity in banks, the results are mixed. For example, one study found no significant differences between banks' commitment to the planet and gender diversity in decision-making (Gallego-Sosa et al., 2020), while another study found that gender diversity in leadership positions is an important driver for sustainability in banks (Birindelli et al., 2019).

Greater representation of women within technological innovation and research processes could contribute to accelerating the development of climate innovation, for example because they are more engaged in technologies and contribute to greater diffusion of technologies (Loarne-Lemaire et al., 2021). However, the gender gap in climate research and innovation remains high. For example, in 2016, women were listed in only approx. 15 % of applications for climate change

⁽⁹⁰⁾ <https://genderclimatetracker.org/womens-participation-party-delegations>, Percentages of Women Delegates by Party.

⁽⁹¹⁾ Data for percentage of women party delegates from 2008-2022: COP14 (31 %), COP15 (27 %), COP16 (31 %), COP17 (31 %), COP18 (30 %), COP19 (34 %), COP20 (36 %), COP21 (29 %), COP22 (30 %), COP23 (36 %), COP24 (38 %), COP25 (37 %), COP26 (35 %), COP27 (35 %).

⁽⁹²⁾ Data for percentage of women party delegates in the EU delegation from 2008-2022: COP14 (37 %), COP15 (35 %), COP16 (48 %), COP17 (39 %), COP18 (41 %), COP19 (40 %), COP20 (40 %), COP21 (34 %), COP22 (35 %), COP23 (41 %), COP24 (42 %), COP25 (41 %), COP26 (41 %), COP27 (41 %).

⁽⁹³⁾ <https://genderclimatetracker.org/womens-participation-party-delegations>.

mitigation technologies, similar to other technologies, including ICT (IEA, 2020).

Looking at the transport sector, the representation of women in inventions and patent applications across EU Member States varies but remains low. For example, in 'Performing Operations & Transporting', gender differences among inventors increased between 2005 and 2018, from a ratio of 0.06 to 0.09 for the EU-27 (European Commission, 2021b). Across EU Member States, women's presence in R&D in private transport-related business enterprises is limited. While the total number of researchers in private business enterprises across the EU increased between 2000 and 2020, the number of women among R&D personnel and researchers saw no significant improvement⁽⁹⁴⁾.

Climate activism is led by young intersectional eco-feminist voices

Globally, and on the European continent, young women climate activists have emerged prominently within the climate movement, demanding immediate action by those in decision-making positions, as recognised in the EU Gender Equality Strategy 2020-2025. Research suggests that women and girls make up a greater proportion of frequent participants and tend to dominate as both leaders and participants, particularly among school students (De Moor et al., 2020; Noth and Tonzer, 2022; Wahlström et al., 2019). Researchers surveying participants at two global climate strikes in March and September 2019 found that almost 60 % of participants identified as female, with particularly large gender gaps among the youngest age group (school students)⁽⁹⁵⁾ (De Moor et al., 2020; Wahlström et al., 2019).

While the online space offers new avenues for activism, it also has a dark side and provides a platform for online hate, harassment, and cyber violence. Greta Thunberg, as a young woman activist, has experienced online

harassment related to her work on climate (Pulé and Hultman, 2019; Vowles and Hultman, 2021). Thunberg has been the focal point of (online) sexist, ableist and ageist comments from anti-environmentalist and anti-feminist forces (Park et al., 2021; White, 2021).

The hate directed at Thunberg is only one example of the cyberviolence that women and girls experience. More thorough and systematic data collection is needed, but hate comments often seem to target women journalists, politicians, activists, and other public figures. Women and girls are particularly open to violence if they assert their views, defend their identity, or challenge traditional norms and gender roles or other human rights' issues on public forums (EIGE, 2022a), including in relation to increasingly controversial topics such as climate change and nature restoration and conservation. Studies have shown that women and girls who exercise their right to freedom of expression, even on less controversial topics, often face a backlash (European Commission, 2020e; FRA, 2016, 2017; Inter-Parliamentary Union, 2016).

This chapter describes gendered and intersectional causes and impacts of climate change. Women and men, as well as people marginalised because of intersecting inequalities, experience the effects of climate change and of the green transition measures differently. Women tend to feel more personal responsibility to mitigate climate change and are more willing to display environmentally friendly behaviours, such as recycling. However, women seem to have less opportunity to contribute to the green transition in a more substantive way, as they are underrepresented in political leadership and in the labour force in the sectors most relevant to combating climate change. Sustained efforts to remove barriers to women's participation in political and public affairs and to address gender norms of masculinity holding men back from taking up environmentally friendly behaviours are needed.

⁽⁹⁴⁾ EIGE (2022c), R&D personnel and researchers in business enterprise sector by size class and sex. Gender Statistics Database, https://eige.europa.eu/gender-statistics/dgs/indicator/ta_resdig_sctech_rdperes_sector_rd_p_perssize

⁽⁹⁵⁾ March 2019: 66.4 % of women participants; September 2019: approx. 72 % of women participants.

9.3. Gender equality and the green transition in energy

Energy transition is a central part of the European Green Deal. Currently it is a widely discussed topic due to the increasing level of energy poverty, initially triggered by the COVID-19 pandemic (Carfora et al., 2022) and then intensified through Russia's war of aggression against Ukraine and the associated disruption of the global energy market (European Commission, 2022d). This chapter discusses the energy transition, energy needs and vulnerabilities to energy poverty, but also opportunities from gender and intersecting inequalities perspectives.

The EU is responding to these challenges with a combination of key policies and packages, comprising the Clean Energy for All Europeans (CEP) package and the Fit for 55 package, both adopted in recent years. Despite the EU's commitments to gender mainstreaming in all of its policies, in reality, the EU policy on energy transition has paid limited attention to gender and intersecting inequalities (Carroll, 2022; Clancy and M. Feenstra, 2019; WECF, 2022). The key energy policies are described below, with some reflections on their inclusion of a gender perspective.

EU energy policy largely disregards a gender perspective

The **CEP** package consists of eight legislative acts for cleaner energy. Energy efficiency is a key principle of the package, with an energy efficiency target of 32.5 % by 2030, focusing on better energy performance in buildings. In 2019, the package sets a target of 32 % renewables⁽⁹⁶⁾ in energy consumption and a 40 % cut in GHG emissions (European Commission 2019b). Provisional agreement was reached in June 2023 to increase the targeted share of renewable energy in energy consumption

to 42.5 %, with an additional 2.5 % indicative top-up by 2030 (Council of the European Union, 2023a). The headline targets are set at EU level, so each Member State will decide how to contribute to achieving the targets by implementing a **National Energy and Climate Plan (NECP)**. These plans outline the national objectives, targets, and contributions to the various dimensions of the EU, such as decarbonisation, energy efficiency, renewables, interconnections, and research. The NECPs also offer crucial input for Member States' RRP and just transition plans, including the degree to which gender concerns are a focus (European Commission, 2020a).

The second main package to bring EU legislation, policies and new initiatives in line with its climate targets is the **Fit for 55 package**. This provides a coherent and balanced framework for achieving the EU's emission reduction, use of renewable energy sources, and energy efficiency targets, ensuring a just and socially fair transition, tackling inequality and energy poverty through climate action (European Commission, 2021c).

The Fit for 55 package plans to recast the **Energy Performance of Buildings Directive (EPBD)** and have all buildings in the EU as zero-emission buildings by 2050 (European Commission, 2021g). The revised Directive aims to increase the rate of renovations, reduce emissions and energy consumption, and promote the use of renewable energy in buildings. Energy efficiency in buildings is important from a gender perspective, as women are more likely to live in poor housing conditions (Heffernan et al., 2021), which require more comprehensive renovation and thus risk making rent unaffordable (Heffernan et al., 2021). Tenants tend to live in the worst-performing buildings in terms of EU energy performance standards (Clancy et al., 2022). Their status generally leaves them powerless to respond to the incentives provided

⁽⁹⁶⁾ Renewable energy is defined in Directive 2018/2001 as 'energy from renewable non-fossil sources, namely wind, solar and geothermal energy, ambient energy, tide, wave and other ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas, and biogas' (European Parliament & Council of the European Union 2018a). The EU does not give a definition of clean energy, but it can be understood as energy that comes from renewable, emission-free sources that do not pollute the atmosphere when used, and energy that is saved through energy efficiency measures (Chen et al. 2022; The Welding Institute 2022).

by carbon pricing other than to reduce their consumption further. Women are generally less likely to be homeowners (Vignoli et al., 2016), therefore play smaller role in renovation decision-making.

In 2021, under the European Green Deal and the Fit for 55 package, the Commission proposed an update of the 2003 **Energy Taxation Directive**. The proposed new Energy Tax Directive aims to align the taxation of energy products with the EU's energy and climate change policies, promote clean technologies, and remove outdated exemptions and reduced rates that currently encourage the use of fossil fuels. As envisaged in the proposal, an increase in the minimum levels of taxation on the most polluting energy sources may have a negative social impact, creating or exacerbating energy and transport poverty (EESC, 2022) with women more likely to be affected. The Commission took this into account by authorising Member States to reduce the minimum taxation levels of heating fuel and electricity, as well as allowing a 10-year exemption period from taxation for vulnerable households.

The European Commission created the **Energy Poverty Advisory Hub (EPAH)** in 2022 to eradicate energy poverty and accelerate the just energy transition (Energy Poverty Advisory Hub, 2022a, 2022b, 2023). The EPAH continued the work of the EU Energy Poverty Observatory (EPOV) which started to measure, monitor, share knowledge on energy poverty in late 2016 (European Commission, 2020d) and to develop national energy poverty indicators (Energy Poverty Advisory Hub, 2023). However, Clancy et al. (2022) point out that EPAH does not include recommendations about disaggregating the data across a range of social characteristics including gender.

The EU has taken a wide range of actions and initiatives to mitigate the challenges to

the security, supply, and stability of the European energy market. While these illustrate the urgency of addressing challenges in energy supply and security in the EU in the light of recent crises, a clear consideration of gender and intersecting inequalities is lacking. The EU Clean Energy, European Green Deal and REPowerEU documents do not mention gender issues but refer instead to vulnerable citizens or vulnerable households. More precise definitions and disaggregated data are needed, as referring to vulnerable households leaves considerable room for interpretation and risks actions targeting vulnerable citizens being ineffective in addressing gender equality (Carroll, 2022).

NECPs address gender inequalities only partially and superficially

NECPs⁽⁹⁷⁾ help to ensure that the EU achieves its overall 2030 climate and energy objectives and targets through Member States' supporting policies and measures, as well as their combined national objectives, targets, and contributions. NECPs provide short, medium, and long-term investment predictability, especially in uncertain times, and are crucial for mobilising the massive investment needed to realise the collective ambition of climate neutrality and achieve a fair and just transition while preserving energy security and affordability.

The gender analysis of the final NECPs submitted in 2019⁽⁹⁸⁾ and the European Commission's assessments⁽⁹⁹⁾ show that of the 27 NECPs, only 10 refer to gender equality, to varying degrees (Austria, Belgium, Finland, Hungary, Ireland, Luxembourg, Portugal, Romania, Spain, and Sweden) (Annex 6). Half of these countries reconfirm their commitments to international agreements on gender equality, such as the 2030 Agenda and UN SDG 5 on gender equality (Austria, Ireland, Luxembourg, Portugal, and Sweden). Several NECPs also refer to national strategies on gender equality (Austria and Ireland).

⁽⁹⁷⁾ The European Commission's Guidance Note to Member States for the update of the 2021-2030 NECPs provides specific sections on fair transition aspects, https://energy.ec.europa.eu/publications/guidance-ms-updated-necps-2021-2030_en

⁽⁹⁸⁾ Updated versions of NECPs are to be submitted by July 2023.

⁽⁹⁹⁾ For NECPs and European Commission's assessments, see: https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en#final-necps

Several NECPs (Hungary, Romania, Spain) refer to gender equality primarily in the context of women's labour market participation, stating that an increased share of women in the energy sector is needed or envisioned. Romania mentions specific measures to promote gender equality in education and vocational training, as well as research, innovation, and competitiveness in the energy sector. Finland's NECP describes organising several consultations in developing its Plan, including on gender effects of climate change with gender experts. Belgium's NECP acknowledges that energy and climate policies can have a gendered impact on employment, risk of poverty, representation, and the effectiveness of communication actions due to a different gendered awareness of sustainability.

In 2020, the European Commission assessed the final NECPs both collectively across the EU and for each Member State individually. The assessment does not address gender equality, except for Sweden, which received a note that the analysis of social aspects is limited to gender issues. Member States are encouraged to report climate impacts that may affect the achievement of the 2030 climate and energy objectives set out in the NECPs, disaggregated by disadvantaged groups. The Commission prepared guidance to assist Member States with this process, including providing several examples of inclusive energy and climate policies. This stems from the Governance Regulation⁽¹⁰⁰⁾, which cites the Paris Agreement as reaffirming that the Parties should, when taking action to address climate change, respect, promote and consider their respective obligations in respect of human rights and gender equality in their integrated NECPs and long-term strategies.

Overall, the limited specifications of how the general commitments to gender equality would translate into concrete and practical

actions show very weak integration of a gender perspective in the NECPs. Recommitments to international agreements and national strategies, as well as mentions of women's employment in the energy sector, are often their only references to gender equality. It is important to strengthen institutional structures for advancement of women and gender equality, including well-resourced national gender equality bodies, mainstreaming a gender perspective in EU and national policies, and sex-disaggregated statistics. These are the necessary preconditions for gender equality progress and effective implementation of EU policies (EIGE, 2019a, 2023e).

9.3.1. Women tend to engage in energy curtailing behaviour, while men are more likely to invest in energy efficiency

Income is the biggest predictor for the amount of energy used and associated emission levels (Duarte et al., 2021; Jaccard et al., 2021). Recent studies found that the richest 10 % of the EU population produce equal shares of emission as the bottom 50 %, who have the lowest carbon footprint (Gore and Alestig, 2020; Ivanova and Wood, 2020). This situation is caused particularly because of greater use of air travel among the wealthiest segment of the population. In the EU, residential energy consumption accounts for 28 % of final energy consumption, second only to transport⁽¹⁰¹⁾. Most residential energy consumption can be attributed to heating (63 %), followed by warm water (15 %) ⁽¹⁰²⁾. As such, encouraging more sustainable energy use among households is an important aspect of energy transition (Strengers et al., 2022).

Generally, reducing residential energy consumption is addressed either through initiatives to change energy behaviour at home or through renovation programmes targeting

⁽¹⁰⁰⁾ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council, ELI: <http://data.europa.eu/eli/reg/2018/1999/oj>

⁽¹⁰¹⁾ Eurostat ([nrg_bal_s](#)).

⁽¹⁰²⁾ Eurostat ([nrg_d_hhq](#)).

increased energy efficiency of buildings (Lopes, Antunes, & Martins 2015). However, most of these policies pay limited attention to existing gender inequalities, such as differing thermal needs, gender division of household work, gendered attitudes towards energy consumption, and the purpose of energy use, which influence the extent to which different groups respond to such policy interventions.

Beyond income, gender influences energy and carbon emission consumption levels. Women and men have different levels of thermal comfort, both indoors and outdoors, and different sensitivity to changes in temperature (Chen et al., 2022; Haselsteiner, 2021). Studies on gender differences in indoor environmental comfort found that comfortable temperature for women and men could differ by up to 3 °C, with women typically feeling more comfortable at higher temperatures (Haselsteiner, 2021). While the differences in thermal sensitivity can be largely attributed to psychological factors, socio-cultural factors also play a role.

Despite women's higher need for heating, evidence from Sweden analysing multi-family buildings suggests that the more women live in a house, the lower the energy consumption for space heating, when controlling for other factors (Engvall et al., 2014). Similar findings are found for electricity, associating women with reduced electricity consumption, driven by gendered attitudes towards climate change (Kopsakangas-Savolainen and Juutinen, 2013).

Research suggests that overall, women consume less energy than men despite persisting gender imbalances in domestic work (EIGE, 2022d). For example, 93 % of employed women regularly undertake unpaid housework compared to only 53 % of employed men (EIGE, 2021f).

A recent study based on time-use diaries from the UK, found that while single women report a larger number of energy-intensive household activities such as cooking or laundry, they perform many of them with less electricity than men (Grünewald and Diakonova, 2020). This study also confirmed that the bulk of men's energy consumption is often related to leisure

activities at home rather than household work (Grünewald and Diakonova, 2020).

The green transition promotes not only an overall reduction in energy use but also the need for flexible energy use through 'load-shifting', i.e. modification of energy use in time, space or intensity (Libertson 2022; Martin 2022). This is important to reduce electricity demand during peak hours and prevent outages or damage to the grid, and is particularly relevant in the context of increasing renewable energy sources, such as wind or solar power. Renewable energy sources can fluctuate throughout the day and thus require substantial load-shifting (Tjørring et al., 2018). However, load-shifting can result in an increased mental burden because of the need to anticipate, plan and coordinate various household and care tasks (e.g., not using appliances at certain hours). This has important gender implications and complicates the process of reconciling paid work and unpaid care (Aggeli et al., 2022; Dean et al., 2022).

Energy efficiency behaviour can influence overall energy consumption (Umit et al., 2019). Household decisions on energy-related investments are shaped by a number of factors, including demographics, housing characteristics, place of residence, beliefs of the decision-maker, expectations from the investment, as well as social and policy factors (Kastner & Stern, 2015). With a persistent gendered income gap and more women than men in poverty, women are more likely to have limited options to invest in energy efficiency (Clancy et al., 2017; Feenstra, 2021).

Examples of energy investments include retrofitting the home with insulation, replacing the heating system with a more efficient system, and investments in renewable energy systems such as solar power. Energy-related investments are strongly shaped by social relations and are often perceived as pertaining to men's sphere of responsibility within the household. As a result, research shows that men are more often responsible for researching options and making decisions, and also for overseeing and executing energy efficiency investments (Bartiaux, 2022; Standal et al., 2020; Tjørring, 2016). This dynamic was found even in households

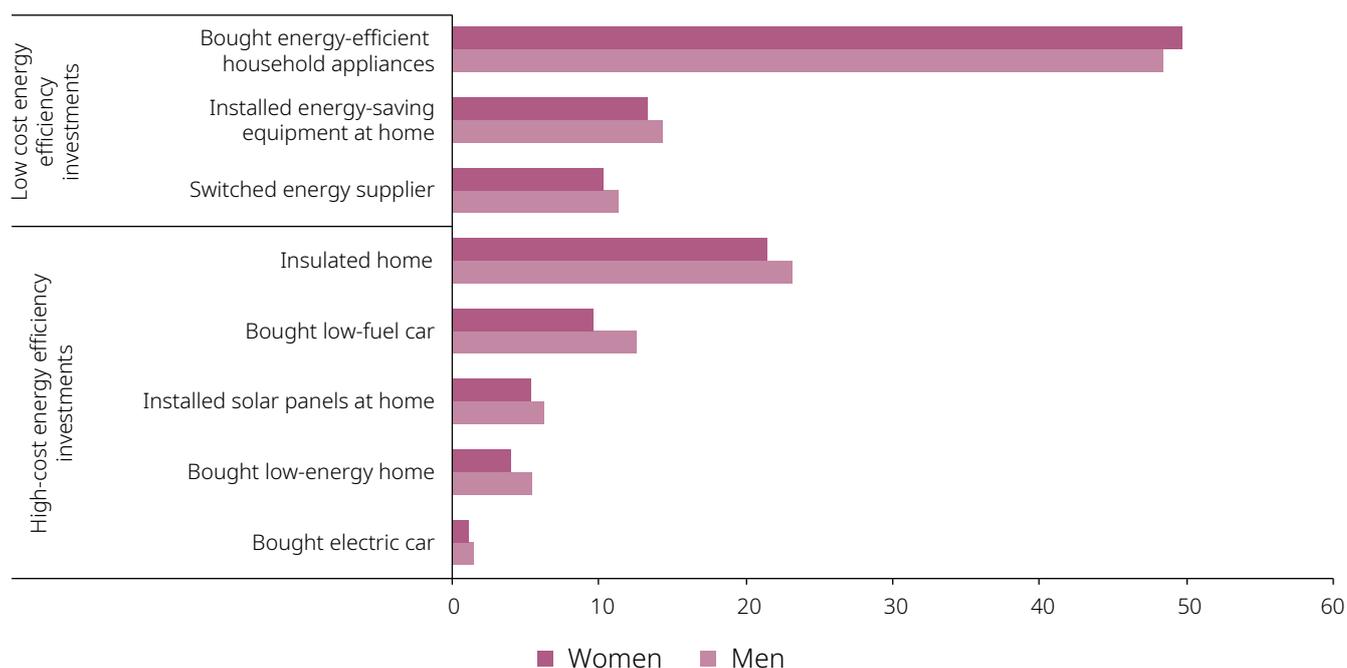
characterised by joint decision-making and actively promote equal division of housework (Bartiaux, 2022; Standal et al., 2020). Authors attributed such dynamics to perceived higher interests and knowledge of men in technology, including solar and green technology; stronger technology-related skills and social networks, as well as possession of the capital to invest in the technology (Standal, Talevi, & Westskog, 2020).

Eurobarometer results confirm that men are slightly more likely than women to undertake energy-investments, particularly high-cost energy efficiency investments. Gender gaps are the largest when it comes to buying low fuel cars and insulating the home. Other measures slightly more commonly taken by male respondents include purchasing energy saving equipment, switching energy suppliers, installing solar panels or buying a low-energy home. However, women are slightly more likely to buy energy-efficient household appliances. The gender gap is widest when buying low-fuel cars and insulating the home (Figure 30).

As shown in Figure 30, respondents are considerably more likely to resort to low-cost

energy-conserving lifestyle changes rather than high-cost investments, suggesting that such major investments are not feasible for everyone. Many of the most common energy investments are only possible where someone already owns a home or a car and has a driving licence, and women are known to be generally less likely to be homeowners (Vignoli et al., 2016). Research shows that in the EU, many low-income households, including low-income homeowners, cannot afford many of the high-cost energy efficient technologies, such as retrofit or solar panels. Lower-income homeowners have a lower propensity to adopt even medium and low-cost energy efficiency technologies, primarily due to economic constraints (Schleich, 2019a). This is despite the fact that low-income households often spend a higher share of their income on energy costs and would therefore benefit more than high-income households from increased energy efficiency (Schleich, 2019a). This supports findings on how income shapes households' strategies for energy use, with those with lower incomes more likely to resort to energy curtailing and those with higher income more likely to invest in energy efficiency (Umit et al., 2019).

Figure 30. Type of personal action to save energy, by sex (%), EU, 2019).



Source: Authors' calculations using microdata, Eurobarometer 91.3 (2019) Climate change. Q6: "Which of the following actions, if any, apply to you?"

9.3.2. Energy poverty affects women and men in different ways

With Russia's war of aggression against Ukraine and soaring energy prices in Europe, many people in the EU face concerns about how to keep their houses warm. There is still no common accepted definition for the concept of energy poverty. Article 2(49) of the **proposal for a recast Energy Efficiency Directive (EED)** ⁽¹⁰³⁾ defines energy poverty as *'a household's lack of access to essential energy services that underpin a decent standard of living and health, including adequate warmth, cooling, lighting, and energy to power appliances, in the relevant national context, existing social policy and other relevant policies'*. According to the Energy Poverty Observatory, energy poverty occurs where energy bills represent a high percentage of consumers' income, affecting their capacity to cover other expenses, or where consumers are forced to reduce the energy consumption of their households. Other than high energy prices, commonly discussed drivers of energy poverty are low income, high expenditure of disposable income on energy, and poor energy efficiency of buildings (Galvin and Sunikka-Blank, 2018; Koukoufikis and Uihlein, 2022; Recalde et al., 2019; Schleich, 2019b).

Due to the complex nature of energy poverty and no single agreed definition, multiple measurements are used to estimate the number of people living in energy poverty, yielding vastly different numbers. Among the most broadly used indicators for energy poverty are the share of the population i) not able to afford to keep their home adequately warm, ii) in arrears on their utility bills, or iii) living in dwellings with leaks, damp or rot. In 2020, about 36 million EU citizens were unable to afford to keep their home adequately warm ⁽¹⁰⁴⁾ and the share of the population affected by energy poverty in

a broader sense is likely to be much higher ⁽¹⁰⁵⁾, at an estimated 50 million (Thomson and Bouzarovski, 2018). Such estimates are likely to have worsened as a result of the COVID-19 pandemic which increased energy use at home due to lockdowns or teleworking (Hook et al., 2020) as well the soaring energy prices following Russia's war of aggression in Ukraine.

Groups such as lone parents or older women are most affected by energy poverty

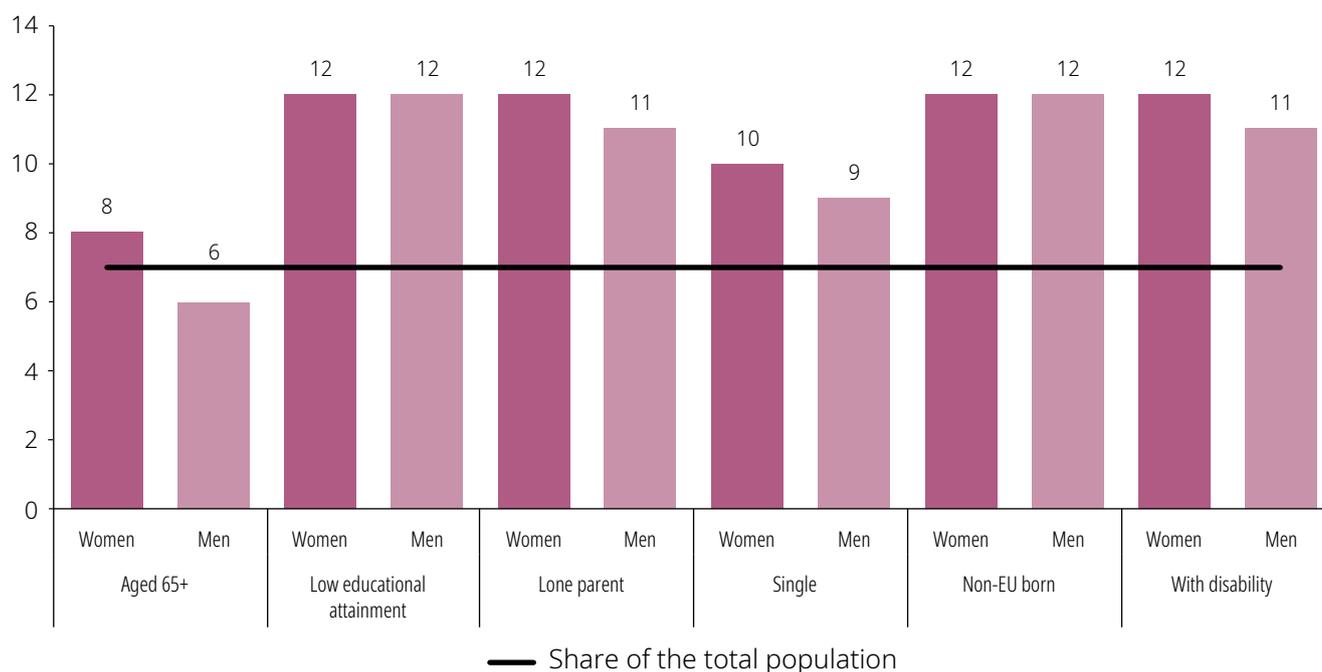
Energy poverty is strongly influenced by existing economic and social inequalities, whereby low income, demographic characteristics, and structural factors (e.g. policy framework, social support mechanisms, quality of housing) shape who is exposed to energy poverty. Due to existing gender and intersecting inequalities, women and disadvantaged groups are often more likely to experience poverty due to lower incomes. This in turn frequently leads to poor living conditions and an inability to afford sufficient energy (Simcock et al. 2021). Similarly, energy poverty can reinforce and perpetuate those inequalities by contributing to income poverty and social exclusion, and impacting health and well-being (EU Energy Poverty Observatory, 2020)

According to 2021 data, 7 % of the general population in the EU cannot afford to keep their homes adequately warm. Lone parents, people with disabilities, born outside of the EU, or women and men with low education are most likely to be unable to keep their home adequately warm. Where a gender gap exists, women are consistently more affected by energy poverty (12 %). For example, 10 % of single women and 9 % of single men are unable to keep their home adequately warm. Among the over-65s, 8 % of women and 6 % of men are unable to keep their homes adequately warm (Figure 31).

⁽¹⁰³⁾ Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast), COM/2021/558 final.

⁽¹⁰⁴⁾ <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20211105-1>

⁽¹⁰⁵⁾ [https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/733583/EPRS_BRI\(2022\)733583_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/733583/EPRS_BRI(2022)733583_EN.pdf)

Figure 31. Inability to keep the home adequately warm, by sex and other social characteristic (% , 16, EU, 2021) - Scoreboard

Source: Authors' calculations with microdata, EU SILC, 2021 (SK, 2020), LU break in time series.

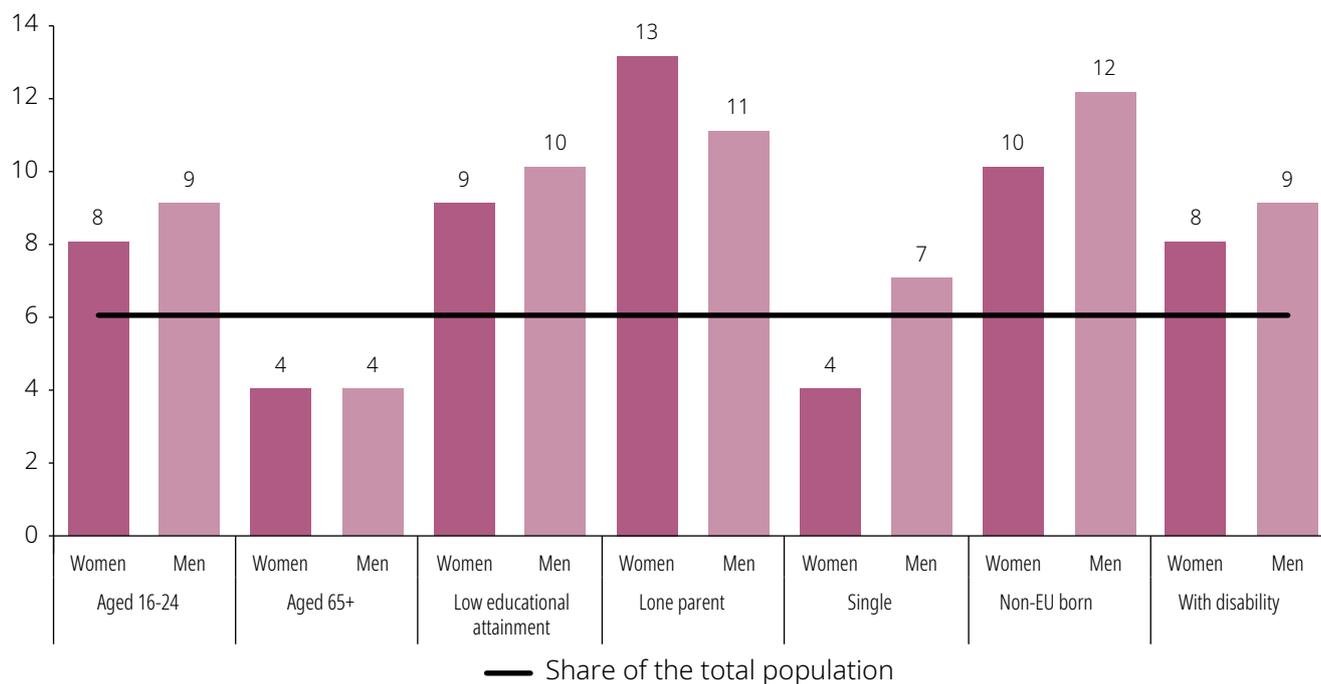
Notes: EU-born and non-EU born are based on 20 countries (data unavailable for DE, EE, IT, LV, MT, RO, SI). Family type definition differs from that used in the Index: here, only var. HX060 is used, meaning that all 16+ people are included in the type of family (Index considers only parents/head of family).

A related but often overlooked phenomenon is summertime energy poverty, where people struggle to keep their homes comfortable during summer (Birgi et al., 2021). This particularly affects coastal urban areas in South-Eastern Europe and the Mediterranean, and is expected to become more urgent due to climate change and frequently occurring extreme temperatures (Empowermed, 2023).

For many with lower incomes, higher energy prices can lead to indebtedness, and eventually to disconnection from energy services. In the EU, 6 % of general population had arrears on their utility bills in 2021. When considering additional intersectional inequalities, some groups were more likely to have arrears on energy bills.

For example, as many as 13 % of single mothers had arrears on their utility bills in 2021 (Figure 32). Among low educated, non-EU born, singles and persons with disability men were more likely to be in arrears on their utility bills than women.

High energy prices also place a lot of very small businesses at risk of indebtedness and even bankruptcy, many of them owned by women or employing women, especially in personal care services. Clancy et al. (2022) highlight that the current energy consumer protection framework does not safeguard small businesses, against rising energy prices and disconnection in case of non-payment.

Figure 32. Share of women and men with arrears on utility bills, by sex and other social characteristics (% , 16+, EU, 2021) - Scoreboard.

Source: Authors' calculations with microdata, EU SILC, 2021 (SK, 2020), LU break in time series

Note: EU-born and non-EU born are based on 20 countries (data not available for DE, EE, IT, LV, MT, RO, SI). Family type: definition differs from that used in the Index: here, only var. HX060 is used, meaning that all 16+ people are included in the type of family (the Index considers only parents/head of family).

Data from Eurofound collected in spring 2022 – and thus capturing the full extent of the energy crisis during the summer period – shows an even more dire situation. Almost three times as many respondents (16 %) reported being in arrears with their utility bills, while 28 % anticipated running into difficulties paying utility bills (electricity, water and gas) in the following months. Single women (31 %) anticipated these difficulties slightly more than single men (26 %). Among those hardest-hit were lone parents, with 44 % of lone mothers as well as roughly half of lone fathers (49 %) anticipating to struggle paying their bills (Eurofound, 2022a). Eurobarometer data from summer 2022 suggests that more women (82 %) judge the current costs of their household's energy needs (lighting, cooking, heating, cooling, running appliances) as a serious problem, compared to men (77 %) (European Commission, 2022c).

The high share of consumption expenditure on energy does not capture 'hidden energy poverty', where individuals resort to self-restrictive

behaviours, such as accepting colder room temperatures, in order to avoid energy indebtedness and reduce expenditure on energy (Eisfeld and Seebauer, 2022). Hidden energy poverty can be captured by looking at the low absolute expenditure on energy (i.e. absolute energy expenditure that is below half the national median). Currently, however, up-to-date EU-level data is not available (Energy Poverty Advisory Hub, 2022a, 2022b). Studies have found numerous energy-limiting behaviours among disadvantaged people. For example, older women with low incomes are more likely to adjust the length of time and parts of the home for which heating is kept on, use secondary heating sources, use additional layers to keep warm, or adjust their daily routines (Chard and Walker, 2016).

An important aspect of addressing energy poverty is recognising that housing conditions are crucial in determining energy inefficiency and consumption. For example, buildings with leaky roofs, damp walls, floors and foundations, and rotting window frames or floors can lead

to increased energy consumption and higher energy bills, making it difficult for low-income households to afford energy bills. This can lead to a vicious circle where households reduce their energy consumption to save money, leading to further home deterioration and even higher energy bills (Energy Poverty Advisory Hub 2022).

Energy poverty has crucial health implications

Energy poverty is associated with significant impacts on human physical and psychological health. Direct impacts of cold room temperatures include increased risks of respiratory illnesses and circulatory diseases. Many health conditions, such as flu, colds, arthritis and rheumatism, could also worsen due to cold room temperatures (Recalde et al., 2019). Cold housing and associated health risks have been recognised as one potential cause of excess winter mortality (Fowler et al., 2015; Recalde et al., 2019).

Inability to keep the home warm negatively impacts mental health (Clair and Baker, 2022). This can happen in multiple ways, such as through induced stress due to a cold environment, stress due to financial strain, increased isolation or disrupted sleep. Some people might be more vulnerable to cold room temperatures due to physical factors, such as difficulty managing body temperatures, or due to socio-economic factors, such as time spent at home, income, or living conditions. This means that older people, children, stay-at-home parents, and those with long-term health conditions are particularly vulnerable to colder room temperatures (Clair and Baker, 2022).

In addition to cold room temperatures, the inefficient use of firewood for heating or cooking has negative health impacts as it results in household air pollution (HAP). This has been linked to stroke, heart disease, chronic obstructive pulmonary disease, and lung cancer (WHO, 2022). The use of firewood is still widespread in the EU, especially in Eastern Europe, and has increased substantially due to increasingly volatile prices of oil, natural gas, and coal. As women remain primarily responsible for cooking, they are likely to be most affected while doing daily cooking

activities, while men, children, and other household members, may be exposed to negative effects of HAP if firewood is used for heating homes (Clancy and M. Feenstra, 2019).

Energy poverty measured at household level masks gender inequalities

Capturing the full extent of gender inequalities in energy poverty poses a challenge. Key indicators measuring energy poverty are reported at household level, masking gender inequalities within households. Gender power dynamics can create inequalities at home and affect energy use. More concrete information about members of a household would help in measuring the gender aspect of energy poverty.

Energy poverty has gender-specific implications and gender inequalities in economic, physiological and socio-cultural dimensions influence women's exposure to energy poverty (Birgi et al., 2021; Papadimitriou et al., 2023). Women are particularly affected by energy poverty, as they tend to have lower incomes, due to the gender pay gap and the gender-pension gap. This places more women at the risk of poverty (Papadimitriou et al., 2023). Lacking disposable income also affects women's ability to invest in efficient devices or insulation, reinforcing existing gender inequalities.

Physiological factors influence women's experience with energy poverty. On average, women have a higher life expectancy than men, and older people are especially vulnerable to extreme temperatures (Chen et al., 2022; Haselsteiner, 2021).

Socio-cultural factors such as traditional gender norms affecting the division of unpaid care and housework within families also influence women's experiences of energy poverty. Women shoulder the brunt of such tasks and thus tend to spend more time at home (EIGE, 2021f). This increases low-income women's exposure to energy poverty, as they spend more time in insufficiently heated houses. If not addressed by policy initiatives specifically targeting gender aspects, there is a risk that energy poverty will exacerbate existing gender inequalities.

Poor housing quality limits the capacity to save energy

Income determines the type of housing in which an individual or family can afford to live, both in terms of tenure (owner-occupier or tenant) (Papantonis et al., 2022) and energy efficiency of the building. The latter shapes the possibility to save energy and the demand for heating or cooling services (Lopes et al., 2015). Increasing energy efficiency in buildings is particularly important in promoting more efficient energy use for home heating. However, in 2020 as much as 15 % of women and men in the EU lived in a house with a leaking roof, damp walls, floors or foundation, or rot in window frames or floors (Figure 33). These conditions are a sign of building deterioration and increased difficulty to keep the home adequately warm and cool (Energy Poverty Advisory Hub, 2022b). Guaranteeing adequate warmth in energy inefficient buildings requires higher consumption, which many lower-income people cannot afford. This can result in reduced consumption and deteriorating conditions of the dwelling. At the same time, deteriorating conditions require more energy, thus people living in such dwellings might also face higher energy prices (Energy Poverty Advisory Hub, 2022b).

Figure 33 shows that some groups are more likely to live in dwellings with a leaking roof, damp walls, floors or foundation, or rot in window frames or floors (15 %). With the exception of men with low educational levels, women are slightly more likely to live in poor housing conditions across all groups (Figure 33). People most at risk are women (19 %) and men (20 %) with low educational attainment, migrants from non-EU countries (20 %), people with disabilities (19 %), and single parents (22 % of single mothers and 19 % of single fathers⁽¹⁰⁶⁾). Data from the European Energy Poverty Dashboard⁽¹⁰⁷⁾ shows that tenants who privately rent housing tend to experience energy-related issues to a greater extent than the overall population, as many privately rented homes tend to be less energy efficient (Papantonis et al., 2022). While the data is not disaggregated by gender, research shows that

women, especially single mothers due to their lower income, are more likely to live in lower-quality housing (Nieuwenhuis and Zagel, 2022).

9.3.3. Structural inequalities influence women's costs and opportunities of the green transition

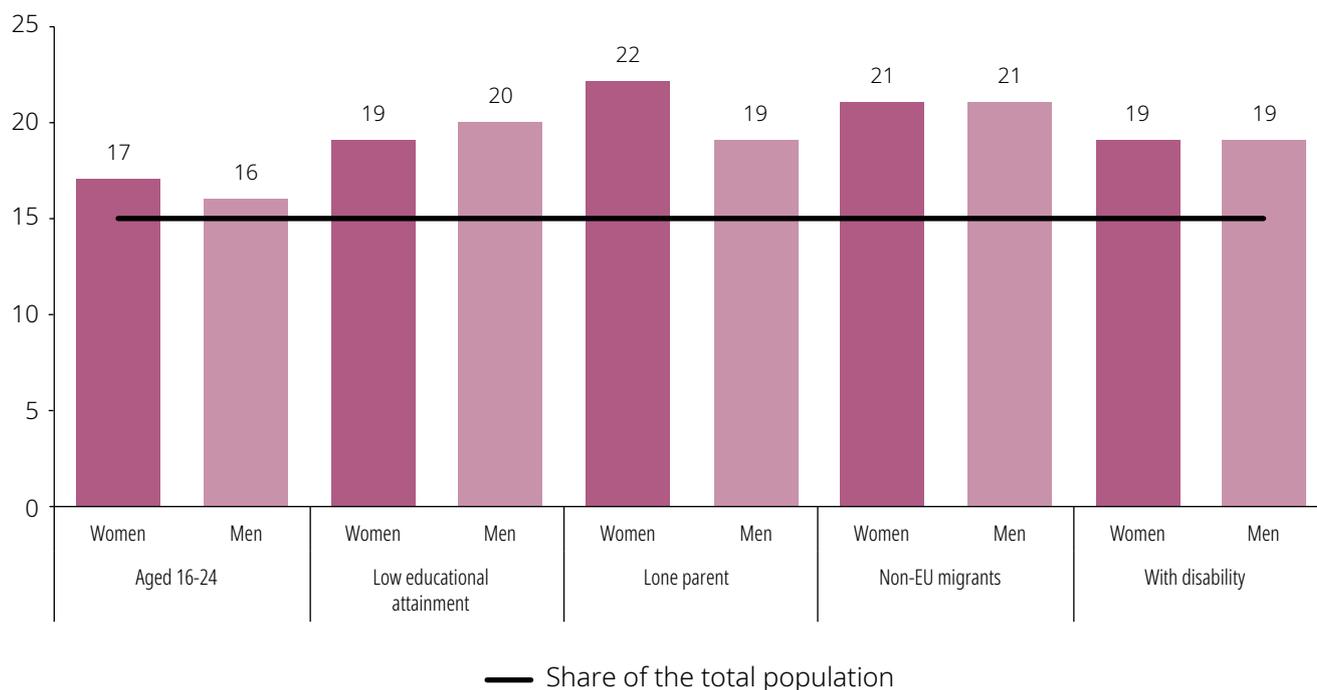
The European Green Deal aims for a fundamental transition of European society. The socially fair transition is a central component that seeks to ensure that no one is left behind. However, structural inequalities influence women's costs resulting from the green transition (e.g. higher exposure to energy poverty), as well as their opportunities to take part in the green transition. For example, women's opportunities to save energy and thus reduce carbon emissions is influenced by their income, quality of housing conditions, and energy needs. Women are also underrepresented in the energy workforce, in research, and in energy-related decision-making, meaning they have less of a voice in shaping the green transition.

Green transition is expected to reshape job profiles and skills demands in the energy sector

EU climate policy and clean energy transition initiatives are already affecting employment and the European economy. There are various estimates of future scenarios of the green transition and energy sector employment developments (Czako, 2020; Rutovitz and Atherton, 2009). The green energy transition is expected to impact employment in the EU energy sector, with 'winners and losers' across energy occupations and sub-sectors (CEDEFOP, 2021). According to CEDEFOP (2021) forecasts on the green employment and skills transformation in energy, subsectors such as water supply and waste management, utilities and electricity supply are expected to see the largest employment gains, due to the increased demands of circular economy and renewable energy. Other occupations, such as manufacturing of electrical appliances or construction, are also expected to be affected, due to demands on supply chains (CEDEFOP, 2021).

⁽¹⁰⁶⁾ The majority of single parents in the EU are women.

⁽¹⁰⁷⁾ <https://www.energypoverty.info/energy-poverty-dashboard/>

Figure 33. Share of women and men living in poor quality dwellings, by sex and other social characteristics (% , 16+, 2020) - Scoreboard

Source: Authors' calculations with microdata, EU SILC, 2020.

Notes: EU-born and non-EU born are based on 21 countries (data not available for DE, EE, LV, MT, RO, SI).

Family type: definition differs from the one used in the Index. Here, only var. HX060 is used, meaning that all +16 people are included in the type of family. In the Index analysis, we consider only parents/head of family. Var. HH040 not collected in 2021, available only every 3 years.

Job creation is expected mostly in greening sectors, including construction, waste management and sustainable finance (Czako, 2020). The green transition is also expected to drive increased demand for different service sectors across the energy sector, such as engineering or administration.

Conventional energy industries, such as fossil fuel extraction, processing and generation, and the regions where these are concentrated, are expected to be affected by job loss locally (Czako, 2020; Eurofound and EEA, 2023).

Some occupations in energy subsectors are anticipated to experience decreases or employment redirection as a consequence of the European Green Deal implementation (CEDEFOP, 2021) most notably conventional energy subsectors and occupations, such as coal mining.

Additionally, the green transition is expected to require an increased demand for different

service sectors across the energy sector, such as engineering or administration. However, it is also predicted that some occupations in energy sub-sectors will experience decreases or employment redirection as a consequence of the European Green Deal implementation (CEDEFOP, 2021).

Most job growth caused by investments in the green transition is expected in the sectors that are currently dominated by men, making them better positioned to benefit from emerging job opportunities. Due to the pre-existing gender gaps in the labour market (both sectoral and occupational), women are less likely than men to be able to take advantage of the newly emerging jobs. While CEDEFOP (2021) forecasts an increase in female employment in a service sector, employment in the service sector is often characterised by low pay, poor working conditions and career prospects, especially in female dominated sectors and occupations such as care (ILO, 2018). Additional measures such as

re-skilling, upskilling and support for job transitions are needed to ensure that women, especially those with low education or in precarious employment could take advantage from emerging opportunities in the sectors directly targeted by the Green Deal (Eurofound and EEA, 2023).

Feminist researchers argue that jobs in care, health and education should be at the centre of a just transition, as they are often by default 'green' (low emissions) (Greens, 2021; Littig, 2017). The focus on the care and health sectors is particularly pertinent given the expected increase in the toll on healthcare sector and workers due to climate change and ageing population (MacGregor et al., 2022).

Under the European Green Deal, the green transformation and the EU's future growth in relation to the energy sector reflects the need for training, upskilling and reskilling of the workforce (European Commission, 2019b). Studies point to future skills demand for the clean energy transition that encompasses digital skills across energy subsectors, as well as upskilling and reskilling in the employment transition from conventional to renewable, clean technologies (Arcelay et al., 2021; CEDEFOP, 2021; Gatto, 2022). It is estimated that the accelerated transition to clean energy planned in RePowerEU targets will require the creation of over 3.5 million jobs in renewable energy by 2030. The European Commission's Pact for Skills aims to foster upskilling and reskilling to support the green and digital transition, including through a large-scale renewable energy skills partnership (European Commission, 2023b). One of the objectives of the partnership is to attract more women into renewable energy jobs (European Commission, 2023b).

Women are consistently underrepresented in the labour force in both the conventional and renewable energy sectors

Meeting the growing labour demand requires making the energy sector more attractive for

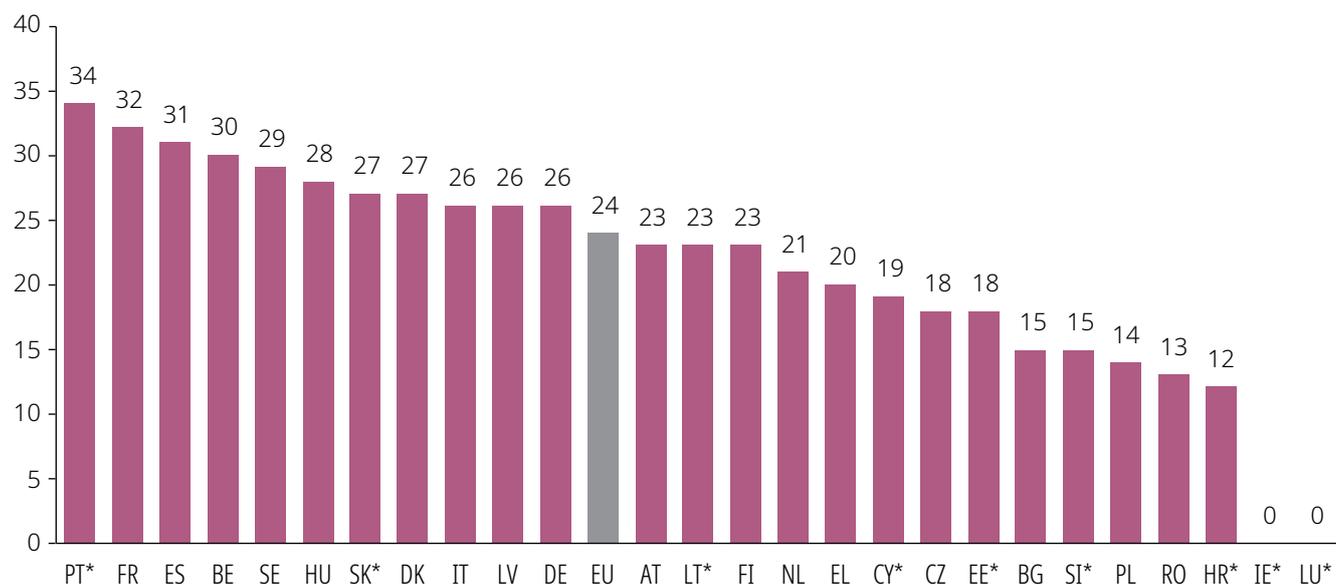
both women and men in the skilled workforce, which means addressing the persistent gender inequalities in the sector (Clancy & Feenstra 2019). Overall, the energy sector is one of the most gender imbalanced industries in the EU in overall representation of women as well as occupational and hierarchical gender segregation (Czako 2020; EIGE 2012). The persistence of structural gender inequalities perpetuates the obstacles to women's educational choices and skills, entry and retention in the energy workforce.

In assessing employment and the green transition in the EU energy sector, analyses of employment trends usually differentiate between conventional and renewable energy supply sectors (Czako, 2020). While the conventional energy technologies comprise nuclear, oil, gas and coal industries, the renewable energy technologies include industries involved in hydro, wind, ocean, bioenergy, solar photo voltaic (PV) and concentrate solar power (Czako, 2020). Globally, women account for 22 % of the work force in the conventional energy sector ⁽¹⁰⁸⁾, with lower numbers in management positions (IEA, 2023). By comparison, the share of women in the renewable energy sector is at 32 % globally (IRENA, 2019).

Only limited sex-disaggregated data is available for both conventional and renewable sectors (Clancy and M. Feenstra, 2019; European Commission, 2021b; Pearl-Martinez and Stephens, 2016). To this date, no regularly collected official EU wide data captures gender inequalities in employment in the EU renewable energy sector.

Women account for 24 % of the conventional energy sector labour force in the EU and participation varies across Member States (Figure 34). The most gender balanced countries are Portugal (34 % of women). France (32 % of women) and Spain (31 % of women). Women's participation is the lowest in Croatia (12 %), Romania (13 %) and Poland (14 %).

⁽¹⁰⁸⁾ The conventional energy sector consists of the following four NACE two-digit level classifications: Mining of coal and lignite (B05), Extraction of crude petroleum and natural gas (B06), Manufacture of coke and refined petroleum products (C19), Electricity, gas, steam and air conditioning supply, manufacture and distribution (D35). Calculations based on Employment by sex, age and detailed economic activity (from 2008 onwards, NACE Rev. 2 two-digit level) (LFSA_EGAN22D), EU LFS, 2011-2022.

Figure 34. Share of women employed in the energy sector, by Member State (% , 15+, EU, 2022) - Scoreboard

Source: Authors' calculations based on EU-LFS (lfsa_egan22d).

Notes: energy sector is defined as the sum of D35+C19+B05+B06 NACE rev.2 codes.

* Low reliability.

Women are underrepresented in employment across all subsectors of conventional energy, but to varying degrees. The most equal subsector is the electricity and gas supply sector, where, in 2021, 28 % of workers were women. In both the manufacture of coke and refined petroleum products sector and the oil and gas extraction sector, women represent around one-fifth of workers (21 % and 20 %⁽¹⁰⁹⁾, respectively). While the share of women in the manufacture of coke and refined petroleum products remained at the same level since 2011 (1 pp increase), the oil and gas extraction sector showed a substantial increase (6 pp) in that time. Gender imbalance is highest in the coal-mining sector, with only 12 % of women workers in 2021, having shown little progress for over a decade (2 pp increase).

The ongoing process of energy transition, from traditionally fossil-fuel dominated systems towards sustainable and renewable energy provides new opportunities for a more inclusive energy workforce (Czako 2020; Pearl-Martinez & Stephens 2016). Insights are limited to several online surveys by IRENA (IRENA, 2019, 2020, 2022)⁽¹¹⁰⁾. Representation varies across sectors with the global solar photo voltaic energy sector being closer to gender equality (40 %) (IRENA, 2022) than for example the global wind energy sector (21 %) (IRENA, 2020) for example.

Only limited sex-disaggregated data on research and innovation is available⁽¹¹¹⁾. In the energy sector, women's participation in

⁽¹⁰⁹⁾ EU-LFS 2019 (more up-to-date data is not available).

⁽¹¹⁰⁾ IRENA is an intergovernmental organisation that supports countries in their transition to a sustainable energy future. It serves as a platform for international cooperation and knowledge exchange on issues of renewable energy. The online surveys conducted by IRENA look at the renewable energy sector (2019), the wind energy sector (2020) and the solar photo voltaic (PV) sector (2022) from a gender perspective. The sector-wide IRENA renewable energy survey was conducted in 2018 and with 1500 respondents from across 144 countries. As a follow-up to dive into individual sub-sectors, the IRENA wind energy survey was conducted in 2019 and is based on 921 respondents in 71 countries. The most recent IRENA online survey was conducted in 2021 and covers the solar PV sector, with 1283 responses from 123 countries.

⁽¹¹¹⁾ Eurostat R&D personnel and researchers in business enterprise sector, by NACE Rev. 2 activity and sex (rd_p_bempoccr2), Electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities [aggregated D35_E36], 2020. Data with more than 20 cases is only available for 11 countries (CZ, EE, EL, ES, HR, IT, HU, PL, PT, SI, FI).

research and innovation is generally rather low in all EU countries. In 2020, Croatia had the highest share of women among research and innovation personnel in business enterprises in the electricity and gas and water supply sectors, at 44 %, followed by Greece, at 32 %. The lowest shares were in Slovenia and Czechia (12 % women), followed by Spain and Finland (21 % women). According to IEA data, in 2021 in the OECD, only 8.7 % of patents were from female inventors. The patents were roughly equally distributed between fossil fuel technologies (10 %) and clean energy transition technologies (8.5 %) (IEA, 2023). Moreover, 18 % of all patents included at least one female inventor with clean energy transition technologies being 0.6 p.p. more gender balanced (18.1 %) compared to fossil fuel technologies (17.5 %) (IEA, 2023).

Gender imbalances in the energy labour workforce and research sector have crucial implications because women and men have different needs and lived realities. Not including women's perspectives equally in the green transition risks creating policies built on a gender data gap and unintentionally exacerbating gender inequalities (Criado-Perez, 2019).

Obstacles abound to women's participation in the energy sector

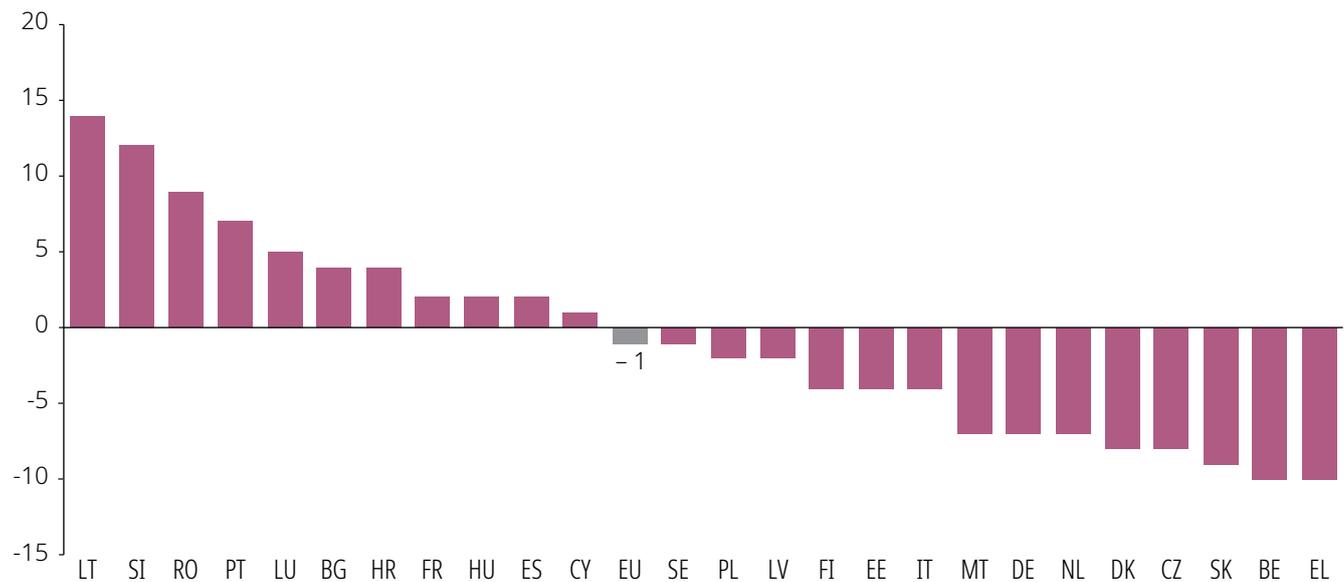
Overall, the EU energy sector is unattractive for women for a number of reasons (Clancy and M. Feenstra, 2019; Czako, 2020). Women experience obstacles to entering the energy workforce, as well as throughout their career cycles such as barriers to professional advancement, retention, and managing work and care responsibilities (Clancy and M. Feenstra, 2019; Czako, 2020).

The energy sector, including its subsectors, is highly gender-segregated horizontally and vertically. Apart from being underrepresented in the energy workforce in both conventional and renewable energy technologies, women are also less present in higher-skilled technical, engineering, operative and leadership positions. For example, in the electricity and gas sector, only 20 % of women are employed in supervisory positions, compared to 34 % of men ⁽¹¹²⁾. This indicates a gender gap in appropriate skills in the energy workforce, as well as the obstacles faced by women in advancing into higher-skilled positions. Patterns in the energy workforce across different sectors indicate the presence of the 'sticky floor' ⁽¹¹³⁾ in women's careers. Women have limited opportunities for exchanges with others and competence development, for example, through mentoring programmes or professional networks. This has been emphasised as a major challenge in the renewable, wind and solar PV sectors (IRENA, 2019, 2020, 2022).

Global evidence shows that women experience unfair work conditions in the energy sector, for example connected to gender disparities in wages (IRENA 2019). In the EU electricity and gas sector, women are overrepresented in the seven lower income deciles while men dominate the three highest income deciles. Around 65 % of women workers' salaries belong to the five higher income deciles, compared to 81 % of men workers' salaries. IEA data shows that the gender wage gap in the energy sector varies between Member States. At EU level, the overall gender wage gap in the energy sector is 1pp. In 11 countries, women earn more than men on average, led by Lithuania with a gender gap of 14 %, followed by Slovenia (12 %), Greece and Belgium (10 % each). By contrast, in 14 countries, men earn more than women, on average.

⁽¹¹²⁾ Author's calculations using microdata, EU-LFS 2020 – covers electricity, gas, steam and air conditioning supply subsector.

⁽¹¹³⁾ Expression used as a metaphor to point to a discriminatory employment pattern that keeps workers, mainly women, in the lower ranks of the job scale, with low mobility and invisible barriers to career advancement. Source: European Institute for Gender Equality (2016), Glossary and thesaurus: sticky floor.

Figure 35. Gender wage gaps in the energy sector (% , EU, 2018)

Source: IEA, 2018, no available data for Ireland and Austria.

Note: Gender wage gap is calculated as the average wage of women minus the average wage of men divided by the average of men's earnings.

Gender segregation in the EU energy sector is closely linked to gender inequalities in STEM education. In the EU, women account for about 36 % of tertiary graduates in natural sciences and technologies ⁽¹¹⁴⁾ and 27 % of students in engineering, manufacturing and construction ⁽¹¹⁵⁾. Across different STEM fields in the EU, there is some variation in the degree of gender segregation. For example, the ICT and engineering, manufacturing and construction fields closely connected to energy sector careers are the STEM fields most dominated by men graduates. Educational choices are shaped by gender stereotypes and pose barriers to women's entry to energy sector careers. Studies point to the influence of family members and STEM teachers on whether girls decide to pursue studies in STEM fields (EIGE, 2016a; UNESCO, 2017).

Social and cultural norms are repeatedly highlighted as major obstacles to women's career entry and retention in the renewable, wind, and solar PV sectors (IRENA, 2019, 2020, 2022). For example, in largely male-dominated energy sectors, masculine corporate cultures may make it

harder for women to reach the top. Women may also encounter various forms of harassment or mistreatment, ranging from having their competence questioned, to more severe mistreatment (IRENA, 2019, 2020, 2022).

Given its systemic issues, the energy sector is highly unattractive to women workers. This includes the particular difficulty in reconciling working conditions with care responsibilities. Throughout the IRENA online surveys on women in energy subsectors, respondents indicate the lack of child-and-family-friendly policies. For example, survey respondents report that taking maternity or parental leave led to their commitment to work being questioned by their colleagues and employers (IRENA, 2019).

Women are sidelined in senior management and decision-making in energy companies

Women's participation in economic decision-making in the EU energy sector is low. The European energy sector is largely male-dominated, and women continue to experience

⁽¹¹⁴⁾ Authors' calculations, based on EU-LFS 2021 (lfsa_egan22d). Fields of education of natural sciences (051, 052, 053) and technologies (071, 072, 73, 104).

⁽¹¹⁵⁾ EU-LFS, 2020.

barriers to entering higher levels and decision-making positions, both in private and the public sectors (Clancy and M. Feenstra, 2019; Pearl-Martinez and Stephens, 2016).

According to a recent global study by the IEA, women hold less than 5 % of top leadership positions in energy companies, such as Chief Executive Officers (CEOs), presidents, or chairs of the board. Additionally, women represent only 14 % of senior management (IEA, 2021). Looking at different energy subsectors, the study finds that the share of women in senior management positions is highest in energy utilities (17 %). Women's presence in senior management in the remaining subsectors ranges from 11 % in coal and in renewables, to 12 % in oil and gas, and 13 % in uranium (IEA, 2021). In the EU, women workers in the energy sector are less likely to have supervisory responsibilities in their jobs (22 % of women, compared to 32 % of men) ⁽¹¹⁶⁾.

Despite the persistent glass ceiling and underrepresentation of women in senior management and leadership positions in the energy sector, there are demonstrable benefits to having more women making decisions in companies. Several studies point to the advantages of women's increased leadership presence (e.g. in management positions) and diversity on corporate boards (Atif et al., 2021; Dubey, 2022; Sraieb and Labadze, 2022). For one, it can lead to increased environmental awareness and action by corporations, including environmental initiatives or the use of renewable energy (Atif et al., 2021; Dubey, 2022). Greater gender diversity in firms also shows positive impacts on performance and competitiveness, financially as well as towards greater social responsibility (Atif et al., 2021; Sraieb and Labadze, 2022).

Women's presence in political energy-related decision-making is slightly more equal at EU level than in national bodies

At EU level, the Directorate-General for Energy (DG ENER) is responsible for energy-related decision-making within the European Commission. Since 2019, the Commissioner for Energy is – for the first time – a woman, Ms Kadri Simson ⁽¹¹⁷⁾. However, no woman has ever held the position of head of cabinet in DG ENER ⁽¹¹⁸⁾. Until 2018, men were overrepresented among members of cabinet, but the gender balance has since improved, with the cabinet comprising four women and three men in 2022 ⁽¹¹⁹⁾. Similarly, a woman holds the position of Director-General since 2019, for the first time ⁽¹²⁰⁾. Among the directors, there was gender balance between 2014 and 2018, with the number of women in director positions surpassing that of men in 2021 ⁽¹²¹⁾.

In the European Parliament, the Committee on Industry, Research and Energy (ITRE) focuses on energy decision-making. A woman held the position of director or leader of ITRE in 2012 and 2013 ⁽¹²²⁾. The share of women members of ITRE is increasing slightly but consistently since 2015, reaching 41 % in 2022.

At national level, women's presence in energy decision-making is more mixed. At ministerial level, the share of women has reached the gender parity zone, with EIGE data from November 2022 showing that women account for 46 % of senior ministers with responsibilities for energy in EU Member States (EIGE, 2023f). The representation of women in national parliamentary committees working on energy was of 29 % in August 2022, which is slightly lower than women's overall

⁽¹¹⁶⁾ EU- LFS (2021).

⁽¹¹⁷⁾ Indicator: Environment related DGs of the European Commission: political positions | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

⁽¹¹⁸⁾ Indicator: Environment related DGs of the European Commission: political positions | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

⁽¹¹⁹⁾ Indicator: Environment related DGs of the European Commission: political positions | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

⁽¹²⁰⁾ Indicator: Environment related DGs of the European Commission: administrative positions | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

⁽¹²¹⁾ Indicator: Environment related DGs of the European Commission: administrative positions | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

⁽¹²²⁾ Indicator: Environment related committees in the European Parliament | Gender Statistics Database | European Institute for Gender Equality (europa.eu), 2022.

representation in national parliaments (women accounted for just a third (33.1 %) of the members of all national parliaments in the EU Member States in August 2022 (EIGE, 2023f).

Energy is a vital sector for reaching the EU's climate target and for becoming a net-carbon continent. As such the transition needs to incorporate a gender perspective in order to avoid exacerbating gender inequalities. However, the policy initiatives intended to transform the energy sector disregard gender and instead subsume gender concerns under the umbrella term 'vulnerable households'. This risks disregarding the gender component of energy consumption, including investments in energy efficiency. An intersectional analysis reveals that some groups of women, such as older women or low-educated women, are particularly exposed to energy poverty. Currently, women have an unequal opportunity to shape the transition, given their underrepresentation in both the labour force and in economic and political decision-making.

9.4. Gender equality and the green transition in transport

Mobility and transport are key enablers in social and economic life, affecting everything from everyday access to education and work, to tourism, leisure, and unpaid work and care. Transport also facilitates access to health, care, and social services and is critical for the operation of commercial supply chains. In the EU, transport is one of the largest job sectors, employing over 10 million people and comprising more than 1.2 million enterprises⁽¹²³⁾.

Despite its many benefits for people, mobility also comes with costs to society. The transport sector accounts for almost one-quarter of the EU's GHG emissions⁽¹²⁴⁾. Since 2013, the EU domestic transport sector showed an increase in emissions, with the exception of a temporary decrease in emissions in 2020, related to the COVID-19 pandemic (EEA, 2022b; Eurostat, 2022). In addition to carbon emissions,

transportation produces air, noise and water pollution, congestion, and loss in biodiversity, all of which affect the environment and people's health and well-being (EEA, 2016, 2020b).

This chapter includes an overview of efforts by EU institutions and Member States to decarbonise the transport sector, together with an analysis of how gender impacts mobility patterns, needs and challenges. It also includes an overview of women's contributions to the transport sector in terms of labour force and decision-making, as well as obstacles to their greater participation.

The green transition in transport is underway and the EU needs to step up its policy ambitions towards gender-equal and socially fair transition

The European Green Deal seeks to develop a competitive and sustainable transport area that reduces the impact on environment and climate (European Commission, 2019b). This goal is especially relevant from a gender equality perspective, as a growing body of evidence shows that women and men do not experience and benefit from the EU transport system equally and fairly (Sánchez de Madariaga and Neuman, 2020; Uteng, Christensen, et al., 2020). Women and men have diverse travel patterns and choose different modes, resulting in different use of sustainable transport options and, thus, differential contributions to emissions. Accounting for gendered mobility needs and patterns is key to ensuring that the transition to smart and low-carbon mobility ensures affordability, access, and fairness for all.

The EU transport policy is built mainly upon the European Commission's 2011 White Paper, 'Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system', presenting a competitive transport system by 2050 across all modes of EU transport (road, rail, aviation, and waterborne transport). It was structured around four key areas, namely a 60 % emission reduction target, multimodal intercity travel, a global

⁽¹²³⁾ Eurostat (sbs_sc_sca_r2), 2019.

⁽¹²⁴⁾ In 2018, domestic and international transport was responsible for 29 % of total economy-wide GHG emissions in the EU.

level-playing field for long-distance travel and intercontinental flights, as well as a shift from road to rail, and clean urban transport by 2050 (European Commission, 2011).

Over a decade later, change in the transport sector has proved slow, and the main challenges identified in the White Paper, of growing GHG emissions and oil dependency, are still relevant. The European Green Deal seeks to accelerate the transition and develop a competitive and sustainable transport area that reduces the impact of transport on the environment (European Commission, 2019b). **The Sustainable and Smart Mobility Strategy (SSMS)**, adopted in December 2020 under the EGD, provides guidance for a reduction in GHG emissions emitted by transport (European Commission, 2021m). It also sets out the direction for the recovery from the COVID-19 pandemic,

including safeguarding of supply chains and ensuring resilient transport and mobility systems (European Commission, 2021f).

Reforms of the transport sector are a central part of most Member States' RRP, as they provide directions to support sustainable urban mobility and collective transport. In the RRF, sustainable mobility makes up 32 % of the total expenditure under the green transition pillar (European Commission, 2021h).

The EGD calls for a 90 % reduction in greenhouse gas emissions from transport, if the EU is to become a climate-neutral economy by 2050. In addition, the SSMS sets milestones in three timelines – 2030, 2035, 2050 – for the achievement of an almost zero-emission fleet (i.e. cars, vans, buses, heavy-duty vehicles) (Table 2).

Table 2. Milestones of the SSMS

By 2030	<ul style="list-style-type: none"> At least 30 million zero-emission vehicles will be in operation on European roads; 100 European cities will be climate-neutral; High-speed rail traffic will double across Europe; Scheduled collective travel of under 500 km should be carbon-neutral; Automated mobility will be deployed on a large scale; Zero-emission vessels will be market-ready;
By 2035	<ul style="list-style-type: none"> Zero-emission large aircraft will be market-ready;
By 2050	<ul style="list-style-type: none"> Nearly all cars, vans, buses as well as new heavy-duty vehicles will be zero emission; Rail freight traffic will double; High-speed rail traffic will triple; A fully operational, multimodal Trans-European Transport Network (TEN-T) for sustainable and smart transport with high-speed connectivity.

Source: (European Commission, 2021m) SSMS.

To achieve these milestones, the SSMS is accompanied by an action plan with 82 initiatives,

subdivided into 10 key actions, structured around three key objectives:

Making the EU transport sustainable	<ul style="list-style-type: none"> Promoting the use of renewable & low-carbon fuels, zero-emission vehicles, ships and airplanes, as well as related infrastructure, such as by establishing 3 million public charging points by 2030. Setting up zero-emission airports and ports, for example, through promoting environmentally friendly aviation and marine fuels. Ensuring healthy and sustainable interurban and urban mobility, such as by doubling high-speed rail traffic and expanding bicycle infrastructure over the next 10 years. Making freight transportation more environmentally friendly, such as by doubling rail freight volume by 2050. Pricing carbon and giving users stronger incentives, such as by pursuing a wide range of measures to implement fair and efficient pricing for all transportation.
Making the EU transport smart	<ul style="list-style-type: none"> Making connected and automated multimodal mobility a reality, such as by enabling the purchase of tickets for multimodal trips and the seamless switching of freight between transport modes. Fostering innovation and the application of data and artificial intelligence (AI) for smarter mobility, such as by supporting the use of drones and unmanned aircraft and taking additional steps to create a European Common Mobility Data Space.
Making the EU transport resilient	<ul style="list-style-type: none"> Strengthening the Single Market, for example, by stepping up efforts and investments to finish the Trans-European Transport Network (TEN-T) by 2030 and supporting the industry in better rebuilding through increased public and private investments in the modernization of fleets across all modes. Making mobility fair and just for all, for example, by making the new mobility accessible and affordable in all regions for all passengers, including those with reduced mobility, and by making the industry more appealing for workers. Improving safety and security of all transport modes, including aiming to have zero fatalities by 2050.

Source: (European Commission, 2021m) SSMS

To achieve fair and just mobility for all, the European Commission proposed several key actions. One is the obligation to duly apply equality mainstreaming to the Commission's transport-related policy initiatives and to continue supporting stakeholder cooperation and exchange of good practices on the 'More Women in Transport – Platform for Change' (European Commission, 2021m). The Platform aims to strengthen women's employment and equal opportunities in the transport sector, while also serving as a forum for discussion and exchange of good practice (European Commission, 2021g). The SSMS also envisages setting up and supporting a network of Diversity Ambassadors to raise awareness on equality issues (European Commission, 2021m). The Commission commits to ensuring that all future transport policy proposals comply with the EU Gender Equality Strategy 2020–2025 (European Commission, 2020e) and the Disability Rights Strategy for 2021–2030 (European Commission, 2021l).

The SSMS is a step forward for gender equality in EU transport policy-making, given the scarcity of links between gender and transport to date. Despite the commitment to equality mainstreaming and to ensuring that the SSMS complies with the EU Gender Equality Strategy 2020–2025, there are indications of challenges in making it a reality (Heffernan et al., 2021). It therefore presents gender equality as a separate rather than horizontal social issue. Several limitations to gender inclusiveness and sustainability are also noted. For example, the sole focus on employment without differentiating between groups in terms of who is employed, in which jobs and positions, and the fact that the Strategy focuses on the promotion of electric cars and other vehicles, overlooks gendered mobility patterns and needs. Finally, the SSMS does not incorporate measures to increase the

safety of women and vulnerable people using transport as either workers or users (Heffernan et al., 2021).

The transport sector is set to receive over EUR 25 billion through the **Connecting Europe Facility**, a key funding instrument for boosting investment in transport, energy and digital infrastructure projects across the EU (European Commission, 2021i). The European Commission's commitment to improving equality mainstreaming through gender-sensitive budgeting in the 2021–2027 Multiannual Financial Framework (MFF) ⁽¹²⁵⁾ will cover the Connecting Europe Facility. In addition, the European Regional Development Fund (ERDF) for 2021–2027, whose goals include improving transport connectivity and safety, provides broader considerations for gender budgeting by including an output indicator on participation in joint actions promoting gender equality, equal opportunities, and social inclusion. Gender dimensions of mobility are specifically addressed by the European Commission in the 2020 Sustainable Urban Mobility Plan (SUMP) topic guide, 'Addressing gender equity and vulnerable groups in SUMP's' (Drăguțescu and ES, 2020). The **EU New Urban Mobility framework** emphasises the need to promote increased usage of public transport and active urban mobility, such as cycling and walking (European Commission, 2021f) in accounting for gendered mobility patterns. In February 2023, the European Parliament adopted a resolution ⁽¹²⁶⁾ calling on the European Commission to develop an EU cycling strategy focusing on doubling the number of kilometres cycled by 2030, and improving the safety, accessibility and affordability of cycling. In April 2023, the European Parliament's Transport Committee called for infrastructure investment to promote intermodal travel whenever possible, including cycling and walking ⁽¹²⁷⁾.

⁽¹²⁵⁾ During the 2021–2027 MFF negotiations, equality between women and men was agreed as a horizontal principle of the budget. The Commission applies dedicated systems under the 2021–2027 MFF to track gender-relevant expenditure in EU funding programmes. The tracking methodology expands on the general criteria proposed by the OECD for the Rio markers and uses a similar, if somewhat adjusted, approach to that used in climate tracking. See: Gender equality mainstreaming (europa.eu)

⁽¹²⁶⁾ European Parliament motion for a resolution on developing an EU cycling strategy, https://www.europarl.europa.eu/doceo/document/B-9-2023-0102_EN.html

⁽¹²⁷⁾ Draft report on the proposal for a regulation of the European Parliament and of the Council Guidelines for the development of the trans-European transport network, amending Regulation (EU) 2021/1153 and Regulation (EU) No 913/2010 and repealing Regulation (EU) 1315/2013, https://www.europarl.europa.eu/doceo/document/B-9-2023-0102_EN.html

Limited recognition of gender inequalities in transport and mobility policies

The transport sector is a central component of the EU-wide climate and energy targets outlined in Member States' NECPs. Targets and actions in the NECPs primarily focus on increased sustainability of the transport sector, such as reduction of emissions, use of renewable energy in transport, and the promotion of smart mobility transport. Additionally, target actions of Member States include strengthening research, innovation and competitiveness in the sector.

The extent to which Member States address gender inequalities in transport and mobility varies (Sansone and Davern, 2021). Some Member States are more active than others and have taken important steps to address some gender inequality issues, such as women's safety and security or family-friendliness of transport systems (OECD/ITF, 2022). There is less evidence on how Member States have addressed persistent gender inequalities and segregation in the transport workforce (Clancy et al., 2022; Mejia-Dorantes, 2019)

Some countries include transition-related commitments in their gender equality policies. For example, Czechia's Gender Equality Strategy 2021–2030 includes specific measures to incorporate a gender equality perspective into the agenda of environmental protection and transport policy (OECD/ITF, 2022). Actions under this headline include supporting research and increasing knowledge of the impact of climate change on gender equality. It also includes training for local authorities to support implementation of sustainable and gender-based urban planning (OECD/ITF, 2022).

Within Member States, regional and municipal governments typically hold policy competence in urban planning and transport development. Local governments are closest to citizens in managing the transition to low-carbon mobility. They tend to have knowledge and understanding of local needs and interact with local actors towards sustainable transition (Vagnoni and Moradi, 2018; Wallsten et al., 2022). For example, the City of Umeå in Sweden monitors women's

and men's different use of public space and has designed its public transport system to minimise city traffic and maximise accessibility. In 2015, 66 % of women's daily travel was marked as sustainable in Umeå, compared to only 43 % for men. Umeå aims to increase men's share of sustainable travel to 55 % by encouraging men to adopt travel patterns similar to women's or investing in electric vehicles (OECD, 2022). The city of Vienna in Austria has developed the Gender Mainstreaming Model Districts in order to promote gender equality in Austrian transport. This project supports gender mainstreaming in decision-making processes for planning footpath networks in every district of the city. Maps of the footpath networks have been designed to show where walking is dangerous for pedestrians, for example (Sansone and Davern, 2021).

9.4.1. Gender inequalities shape transport patterns

Existing gender inequalities in the EU play an important role in shaping mobility patterns and transport mode choices for women and men in the EU (EIGE, 2019b). Although mobility is often seen as gender neutral, an increasing body of literature shows that women and men move differently and make different modal choices (Joelsson and Scholten, 2019; I. S. d. Madariaga and Zucchini, 2019; Uteng, Christensen, et al., 2020). Intersectional inequalities along age, ethnic backgrounds, social class, disability, and other characteristics, which often compound gender inequalities, also influence mobility patterns and transport mode choices (Lenz, 2020). Understanding the intersectional inequalities in transport, such as the needs of older women, women with migration background, or women with disabilities, is particularly important.

However, gender and intersecting inequalities in transport use have received little attention in transport planning and policymaking. The SSMS sets out to making transport accessible, affordable, and fair to its users as a priority for the EU. However, it does not adequately address the underlying gender inequalities in transport use, risking reinforcing existing disparities in the EU's path towards smart and low-carbon transport systems.

Access to transport options is key to gender equality

Socioeconomic inequalities can influence access to different modes of transport, which can facilitate or hinder access to employment, education and essential services, and in turn alleviate or reinforce poverty and social exclusion (Mejía Dorantes and Murauskaite-Bull, 2022). According to the EIGE survey ⁽¹²⁸⁾, public transport is the second most important infrastructure service enabling everyday lives, after healthcare and medical centres. While public transport has a positive impact on the lives of both women and men, women perceive public transport infrastructure services as important supports in their everyday lives. As much as 40 % of women, compared to 32 % of men, consider public transport ‘very important’ in enabling them to participate in education. Similarly, 42 % of women regard public transport as ‘very important’ in enabling their participation in employment, compared to 33 % of men (EIGE, 2020d).

Adequate transport options, whether public or private, influence the time spent on commuting to work, which then affects the time available for other activities, such as family, household work, or leisure (Bai et al., 2021; EIGE, 2019b; Wheatley, 2012). The longer the commute time, the more difficult it is to reconcile work and family responsibilities (Bai et al., 2021). A longer commuting time can contribute to time poverty, whereby people with care responsibilities, often women, have less time to participate in paid employment, carry out care and household work, participate in leisure activities or have time to take care of themselves (I. S. Madariaga, 2013). When commuting times are too long, women, especially those with children, tend to minimise their work-related travel time to maximise the time for non-work-related trips and activities, which limits their access to paid employment and

economic opportunities (Wei-Shiuen and Acker, 2018). EIGE (2019) shows that commuting times are consistently longer for men than women, across various family circumstances and work status. Men’s long commutes also curtail their ability to engage in care duties at home and reinforce unequal distribution of unpaid care between women and men (EIGE, 2019b).

The lack of adequate transport options has significant socioeconomic implications, which are often referred to as ‘transport poverty’. The SCF Regulation ⁽¹²⁹⁾ adopted in May 2023 defines transport poverty as ‘individuals’ and households’ inability or difficulty to meet the costs of private or public transport, or their lack of or limited access to transport needed for their access to essential socioeconomic services and activities, taking into account the national and spatial context’.

Women, older people, people with disabilities, people with low incomes, marginalised ethnic groups, and people living in rural and remote areas are often at higher risk of transport poverty, due to limited transport affordability, availability, and accessibility (Simcock et al., 2021). Accessibility and availability of transport are closely linked concepts that describe the extent to which it is easy for a person, including an individual with disabilities, to access services, places or other facilities for their different needs and the availability of suitable transport options within a close distance, at relevant hours. Affordability of transport refers to the costs incurred by mobility needs. Economic barriers to accessing different modes of transport are higher for poorer households. Transport poverty can occur in both urban and rural areas, where different groups are underserved by affordable, accessible, and reliable public transport systems, essential services or lack access to a private car (Lucas et al., 2016; Simcock et al., 2021).

⁽¹²⁸⁾ The EU-wide survey on the benefits of gender equality through infrastructure provision was originally conducted in 2015-2016, <https://eige.europa.eu/publications/benefits-gender-equality-through-infrastructure-provision-eu-wide-survey>

⁽¹²⁹⁾ Regulation (EU) 2023/955 of the European Parliament and of the Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060, ELI: <http://data.europa.eu/eli/reg/2023/955/oj>

Daily patterns and challenges in mobility are gendered

Women and men have very different travel patterns in terms of time and distance travelled and reasons for travelling (I. S. Madariaga, 2013; I. S. d. Madariaga and Zucchini, 2019). Men tend to commute primarily and solely for work purposes from A to B (from home to work and back), while women often also travel for care purposes and, thus, conduct multiple, but shorter trips. Travelling for care purposes entails trips for shopping for everyday necessities, picking up children, escorting and accompanying others, administrative or household maintenance-related errands, visits to take care of sick or older relatives, etc. As a result of these general patterns, men tend to travel alone, while women are often accompanied by others. Thus, women's trips include 'trip chaining', involving multiple 'anchor points', such as their home, workplace, children's schools, that are fixed in space and/or time (Ramboll, 2021; Scheiner and Holz-Rau, 2017). While individual care trips may be shorter than the commute to work and back, trip chaining is often highly time consuming. Thus, women spend more time than men on commuting for care-related activities – one-quarter of all travel time for women, compared to one-fifth for men (EIGE, 2019). The need to 'trip chain' and travel with others makes proximity to services, work, and home particularly important, as it has direct implications for women's employment opportunities, access to essential services, and work-life balance (EIGE, 2019b; Mejía Dorantes and Murauskaite-Bull, 2022).

Data from the EIGE survey on gender gaps in unpaid care, individual and social activities provides insights into patterns of mobility and how

they relate to attitudes to the environment. More specifically, 22 % of women and 19 % of men report opting for low carbon emission modes of transport daily⁽¹³⁰⁾. By contrast, about 19 % of women and 18 % of men replied 'never' to the question on opting for low carbon emission mode of transport.

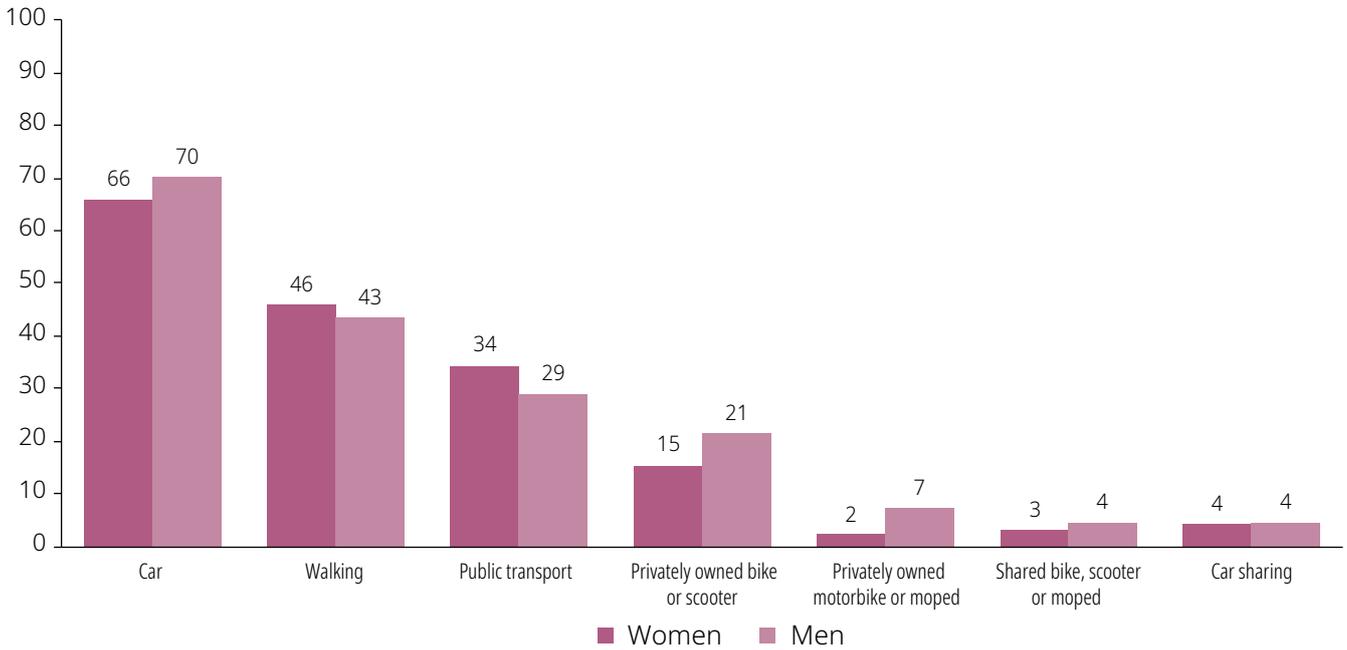
When asked about the means of transport they use most during a typical week, including to go to work, 66 % of women and 70 % of men in the EU report using a car among their top three options (Figure 36). Women are slightly more likely than men to walk (46 % vs 43 %) and to use public transport (34 % vs 29 %). In turn, men are more likely to use private bikes or scooters (21 % vs 15 % of women), as well as motorbikes or mopeds (7 % vs 2 %). More men share bikes or moped in a typical week (5 % vs 3 % for women). Car-sharing is among the top three transport options, reported by 3 % of women and 5 % of men.

The EIGE data shows that car use is influenced not only by gender but also by income, degree of urbanisation and education (Figure 37). Data on car use by income level shows that the richest 10 % of the population report using a car to a far larger extent than people on lower incomes or with no personal income. This difference is particularly marked for men, with 82 % of men in the 10th income decile choosing a car among their top three modes of transport, compared to 48 % of men in the first income decile and 73 % of men in the fifth income decile.

As shown in Figure 37, reliance on car use varies across the EU and gender differences are slim in countries where a large share of respondents indicate the car as their main mode of transport.

⁽¹³⁰⁾ QG3 - frequency of adopting environment-friendly behaviours/consumption, by gender.

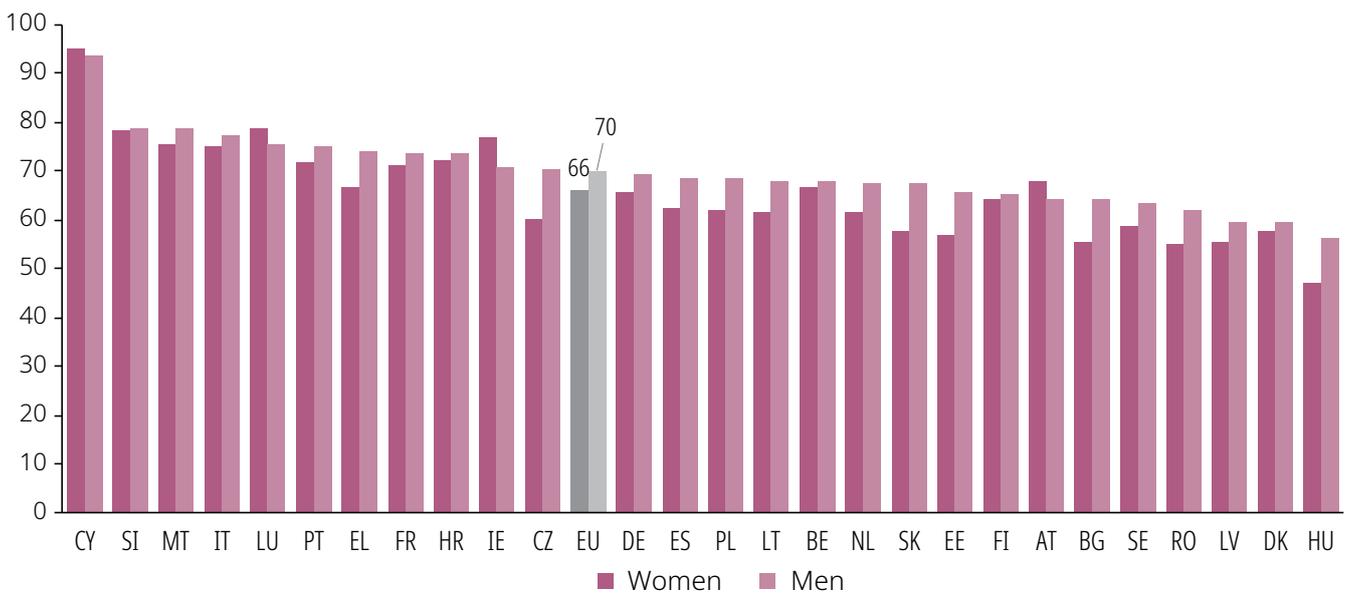
Figure 36. Share of most used means of transport during a typical week by gender (% , 16-74, EU, 2022) - Scoreboard



Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022). QG1. ‘What means of transport do you use most often during a typical week? This includes transport to work’.

Note: The sample includes all individuals. Responses include: ‘car’, ‘car-sharing (including taxi)’, ‘privately owned motorbike or moped’, ‘public transport (bus, metro, tram, ferry, train, ship, etc.)’, ‘privately owned bike or scooter (including electric)’, ‘shared bike, scooter or moped (including electric)’, ‘walking’, ‘no daily or regular mobility’, ‘other’ and ‘don’t know’. In the graph, ‘no daily or regular mobility’ is not shown. Respondents could select up to three of the most often used means. Weighted results.

Figure 37. Share of women and men using the car as their main means of transport during a typical week, by Member State (% , 16-74, EU, 2022)



Source: EIGE survey on gender gaps in unpaid care, individual and social activities (2022). QG1. ‘What means of transport do you use most often during a typical week? This includes transport to work’.

Note: The graph shows women and men who selected ‘car’ among their top three most often used means of transport. Weighted results. The sample includes all individuals.

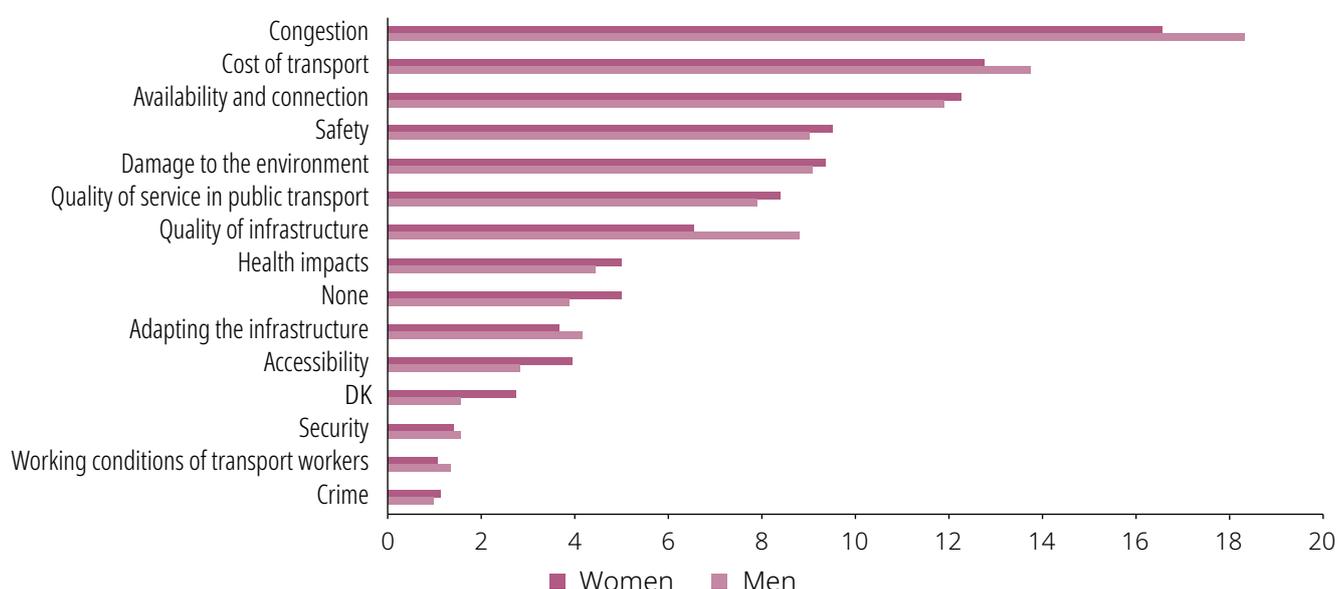
Persistent dependence on cars poses a set of challenges for the transition towards more sustainable mobility. Firstly, replacing conventionally fuelled cars with electric cars does not address congestion and pollution issues. Secondly, existing competition for space between cars and more sustainable alternatives such as cycling or walking may increase (Uteng, Christensen and Levin, 2020). Thirdly, it does not make transport systems more responsive to mobility needs other than commuting to work, for example carrying out several shorter trips with multiple stops (school, work, supermarket, etc.), due to care responsibilities. Finally, as most low-carbon cars remain expensive, the accessibility and affordability of these modes of transport remain unaddressed (see [Chapter 3.2](#)).

The EU's New Urban Mobility Framework (European Commission, 2021c) recognises that to meet the objectives of transport decarbonisation, the deployment of zero-emissions vehicles in urban contexts is not enough. Instead, it emphasises the need to promote public transport use and active mobility, such as walking or cycling (European Commission, 2021c). While walking is among the main modes of mobility, especially for women, cycling in the EU remains relatively low (Figure 38), although substantial variation exists among Member States.

Like other forms of mobility, cycling is gendered (Prati et al., 2019). In some EU countries, women are far less likely to cycle as a means of transport. This is primarily because the quality, safety and adequacy of cycling infrastructure highly influences whether cycling is a gendered activity. Where cycling infrastructure is safe and coherent, women and men cycle for transport equally (e.g. Denmark, Germany, the Netherlands). Where the infrastructure is poor, however, women are less likely than men to cycle (Ramboll, 2021). Other key factors that inhibit women's participation in cycling for transport include the unequal division of care responsibilities between women and men, which implies that women are more likely to travel with children or groceries, and to 'trip chain' (Prati et al., 2019).

Given the differences in the choices of travel mode and different travel patterns, the key challenges for daily mobility also vary. Figure 38 shows that the overall main challenges for daily commuting include congestion, cost of transport, and availability and connection, with the latter being more of a concern for women than men. More women were also concerned about accessibility of transport, quality of service of public transport, and safety.

Figure 38. Main challenge for daily mobility, by sex (% , EU, 2019)



Source: Authors' calculations using microdata, Special Eurobarometer 92.1: Mobility and Transport (2019).

Note: QA4a: 'Thinking about daily mobility, what do you see as the biggest challenges for transport? Firstly?'

Safety of transport is understood to mean prevention of accidents, while security of transport refers to the prevention of crime. Safety of transport is often discussed in terms of road accidents and related injuries and deaths, while security considers the prevalence of crime. Gender dimensions of safety and security are often overlooked. Men are more likely than women to die in road accidents (Eurostat, 2020). As women are more often passengers or pedestrians, they are more likely than men to be killed as a car passenger or pedestrian than as a driver (Afesojoye et al., 2022; ITF, 2018). Women are also more likely to be seriously injured in car crashes because car crash test dummies are modelled on the characteristics of the average male (Criado-Perez, 2019). In security of transport, the fear of sexual harassment can limit women from using public transport.

Sexual harassment and violence in public transport

Concerns about safety and security make women adapt their choices of travel mode, route and time (Afesojoye et al., 2022; EIGE, 2017b; Hortelano et al., 2021; ITF, 2018). Women are less likely to travel at night, they avoid poorly lit areas or overcrowded transport, which increase the risks of sexual harassment and violence (ITF, 2018). Gendered safety concerns, especially those related to sexual harassment, are often overlooked in transport planning. There is little data on women's safety and incidents of sexual harassment on public transport at EU level, although independent initiatives to address the issue have been undertaken in several EU countries. For example, measures in Barcelona⁽¹³¹⁾ and Brussels⁽¹³²⁾ aim to promote transport planning and design that address gender security

concerns. Both initiatives also aim to increase awareness among security and other staff in transport, as well as providing digital tools to address these concerns. However, increasing digitalisation of transport systems – from digital ticketing to digital customer service platforms – means that there are likely to be fewer staff on public transport and associated infrastructure. Limited physical presence of staff can increase the risks of sexual harassment and violence, as there is no one to help (ITF, 2018).

The fear of violence and crime encountered on and around public transport is a pivotal factor in the travel choices of lesbian, gay, bisexual, trans, queer and intersex people. A study in the UK and Israel found that in order to travel safely, many LGBTIQ people have to hide their identity and visibility, incur higher costs (e.g. preferring a taxi over public transport), or choose a less direct route (Weintrob et al., 2021). FRA LGBTI survey (2019) found that most incidents of physical or sexual attack take place in public (51 %), while 10 % take place on public transport (FRA, 2020).

9.4.2. Gender norms, roles and inequalities negatively affect uptake of low-carbon transport options

Mobility not accessible to all

The availability of accessible, adequate, and affordable public transport options is particularly important in helping to promote the green transition. In the absence of public transport, many people may be forced to own a car despite their limited resources, which not only goes against the EU's goal of decarbonisation and

⁽¹³¹⁾ In 2020, the government of Catalonia surveyed women on their experiences of urban mobility and sexual harassment on public transport in the metropolitan area of Barcelona. The study revealed that 92 % of women between 16 and 25 years of age had experienced harassment on public transport. Following the study, the government of Catalonia adopted a plan to prevent sexual harassment on public transport. It defines five lines of action and 18 measures to be implemented by 2025, from governance to design, prevention, awareness-raising and encouraging the use of technological tools to report sexual harassment. Awareness-raising initiatives among public transport staff are also included in the plan as an important measure to tackle sexual harassment on public transport (The Urban Mobility Observatory, 2021).

⁽¹³²⁾ The government of the Brussels-Capital region adopted the Brussels Plan on Violence Against Women, 2020-2024, the first regional plan to combat violence against women. It includes 56 concrete measures, some of which address women's safety on public transport, such as providing bus shelters at bus stops, with good lighting to increase visibility, and the possibility of providing security guards in all metro stations, particularly in the early morning and late evening. Training for municipal and regional prevention and security agents on 'sexism and street harassment' is also planned for.

multi-mobility, but also against the goal to promote a fair transition, as forced car ownership contributes to social exclusion (Mattioli, 2017). Around 4 % of men with low educational attainment face forced car ownership, compared to only 1 % of women and men with high educational attainment. Migrants from outside the EU are also more likely to face forced car ownership (5 % of women and 6 % of men) than women and men with no migration background (2 %). Similarly, approximately 3 % of women and men with disabilities face forced car ownership, compared to 2 % of those without disabilities⁽¹³³⁾.

Economic barriers to accessing different modes of transport are higher for poorer households. Affordability of transport is often measured in terms of the share of a household's overall expenditure on transport. In the EU, in 2020, approximately 12 % of overall household expenditure was on transport, with variations across the Member States. Of that 12 %, approx. 4 % was spent on purchasing a vehicle, 6 % on operating personal transport, and 1.4 % on transport services⁽¹³⁴⁾.

While household expenditure on transport in the EU is not traditionally considered very high, ongoing inflation meant that transport prices increased at a faster pace in 2021 (up 6.8 %) than between 2015 and 2020 (annual rate of change of 0.3 %)⁽¹³⁵⁾. Evidence suggests that at a certain threshold, households start to limit their travel costs, resulting in restricted mobility or even immobility, especially for women, which can contribute to social exclusion (Lucas et al., 2016). However, transport planning and assessments often disregard immobility, and rely primarily on 'utility indicators', such as preferences, mode choices, or time spent travelling by those who have access to and can afford some sort of transport (Ciommo, 2018).

Accounting for household-level expenditure masks how gender dynamics within

a household shape mobility. Although scarce, research shows that gender plays a role in determining who has access to and uses a car that is shared by the whole household (Gil Solá, 2016). This is particularly true for lower-income households, where there are fewer cars than drivers who need the car (Lucas et al., 2016). One study in Finland (2021) found that in such households, men have access to the household car more often than women, which is reflected in trip frequencies, distance, and time (Tiikkaja and Liimatainen, 2021). Transport poverty can affect members of the same household differently, depending on the gender dynamics, socio-economic situation of the family, and available transport infrastructure.

Individual-level data reveals that affordability of a private car and public transport remain important issues for different groups. In the EU, 5.2 % of women and 4.8 % of men in the total population, and 8.1 % of women and 7.9 % of men with some or severe health limitations in daily activities, want, but cannot afford, a personal car⁽¹³⁶⁾.

Smart and low-carbon transport options still out of reach to most

Affordability of low-carbon transport is an even greater concern, as the prices of public transport and particularly low-carbon private cars remain too high for most people in the EU (Vilchez et al., 2019).

Low-emission vehicles include electric, hybrid, and alternatively fuelled vehicles. In the EU, over 90 % of women and men reported using conventionally fuelled cars and the uptake of zero- or low-carbon alternatives remains low (Table 3). Ownership of cars with low-carbon motors (such as a plug-in hybrid car, electric car, hybrid car, or other type of alternatively fuelled car) is higher among men. Studies show that access to and ownership of low-carbon vehicles remain

⁽¹³³⁾ EU-SILC (2020).

⁽¹³⁴⁾ Eurostat. Final consumption expenditure of households by consumption purpose (COICOP 3 digit) (NAMA_10_CO3_P3), https://ec.europa.eu/eurostat/databrowser/view/NAMA_10_CO3_P3__custom_4397633/default/table?lang=en

⁽¹³⁵⁾ Eurostat, HICP - annual data (average index and rate of change) (prc_hicp_aind).

⁽¹³⁶⁾ Eurostat (HLTH_DM110).

largely limited to men in urban areas with higher incomes, educational attainment, and full-time employment (Kester et al., 2020) and often also those who already own more than one car (Kumar and Alok, 2020). A recent study (Kester et al., 2020) also found that preferences for electric vehicles are also gendered, with women reporting higher levels of environmental awareness and stronger concerns for safety and convenience. Men, in turn, attributed more value to speed, acceleration and status (Kester et al., 2020).

Table 3. Most used cars as primary mode of daily mobility by motor type, and by sex (% EU, 2019)

	Women (%)	Men (%)
Conventionally fuelled car	93	92
Other type of alternatively fuelled car (e.g. compressed natural gas (CNG), liquified petroleum gas (LPG))	4	4
Hybrid car	2	2
Zero-emission car (e.g. 100 % electric)	0.5	0.7
Plug-in hybrid car	0.4	0.6

Source: Authors' calculations using microdata, Special Eurobarometer 92.1: Mobility and Transport (2019). QA3: 'Is the car you use most...?'

Eurobarometer (2019) shows that the ownership of different types of alternatively fuelled cars is higher among self-employed women and men, managers (9 % of women and 15 % of men) and other professional workers (11 % of women and 14 % of men). Ownership of 100 % electric cars, plug-in hybrid cars, and hybrid cars is primarily concentrated among the self-employed, managers and other white-collar workers. The gaps in ownership by gender and type of employment can be explained by the fact that many plug-in hybrid and electric cars are bought by companies for managers and other white-collar workers, which they can also use for private purposes, and that fewer women are given and use company cars in general (Frey and Röhr, 2020). According to Eurobarometer (2019), 2 % women and 7 % of men mostly used company cars for their mobility.

The literature distinguishes several factors underpinning the low uptake of zero-emissions and low-carbon vehicles. These include costs of purchasing and maintaining low-carbon vehicles, and for those who could purchase such vehicles, concerns about charging infrastructure and 'range anxiety' (i.e. fear the electric vehicle will not have sufficient charge to complete the journey) (Caulfield et al., 2022).

Shared mobility rarely meets women's mobility needs

Smart mobility is inseparable from digitalisation supporting the creation of complex, integrated transport systems, providing multiple mobility opportunities for its users and creating new means of accessing new and conventional transport solutions. Digitalisation enables users to easily access information about transfer services, routes, travel times, schedules, stops, ticket options and fares. It has also enabled new mobility concepts that can increase user's flexibility in everyday travel, notably 'sharing concepts' such as car, ride, bike or e-scooter sharing. The general expectation is that 'sharing concepts' in mobility will reduce users' reliance on an individual car alone and enable them to meet their travelling needs through the combination of multiple, more sustainable mode choices (Lenz, 2020). The shared mobility concepts are often seen as more flexible options that could better capture complex travel chains and offer additional travel options. For example, bike-sharing and e-scooter sharing are often seen as good tools for addressing the 'first and last mile problem' (distance between the transport stop and the commuter's destination, or vice versa) (European Commission, 2021j). However, these modes are often concentrated in city centres and are only suitable for people of a certain age, physical ability and height, mostly excluding older people. As such, they do not necessarily capture the needs of more diverse transport users (Kåresdotter et al., 2022).

The use of different shared mobility modes is highly gendered. A study in Germany found that a significantly greater number of men than

women use car-sharing options (Kawgan-Kagan and Popp, 2018), while ride-hailing services have more women users globally (Lenz, 2020). As women often use a car to transport larger goods or because they are accompanied by children, the use of car-sharing options is often unfeasible (Kawgan-Kagan and Popp, 2018). Ride-sharing services, such as ride-hailing services, often provide safer commuting choices or help to address mobility limitations where public transport or other transport options are lacking (Lenz, 2020).

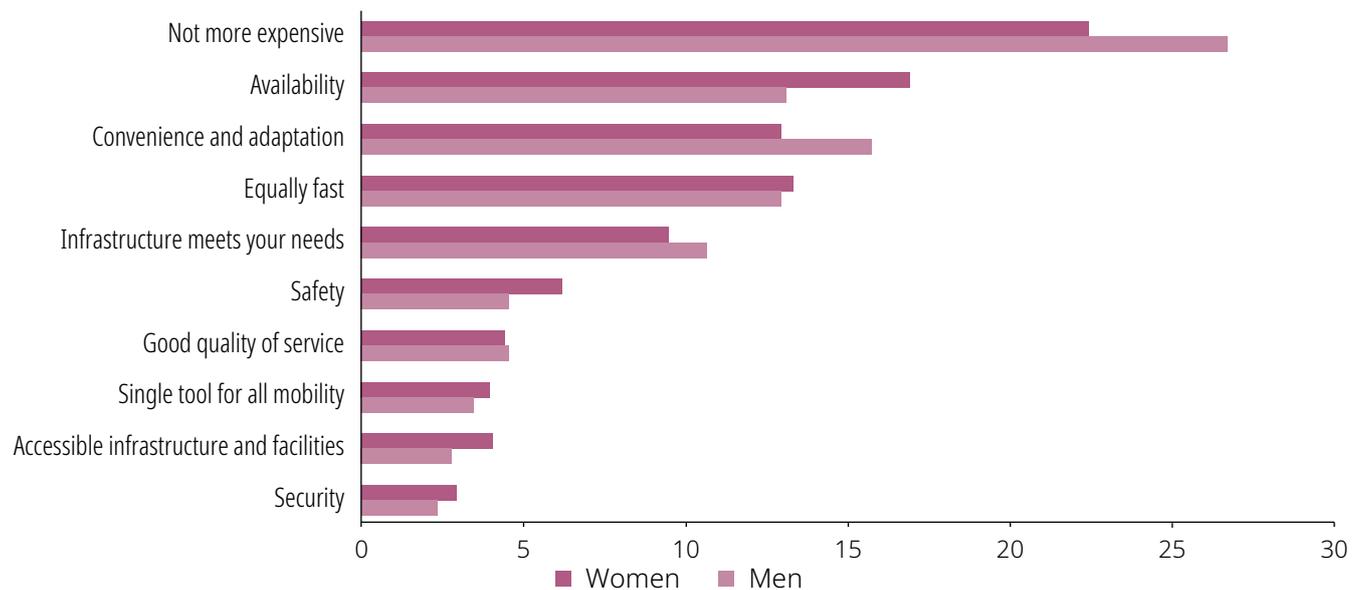
In terms of micro-mobility and the modes that could be used to commute shorter distances, both bike and e-scooter sharing systems remain largely male-dominated. Generally, women cycle less than men by private bike, as they are less likely to own a bike, and experience greater concerns about the safety of infrastructure, fear of street harassment, and their care-giving responsibilities (Prati et al., 2019). While bike-sharing would be expected to increase access to bikes generally, in fact men are more active users of bike-sharing schemes. A study in Paris (2021) found that women use bike-sharing services far less than men, by 30 % (Gorrini et al., 2021). Similar to issues with privately owned bikes, women's key concerns include the quality of infrastructure, safety and security. Specific obstacles to using bike-sharing schemes are the availability of bikes at docking stations, distance to the nearest station, and social constraints (Gorrini et al., 2021). A study in Oslo (2020) found that more bike-sharing stations are located adjacent to more central male-dominated workplaces, with female-dominated workplaces less integrated into the system (Uteng, Espegren, et al., 2020).

Users of e-scooter sharing in urban areas tend to be young, male, highly educated, high-income adults who shifted to this form of micro-mobility from walking, cycling, and

public transport (Christoforou et al., 2021; Laa and Leth, 2020; Orozco-Fontalvo et al., 2022). Research in New Zealand, the United States (US) and Germany shows that only a small fraction of shared electric scooters trips are an alternative to car use (Fitt and Curl, 2019; Gössling, 2020; Zagorskas and Burinskienė, 2020). By contrast, users of privately owned e-scooters show a considerable shift from private car trips (Laa and Leth, 2020). However, public opinion often associates e-scooters with risks and an increasing occurrence of road incidents (Bozzi and Aguilera, 2021). Safety concerns due to inadequate infrastructure and the need to share space with cars and buses can prevent women from using e-scooters (*Haddad, Sanderson and Goodman, 2022; Ridedott, 2022*). Additionally, e-scooters are not suitable for trips for care or household work purposes. For example, they cannot be used to travel with another person or with grocery bags (*Haddad, Sanderson and Goodman, 2022*). While regulations on the safety, speed, and rules of e-scooter use are pending, the proliferation of such modes of transport occupy space that could be used to develop more care-relevant micro-mobility options, such as bikes adapted for travellers with children. Their lack of dedicated parking space is also reported to obstruct pathways, posing a particular risk for wheelchair users and people with disabilities (European Commission, 2021j).

Readiness to switch to more environmentally friendly modes of transport depends on costs

The majority of women (53 %) and men (59 %) in the EU are not ready to switch to more sustainable transport options. However, among those willing to do so, the most commonly cited precondition was that such options should not be more costly (27 % of men and 22 % of women) (Figure 39) or only slightly so (5 % for one-fifth of respondents, 10 % for less than one-fifth).

Figure 39. Pre-conditions to switch to environmentally friendly modes of transport (% , 16-74, EU, 2019)

Source: Authors' calculations using microdata, Special Eurobarometer 92.1: Mobility and Transport (2019).

Note: QA6a: 'Under what conditions would you be ready to switch to more environmentally friendly modes of transport? Firstly?' Response options shortened for readability⁽¹³⁷⁾.

Men respondents report concerns about costs, convenience, and the availability of infrastructure more than women respondents. In turn, women are more likely to mention availability, time-efficiency, safety, and accessibility of infrastructure as important pre-conditions to switch to environmentally friendly modes of transport.

In 2022, almost all EU Member States offered fiscal incentives to promote the uptake of low-carbon vehicles, but the type and value of those incentives varied significantly across countries⁽¹³⁸⁾. One of the main limitations of the existing incentives is that they do not help to eliminate the financial barriers faced by low-income consumers (Caulfield et al., 2022), such as the large up-front investment to buy a new vehicle. As a result, the uptake of low-carbon vehicles and the use of these incentives remains concentrated among high-income households (Caulfield et al., 2022).

Failure to ensure affordability of low-carbon vehicles could exacerbate the gender dimensions of transport poverty. If a household can only afford one low-carbon car, gender dynamics within the household may limit women's access to the car and thus their mobility options.

Some countries apply kilometeric reimbursements to cycling (Belgium) or tax deductions for mileage by bike (France), while others allow fiscal advantages for companies that provide bikes to their employees (Austria). Many countries increasingly adopt tax-free reimbursements of public transport tickets for employees to incentivise the use of public transport. Travel reimbursement or tax exemptions irrespective of travel mode are also common (Haulbold, 2014). However, such incentives for cycling or public transport are often more limited than the fiscal subsidies for company cars. Existing incentive

⁽¹³⁷⁾ Full answer options to QA6a are listed below (sorted in the same order as in the graph): if it is not more expensive, if it is as available (e.g. connectivity, frequency), if it is as convenient and adapted to your needs (e.g. sufficient battery autonomy for electric cars, timetable information easily available and reliable; if it is as fast; if the infrastructures sufficiently meet your needs (e.g. bicycle lanes, charging stations for electric cars), if it is as safe (with respect to accidents), if the quality of service is good (e.g. cleanliness, sufficient space, etc.), if you can use a single tool for all your mobility (e.g. single ticket or application); if the infrastructures and facilities are easily accessible (e.g. for persons with reduced mobility), if it is as secure (with respect to potential theft and aggression).

⁽¹³⁸⁾ European Automobile Manufacturers' Association (ACEA) (2022), Electric vehicle tax benefits and purchase incentives in the EU, <https://www.acea.auto/files/Electric-Vehicles-Tax-Benefits-Purchase-Incentives-2022.pdf>

schemes tend not to capture the need for multimodal commuting, e.g. the need to use a bike to access the nearest train station for daily commuting, which may limit their effectiveness in encouraging people to reduce their car use (Haulbold, 2014).

9.4.3. Women's contribution to the transport sector remains largely untapped

Gender inequality in the transport labour force

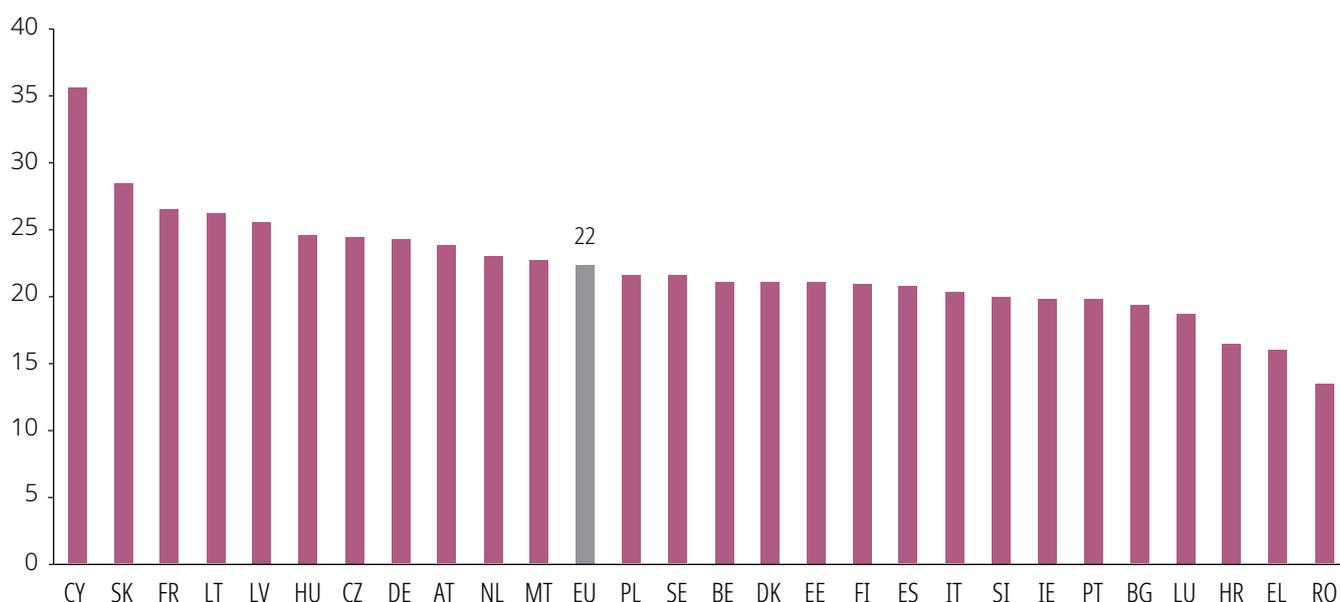
The EU transport sector covers all modes of transport, including rail, road, air and waterborne transport, logistics and storage. Despite substantial increases in women's employment rate in the EU over time, the transport sector has improved only marginally in the last decade, from 18.5 % of employees being women in 2010 (EIGE, 2012) to 22 % in 2022 ⁽¹³⁹⁾. The extent to which women are involved in transport varies substantially by Member State, ranging from 36 % in Cyprus to 13 % in Romania (Figure 40).

Different countries with high levels of overall women's employment rates can have both high or low level of women's labour market participation (Sansone and Davern, 2021).

Gender segregation in the transport sector is both horizontal and vertical, significantly limiting women's opportunities in the labour market and contributing to the gender pay gap (Giannelos et al., 2019). Women are underrepresented in all subsectors of transport; however, there is also considerable variation.

Figure 41 shows that in 2022, the largest gender gap is in land transport and transport via pipelines, where women's share of the workforce is only 15 %. Women's share is highest in air transport, at 40 % of all employees. Compared to other transport subsectors, air transport has more service, sales and clerical support roles, typically held by women, explaining their higher representation. In 2020, only 6 % ⁽¹⁴⁰⁾ of pilots worldwide were women (International Society of Women Airline Pilots, 2020).

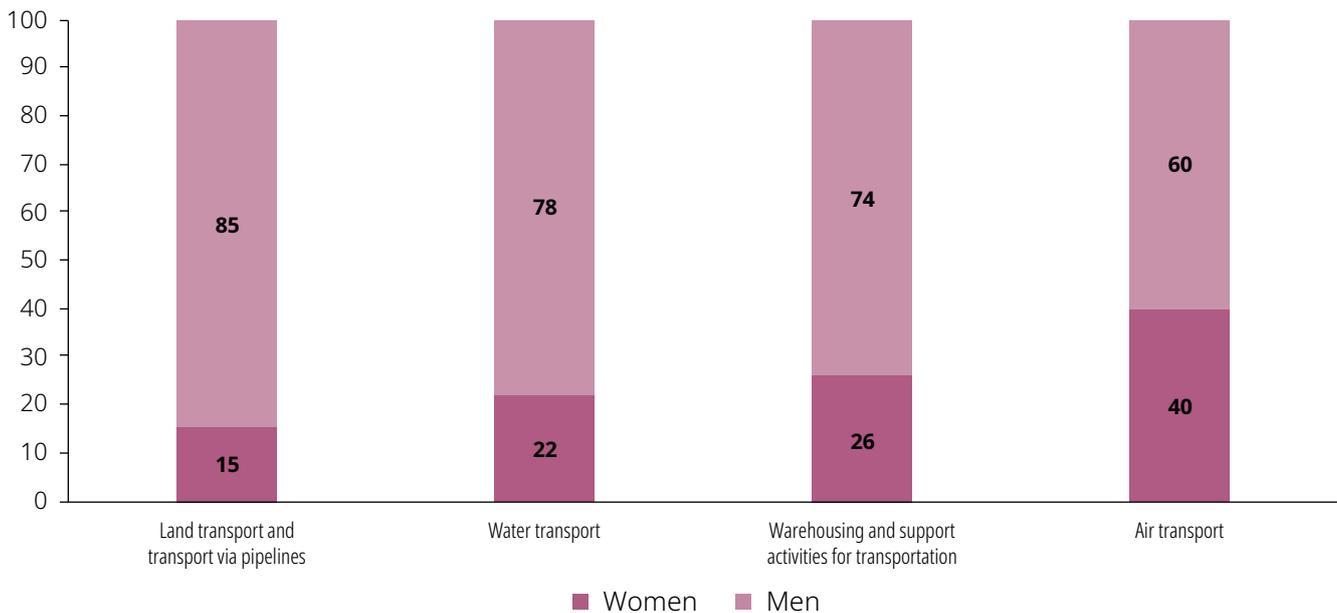
Figure 40. Share of women employed in the transport sector (15+, %, EU, 2022)- Scoreboard



Source: Eurostat, Employees by sex, age and economic activity (NACE Rev. 2 – one-digit level “Transportation and storage” H) - 1 000” (lfsa_egan2)

⁽¹³⁹⁾ Eurostat, Employees by sex, age and economic activity (NACE Rev. 2 – one-digit level “Transportation and storage” H) - 1 000” (lfsa_egan2).

⁽¹⁴⁰⁾ According to the International Society of Women pilots, the share of women pilots increased slightly, from 5.2 % in 2019 to 5.8 % in 2020.

Figure 41. Share of women and men employed in the transport subsectors (15+, %, EU, 2022)

Source: Eurostat, Employment by sex, age and detailed economic activity (NACE Rev. 2 two-digit level – H49-H52) - 1 000 (Ifsa_egan22d), 2022.

Numbers of women workers are lowest in waterborne transport, at only 4 % of all women working in transport in 2021. As women are often expected to be the primary caregiver in families, the long deployment periods associated with waterborne transport, along with perceived physical intensity required on board and in ports limits female representation in the sector (PPMI, 2021). With the development of technology, most jobs on board ship today do not require physical strength; however, women remain underrepresented in this sector (PPMI, 2021). In contrast, most of women transport workers worked in warehousing and storage and in support activities for transport and land transport and transport via pipelines in 2021 (41 % and 47 % of all women transport workers, respectively).

By contrast, in 2021, most women transport workers worked in warehousing and storage and in support activities for transport and land transport and transport via pipelines (41 % and 47 % of all women transport workers, respectively).

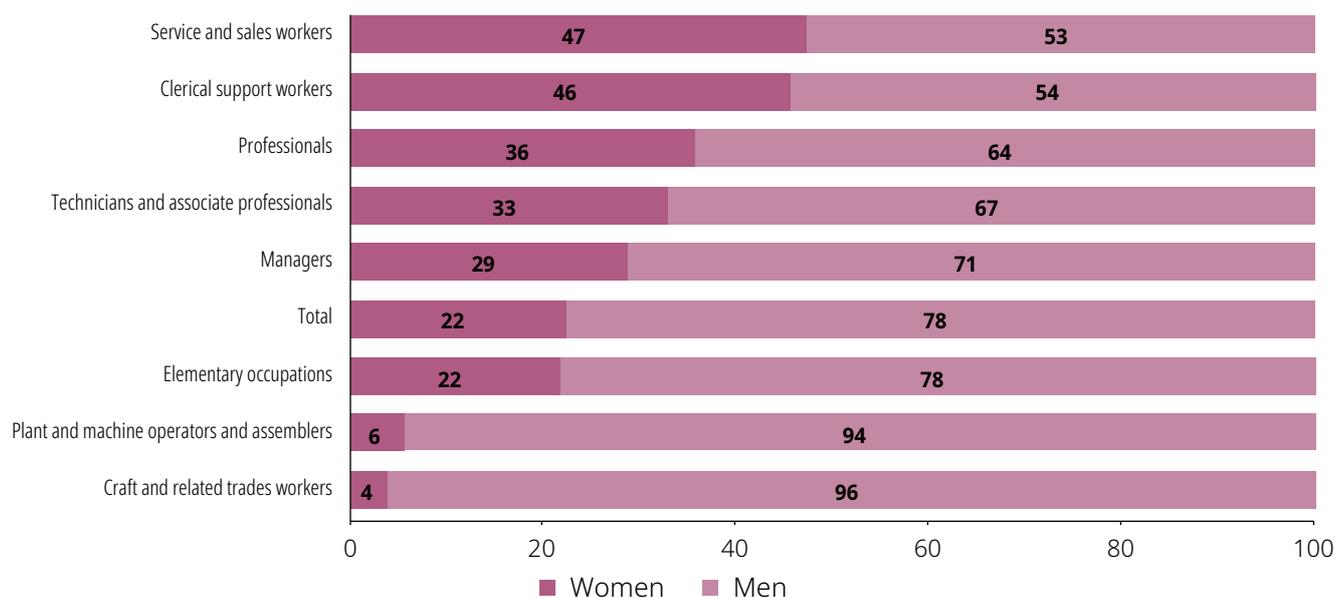
Based on the ISCO-08 classification of occupations, there are eight major groups of occupations in the transport sector: managers; professionals; technicians and associate professionals; clerical support workers; service and sales workers; craft and related trades workers; plant and machine operators and assemblers; and elementary occupations ⁽¹⁴¹⁾. Consistent with the lower presence of women in all transport subsectors, there are fewer women in each of the major groups of occupations, with the most pronounced disparity in craft and related trades workers (4 %) ⁽¹⁴²⁾ and plant and machine operators and assemblers (6 %) (Figure 42).

Women are most represented in administrative occupations, especially among service and sales workers (46 %), clerical support workers (46 %), and professionals (37 %) ⁽¹⁴³⁾. With increasing digitalisation and automation in the transport sector, many administrative occupations, especially those in clerical support and service and sales, are expected to disappear (Bekiaris and Loukea, 2017).

⁽¹⁴¹⁾ The additional two major groups, 'Armed forces' and 'Skilled agricultural and fishery workers' do not include any occupations in the transport sector.

⁽¹⁴²⁾ This group includes occupations such as aircraft engine mechanics and repairers, and electronics mechanics and servicers.

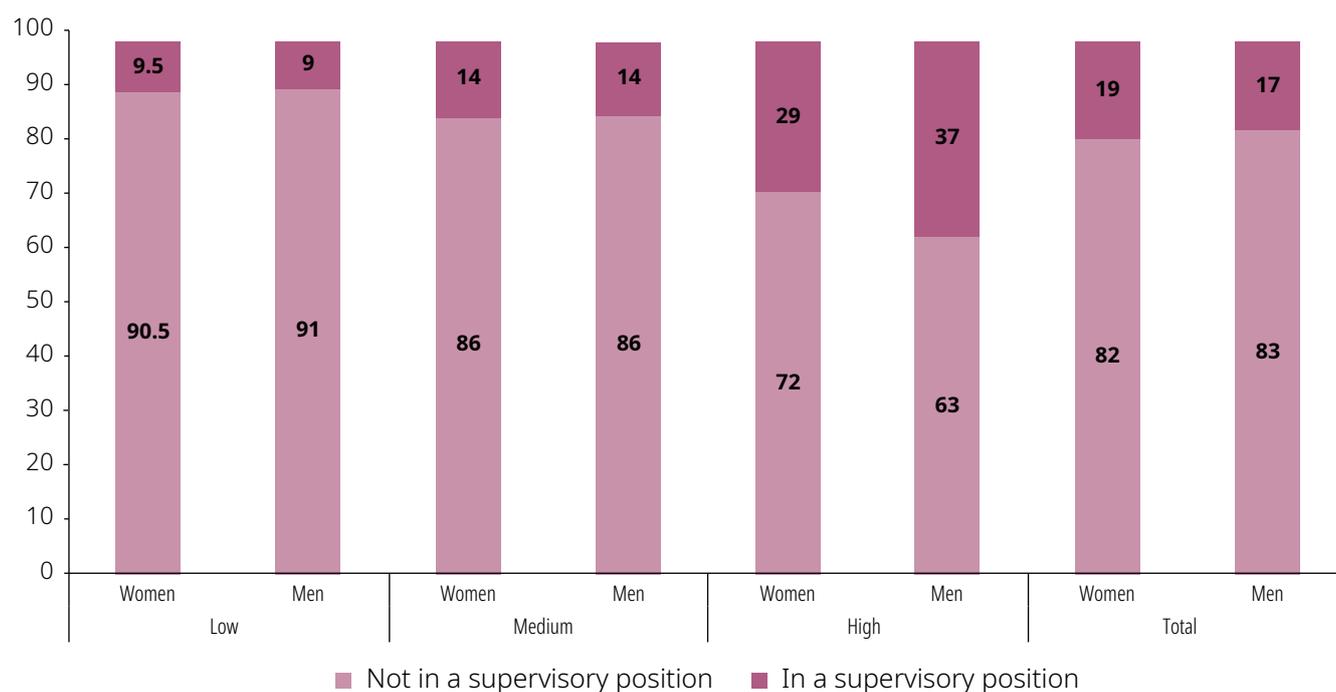
⁽¹⁴³⁾ Clerical support workers include occupations such as travel consultants and clerks; service and sales workers include travel attendants and transport conductors; professionals refers to engineers, software developers, lawyers, etc.

Figure 42. Share of women and men employed in transport occupations (% , 15+, EU, 2022)

Source: Eurostat, Employment by occupation and economic activity (NACE Rev. 2 – one-digit level ‘Transportation and storage’ H) - 1 000 (lfsa_eisn2), 2022.

Figure 43 shows that in the EU overall, women are slightly more likely than men to hold supervisory responsibilities in the transport sector, with 19 % of women employees and 17 % of men employees in **supervisory positions**. This average masks

important variations by education level, with the likelihood of supervisory responsibilities among women increasing with education level. In addition, the gender imbalance in supervisory positions is greatest among those with high education levels.

Figure 43. Share of women and men in supervisory positions in the transport sector by education (% , EU, 2021)

Source: Authors' calculations using microdata, EU-LFS 2021.

Note: Supervisory (yes/no); A person is considered to have supervisory responsibilities when they formally supervise the work of at least one (other) person.

Organisations committed to strengthening women's employment and equal opportunities for women and men in the transport sector come together under the Women in Transport – EU Platform for change ⁽¹⁴⁴⁾, launched in 2017 and coordinated by the European Commission. Some of the member organisations have already adopted diverse actions to tackle gender imbalance in the transport sector, including education and training, professional networking and mentoring, and awareness-raising projects (European Commission, no date).

Obstacles to women's employment in the transport sector

The main barriers are primarily associated with persistent gender biases, poor working conditions and poor work-life balance (Giannelos et al., 2019). Transport jobs often involve inflexible working times, shift work during asocial or atypical hours and changing working locations that make it difficult to reconcile paid employment with care responsibilities (Giannelos et al., 2019). In the 2019 ETF survey, 39 % of women transport workers indicated that care responsibilities were the main reason for them working part-time, and some indicated that taking leave for care responsibilities could have negative consequences in the workplace (Helfferrich, 2020). Improving scheduling practices in the transport sector is often seen as an important lever to improve recruitment and retention of under-represented workers such as women and young people (European Commission, 2021e).

A lack of consideration for women's occupational health and safety policies is another major issue. Health and hygiene are often an important barrier, especially in rail, urban and maritime transport, which often lack segregated dressing rooms or appropriate medical and toilet facilities (European Commission et al., 2019). According to the 2019 ETF survey (Helfferrich, 2020), 49 % of respondents indicated that their workplace does not prioritise a safe and

adequate work environment for women, citing safety issues related to gender-based violence, menstruation, menopause, pregnancy and childbearing. As much as 32 % of women transport workers were dissatisfied with the sanitary conditions at work, and many others were dissatisfied with having to use mixed dressing rooms (Helfferrich, 2020).

Violence against transport workers from customers or clients or from other transport workers is another important factor undermining the attractiveness of the sector in recruiting and retaining women. According to the 2017 ETF survey, one in two women had reported incidents of violence perpetrated by customers, 17 % by a manager or supervisor and 22 % by a colleague (Pillinger, 2017). In addition, around 36 % of women transport workers felt that a zero-tolerance policy on abuse of staff was not supported by their workplace (Helfferrich, 2020). Recurring incidents of violence contributed to loss of trust in colleagues and supervisors, to women's dissatisfaction with the job, and negatively affected their physical and mental health and well-being. This, in turn, impacted women's professional performance and possibly had a negative impact on family and personal relationships outside of work (Pillinger, 2017).

The ETF 2019 survey report also highlights that for many women working in transport, the masculinity culture of the sector makes it harder for women to progress professionally ⁽¹⁴⁵⁾. The survey also shows that masculine culture in transport is a key barrier throughout women's different career cycles in transport, including retention, promotion and career advancement as well as access to decision-making roles (Helfferrich, 2020).

Increased participation of women in the transport sector and in leadership positions can challenge the predominant masculine culture and prevalent gender stereotypes in the sector as such, and in transport decision-making. A few

⁽¹⁴⁴⁾ https://transport.ec.europa.eu/transport-themes/social-issues-equality-and-attractiveness-transport-sector/equality/women-transport-eu-platform-change_en

⁽¹⁴⁵⁾ About 31 % of survey respondents said that the masculinity culture in the transport sector makes it harder for women to progress professionally.

studies support the idea that challenging masculine norms in the transport sector, combined with increasing women's presence, could help in achieving climate and sustainability objectives in transport policy (Kronsell et al., 2016).

Women in leadership positions in private sector transport organisations demonstrate higher levels of social responsibility, and influence commitment to sustainable or eco-friendly practices (OECD/ITF, 2022). A cross-country comparative study⁽¹⁴⁶⁾ on gender diversity boards and managerial positions in the transport and logistics sector shows that women directors are key to implementing eco-friendly practices, environmental protection measures, and claims for environmental justice in the sector (Shakil et al., 2022).

The adoption of the EU Directive on Gender Balance on Corporate Boards is an important step towards women's greater inclusion in decision-making positions in private transport companies. At the same time, this may not necessarily help to address the obstacles to women's career cycles within the transport sector, which ultimately play a role in women's ability and willingness to advance into managerial or director positions.

Women's presence in political transport-related decision-making is slightly more equal at EU level than in national bodies

Despite visible progress, women are underrepresented in political decision-making in the transport sector at EU level. There have been three female Commissioners for Transport, however there has been only one female Head of Cabinet of a Transport Commissioner.

In terms of administrative positions of DG MOVE, women hold more director positions since 2015. At the time of writing, a woman is holding the position of Acting Director-General.

The increase in the number of women is particularly notable in the Transport and Tourism Committee in the European Parliament, growing from 26 % in 2012 to 43 % in 2021.

National-level decision-making on transport across the EU Member States is largely dominated by men. In 2021, just 22 % of government ministers (senior and junior) responsible for transport were women, while 78 % were men (EIGE, 2021c). Also in 2021, women were significantly underrepresented in the parliamentary committees tasked with considering policy issues and scrutinising government action on transport, with women making up just 27 % of members. Across the Member States, between 2017 and 2021, women's representation in parliamentary committees dealing with transport was above 40 % only in Belgium, Finland, and Sweden (EIGE, 2021c).

Women's representation in political decision-making is particularly important because governments at EU, national, and local level play a leading role in steering the development of sustainable transport systems by setting legal, regulatory, tax and policy frameworks for transport. However, it is not only women's representation that is important; meaningful use of the gender perspective is equally important in analysing and planning transport systems, as well as in the implementation, monitoring and evaluation phase (Heffernan et al., 2021; OECD/ITF, 2022).

While data on the representation of women in transport decision-making at EU and Member State level is widely available, there is less evidence for women's involvement in transport decision-making at regional or local level across the EU. Rather, individual projects or initiatives, at municipal level for example, can indicate examples and good practices of women's involvement.

⁽¹⁴⁶⁾ Analysis included: Australia, Belgium, Brazil, Canada, China, Denmark, Germany, Hong Kong, Japan, Malaysia, Netherlands, Singapore, South Africa, South Korea, Switzerland, Taiwan, UK and US.

9.5. Measuring the green transition from a gender perspective

To date, there are relatively **few indicators specifically covering the social impacts of the green transition, including gender equality, in the EU**. For example, the SDG indicators (e.g. on climate action, affordable and clean energy, sustainable cities and communities) are not detailed enough to reflect the impacts on gender equality, as there are too many other influencing factors. Similarly, the EU Leave-No-One-Behind Index⁽¹⁴⁷⁾ is a composite of general outcome indicators in different areas (e.g. gender equality, poverty, income inequality, access and quality to services). However, the indicators are too broad and are not closely related to the green transition. They are also measured separately rather than in relation to one another. A recent assessment of existing indicators for just transition developed for DG Environment identified the lack of data to measure socially fair transition as a key shortcoming, with many data collection efforts requiring improvement in order to develop appropriate indicators (Heyen, 2021). The authors conclude that many data collection efforts will need to be improved to develop appropriate indicators (ibid).

Most of the existing indicators at EU level lack any disaggregation by socioeconomic or demographic group, preventing measures of social inequalities in impact distribution. Some areas are covered more extensively, suggesting a higher sensitivity to social issues. For example, while there are very few appropriate indicators

on transport affordability and accessibility (especially public transport), some progress has been made in developing energy poverty indicators.

From a gender perspective, however, even these social indicators have limitations. Firstly, they do not account for the multitude of gender dimensions of energy poverty (such as in relation to energy efficiency, needs, links to unpaid work, see Section 2.2). In other words, the issue is not only lack of disaggregation by sex, but also the availability of specific gender indicators capturing relevant issues from a gender perspective. Secondly, the energy poverty indicators are **measured at household rather than individual level**. Making inferences about individuals from household data is a long-debated issue in gender research, as there is a high risk of conflating household characteristics with those of individuals (see Section 9.3.2). Evidence shows that gender differences and power dynamics drive measurement errors in household surveys (Epifanio & Ibáñez, 2013), with researchers long highlighting the need for better understanding of the scope and nature of measurement error in surveys, particularly in relation to gender.

The suggested scoreboard (Table 4) revolves around four aspects of a gender-sensitive approach to monitoring key aspects of the green transition in the EU, namely i) public attitudes and behaviours in relation to climate change and mitigation, ii) energy and transport use, iii) employment in energy and transport sectors, and iv) representation of women in decision-making in climate change, energy and transport.

⁽¹⁴⁷⁾ The Leave-No-One-Behind Index is a composite indicator developed in the context of the monitoring of the Sustainable Development Goals. It monitors inequalities along four dimensions: poverty, services, gender, and income. A higher score means lower levels of social inequalities, <https://eu-dashboards.sdginde.org/map/leave-no-one-behind>

Table 4. Scoreboard of indicators to measure the socially fair transition of the European Green Deal from a gender perspective

Variable	Source	Regularly collected	Level of analysis	Notes
Public attitudes and behaviours in relation to climate change and mitigation				
Climate change concern (level of concern and perception of negative impacts) and opinions on climate action	ESS (2017)	No	Individual	Round 8 on attitudes to climate change conducted in 2016/2017
Frequency of adopting environmentally friendly behaviours/ consumption, by sex	EIGE survey on gender gaps in unpaid care, individual and social activities (2022)	To be determined	Individual	Data available for 2022, ongoing planning for second round
Environmentally friendly behaviours in unpaid care/housework	EIGE survey on gender gaps in unpaid care, individual and social activities (2022)	To be determined	Individual	Data available for 2022, ongoing planning for second round
Fairness perceptions of the green transition - To what extent do you agree or disagree that each of the following actors is doing enough to ensure that the green transition is fair? EU/ national government/your regional, city or local public authorities	Special Eurobarometer 527, 2022	No	Individual	Captures public perceptions on fairness of climate action and green transition policies
Energy and transport use				
Ability to keep home adequately warm	EU-SILC, HH050 (microdata calculations)	Yes	Household	Different households may be used to different temperatures; different households may use different methods of keeping warm
Leaking roof, damp walls/floors/foundation, or rot in window frame/floor	EU-SILC, HH040 (microdata calculations)	Yes	Household	Relevant to the ability of the household to be energy-efficient; different households may also declare insulation problems, although they are very different in their degree of severity
Arrears on utility bills	EU-SILC, HS021 (microdata calculations)	Yes	Household	Records inability of households to pay bills in the last 12 months relative to utility (heating, electricity, gas, water, etc.) for the main dwelling
Dwelling comfortably cool during summertime (MH070)	EU-SILC -SILC	Yes	Household	2007, 2012
Main mode of transport used during a typical work week by sex	EIGE, survey of gender gaps in unpaid care, individual and social activities 2022	Yes	Individual	Includes transport to work; data available for 2022, ongoing planning for second round
Share of household expenditure on electricity, gas, and other fuels	HBS, EUR_HE045 (microdata calculations)	Yes	Household	Household expenditure, only limited data available for 2020 (most recent data available for 2015)
Share of household expenditure on transport	HBS, EUR_HE07 (microdata calculations)	Yes	Household	Household expenditure, only limited data available for 2020 (most recent data available for 2015)

9. Thematic focus: gender equality and the socially fair transition of the European Green Deal

Variable	Source	Regularly collected	Level of analysis	Notes
Employment in energy and transport sectors				
Numbers of employees, by sex, age, and economic activity (2008 onwards, NACE Rev. 2) – 1 000	Eurostat, lfsq_egan22d	Yes	Individual	At NACE one-digit level, the transport sector is classified as transportation and storage (H). For the energy sector, data is very limited and fragmented across several economic activities. Employment statistics are not available for renewable energy sectors. At NACE one-digit level, the conventional energy sectors are aggregated with other economic activities. The most accurate representation provides only electricity, gas, steam and air conditioning supply (D)
Employment, by sex, age and detailed economic activity (2008 onwards, NACE Rev. 2 two-digit level) – 1 000	Eurostat, lfsq_egan22d	Yes	Individual	At NACE two-digit level, transport and storage can be fine-grained to land transport and transport via pipelines (H49); water transport (H50), air transport (H51); warehousing and support activities for transportation (H52), and postal and courier activities (H53). For the energy sector, at NACE two-digit level, data is available for the following conventional energy sectors: Mining of coal and lignite (B05), Extraction of crude petroleum and natural gas (B06), Manufacture of coke and refined petroleum products (C19), Electricity, gas, steam and air conditioning supply, including manufacture of gas and distribution of gaseous fuels through mains (D35)
Participation rate of employees in education and training (last 4 weeks), by sex, age and NACE Rev. 2 activity	Eurostat, TRNG_LFS_08B	Yes	Individual	NACE one-digit level. H for transport and D for Electricity, gas, steam and air conditioning supply
Graduates, by education level, programme orientation, sex, and field of education	Eurostat, educ_uoe_grad02	Yes	Individual	Relevant to illustrate gender segregation in tertiary education and gender gap in STEM
Representation of women in decision-making in climate change, energy and transport				
UNFCCC: EU and national delegations	EIGE's Women in Decision-Making Database	Yes		Data available for 2022
Environment-related DGs (DG CLIMA, ENER, MOVE, ENV) of the European Commission: political positions	EIGE's Women in Decision-Making Database	Yes		Data available for 2022
Environment-related committees in the European Parliament	EIGE's Women in Decision-Making Database	Yes		Data available for 2022
National ministries dealing with environment and climate change: ministers, by seniority	EIGE's Women in Decision-Making Database	Yes		Data available for 2022
National ministries dealing with environment and climate change: administrators, by seniority	EIGE's Women in Decision-Making Database	Yes		Data available for 2022
Parliamentary committees dealing with environment and climate change	EIGE's Women in Decision-Making Database	Yes		Data available for 2022

Conclusions

Although the EU is making strides towards gender equality, only 2 % of its population is close

The Gender Equality Index has increased by 1.6 points since the previous release, scoring 70.2 points in 2023. Sweden is the only country to exceed 80 points, indicating that only 2 % of the EU population is close to achieving gender equality. The latest progress captures the resilience in the pursuit of gender equality following the COVID-19 pandemic, as well as the outcomes of longer lasting trends. Since 2010, the Index score has increased by 7.1 points overall, at a rate of 0.6 points per year. The longer-term progress is mainly driven by the positive developments in the domain of power, which has increased by 17.2 points in the last decade.

The domain of time has changed most since the last edition (+3.6 points). A new EU-wide EIGE survey on gender gaps in unpaid care, individual and social activities in 2022 provides the most recent data for the domain of time, previously not updated since 2016. Progress in gender equality is most pronounced in care activities (+9.6 points), largely caused by women's lower engagement in unpaid care and housework overall, rather than men's higher participation in such activities.

Significantly, this year's Gender Equality Index depicts a little progress in the domain of work (+2.1 points). This improvement is largely attributed to the increased shares of women and particularly men who are able to allocate an hour or two during working hours to fulfil their personal or family responsibilities. Despite the opportunities afforded by flexible working, it is not itself sufficient to mitigate work-life tensions for working parents. The EIGE survey shows that every third woman and man with childcare duties experiences difficulties combining paid work with their childcare responsibilities. Work-life tensions often lead to employment-related costs, especially for women, such as reduced

work hours, absenteeism, and slower career progression. The EIGE survey data show that access to care services eases work-life balance tensions. When carers use formal ECEC and LTC services, the proportion of individuals experiencing daily work-life conflicts decreases.

Progress in the domain of power (+1.9 points) is largely driven by a 2.6-point increase in economic decision-making in the last year and marks a promising move towards gender parity on corporate boards. Despite these improvements, the domain of power is furthest from the finish line, with both the lowest score (59.1 points) and the highest score variability across countries.

Finally, an annual change in the domain of knowledge is also positive (+1.1 points). It is largely driven by increasing shares of women, in particular, and men participating in formal or non-formal education and training. The expansion of opportunities for life-long learning, upskilling and reskilling are necessary to shatter gender segregation in the labour market and open broader career opportunities.

Closing gender care gaps calls for stronger policies and funding

Care received unprecedented attention throughout the COVID-19 pandemic, which revealed the inequalities and vulnerabilities of care systems. As a result, the European Care Strategy (2022) has been launched to expand ECEC and LTC services to meet current and future care needs. In most EU countries, care is mainly provided by informal carers, creating immense work-life tensions for working parents, particularly women.

Part of the progress in this year's Index is explained by the smaller gender gaps in care activities, capturing changes in 2022 compared to 2016. Amid reducing gender gaps, the progress reflects the decreasing share of women

and only marginally increasing share of men engaging in daily care and household activities. This may show reduced pressure for women to engage in intense unpaid care daily, e.g. due to higher availability of services or use of technological advances in housework, while raising concerns that men's aspirations to achieve better work-life balance remain largely unanswered.

Despite some improvements, the gender gaps in unpaid care, especially in cooking and housework, remain high: 34 % of women and 25 % of men are engaged in childcare and LTC daily, while 63 % of women and 36 % of men do housework every day. Parenthood marks a significant shift in how care and housework responsibilities are distributed in families, as gender gaps among couples without children or single adults are lower than in couples with children (especially for cooking and housework activities). The gender disparity in childcare is also evident in how couples with young children divide care tasks, with women disproportionately shouldering the routine and most demanding personal and physical care tasks.

Analysis of sustainable resource use in housework shows that women are slightly more likely to adopt sustainable household practices, such as food sustainability, energy saving, recycling, and waste reduction. It aligns with the growing popularity of zero-waste practices that primarily focus on household activities predominantly carried out by women, such as cooking, cleaning, and grocery shopping. Sustainable resource use is time-intensive and, if not shared equally, will create additional housework load for women.

Access to ECEC and LTC services is key to reducing the burden of highly time-intensive informal care, typically provided by women. The EIGE survey provides strong evidence that access to childcare services releases parents, particularly mothers, of children under six from intense care, increases their career opportunities, and improves their work-life balance. Despite increasing demand for care services, they are still not affordable, available or accessible for many carers. The main unmet needs voiced by parents include long waiting lists for childcare

services (26 % of women and 31 % of men), unavailability of required services (20 % of women and 30 % of men), or unaffordability (16 % of women and 27 % of men reported being unable to afford the necessary care services). Unmet needs for LTC services are similar.

The findings call for a new impetus in policy actions. It is important to ensure that the objectives of the Work-Life Balance Directive and the European Care Strategy are integrated into relevant policy initiatives and the framework for the EU's long-term budget. Higher quality, broadly accessible and affordable services, particularly in areas with limited access, such as rural and remote regions, require strengthened, earmarked and increased investment and funding, explicitly connected to gender equality objectives, and consistently monitored and evaluated. Failure to address existing deficiencies in care provision and access to formal care services will prolong gender inequalities in care and other closely related domains, such as work, income or health, and further exacerbate vulnerabilities in the care sector.

Strong gender segregation in education and the labour market, gender gaps in income, and imbalances in decision-making raise critical questions on whether structural causes of inequality are addressed coherently and effectively

More substantial progress in gender equality requires stepping up efforts to tackle gender segregation in education and the labour market. The Index shows that gender segregation remains a significant feature of EU education systems and the labour market, with women continuing to occupy jobs in sectors that generally have lower remuneration levels, lower career prospects, and fewer options for upskilling. Gender segregation is a key factor limiting women's career opportunities and life-long incomes. It is particularly worrying that gender gaps in earnings remain large, especially among

population groups carrying the highest unpaid care duties (namely, couples with children and those aged 50-64). Being highly qualified carries the greatest income penalty for women, compared to men. The EU labour markets do not yet afford women and men the same opportunities across their careers, thus failing to fully tap into the entire potential talent pool.

More efforts are needed to engage foreign-born women and men, as well as older women and men, in life-long formal and non-formal education and training in order to improve their labour market prospects and incomes. Challenging gender stereotypes and inequalities in education is crucial for a green and sustainable future in the EU, both in fields where men are overrepresented, such as STEM, and fields in which women are overrepresented, such as healthcare, as the demand for highly skilled individuals in both fields is growing.

The domain of power is the most gender unequal in the Index. Women are underrepresented in national parliaments (33 % in the single/lower houses), as well as on the boards of the largest quoted companies (33 %). In 2022, women were underrepresented in areas most pertinent to current political agenda, namely the environment and climate change. EIGE's analysis shows that a gender perspective is often lacking in key decisions on the green transition in areas such as transport and energy.

Ahead of the next European Parliament elections in 2024, the persistent underrepresentation of women in politics remains a cause for concern. In 2022, the European Parliament adopted a proposal for a Council Regulation on the election of the Members of the European Parliament, with the aim of ensuring common rules for the European Parliament elections in the Member States, for example through quotas or zipped lists, where women and men candidates alternate. The proposal is in line with results in those Member States that have already introduced binding measures to increase women's participation in politics and economic decision-making.

The path towards gender equality has many setbacks, even in areas of life that recently showed progress

In the last year, progress in the domain of power has slowed, after years of advancement. Worryingly, eight countries have seen a setback in the domain of power since last year's edition. Overall progress is mostly driven by legislative actions in a few Member States.

Stalling progress in the domain of health underlines the fragility of gender equality gains, especially in the post-COVID-19 context. Research shows that the pandemic increased and solidified drinking patterns among those engaged in harmful drinking. Excessive alcohol consumption is a key public health issue in the EU, disproportionately affecting men, across age and education groups. Many of the health risks are likely to be exacerbated by ongoing climate change. Environmental policymakers must be mindful of the profound, immediate and worsening effects of climate change on women's and men's physical and mental health.

Lack of overall growth in the domain of money in the last year goes hand-in-hand with the marked regression in the sub-domain of economic situation. This development reflects anticipated setbacks due to the COVID-19 pandemic, but also warns of possibly lasting consequences for gender inequalities in income. If sustained or increasing, gender gaps in income will hinder progress towards socially fair green transition, aggravating gender inequalities in such areas as energy and transport. Gender inequalities in employment and income not only underpin limited access to low-carbon transport modes or renewable energy technologies, but can in turn hinder access to employment, education and essential services, thereby reinforcing gender gaps in poverty and social exclusion.

Closing gender data gaps and expanding gender statistics is key to progress in gender equality, especially in combating violence against women

The lack of EU-wide data on gender-based violence has impeded the update of the domain of violence for several years. Comparable data is needed to take stock of the full extent of gender-based violence, especially in the context of crisis situations posed by war and climate change. The new Eurostat's EU-GBV survey and joint FRA-EIGE VAW II will provide a solid basis for the Gender Equality Index 2024 and its thematic focus on violence against women. So do EIGE's plans for updated administrative data collection on violence against women.

On 1 June 2023, the European Council approved the EU's accession to the Council of Europe Convention on preventing and combating violence against women and domestic violence (Istanbul Convention). EU ratification is a strong political commitment and paves the way for improving the legal situation for victims of violence and for a strong evidence-based monitoring framework.

Overall, persistent disadvantages for women in education, employment, decision-making and incomes, as well as numerous challenges for men, including uptake of care and healthy lifestyles, point to the need for more and integrated data analysis. Awareness of structural causes of gender inequalities could be improved if gender statistics such as gender pay gap or gender gaps in employment routinely added intersecting inequalities' perspective and relevant disaggregations. This would allow better monitoring and addressing of work-life balance tensions, for example stemming from uptake of childcare and LTC responsibilities.

Likewise persistent gender gaps demonstrate the need for policy objectives that take a wider view of gender equality across different spheres of life, while designing policy actions to tackle gender inequalities in a specific area. As demonstrated by the EIGE survey, even though everybody has the same amount of

time in a day, strong gender stereotypes imply that men can devote more time to paid work and career advancement, while women take on crucial, unpaid work and are left behind in economic and political empowerment. Better tracking of time use from a gender perspective is needed to design better work-life balance policy responses.

Gender equality and the socially fair transition of the European Green Deal

The green transition brings plentiful opportunities and benefits for both women and men. Climate change mitigation contributes to avoiding the collapse of ecosystems and increases the likelihood of people continuing to live healthy lives in the future. However, transitions of such scope can magnify existing and create new social challenges, including in gender and intersecting inequalities. The deep structural shift requires trade-offs and changes in established investment, current patterns of resource use, behaviours and values.

A variety of key gender issues are relevant to decarbonising the transport and energy sectors

Gender differences in transport are partly shaped by care responsibilities, with women spending more time commuting for care-related activities than men. Men spend more energy on transport than women, while women use more energy for household tasks and cooking. Women and other disadvantaged groups are at higher risk of transport and energy poverty. Addressing gender and intersecting inequalities is essential to achieving the ambitions of the European Green Deal and promoting gender-equal societies. However, the lack of sex-disaggregated data limits gender-responsive policy-making in both sectors, impeding efforts to create more effective systems.

Despite efforts to promote gender equality, the gender imbalance persists in the EU transport and energy sectors. Women are

underrepresented in both sectors, with low percentages of women in the workforce, especially in decision-making positions. Factors contributing to this gender imbalance include the persistence of gender stereotypes, inequalities in education and training opportunities, work-life balance issues, violence and harassment, and the lack of family-friendly policies. It is important to take stronger measures to increase equal representation in the transport and energy workforce and in decision-making positions.

Inclusive and sustainable transport and energy strategies need to address different needs, mobility patterns and energy consumption of different population groups. This requires a shift away from the current 'technological fix' approach to a socio-technical approach, as gender inequalities related to class, age and race are reproduced in emerging smart mobility systems. Ultimately, gender equality is essential to achieving the ambitious goals outlined in the EU's green transition to ensure that no one is left behind and that initiatives are effective. More gender-responsive and inclusive policies, strategies, and data collection methods are needed in both the energy and transport sectors to address underlying inequalities and ensure a socially fair transition to a low-carbon society.

The European Green Deal represents a significant step towards a sustainable, net-zero economy, but could add to social and gender inequalities

This report examined some of the potential gender and intersecting inequalities that could result from the policies of the European Green Deal, with a particular focus on the transport and energy sectors. Several measures within the Fit for 55 package aim to ensure a just and socially fair transition, but there are concerns that some of the proposed revisions are not enough to mitigate adverse effects of other proposed policy measures, and could even exacerbate energy and transport poverty.

The proposal of an ETS II for transport and buildings could significantly increase the cost of living for low-income households, with households headed by women, older people, and lone parents hardest hit. The proposed Energy Taxation Directive could also have negative social impacts by creating or exacerbating energy and mobility poverty. Funding mechanisms are inadequate to address gender issues in upskilling or reskilling in the transition. The focus on private mobility through the promotion of electric vehicles may also reinforce existing inequalities.

To address these potential social and gender inequalities, policymakers should consider implementing targeted initiatives to mitigate the distributional effects of policy changes. Possible policy options to support poorer consumers who may be adversely affected by the ETS II and the recast Energy Tax Directive include adjusting fuel taxes, targeted use of revenue from additional permit sales, and increasing the budget of the Social Climate Fund. In addition, it is essential to ensure that women and other disadvantaged groups are involved in decision-making processes and that their perspectives and needs are considered. This includes ensuring that gender-responsive indicators are included in monitoring and evaluation frameworks to assess the gender impacts of policies and initiatives under the European Green Deal.

A significant lack of data and gender statistics are a key constraint to assessing and monitoring the gender-related impacts of the green transition

High-quality data and a strong evidence base are vital for understanding access to and use of transport and energy, as well as access and participation in the energy and transport sectors and green jobs. The current indicators are not fit for purpose, as they are often not directly related to the green transition, not sex-disaggregated, and not gender-responsive. They frequently do not measure issues that are relevant from a gender perspective and are gathered at household level, which does not account for

intra-household inequality in consumption. The lack of evidence is a key challenge to sufficiently informing and mainstreaming the diverse needs and concerns of both women and men into the policies delivering the European Green Deal.

As yet, the promise to leave no one behind has little to say about gender equality

The European Green Deal strives to set Europe on a path towards carbon neutrality and to serve as a catalyst towards a just, fair and gender-equal Europe. Despite the commitment of the current Commission to mainstream gender into all of its major initiatives, the links between gender equality and the European Green Deal policy areas could be recognised more comprehensively. Likewise, the EU energy transition strategic framework for the near future takes a weak stand on gender equality. By contrast, there is increasing recognition of gender inequalities in the EU transport strategy, although much remains to be done to turn the

commitment to the EU gender equality objectives into reality. It is essential to recognise and address the potential social and gender inequalities that could arise in policy implementation, in order to ensure that no one is left behind in the transition to a net-zero economy.

Both EU energy and transport systems are undergoing major acceleration of the green transition, with the EU increasing its 2030 climate target from 40 % reduction in GHG emissions to at least 55 % (or 57 %) (compared to 1990 levels). Consequently, updated NECPs are being submitted to the European Commission in 2023 to ensure that they support the achievement of the revised 2030 target. This presents a significant opportunity to integrate a gender perspective, as current NECPs almost universally fail to consider gender equality. The EU has also allocated additional funds to the green transition through the RRF, but, again, Member States did not systematically adopt a gender perspective in measures contributing to the climate objectives, thus risking an EU-funded gender-blind green transition.

References

- Abendschön, S., and Steinmetz, S. (2014). The gender gap in voting revisited: Women's party preferences in a European context. *Social Politics*, 21(2), 315-344.
- Afesojaye, O. E., Castillo, V. B., and Gómez, L. D. (2022). *Gender Equality and Safe and Secure Mobility*. Retrieved from <https://claimingourspace.org/sdg5>
- Aggeli, A., Christensen, T. H., and Larsen, S. P. A. K. (2022). The gendering of energy household labour. *Buildings and Cities*, 3(1), 709-724. doi:10.5334/bc.224
- Arcelay, I., Goti, A., Oyarbide-Zubillaga, A., Akyazi, T., Alberdi, E., and Garcia-Bringas, P. (2021). Definition of the Future Skills Needs of Job Profiles in the Renewable Energy Sector. *Energies*, 14(9), 2609. doi:10.3390/en14092609
- Atif, M., Hossain, M., Alam, M. S., and Goergen, M. (2021). Does board gender diversity affect renewable energy consumption? *Journal of Corporate Finance*, 66, 101665. doi:10.1016/j.jcorpfin.2020.101665
- Bai, B., Gopalan, N., Beutell, N., and Ren, F. (2021). Impact of Absolute and Relative Commute Time on Work-Family Conflict: Work Schedule Control, Child Care Hours, and Life Satisfaction. *Journal of Family and Economic Issues*, 42(4), 586-600. doi:10.1007/s10834-021-09752-w
- Bartiaux, F. (2022). Gender roles and domestic power in energy-saving home improvements. *Buildings and Cities*, 3(1), 824-841. doi:10.5334/bc.232
- Beauregard, K. (2014). Gender, political participation and electoral systems: A cross-national analysis. *European Journal of Political Research*, 53(3), 617-634.
- BEUC. (2021). *Une fausse bonne idée: Why extending emissions trading (ETS) to road transport and buildings is not recommendable*.
- Birgi, O. G., Fuhrmann, A., Habersbrunner, K., and Stock, A. (2021). *Gender and energy poverty Facts and arguments*. Retrieved from https://www.empowermed.eu/wp-content/uploads/2021/05/2104_Empowermed-Energy_Poverty_and_gender.pdf
- Brough, A. R., Wilkie, J. E. B., Ma, J., Isaac, M. S., and Gal, D. (2016). Is Eco-Friendly Unmanly? The Green-Feminine Stereotype and Its Effect on Sustainable Consumption. *Journal of Consumer Research*, 43(4), 567-582. doi:10.1093/jcr/ucw044
- Bush, S. S., and Clayton, A. (2023). Facing change: Gender and climate change attitudes worldwide. *American Political Science Review*, 117(2), 591-608.
- Carfora, A., Scandurra, G., and Thomas, A. (2022). Forecasting the COVID-19 effects on energy poverty across EU member states. *Energy policy*, 161, 112597. doi:10.1016/j.enpol.2021.112597
- Caridade, S. M. M., Vidal, D. G., and Dinis, M. A. P. (2022). Climate change and gender-based violence: outcomes, challenges and future perspectives. In *Sustainable Policies and Practices in Energy, Environment and Health Research* (pp. 167-176): Springer.

- Carlsson-Kanyama, A., Nässén, J., and Benders, R. (2021). Shifting expenditure on food, holidays, and furnishings could lower greenhouse gas emissions by almost 40 %. *Journal of Industrial Ecology*, 25(6), 1602-1616. doi:10.1111/jiec.13176
- Carroll, P. (2022). Gender Mainstreaming the European Union Energy Transition. *Energies*, 15(21), 8087. doi:10.3390/en15218087
- Caulfield, B., Furszyfer, D., Stefaniec, A., and Foley, A. (2022). Measuring the equity impacts of government subsidies for electric vehicles. *Energy*, 248, 123588. doi:10.1016/j.energy.2022.123588
- CEDEFOP. (2021). *The green employment and skills transformation: insights from a European Green Deal skills forecast scenario*. LU: Publications Office.
- Chard, R., and Walker, G. (2016). Living with fuel poverty in older age: Coping strategies and their problematic implications. *Energy Research & Social Science*, 18, 62-70. doi:10.1016/j.erss.2016.03.004
- Chen, L., Kántor, N., and Nikolopoulou, M. (2022). Meta-analysis of outdoor thermal comfort surveys in different European cities using the RUROS database: The role of background climate and gender. *Energy and Buildings*, 256, 111757. doi:10.1016/j.enbuild.2021.111757
- Christoforou, Z., de Bortoli, A., Gioldasis, C., and Seidowsky, R. (2021). Who is using e-scooters and how? Evidence from Paris. *Transportation Research Part D: Transport and Environment*, 92, 102708. doi:10.1016/j.trd.2021.102708
- Ciommo, F. D. (2018). *How the Inaccessibility Index Can Improve Transport Planning and Investment* (2018/08).
- Clair, A., and Baker, E. (2022). Cold homes and mental health harm: Evidence from the UK Household Longitudinal Study. *Social Science & Medicine*, 314, 115461. doi:10.1016/j.socscimed.2022.115461
- Clancy, J., Kustova, I., Elkerbout, M., and Michael, K. (2022). *The gender dimension and impact of the Fit for 55 package*. Retrieved from [https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU\(2022\)736899](https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU(2022)736899)
- Clancy, J. S., Daskalova, V. I., Feenstra, M. H., and Franceschelli, N. (2017). Gender perspective on access to energy in the EU.
- Clancy, J. S., and Feenstra, M. (2019). *Women, gender equality and the energy transition in the EU*: Publications Office of the European Union. Retrieved from [https://www.europarl.europa.eu/RegData/etudes/STUD/2019/608867/IPOL_STU\(2019\)608867_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2019/608867/IPOL_STU(2019)608867_EN.pdf)
- Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., and Usher, K. (2021). Understanding Eco-anxiety: A Systematic Scoping Review of Current Literature and Identified Knowledge Gaps. *The Journal of Climate Change and Health*, 3, 2021. Retrieved from <https://doi.org/10.1016/j.joclim.2021.100047>
- Council of the European Union. (2023a). Council and Parliament reach provisional deal on renewable energy directive [Press release]. Retrieved from <https://www.consilium.europa.eu/en/press/press-releases/2023/03/30/council-and-parliament-reach-provisional-deal-on-renewable-energy-directive/>

- Council of the European Union. (2023b). Council reaches agreement on the nature restoration law [Press release]. Retrieved from <https://www.consilium.europa.eu/en/press/press-releases/2023/06/20/council-reaches-agreement-on-the-nature-restoration-law/>
- Council of the European Union. (2023c). *Proposal for a regulation of the European Parliament and of the Council establishing a Social Climate Fund*. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0568>
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *u. Chi. Legal f.*, 139.
- Criado-Perez, C. (2019). *Invisible women: data bias in a world designed for men*. New York: Abrams Press.
- Culot, M., and Wiese, K. (2022). *Reimagining work for a Just Transition*. Retrieved from <https://eeb.org/wp-content/uploads/2022/11/EEB-Rethinking-work-within-a-just-transition-as-part-of-the-EGD-28-Nov.pdf>
- Czako, V. (2020). *Employment in the energy sector: status report 2020*. Retrieved from <https://publications.jrc.ec.europa.eu/repository/handle/JRC120302>
- Daggett, C. (2018). Petro-masculinity: Fossil Fuels and Authoritarian Desire. *Millennium*, 47(1), 25-44. doi:10.1177/0305829818775817
- Dassonneville, R., and Kostelka, F. (2021). The cultural sources of the gender gap in voter turnout. *British Journal of Political Science*, 51(3), 1040-1061.
- De Moor, J., Uba, K., Wahlström, M., Wennerhag, M., and De Vydt, M. (2020). Protest for a future II: Composition, mobilization and motives of the participants in Fridays For Future climate protests on 20-27 September, 2019, in 19 cities around the world. Retrieved from <https://www.diva-portal.org/smash/get/diva2:1397070/FULLTEXT01.pdf>
- Dean, L., Churchill, B., and Ruppner, L. (2022). The mental load: building a deeper theoretical understanding of how cognitive and emotional labor over *load* women and mothers. *Community, Work & Family*, 25(1), 13-29. doi:10.1080/13668803.2021.2002813
- Defard, C. (2021). *A Social Climate Fund for a Fair Energy Transition*. Retrieved from <https://institutde-lors.eu/en/publications/a-social-climate-fund/>
- Djoudi, H., Locatelli, B., Vaast, C., Asher, K., Brockhaus, M., and Basnett Sijapati, B. (2016). Beyond dichotomies: Gender and intersecting inequalities in climate change studies. *Ambio*, 45(S3), 248-262. doi:10.1007/s13280-016-0825-2
- Doherty, R. M., Heal, M. R., and O'Connor, F. M. (2017). Climate change impacts on human health over Europe through its effect on air quality. *Environmental Health*, 16(1), 33-44.
- Drăguțescu, A., and ES, I. (2020). *Addressing Gender Equity and Vulnerable Groups in SUMP*s. Retrieved from <https://www.eltis.org/in-brief/news/new-sump-topic-guide-addressing-gender-equity-and-vulnerable-groups-sumps>

Duarte, R., Miranda-Buetas, S., and Sarasa, C. (2021). Household consumption patterns and income inequality in EU countries: Scenario analysis for a fair transition towards low-carbon economies. *Energy Economics*, 104, 105614. doi:10.1016/j.eneco.2021.105614

Dubey, K. (2022). *Energy Transition and the Post-Covid-19 Socioeconomic Recovery: Role of Women and Impact on Them*. Retrieved from <https://unece.org/sustainable-energy/publications/energy-transition-and-post-covid-19-socioeconomic-recovery-role>

EEA. (2016). *Transport and ecosystems*. Retrieved from <https://www.eea.europa.eu/signals/signals-2016/articles/transport-and-ecosystems>.

EEA. (2018). *Unequal exposure and unequal impacts: social vulnerability to air pollution, noise and extreme temperatures in Europe*. Retrieved from <https://www.eea.europa.eu/publications/unequal-exposure-and-unequal-impacts>

EEA. (2020a). *Healthy environment, healthy lives: how the environment influences health and well-being in Europe*. Retrieved from <https://www.eea.europa.eu/publications/healthy-environment-healthy-lives>

EEA. (2020b). *Noise pollution is a major problem, both for human health and the environment*. Retrieved from <https://www.eea.europa.eu/articles/noise-pollution-is-a-major>.

EEA. (2022a). *Economic losses and fatalities from weather- and climate-related events in Europe* — Retrieved from <https://www.eea.europa.eu/publications/economic-losses-and-fatalities-from>

EEA. (2022b). *Trends and projections in Europe 2022*. Retrieved from <https://www.eea.europa.eu/publications/trends-and-projections-in-europe-2022>

EEB. (2020). *Pushed to the Wastelands: Environmental racism against Roma communities in Central and Eastern Europe*. Retrieved from <https://eeb.org/wp-content/uploads/2020/04/Pushed-to-the-Wastelands.pdf>

EESC. (2022). *Revision of the Energy Taxation Directive (ETD)*. Retrieved from <https://www.europarl.europa.eu/legislative-train/spotlight-JD22/file-revision-of-the-energy-taxation-directive>

EIGE. (2012). *Review of the Implementation in the EU of area K of the Beijing Platform for Action: Women and the Environment Gender Equality and Climate Change*. Retrieved from <https://eige.europa.eu/lt/publications/gender-equality-and-climate-change-report>

EIGE. (2013). *Gender Equality Index - Main findings*. Retrieved from <https://eige.europa.eu/publications/gender-equality-index-main-findings>

EIGE. (2016a). *Gender and energy*. Retrieved from https://eige.europa.eu/publications-resources/publications/gender-and-energy?language_content_entity=en

EIGE. (2016b). *Poverty, gender and intersecting inequalities in the EU. Review of the implementation of Area A: Women and Poverty of the Beijing Platform for Action*. Retrieved from <https://eige.europa.eu/publications/poverty-gender-and-intersecting-inequalities-in-the-eu>

EIGE. (2017a). *Cyber Violence against Women and Girls*. Retrieved from <https://eige.europa.eu/publications/cyber-violence-against-women-and-girls>

- EIGE. (2017b). *Gender and Transport*. Retrieved from <https://eige.europa.eu/publications-resources/publications/gender-transport>
- EIGE. (2017c). *Gender Equality Index 2017: Measurement framework of violence against women*. Retrieved from <https://eige.europa.eu/publications/gender-equality-index-2017-measurement-framework-of-violence-against-women>
- EIGE. (2017d). *Gender Equality Index 2017: Methodological Report*. Retrieved from https://eige.europa.eu/publications-resources/publications/gender-equality-index-2017-methodological-report?language_content_entity=en
- EIGE. (2017e). *Gender, skills and precarious work in the EU: Research note*. Retrieved from <https://eige.europa.eu/rdc/eige-publications/gender-skills-and-precarious-work-eu-research-note>
- EIGE. (2018). *Study and work in the EU: set apart by gender: Report*. Retrieved from <https://eige.europa.eu/publications/study-and-work-eu-set-apart-gender-report>
- EIGE. (2019a). *Gender budgeting. Mainstreaming gender into the EU budget and macroeconomic policy framework*. Retrieved from Luxembourg: Publications Office of the European Union.:<https://eige.europa.eu/publications-resources/publications/gender-budgeting-mainstreaming-gender-eu-budget-and-macroeconomic-policy-framework>
- EIGE. (2019b). *Gender Equality Index 2019 - Work-life balance*. Retrieved from https://eige.europa.eu/publications-resources/publications/gender-equality-index-2019-work-life-balance?language_content_entity=en
- EIGE. (2019c). *Intersecting Inequalities. Gender Equality Index*. Retrieved from <https://eige.europa.eu/publications/intersecting-inequalities-gender-equality-index>
- EIGE. (2020a). *Beijing + 25: the fifth review of the implementation of the Beijing Platform for Action in the EU Member States*. Retrieved from <https://eige.europa.eu/publications/beijing-25-fifth-review-implementation-beijing-platform-action-eu-member-states>
- EIGE. (2020b). *Gender and Migration*. Retrieved from <https://eige.europa.eu/publications-resources/publications/gender-and-migration>
- EIGE. (2020c). *Gender Equality and Long-Term Care at home*. Retrieved from <https://eige.europa.eu/publications/gender-equality-and-long-term-care-home>
- EIGE. (2020d). *Gender equality and urban mobility*. Retrieved from <https://eige.europa.eu/publications-resources/publications/gender-equality-and-urban-mobility>
- EIGE. (2021a). *The Covid-19 pandemic and intimate partner violence against women in the EU*. Retrieved from <https://eige.europa.eu/publications/covid-19-pandemic-and-intimate-partner-violence-against-women-eu>
- EIGE. (2021b). *Defining and identifying femicide: a literature review*. Retrieved from <https://eige.europa.eu/publications/defining-and-identifying-femicide-literature-review>
- EIGE. (2021c). *Femicide: a classification system*. Retrieved from <https://eige.europa.eu/publications/femicide-classification-system>

- EIGE. (2021d). *Gender equality and the socio-economic impact of the COVID-19 pandemic*. Retrieved from <https://eige.europa.eu/publications-resources/publications/gender-equality-and-socio-economic-impact-covid-19-pandemic#>
- EIGE. (2021e). *Gender Equality Index 2021. Health*. Retrieved from <https://eige.europa.eu/publications/gender-equality-index-2021-report>
- EIGE. (2021f). *Gender inequalities in care and consequences for the labour market*. Retrieved from <https://eige.europa.eu/publications/gender-inequalities-care-and-consequences-labour-market>
- EIGE. (2022a). *Combating Cyber Violence against Women and Girls*. Retrieved from <https://eige.europa.eu/publications/combating-cyber-violence-against-women-and-girls>
- EIGE. (2022b). *Combatting coercive control and psychological violence against women in the EU Member States*. Retrieved from <https://eige.europa.eu/publications/combating-coercive-control-and-psychological-violence-against-women-eu-member-states>
- EIGE. (2022c). *Femicide indicators: pilot study of data availability and feasibility assessment*. Retrieved from <https://eige.europa.eu/publications/femicide-indicators-pilot-study-data-availability-and-feasibility-assessment>
- EIGE. (2022d). *Gender Equality Index 2022 - The COVID-19 pandemic and care*. Retrieved from https://eige.europa.eu/publications-resources/publications/gender-equality-index-2022-covid-19-pandemic-and-care?language_content_entity=en
- EIGE. (2023a). *Access to specialised healthcare services. How women and girls fleeing the war can realise their sexual and reproductive rights in the EU*. Luxembourg: Publications Office of the European Union.
- EIGE. (2023b). *Evidence to action: gender equality and gender mainstreaming in the COVID-19 recovery*. Retrieved from https://eige.europa.eu/publications-resources/publications/evidence-action-gender-equality-and-gender-mainstreaming-covid-19-recovery?language_content_entity=en
- EIGE. (2023c). *Improving legal responses to counter femicide in the European Union: Perspectives from victims and professionals*. Retrieved from <https://eige.europa.eu/publications/improving-legal-responses-counter-femicide-european-union-perspectives-victims-and-professionals>
- EIGE. (2023d). *Online panel survey on gender gaps in unpaid care, individual and social activities. Technical report*. Luxembourg: Publications Office of the European Union.
- EIGE. (2023e). *The pathway to progress: strengthening effective structures for gender equality and gender mainstreaming in the EU*. Retrieved from https://eige.europa.eu/publications-resources/publications/pathway-progress-strengthening-effective-structures-gender-equality-and-gender-mainstreaming-eu?language_content_entity=en
- EIGE. (2023f). *Statistical note on gender balance in decision-making related to the European Green Deal*. Luxembourg: Publications Office of the European Union.
- EIGE. (Forthcoming). *Research and Development of the Indicators on Cyber Violence Against Women and Girls*. Luxembourg: Publications Office of the European Union.

Eisfeld, K., and Seebauer, S. (2022). The energy austerity pitfall: Linking hidden energy poverty with self-restriction in household use in Austria. *Energy Research & Social Science*, 84, 102427.

Empowermed. (2023). *Energy Poverty Recommendations*. Retrieved from https://www.empowermed.eu/wp-content/uploads/2023/02/Policy-recommendations-Empowermed_final-version.pdf

Energy Poverty Advisory Hub. (2022a). *Introduction to the Energy Poverty Advisory Hub (EPAH) Handbooks: A Guide to Understanding and Addressing Energy Poverty*. Retrieved from https://energy-poverty.ec.europa.eu/discover/publications/publications/introduction-energy-poverty-advisory-hub-epah-handbooks-guide-understanding-and-addressing-energy_en

Energy Poverty Advisory Hub. (2022b). *National Indicators: Insights for a more effective measuring*. Retrieved from https://energy-poverty.ec.europa.eu/discover/publications/publications/energy-poverty-national-indicators-insights-more-effective-measuring_en

Energy Poverty Advisory Hub. (2023). *Energy Poverty National Indicators* Retrieved from https://energy-poverty.ec.europa.eu/observing-energy-poverty/national-indicators_en

Engvall, K., Lampa, E., Levin, P., Wickman, P., and Öfverholm, E. (2014). Interaction between building design, management, household and individual factors in relation to energy use for space heating in apartment buildings. *Energy and Buildings*, 81, 457-465. doi:10.1016/j.enbuild.2014.06.051

EU Energy Poverty Observatory. (2020). *The multiple impacts of energy poverty, and the multiple benefits of addressing it*. Retrieved from https://energy-poverty.ec.europa.eu/discover/practices-and-policies-toolkit/publications/epov-multiple-impacts-energy-poverty-and-benefits-addressing-it_en

Eurofound. (2022a). *The cost-of-living crisis and energy poverty in the EU: Social impact and policy responses – Background paper*. Retrieved from <https://www.eurofound.europa.eu/publications/customised-report/2022/the-cost-of-living-crisis-and-energy-poverty-in-the-eu-social-impact-and-policy-responses-background>

Eurofound. (2022b). *Minimum wages in 2022: Annual review*. Retrieved from <https://www.eurofound.europa.eu/publications/report/2022/minimum-wages-in-2022-annual-review>

Eurofound and EEA. (2023). *The transition to a climate-neutral economy: Exploring the socioeconomic impacts*. Retrieved from Publications Office of the European Union, Luxembourg.: <https://www.eurofound.europa.eu/publications/report/2023/the-transition-to-a-climate-neutral-economy-exploring-the-socioeconomic-impacts>

WHO Regional Office for Europe (2023). The health workforce crisis in Europe is no longer a looming threat – it is here and now. The Bucharest Declaration charts a way forward [Press release]. Retrieved from <https://www.who.int/europe/news/item/22-03-2023-the-health-workforce-crisis-in-europe-is-no-longer-a-looming-threat---it-is-here-and-now-the-bucharest-declaration-charts-a-way-forward>

European Climate and Health Observatory. (2022). *Climate change impacts on mental health in Europe*. Retrieved from https://climate-adapt.eea.europa.eu/en/observatory/evidence/health-effects/mental-health-effects/european_climate_health_observatory_mental-health_evidence_review_2022.pdf

- European Climate Foundation, and Cambridge Econometrics. (2020). *Decarbonising European transport and heating fuels - Is the EU ETS the right tool?* Retrieved from <https://europeanclimate.org/wp-content/uploads/2020/06/01-07-2020-decarbonising-european-transport-and-heating-fuels-full-report.pdf>
- European Commission. (2011). White Paper Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system. COM (2011) 144 final. Retrieve from <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:en:PDF>
- European Commission. (2018). *European Pillar of Social Rights*. Retrieved from <https://data.europa.eu/doi/10.2792/154364>
- European Commission. (2019a). Delivering The 2030 Agenda For Sustainable Development In Europe And The World: Concept Note.
- European Commission. (2019b). A European Green Deal. Retrieved from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- European Commission. (2020a) An EU-wide assessment of National Energy and Climate Plans Driving forward the green transition and promoting economic recovery through integrated energy and climate planning, COM/2020/564 final, Retrieve from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A564%3AFIN>.
- European Commission. (2020b) EU Gender Action Plan III An Ambitious Agenda For Gender Equality And Women’s Empowerment In EU External Action.
- European Commission. (2020c) Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the Just Transition Fund.
- European Commission. (2020d). *Towards an inclusive energy transition in the European Union: confronting energy poverty amidst a global crisis*. Retrieved from LU:
- European Commission. (2020e). *A Union of Equality: Gender Equality Strategy 2020-2025*. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A152%3AFIN>
- European Commission. (2021a). *2021 Strategic Foresight Report The EU’s capacity and freedom to act*. Retrieved from
- European Commission. (2021b). *ASSET study on collection of gender-disaggregated data on the employment and participation of women and men in the energy sector*. LU: Publications Office of the European Union.
- European Commission, (2021c), *‘Fit for 55’: delivering the EU’s 2030 Climate Target on the way to climate neutrality*, COM/2021/550 final. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0550&from=EN>.
- European Commission, (2021d), Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change COM/2021/82 final.
- European Commission. (2021e). *Good staff scheduling and rostering practices in transport:final report*. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/21a9b75a-315e-11ec>

bd8e-01aa75ed71a1/language-en?WT.mc_id=Publicationdetail&WT.ria_c=46310&WT.ria_f=6800&WT.ria_ev=permalink&WT.URL=https%3A%2F%2Ftransport.ec.europa.eu%2F

European Commission, (2021f), Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions The New EU Urban Mobility Framework, COM/2021/811 final, Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0811&qid=1644666550402#footnote13>

European Commission. (2021g). *Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast)*. Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0802>

European Commission, (2021h), Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, Regulation (EU) 2021/241. Retrieved from <http://data.europa.eu/eli/reg/2021/241/oj>.

European Commission, (2021i), Regulation (EU) 2021/1153 of the European Parliament and of the Council of 7 July 2021 establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU) No 283/2014 (Text with EEA relevance). Retrieved from <https://eur-lex.europa.eu/eli/reg/2021/1153>.

European Commission. (2021j). *Road safety thematic report – Personal Mobility Devices*. European Road Safety Observatory. Retrieved from Brussels, European Commission, Directorate General for Transport.: https://road-safety.transport.ec.europa.eu/system/files/2021-07/road_safety_thematic_report_personal_mobility_devices_tc_final.pdf

European Commission. (2021k). *Special Eurobarometer 513 Climate Change* Retrieved from <https://europa.eu/eurobarometer/surveys/detail/2273>

European Commission. (2021l), *Strategy for the Rights of Persons with Disabilities 2021–2030*, Retrieved from <https://ec.europa.eu/social/main.jsp?catId=1484&langId=en>.

European Commission. (2021m), *Sustainable and Smart Mobility Strategy. Putting European transport on track for the future*. Retrieved from <https://transport.ec.europa.eu/system/files/2021-04/2021-mobility-strategy-and-action-plan.pdf>

European Commission. (2022a). *COM(2022) 231 final - REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Regulation (EU) 2021/241 as regards REPowerEU chapters in recovery and resilience plans and amending Regulation (EU) 2021/1060, Regulation (EU) 2021/2115, Directive 2003/87/EC and Decision (EU) 2015/1814*.

European Commission. (2022b). *Consequences of climate change*. Retrieved from https://climate.ec.europa.eu/climate-change/consequences-climate-change_en

European Commission. (2022c). *Fairness perceptions of the green transition - Special Eurobarometer 527 Report*. Retrieved from <https://europa.eu/eurobarometer/surveys/detail/2672>

European Commission. (2022d). *RepowerEU Plan*. Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

- European Commission. (2022e), *Towards a green, digital and resilient economy: our European Growth Model*, Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0083&qid=1655798743597>.
- European Commission. (2023a). *2023 report on gender equality in the EU*. Retrieved from Luxembourg: https://commission.europa.eu/system/files/2023-04/annual_report_GE_2023_web_EN.pdf
- European Commission. (2023b). Pact for Skills: Launch of large-scale renewable energy skills partnership [Press release]. Retrieved from <https://ec.europa.eu/social/main.jsp?langId=en&catId=89&furtherNews=yes&newsId=10530>
- European Commission. (n.d). Women's situation in the labour market. Retrieved from https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/women-labour-market-work-life-balance/womens-situation-labour-market_en
- European Parliament. (2020). *Tackling violence against women and domestic violence in Europe -The added value of the Istanbul Convention and remaining challenges*. Retrieved from [https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658648/IPOL_STU\(2020\)658648_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/658648/IPOL_STU(2020)658648_EN.pdf)
- European Parliament. (2022). Fit for 55: Deal on carbon sinks goal will increase EU 2030 climate target [Press release]. Retrieved from <https://www.europarl.europa.eu/news/en/press-room/20221107IPR49206/fit-for-55-deal-on-carbon-sinks-goal-will-increase-eu-2030-climate-target>
- European Parliament. (2023). Nature restoration law: MEPs adopt position for negotiations with Council [Press release]. Retrieved from <https://www.europarl.europa.eu/news/en/press-room/20230707IPR02433/nature-restoration-law-meps-adopt-position-for-negotiations-with-council>
- DIRECTIVE2003/87/EC OF THE EUROPEANPARLIAMENTANDOFTHECOUNCIL of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (Text with EEA relevance), (2003).
- Regulation (EU) 2023/955 of the European Parliament and of The Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060, (2023).
- Eurostat. (2020). Transport accident statistics. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Transport_accident_statistics
- Eurostat. (2022). Greenhouse gas emissions falling in most source sectors. Retrieved from <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20220823-1>
- Feenstra, M. (2021). *Gender just energy policy : engendering the energy transition in Europe*. University of Twente, Enschede, the Netherlands.
- Ferrant, G., Pesando, L. M., and Nowacka, K. (2014). Unpaid Care Work: The missing link in the analysis of gender gaps in labour outcomes. *Boulogne Billancourt: OECD Development Center*.
- Fisher, S. D., Kenny, J., Poortinga, W., Böhm, G., and Steg, L. (2022). The politicisation of climate change attitudes in Europe. *Electoral Studies*, 79, 102499.

- Fitt, H., and Curl, A. (2019). E-scooter use in New Zealand: Insights around some frequently asked questions. *University of Canterbury: Christchurch, New Zealand*.
- Fowler, T., Southgate, R. J., Waite, T., Harrell, R., Kovats, S., Bone, A.,...Murray, V. (2015). Excess Winter Deaths in Europe: a multi-country descriptive analysis. *European Journal of Public Health*, 25(2), 339-345. doi:10.1093/eurpub/cku073
- FRA. (2014). *Violence against women: an EU-wide survey. Main results report*. Retrieved from <https://fra.europa.eu/en/publication/2014/violence-against-women-eu-wide-survey-main-results-report>
- FRA. (2016). *Fundamental Rights Report 2016*. Retrieved from http://fra.europa.eu/sites/default/files/fra_uploads/fra-2016-fundamental-rights-report-2016-2_en.pdf
- FRA. (2017). *Challenges to women's human rights in the EU Gender discrimination, sexist hate speech and gender-based violence against women and girl*. Retrieved from <https://fra.europa.eu/en/publication/2017/challenges-womens-human-rights-eu>
- FRA. (2019). *Second European Union Minorities and Discrimination Survey - Migrant women - selected findings*. Retrieved from <https://fra.europa.eu/en/publication/2019/second-european-union-minorities-and-discrimination-survey-migrant-women-selected>
- FRA. (2020). *A long way to go for LGBTI equality*. Retrieved from <https://fra.europa.eu/en/publication/2020/eu-lgbti-survey-results>
- Frey, R., and Röhr, U. (2020). *Das Konjunkturpaket zur Überwindung der Corona-Krise aus Geschlechter- und Klimaperspektive*. Retrieved from https://www.genanet.de/fileadmin/user_upload/dokumente/Themen/Corona/20200910-GIA-Konjunkturpaket.pdf
- Galvin, R., and Sunikka-Blank, M. (2018). Economic Inequality and Household Energy Consumption in High-income Countries: A Challenge for Social Science Based Energy Research. *Ecological Economics*, 153, 78-88. doi:10.1016/j.ecolecon.2018.07.003
- Ganzleben, C., and Kazmierczak, A. (2020). Leaving no one behind—understanding environmental inequality in Europe. *Environmental Health*, 19(1), 1-7.
- Gatto, A. (2022). The energy futures we want: A research and policy agenda for energy transitions. *Energy Research & Social Science*, 89, 102639. doi:10.1016/j.erss.2022.102639
- Giannelos, I., Smit, G., Lakamp, R., Gonzalez Martinez, A.-R., Dorantes, L. M., Doll, C.,...Vroonhof, P. (2019). *Business case to increase female employment in transport: final report*. Retrieved from <https://op.europa.eu/en/publication-detail/-/publication/6f833428-54f9-11e9-a8ed-01aa75ed71a1>
- Gil Solá, A. (2016). Constructing work travel inequalities: The role of household gender contracts. *Journal of Transport Geography*, 53, 32-40. doi:10.1016/j.jtrangeo.2016.04.007
- Global Environmental Facility. (2009). *Mainstreaming Gender at the GEF*. Retrieved from https://www.thegef.org/sites/default/files/publications/Mainstreaming_Gender_Eng_3.pdf
- Global Gender and Climate Alliance. (2016b). *Gender and climate change: A closer look at existing evidence*. Retrieved from <https://wedo.org/wp-content/uploads/2016/11/GGCA-RP-FINAL.pdf>

- Gore, T., and Alestig, M. (2020). Confronting carbon inequality in the European Union: Why the European Green Deal must tackle inequality while cutting emissions. *Oxfam Int. J.*, 1-12.
- Gorrini, A., Choubassi, R., Messa, F., Saleh, W., Ababio-Donkor, A., Leva, M. C.,...Aragón, P. (2021). Unveiling Women's Needs and Expectations as Users of Bike Sharing Services: The H2020 DIAMOND Project. *Sustainability*, 13(9), 5241. doi:10.3390/su13095241
- Gössling, S. (2020). Integrating e-scooters in urban transportation: Problems, policies, and the prospect of system change. *Transportation Research Part D: Transport and Environment*, 79, 102230.
- Gough, B., and Novikova, I. (2020). *Mental health, men and culture: how do sociocultural constructions of masculinities relate to men's mental health help-seeking behaviour in the WHO European Region?* Copenhagen: WHO.
- Green, J., and Shorrocks, R. (2023). The gender backlash in the vote for Brexit. *Political Behavior*, 45(1), 347-371.
- Greens, T. (2021). *Green Jobs: Successes and Opportunities for Europe*. Retrieved from https://www.greens-efa.eu/legacy/fileadmin/dam/Documents/Publications/GND/Green_jobs_EN_01.pdf
- Griswold, M. G., Fullman, N., Hawley, C., Arian, N., Zimsen, S. R., Tymeson, H. D.,...Salama, J. S. (2018). Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, 392(10152), 1015-1035.
- Grünewald, P., and Diakonova, M. (2020). Societal differences, activities, and performance: Examining the role of gender in electricity demand in the United Kingdom. *Energy Research & Social Science*, 69, 101719. doi:10.1016/j.erss.2020.101719
- Harville, E. W., Taylor, C. A., Tesfai, H., Xiong, X., and Buekens, P. (2011). Experience of Hurricane Katrina and reported intimate partner violence. *Journal of Interpersonal Violence*, 26(4), 833-845.
- Haselsteiner, E. (2021). *Gender Matters! Thermal Comfort and Individual Perception of Indoor Environmental Quality: A Literature Review*. Retrieved from https://link.springer.com/chapter/10.1007/978-3-030-71819-0_9
- Haulbold, H. (2014). *Commuting: Who Pays The Bill? Overview of fiscal regimes for commuting in Europe and recommendations for establishing a level playing-field*. Retrieved from https://ecf.com/sites/ecf.com/files/141117-Commuting-Who-Pays-The-Bill_2.pdf
- Heffernan, R., Heidegger, P., Köhler, G., Stock, A., and Wiese, K. (2021). *A Feminist European Green Deal Towards an Ecological and Gender Just Transition*. Retrieved from <https://eeb.org/wp-content/uploads/2022/03/18990.pdf>
- Helfferrich, B. (2020). *Making the Transport Sector Fit for Women to Work in. Findings from a survey of women transport workers by the European Transport Workers' Federation (ETF)*. Retrieved from <https://www.etf-europe.org/activity/yes-more-women-in-transport-make-transport-fit-for-women-to-work-in/>
- Hortelano, A. O., Grosso, M., Haq, G., and Tsakalidis, A. (2021). Women in Transport Research and Innovation: A European Perspective. *Sustainability*, 13(12), 6796. doi:10.3390/su13126796

- IEA. (2020). Gender diversity in energy: what we know and what we don't know – Analysis. IEA.
- IEA. (2021). *Women in senior management roles at energy firms remains stubbornly low, but efforts to improve gender diversity are moving apace*. Retrieved from <https://www.iea.org/commentaries/women-in-senior-management-roles-at-energy-firms-remains-stubbornly-low-but-efforts-to-improve-gender-diversity-are-moving-apace>
- IEA. (2023). Gender and Energy Data Explorer. Retrieved from <https://www.iea.org/data-and-statistics/data-tools/gender-and-energy-data-explorer?Topic=Innovation&Indicator=Share+of+patents+with+at+least+one+female+inventor+%28fractional+patent+count+by+inventor+country+of+residence%29>
- ILO. (2018). *Care work and care jobs for the future of decent work*. Retrieved from https://www.ilo.org/global/publications/books/WCMS_633135/lang--en/index.htm
- ILO, (2022), 'Just transition: An essential pathway to achieving gender equality and social justice', Retrieved from https://www.ilo.org/global/topics/green-jobs/publications/just-transition-pb/WCMS_860569/lang--en/index.htm
- Inglehart, R., and Norris, P. (2000). The developmental theory of the gender gap: Women's and men's voting behavior in global perspective. *International Political Science Review*, 21(4), 441-463.
- Insecurity Insight. (2022). *Sexual Violence and the Ukraine Conflict*. Retrieved from <https://insecurity-insight.org/wp-content/uploads/2022/04/Ukraine-Rape-As-A-Weapon-of-War-April-2022.pdf>
- Inter-Parliamentary Union. (2016). *Sexism, harassment and violence against women parliamentarians*. Retrieved from <http://archive.ipu.org/pdf/publications/issuesbrief-e.pdf>
- International Society of Women Airline Pilots. (2020). *How Major Airlines are Measuring up on Gender Equality in the flight deck*. Retrieved from <https://isa21.org/media/>
- IPCC. (2022). *Climate Change 2022: Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved from <https://www.ipcc.ch/report/ar6/wg2/>
- IRENA. (2019). *Renewable Energy: A Gender Perspective*. Retrieved from https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Jan/IRENA_Gender_perspective_2019.pdf?rev=bed1c40882e54e4da21002e3e1939e3d
- IRENA. (2020). *Wind energy: A gender perspective*. Retrieved from <https://www.irena.org/publications/2020/Jan/Wind-energy-A-gender-perspective>
- IRENA. (2022). *Solar PV: A gender perspective*. Retrieved from <https://www.irena.org/Publications/2022/Sep/Solar-PV-Gender-Perspective>.
- Islam, N., Shkolnikov, V. M., Acosta, R. J., Klimkin, I., Kawachi, I., Irizarry, R. A.,...Jdanov, D. A. (2021). Excess deaths associated with covid-19 pandemic in 2020: age and sex disaggregated time series analysis in 29 high income countries. *bmj*, 373(n1137). doi:10.1136/bmj.n1137
- ITF. (2018). *Women's Safety and Security A Public Transport Priority*. Retrieved from <https://www.itf-oecd.org/womens-safety-security>

- Ivanova, D., and Wood, R. (2020). The unequal distribution of household carbon footprints in Europe and its link to sustainability. *Global Sustainability*, 3, e18.
- Jaccard, I. S., Pichler, P.-P., Többen, J., and Weisz, H. (2021). The energy and carbon inequality corridor for a 1.5° C compatible and just Europe. *Environmental Research Letters*, 16(6), 064082.
- Janta, B., Kritikos, E., and Clack, T. (2023). The green transition in the labour market: how to ensure equal access to green skills across education and training systems. *EENEE Analytical report*. doi, 10, 563345.
- Jenkins, P., and Phillips, B. (2008). Battered women, catastrophe, and the context of safety after Hurricane Katrina. *NWSA journal*, 20(3), 49-68.
- Joelsson, T., and Scholten, C. L. (2019). Towards a Feminist Transport and Mobility Future: From One to Many Tracks. In C. L. Scholten & T. Joelsson (Eds.), *Integrating Gender into Transport Planning* (pp. 271-282). Cham: Springer International Publishing.
- Kaijser, A., and Kronsell, A. (2014). Climate change through the lens of intersectionality. *Environmental Politics*, 23(3), 417-433. doi:10.1080/09644016.2013.835203
- Kåresdotter, E., Page, J., Mörtberg, U., Näsström, H., and Kalantari, Z. (2022). First Mile/Last Mile Problems in Smart and Sustainable Cities: A Case Study in Stockholm County. *Journal of Urban Technology*, 29(2), 115-137. doi:10.1080/10630732.2022.2033949
- Kawgan-Kagan, I., and Popp, M. (2018). Sustainability and Gender: a mixed-method analysis of urban women's mode choice with particular consideration of e-carsharing. *Transportation Research Procedia*, 31, 146-159. doi:10.1016/j.trpro.2018.09.052
- Kazmierczak, A., Lowe, R., van Daalen, K. R., Johnson, K., Dasgupta, S., and Robinson, E. (2022). Climate change as a threat to health and well-being in Europe: focus on heat and infectious diseases.
- Kellokumpu, J. (2007). *Baby and pay: The family gap in Finland*. Retrieved from <https://www.slideshare.net/PT-tiedotus/baby-and-pay-the-family-gap-in-finland>
- Kester, J., Sovacool, B. K., de Rubens, G. Z., and Noel, L. (2020). Novel or normal? Electric vehicles and the dialectic transition of Nordic automobility. *Energy Research & Social Science*, 69, 101642.
- Kilian, C., O'Donnell, A., Potapova, N., López-Pelayo, H., Schulte, B., Miquel, L.,...Rehm, J. (2022). Changes in alcohol use during the COVID-19 pandemic in Europe: a meta-analysis of observational studies. *Drug and alcohol review*, 41(4), 918-931.
- Kopsakangas-Savolainen, M., and Juutinen, A. (2013). Energy consumption and savings: A survey-based study of Finnish households. *Journal of Environmental Economics and Policy*, 2(1), 71-92. doi:10.1080/21606544.2012.755758
- Koukoufikis, G., and Uihlein, A. (2022). *Energy Poverty, Transport Poverty and Living Conditions: An Analysis of EU Data and Socioeconomic Indicators*.

- Kronsell, A., Smidfelt Rosqvist, L., and Winslott Hiselius, L. (2016). Achieving climate objectives in transport policy by including women and challenging gender norms: The Swedish case. *International journal of sustainable transportation*, 10(8), 703-711. doi:10.1080/15568318.2015.1129653
- Kumar, R. R., and Alok, K. (2020). Adoption of electric vehicle: A literature review and prospects for sustainability. *Journal of Cleaner Production*, 253, 119911. doi:10.1016/j.jclepro.2019.119911
- Kwauk, C. T., and Casey, O. M. (2021). A new green learning agenda: Approaches to quality education for climate action. Retrieved from <https://www.brookings.edu/wp-content/uploads/2021/01/Brookings-Green-Learning-FINAL.pdf>
- Laa, B., and Leth, U. (2020). Survey of E-scooter users in Vienna: Who they are and how they ride. *Journal of Transport Geography*, 89, 102874. doi:10.1016/j.jtrangeo.2020.102874
- Lenz, B. (2020). Smart Mobility – for all? Gender issues in the context of new mobility concepts. In T. P. Uteng, H. R. Christensen, & L. Levin (Eds.), *Gendering Smart Mobilities*. New York: Routledge.
- Liboreiro, J., and Zsíros, S. (2023). Nature Restoration Law survives first crucial vote in the EU Parliament but uncertainty remains high. Retrieved from <https://www.euronews.com/my-europe/2023/06/15/nature-restoration-law-survives-first-crucial-vote-in-the-eu-parliament-but-uncertainty-re>
- Littig, B. (2017). Good Green Jobs for Whom?: A feminist critique of the green economy. In *Routledge Handbook of Gender and Environment*: Routledge.
- Lopes, M. A. R., Antunes, C. H., and Martins, N. (2015). Towards more effective behavioural energy policy: An integrative modelling approach to residential energy consumption in Europe. *Energy Research & Social Science*, 7, 84-98. doi:10.1016/j.erss.2015.03.004
- Lucas, K., Mattioli, G., Verlinghieri, E., and Guzman, A. (2016). Transport poverty and its adverse social consequences. *Proceedings of the Institution of Civil Engineers - Transport*, 169(6), 353-365. doi:10.1680/jtran.15.00073
- Lundberg, S., and Rose, E. (2000). Parenthood and the earnings of married men and women. *Labour Economics*, 7(6), 689-710.
- MacGregor, S., Arora-Jonsson, S., and Cohen, M. (2022). *Caring in a changing climate: Centering care work in climate action*. Retrieved from
- Madariaga, I. S. (2013). From Women In Transport To Gender In Transport: Challenging Conceptual Frameworks For Improved Policymaking. *Journal of International Affairs*, 67(1), 43-65.
- Madariaga, I. S. d., and Zucchini, E. (2019). Measuring Mobilities of Care, a Challenge for Transport Agendas. In *Integrating Gender into Transport Planning*: Palgrave Macmillan.
- Maj, M., Rabięga, W., Szpor, A., Cabras, S., Marcu, A., and Fazekas, D. (2021). *Impact on Households of the Inclusion of Transport and Residential Buildings in the EU ETS*. Retrieved from <https://ercst.org/impact-on-households-of-the-inclusion-of-transport-and-residential-buildings-in-the-eu-ets/>
- Matone, A., Ghirini, S., Gandin, C., and Scafato, E. (2022). Alcohol consumption and COVID-19 in Europe: how the pandemic hit the weak. *Annali dell'Istituto Superiore di Sanita*, 58(1), 6-15.

Mattioli, G. (2017). 'Forced Car Ownership' in the UK and Germany: Socio-Spatial Patterns and Potential Economic Stress Impacts. *Social Inclusion*, 5(4), 147-160. doi:10.17645/si.v5i4.1081

Mejia-Dorantes, L. (2019). Discussing measures to reduce the gender gap in transport companies: A qualitative approach. *Research in Transportation Business & Management*, 31, 100416. doi:10.1016/j.rtbm.2019.100416

Mejía Dorantes, L., and Murauskaite-Bull, I. (2022). *Transport poverty: A systematic literature review in Europe*. (JRC129559). Luxembourg: Publications Office of the European Union. Retrieved from <https://data.europa.eu/doi/10.2760/793538>

Meseguer-Santamaría, M.-L., Sánchez-Alberola, F., and Vargas-Vargas, M. (2021). Intimate partner violence against women with disabilities in Spain: A public health problem. *International journal of environmental research and public health*, 18(2), 728.

Meurs, D., Pailhé, A., and Ponthieux, S. (2010). Child-related career interruptions and the gender wage gap in France. *Annals of Economics and Statistics/Annales d'Économie et de Statistique*, 15-46.

Mintel, M. P. (2018). UK women try to live more ethically than men. *Mintel*.

Nardo, M., Saisana, M., Saltelli, A., Tarantola, S., Hoffman, A., and Giovannini, E. (2008). Handbook on constructing composite indicators: Methodology and user guide.[e-book] OECD, European Commission, Joint Research Centre.

Nelson, J. (2020). Petro-masculinity and climate change denial among white, politically conservative American males. *International Journal of Applied Psychoanalytic Studies*, 17(4), 282-295.

Nieuwenhuis, R., and Zagel, H. (2022). Housing conditions of single mothers in Europe: the role of housing policies. *European Societies*, 1-27. doi:10.1080/14616696.2022.2117835

Noth, F., and Tonzer, L. (2022). Understanding climate activism: Who participates in climate marches such as "Fridays for Future" and what can we learn from it? *Energy Research & Social Science*, 84, 102360.

OECD. (2021). *Gender and the Environment: Building Evidence and Policies to Achieve the SDGs*: OECD.

OECD. (2022). *Empowering Women in the Transition Towards Green Growth in Greece*.

OECD. (2023). Gender discrimination in social norms: Measuring the invisible Retrieved from <https://www.oecd.org/stories/gender/social-norms-and-gender-discrimination/>

OECD/ITF. (2022). *Gender equality and the role of women in decarbonising transport*. Retrieved from <https://www.itf-oecd.org/gender-equality-women-decarbonising-transport>

Office of the High Commissioner for Human Rights. (2022). Climate change exacerbates violence against women and girls. Retrieved from <https://www.ohchr.org/en/stories/2022/07/climate-change-exacerbates-violence-against-women-and-girls>

OHCHR. (2022). *Report of the Independent International Commission of Inquiry on Ukraine*. Retrieved from <https://www.ohchr.org/sites/default/files/2022-10/A-77-533-AUV-EN.pdf>

- OHCHR. (2023). *Women, girls and the right to a clean, healthy and sustainable environment - Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment*. Retrieved from <https://www.ohchr.org/en/documents/thematic-reports/ahrc5233-women-girls-and-right-clean-healthy-and-sustainable-environment>
- Orozco-Fontalvo, M., Llerena, L., and Cantillo, V. (2022). Dockless electric scooters: A review of a growing micromobility mode. *International journal of sustainable transportation*, 1-17. doi:10.1080/15568318.2022.2044097
- Ortiz-Ospina, E., and Roser, M. (2018). Economic inequality by gender. *Our World in Data*.
- Papadimitriou, E., Casabianca, E., and Cabeza Martinez, B. (2023). Energy poverty and gender in the EU: the missing debate. Retrieved from <https://publications.jrc.ec.europa.eu/repository/handle/JRC132612>
- Papantonis, D., Tzani, D., Burbidge, M., Stavrakas, V., Bouzarovski, S., and Flamos, A. (2022). How to improve energy efficiency policies to address energy poverty? Literature and stakeholder insights for private rented housing in Europe. *Energy Research & Social Science*, 93, 102832. doi:10.1016/j.erss.2022.102832
- Papp, Z. (2022). Environmental attitudes, environmental problems and party choice. A large-N comparative study. *Political Geography*, 97, 102652.
- Park, C. S., Liu, Q., and Kaye, B. K. (2021). Analysis of ageism, sexism, and ableism in user comments on YouTube videos about climate activist Greta Thunberg. *Social Media+ Society*, 7(3), 20563051211036059.
- Pearl-Martinez, R., and Stephens, J. C. (2016). Toward a gender diverse workforce in the renewable energy transition. *Sustainability: Science, Practice and Policy*, 12(1), 8-15. doi:10.1080/15487733.2016.11908149
- Pillinger, J. (2017). *Violence against women at work in transport. Summary report of findings from a survey by ETF*. Retrieved from https://www.etf-europe.org/wp-content/uploads/2018/09/ETF-summary-report-VAW-at-work-in-transport_EN.pdf
- Poortinga, W., Whitmarsh, L., Steg, L., Böhm, G., and Fisher, S. (2019). Climate change perceptions and their individual-level determinants: A cross-European analysis. *Global environmental change*, 55, 25-35.
- Prati, G., Fraboni, F., De Angelis, M., Pietrantonio, L., Johnson, D., and Shires, J. (2019). Gender differences in cycling patterns and attitudes towards cycling in a sample of European regular cyclists. *Journal of Transport Geography*, 78, 1-7. doi:10.1016/j.jtrangeo.2019.05.006
- Pulé, P., and Hultman, M. (2019). Industrial/breadwinner masculinities: Understanding the complexities of climate change denial. In *Climate hazards, disasters, and gender ramifications* (pp. 86-97): Routledge.
- Ramboll. (2021). *Gender and (Smart) Mobility Green Paper 2021*. Retrieved from https://ramboll.com/-/media/files/rgr/documents/markets/transport/g/gender-and-mobility_report.pdf.

Räty, R., and Carlsson-Kanyama, A. (2010). Energy consumption by gender in some European countries. *Energy policy*, 38(1), 646-649.

Recalde, M., Peralta, A., Oliveras, L., Tirado-Herrero, S., Borrell, C., Palència, L.,...Marí-Dell'Olmo, M. (2019). Structural energy poverty vulnerability and excess winter mortality in the European Union: Exploring the association between structural determinants and health. *Energy policy*, 133, 110869. doi:10.1016/j.enpol.2019.07.005

Romanello, M., van Daalen, K., Anto, J. M., Dasandi, N., Drummond, P., Hamilton, I. G.,...Rocklöv, J. (2021). Tracking progress on health and climate change in Europe. *The Lancet Public Health*, 6(11), e858-e865.

Rutovitz, J., and Atherton, A. (2009). *Energy sector jobs to 2030: a global analysis*. Retrieved from Greenpeace International:

Sánchez de Madariaga, I., and Neuman, M. (2020). *Engendering cities: designing sustainable urban spaces for all* (I. Sánchez de Madariaga & M. Neuman Eds.). New York, NY: Routledge.

Sansonetti, S., and Davern, E. (2021). *Women and transport*. EPRS: European Parliamentary Research Service. Retrieved from <https://policycommons.net/artifacts/2210637/women-and-transport/2967029/>.

Sanz-Barbero, B., Linares, C., Vives-Cases, C., González, J. L., López-Ossorio, J. J., and Díaz, J. (2018). Heat wave and the risk of intimate partner violence. *Science of the total environment*, 644, 413-419.

Scheiner, J., and Holz-Rau, C. (2017). Women's complex daily lives: a gendered look at trip chaining and activity pattern entropy in Germany. *Transportation*, 44(1), 117-138. doi:10.1007/s11116-015-9627-9

Schleich, J. (2019). Energy efficient technology adoption in low-income households in the European Union – What is the evidence? *Energy policy*, 125, 196-206. doi:10.1016/j.enpol.2018.10.061

Seidler, Z. E., Dawes, A. J., Rice, S. M., Oliffe, J. L., and Dhillon, H. M. (2016). The role of masculinity in men's help-seeking for depression: A systematic review. *Clinical Psychology Review*, 49, 106-118. doi:10.1016/j.cpr.2016.09.002

Shakil, M. H., Munim, Z. H., Zamore, S., and Tasnia, M. (2022). Sustainability and financial performance of transport and logistics firms: Does board gender diversity matter? *Journal of Sustainable Finance & Investment*, 1-16. doi:10.1080/20430795.2022.2039998

Simcock, N., Jenkins, K. E. H., Lacey-Barnacle, M., Martiskainen, M., Mattioli, G., and Hopkins, D. (2021). Identifying double energy vulnerability: A systematic and narrative review of groups at-risk of energy and transport poverty in the global north. *Energy Research & Social Science*, 82, 102351. doi:10.1016/j.erss.2021.102351

Special Representative of the Secretary-General on Sexual Violence in Conflict. (2022). *Framework for the prevention of conflict-related sexual violence*. Retrieved from <https://www.un.org/sexualviolenceinconflict/framework-for-the-prevention-of-conflict-related-sexual-violence/>

- Sraieb, M. M., and Labadze, L. (2022). A Dynamic Perspective on the Gender Diversity–Firms' Environmental Performances Nexus: Evidence from the Energy Industry. *Sustainability*, 14(12), 7346. doi:10.3390/su14127346
- Standal, K., Talevi, M., and Westskog, H. (2020). Engaging men and women in energy production in Norway and the United Kingdom: The significance of social practices and gender relations. *Energy Research & Social Science*, 60, 101338. doi:10.1016/j.erss.2019.101338
- Strengers, Y., Gram-Hanssen, K., and kryger Aagaard, L. (2022). Energy, emerging technologies and gender in homes. *Buildings and Cities*, 3(1), 842-853.
- Thaller, A., Fleiß, E., and Brudermann, T. (2020). No glory without sacrifice—drivers of climate (in) action in the general population. *Environmental Science & Policy*, 114, 7-13.
- Thompson, R., Hornigold, R., Page, L., and Waite, T. (2018). Associations between high ambient temperatures and heat waves with mental health outcomes: a systematic review. *Public health*, 161, 171-191.
- Thomson, H., and Bouzarovski, S. (2018). *Addressing Energy Poverty in the European Union: State of Play and Action*. Retrieved from https://energy-poverty.ec.europa.eu/system/files/2022-04/paneureport2018_updated2019.pdf
- Tiikkaja, H., and Liimatainen, H. (2021). Car access and travel behaviour among men and women in car deficient households with children. *Transportation Research Interdisciplinary Perspectives*, 10, 100367. doi:10.1016/j.trip.2021.100367
- Tjørring, L. (2016). We forgot half of the population! The significance of gender in Danish energy renovation projects. *Energy Research & Social Science*, 22, 115-124. doi:10.1016/j.erss.2016.08.008
- Tjørring, L., Jensen, C. L., Hansen, L. G., and Andersen, L. M. (2018). Increasing the flexibility of electricity consumption in private households: Does gender matter? *Energy policy*, 118, 9-18. doi:10.1016/j.enpol.2018.03.006
- Trappe, H., and Rosenfeld, R. A. (2000). How do children matter? A comparison of gender earnings inequality for young adults in the former East Germany and the former West Germany. *Journal of Marriage and Family*, 62(2), 489-507.
- Umit, R., Poortinga, W., Jokinen, P., and Pohjolainen, P. (2019). The role of income in energy efficiency and curtailment behaviours: Findings from 22 European countries. *Energy Research & Social Science*, 53, 206-214. doi:10.1016/j.erss.2019.02.025
- UN. (2022a). *Conflict Related Sexual Violence Report of the United Nations Secretary General*. Retrieved from <https://www.un.org/sexualviolenceinconflict/wp-content/uploads/2022/04/auto-draft/SG-Report2021for-web.pdf>
- UN. (2022b). *Violence against women and girls in the context of the climate crisis, including environmental degradation and related disaster risk mitigation and response*. Retrieved from <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/418/07/PDF/N2241807.pdf?OpenElement>
- UN Women. (2022). *Rapid Gender Analysis of Ukraine*. Retrieved from <https://www.unwomen.org/sites/default/files/2022-05/Rapid-Gender-Analysis-of-Ukraine-en.pdf>

- UNESCO. (2017). *Cracking the code girls' and women's education in science, technology, engineering and mathematics (STEM)*. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000253479>
- UNFCCC Secretariat. (2022). *Gender composition and progress on implementation Report by the secretariat*. Retrieved from https://unfccc.int/sites/default/files/resource/cp2022_3_adv.pdf
- Uteng, T. P., Christensen, H. R., and Levin, L. (2020). *Gendering smart mobilities* (T. P. Uteng, H. R. Christensen, & L. Levin Eds.). London;New York: Routledge, Taylor & Francis Group.
- Uteng, T. P., Espegren, H. M., Throndsen, T. S., and Böcker, L. (2020). The gendered dimension of multimodality: exploring the bike-sharing scheme in Oslo. In T. P. Uteng, H. R. Christensen, & L. Levin (Eds.), *Gendering Smart Mobilities*. New York: Routledge.
- Vagnoni, E., and Moradi, A. (2018). Local government's contribution to low carbon mobility transitions. *Journal of Cleaner Production*, 176, 486-502. doi:10.1016/j.jclepro.2017.11.245
- van Daalen, K. R., Kallesøe, S. S., Davey, F., Dada, S., Jung, L., Singh, L.,...Keygnaert, I. (2022). Extreme events and gender-based violence: a mixed-methods systematic review. *The Lancet Planetary Health*, 6(6), e504-e523.
- van Daalen, K. R., Romanello, M., Rocklöv, J., Semenza, J. C., Tonne, C., Markandya, A.,...Ballester, J. (2022). The 2022 Europe report of the Lancet Countdown on health and climate change: towards a climate resilient future. *The Lancet Public Health*, 7(11), e942-e965.
- Vignoli, D., Tanturri, M. L., and Acciai, F. (2016). Home bitter home? Gender, living arrangements, and the exclusion from homeownership among older Europeans. 72(1). doi:10.1186/s41118-016-0014-y
- Vilchez, G., Smyth, Kelleher, Lu, Rohr, Harrison, and Thiel. (2019). Electric Car Purchase Price as a Factor Determining Consumers' Choice and their Views on Incentives in Europe. *Sustainability*, 11(22), 6357. doi:10.3390/su11226357
- Vowles, K., and Hultman, M. (2021). Dead White men vs. Greta Thunberg: Nationalism, Misogyny, and Climate Change Denial in Swedish far-right Digital Media. *Australian Feminist Studies*, 36(110), 414-431. doi:10.1080/08164649.2022.2062669
- Wahlström, M., Sommer, M., Kocyba, P., De Vydt, M., De Moor, J., Davies, S.,...Uba, K. (2019). Protest for a future: Composition, mobilization and motives of the participants in Fridays For Future climate protests on 15 March, 2019 in 13 European cities.
- Wallsten, A., Henriksson, M., and Isaksson, K. (2022). The Role of Local Public Authorities in Steering toward Smart and Sustainable Mobility: Findings from the Stockholm Metropolitan Area. *Planning Practice & Research*, 37(5), 532-546. doi:10.1080/02697459.2021.1874638
- WEFC. (2022). *Women's empowerment in the energy sector: manual with concepts, ideas, projects and initiatives for decentralised, renewable and gender-just solutions*. Retrieved from <https://www.wecf.org/womens-empowerment-in-the-energy-sector-manual/>
- Wei-Shiuen, N., and Acker, A. (2018). *Understanding Urban Travel Behaviour by Gender for Efficient and Equitable Transport Policies* (2018/01). Retrieved from <https://doi.org/10.1787/eaf64f94-en>.

- Weintrob, A., Hansell, L., Zebracki, M., Barnard, Y., and Lucas, K. (2021). Queer mobilities: critical LGBTQ perspectives of public transport spaces. *Mobilities*, 16(5), 775-791. doi:10.1080/17450101.2021.1958249
- Wheatley, D. (2012). Work-life balance, travel-to-work, and the dual career household. *Personnel Review*, 41(6), 813-831. doi:10.1108/00483481211263764
- White, M. (2021). Greta Thunberg is 'giving a face' to climate activism: confronting anti-feminist, anti-environmentalist, and ableist memes. *Australian Feminist Studies*, 36(110), 396-413.
- Whittenbury, K. (2013). Climate change, women's health, wellbeing and experiences of gender based violence in Australia. In *Research, action and policy: Addressing the gendered impacts of climate change* (pp. 207-221): Springer.
- WHO. (2018). *Global status report on alcohol and health*. Retrieved from <https://www.who.int/publications/i/item/9789241565639>
- WHO. (2020). *WHO guidelines on physical activity and sedentary behaviour*. Retrieved from <https://www.who.int/publications/i/item/9789240015128>
- WHO. (2022). Household air pollution. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>
- WHO Regional Office for Europe. (2020). *Alcohol consumption and sustainable development: fact sheet on Sustainable Development Goals (SDGs): health targets*. Retrieved from <https://apps.who.int/iris/handle/10665/340806>
- WHO Regional Office for Europe. (2023). At least 17 million people in the WHO European Region experienced long COVID in the first two years of the pandemic; millions may have to live with it for years to come [Press release]. Retrieved from <https://www.who.int/europe/news/item/13-09-2022-at-least-17-million-people-in-the-who-european-region-experienced-long-covid-in-the-first-two-years-of-the-pandemic-millions-may-have-to-live-with-it-for-years-to-come>
- WMO. (2022). *State of the Climate in Europe 2021*. Retrieved from https://library.wmo.int/index.php?lvl=notice_display&id=22152#.ZDaX2-ZByUm
- Zagorskis, J., and Burinskienė, M. (2020). Challenges Caused by Increased Use of E-Powered Personal Mobility Vehicles in European Cities. *Sustainability*, 12 (1), 273.

Annexes

Annex 1. List of indicators of the Gender Equality Index

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition							
						2013	2015	2017	2019	2020	2021	2022	2023
						Data used							
WORK	PARTICIPATION	1	Full-time equivalent employment rate (% , 15+ population)	The full-time equivalent (FTE) employment rate is a unit to measure employed persons in a way that makes them comparable even though they may work a different number of hours per week. A full-time worker is counted as one FTE, while a part-time worker gets a score in proportion to the hours she or he works.	Eurostat, EU LFS, EIGE's calculation with microdata	2010	2012	2015	2017	2018	2019	2020	2021 Break in times series 15-89 population
		2	Duration of working life (years, 15+ population)	The duration of working life indicator (DWL) measures the number of years a person aged 15 is expected to be active in the labour market throughout his/her life.	Eurostat, EU-LFS, (lfsi_dwl_a)	2010	2012	2015	2017	2018	2019	2020	2021
	SEGREGATION AND QUALITY OF WORK	3	Employed people in Education, Human Health and Social Work activities (% , 15+ employed)	Percentage of people employed in P. Education and Q. Human health and social work economic activities out of total employed (based on NACE Rev 2).	Eurostat, EU LFS, (lfsa_egan2)	2010	2012	2015	2017	2018	2019	2020	2021 Break in times series 15-89 population
		4	Ability to take an hour or two off during working hours to take care of personal or family matters (% , 15+ workers)	Percentage of persons who consider 'very easy' to take an hour or two off during working hours to take care of personal or family matters.	Eurofound, EWCS, EWCTS, microdata calculations	2015	2015	2015	2015	2015	2015	2015	2021 Break in times series EWCTS (Telephone survey)

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition							
						2013	2015	2017	2019	2020	2021	2022	2023
						Data used							
WORK	SEGREGATION AND QUALITY OF WORK	5	Career Prospects Index (points, 0-100)	The Career Prospects Index combines the indicators of employment status (self-employed or employee), type of contract, the prospects for career advancement as perceived by the worker, perceived likelihood of losing one's job and experience of downsizing in the organisation. It is measured on a scale of 0-100, where the higher the score, the higher the job quality.	Eurofound, EWCS, microdata calculations	2015	2015	2015	2015	2015	2015	2015	2015
MONEY	FINANCIAL RESOURCES	6	Mean monthly earnings (PPS, working population)	Mean monthly earnings in PPS (Purchasing Power Standard), in the sectors of Industry, construction and services (except public administration, defence, compulsory social security) (NACE_R2: B-S_X_O, total age group, working in companies 10 employees or more)	Eurostat, SES, (earn_ses10_20), (earn_ses14_20), (earn_ses18_20)	2010	2010	2014	2014	2014	2018	2018	2018
	8	Not-at-risk-of-poverty, ≥60 % of median income (%16+ population)	Eurostat, EU SILC, (ilc_li02)	2010	2012	2015	2017	2018	2019	2020	2021 LU: break in times series		
												9	S20/S80 income quintile share (16+ population)
								IE 2014					

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition							
						2013	2015	2017	2019	2020	2021	2022	2023
						Data used							
KNOWLEDGE	ATTAINMENT AND PARTICIPATION	10	Graduates of tertiary education (% , 15+ population)	Educational attainment measures the share of high-educated people among men and women. People with tertiary education as their highest level successfully completed (levels 5-8), percentage from total +15 population	Eurostat, EU LFS, EIGE's calculation with microdata	2010	2012	2015	2017	2018	2019	2020	2021 Break in times series 15-89 population
		11	People participating in formal or non-formal education and training (% , 15+ population)	Percentage of people participating in formal or non-formal education and training, out of total population of 15+.	Eurostat, EU LFS, EIGE's calculation with microdata	2010	2012	2015	2017	2018	2019	2020	2021 Break in times series 15-74 population
KNOWLEDGE	SEGREGATION	12	Tertiary students in the fields of Education, Health and Welfare, Humanities and Art (tertiary students) (% , 15+ population)	Percentage of persons who are studying in: F01 - Education F02 - Arts and humanities F09 - Health and welfare, in ISCED 5-8 levels of education.	Eurostat, Education statistics, (educ_enr15), (educ_uoe_enrt03)	2010	2012	2015	2017	2017	2018	2020	2021
					LU 2011	EL, IE, 2014	BG, CZ, IE, EL, FR, HR, IT, CY, HU, MT, PT, RO, SK, FI, SE, UK. 2016. SI, ED7 (Master or equivalent) n/a, 2016 used	SI, ED7 (Master or equivalent) n/a, 2016 used					
TIME	CARE ACTIVITIES	13	People caring for and educating their children or grandchildren, elderly or people with disabilities, every day (% , 18+ population)	Percentage of people involved in at least one of these caring activities outside of paid work every day: care for children, grandchildren, elderly and disabled people.	Eurofound, EQLS, EIGE' survey on unpaid care, EIGE's calculation with microdata	2007	2012	2016	2016	2016	2016	2016	2022 Break in times series 18-74 population EIGE' survey on unpaid care
		14	People doing cooking and/or housework, every day (% , 18+ population)	Percentage of people involved in cooking and/or housework outside of paid work, every day.	Eurofound, EQLS, EIGE' survey on unpaid care, EIGE's calculation with microdata	2007	2012	2016	2016	2016	2016	2016	2022 Break in times series 18-74 population EIGE' survey on unpaid care

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition							
						2013	2015	2017	2019	2020	2021	2022	2023
						Data used							
TIME	SOCIAL ACTIVITIES	15	Workers doing sporting, cultural or leisure activities outside of their home, at least daily or several times a week (% , 15+ workers)	Percentage of working people doing sporting, cultural or leisure activities at least every other day (daily+several times a month out of total).	Eurofound, EWCS, EIGE' survey on unpaid care, EIGE's calculation with microdata	2015	2015	2015	2015	2015	2015	2015	2022 Break in times series 16-74 population EIGE' survey on unpaid care
		16	Workers involved in voluntary or charitable activities, at least once a month (% , 15+ workers)	Percentage of working people involved in voluntary or charitable activities, at least once a month.	Eurofound, EWCS, EIGE' survey on unpaid care, EIGE's calculation with microdata	2010	2010	2015	2015	2015	2015	2015	2022 Break in times series 16-74 population EIGE' survey on unpaid care
POWER	POLITICAL	17	Share of ministers (% W, M)	Share of ministers.	EIGE, Gender Statistics Database, WMID	2009-2010-2011	2011-2012-2013	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022
		18	Share of members of parliament (% W, M)	Share of members of parliament.	EIGE, Gender Statistics Database, WMID	2009-2010-2011	2011-2012-2013	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022
		19	Share of members of regional assemblies (% W, M)	Share of members of regional assemblies.	EIGE, Gender Statistics Database, WMID	Regional assembly 2009-2010-2011	Regional assembly 2011-2012-2013	Regional assembly 2014-2015-2016	Regional assembly 2016-2017-2018	Regional assembly 2017-2018-2019	Regional assembly 2018-2019-2020	Regional assembly 2019-2020-2021	Regional assembly 2020-2021-2022
	Local level politics 2011					Local level politics 2013	Local level politics 2015	Local level politics 2017	Local level politics 2019	Local level politics 2020	Local level politics 2021	Local level politics 2022	
	ECONOMIC		20	Share of members of boards in largest quoted companies, supervisory board or board of directors (% W, M)	Share of members of boards in largest quoted companies.	EIGE, Gender Statistics Database, WMID	2009-2010-2011	2011-2012-2013	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021
21			Share of board members of central bank (% W, M)	Share of board members of central bank.	EIGE, Gender Statistics Database, WMID	2009-2010-2011	2011-2012-2013	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition							
						2013	2015	2017	2019	2020	2021	2022	2023
						Data used							
POWER	SOCIAL	22	Share of board members of research funding organisations (% W, M)	Members of the highest decision-making bodies of research funding organisations	EIGE, Gender Statistics Database, WMID	2017	2017	2017	2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022
								IT: only 2017	IT, RO: only 2018 (break in time series)	IT, RO: only 2018 (break in time series)	IT, RO: only 2018 (break in time series)	IT, RO: only 2018 (break in time series)	
		23	Share of board members in publically owned broadcasting organisations (% W, M)	Share of board members in publically owned broadcasting organisations.	EIGE, Gender Statistics Database, WMID	2014	2014	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022
		24	Share of members of highest decision making body of the national Olympic sport organisations (% W, M)	Share of members of highest decision-making body of the 10 most popular national Olympic sport organisations.	EIGE, Gender Statistics Database, WMID	2015	2015	2015	2015-2018	2015-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022
HEALTH	STATUS	25	Self-perceived health, good or very good (% , 16+ population)	Percentage of people assessing their health as "Very good" or "Good" out of total.	Eurostat, EU SILC,(hlth_silc_01)	2010	2012	2015	2017	2018	2019	2020	2021
											IT: 2019	LU: break in time series	
						HR, 2011 (M)					DE, IE, FR, LU: break in time series		
		26	Life expectancy in absolute value at birth (years)	Life expectancy at a certain age is the mean additional number of years that a person of that age can expect to live.	Eurostat, (hlth_hlye)	2010	2012	2015	2016	2018	2019	2020	2021
						Total: average of women and men				EU, CZ, HR, PT break in time series			
						IT: 2009	SE: 2011						
		27	Healthy life years in absolute value at birth (years)	Healthy life years measures the number of remaining years that a person of specific age is expected to live without any severe or moderate health problems.	Eurostat, (hlth_hlye)	2010	2012	2015	2016	2018	2019	2020	2021
	Total: average of women and men				Total: average of women and men	Total: average of women and men	Total: average of women and men		BE: break in times series	DK, DE, IE, FR, LU: break in time series	LU: break in time series		
	IT: 2009				SE: 2011								

Domain	Sub-domain	No	Indicator and reference population	Description	Source	Index edition								
						2013	2015	2017	2019	2020	2021	2022	2023	
						Data used								
HEALTH	BEHAVIOUR	28	People who don't smoke and are not involved in harmful drinking (% , 15+ population)	Percentage of people who are not involved in risk behaviour i.e. don't smoke and are not involved in heavy episodic drinking.	Eurostat, EHIS. Eurostat calculations according to EIGE's request	2014	2014	2014	2014	2014	2014	2019	2019	
						EU: Non-weighted average	FI, EU: EIGE estimation	FI, EU: EIGE estimation						
						FR, NL: EIGE estimation								
		29	People doing physical activities and/or consuming fruits and vegetables (% , 15+ population)	Percentage of people who are physically active at least 150 minutes per week and/or consume at least 5 portions of fruit and vegetables per day.	Eurostat, EHIS. Eurostat calculations according to EIGE's request	2014	2014	2014	2014	2014	2014	2014	2019	2019
						EU: Non-weighted average								
						BE, NL: EIGE estimation								
	Access	30	Population without unmet needs for medical examination (% , 16+ population)	Self-reported unmet needs for medical examination.	Eurostat, EU SILC, (hlth_silc_08)	2010	2012	2015	2017	2018	2019	2020	2021	
												IT: 2019	LU: break in time series	
												DE, IE, FR, LU: break in time series		
		31	People without unmet needs for dental examination (% , 16+ population)	Self-reported unmet needs for dental examination.	Eurostat, EU SILC, (hlth_silc_09)	2010	2012	2015	2017	2018	2019	2020	2021	
												IT: 2019	LU: break in time series	
												DE, IE, FR, LU: break in time series		
ADDITIONAL VARIABLE			Population in age group 18 and older	Number of people in age 18 and older in country.	Eurostat, population statistics, (demo_pjanbroad), (demo_pjan)	2009-2010-2011	2011-2012-2013	2014-2015-2016	2016-2017-2018	2017-2018-2019	2018-2019-2020	2019-2020-2021	2020-2021-2022	

Annex 2. Gender Equality Index scores

Table 5. Gender Equality Index scores, ranks and changes in score by EU Member State

MS	Scores (points)								Changes in scores		Ranks							
	2010	2012	2015	2017	2018	2019	2020	2021	2010 to 2021	2020 to 2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	63.1	64.4	65.7	66.9	67.4	68.0	68.6	70.2	7.1	1.6	-	-	-	-	-	-	-	-
BE	69.3	70.2	70.5	71.1	71.4	72.7	74.2	76.0	6.7	1.8	5	5	6	7	8	8	8	5
BG	55.0	56.9	58.0	58.8	59.6	59.9	60.7	65.1	10.1	4.4	16	14	15	18	18	18	18	16
CZ	55.6	56.7	53.6	55.7	56.2	56.7	57.2	57.9	2.3	0.7	13	16	22	20	22	22	23	25
DK	75.2	75.6	76.8	77.5	77.4	77.8	77.8	77.8	2.6	0.0	2	2	2	2	2	2	2	3
DE	62.6	64.9	65.5	66.9	67.5	68.6	68.7	70.8	8.2	2.1	10	11	11	11	11	10	11	11
EE	53.4	53.5	56.7	59.8	60.7	61.6	61.0	60.2	6.8	-0.8	20	21	19	16	17	17	17	22
IE	65.4	67.7	69.5	71.3	72.2	73.1	74.3	73.0	7.6	-1.3	8	7	7	6	6	7	7	9
EL	48.6	50.1	50.0	51.2	52.2	52.5	53.4	58.0	9.4	4.6	27	27	27	27	27	27	27	24
ES	66.4	67.4	68.3	70.1	72.0	73.7	74.6	76.4	10.0	1.8	7	8	10	8	7	6	6	4
FR	67.5	68.9	72.6	74.6	75.1	75.5	75.1	75.7	8.2	0.6	6	6	5	3	3	4	5	6
HR	52.3	52.6	53.1	55.6	57.9	59.2	60.7	60.7	8.4	0.0	24	22	23	21	19	19	19	20
IT	53.3	56.5	62.1	63.0	63.5	63.8	65.0	68.2	14.9	3.2	21	17	13	13	13	14	14	13
CY	49.0	50.6	55.1	56.3	56.9	57.0	57.3	60.7	11.7	3.4	26	26	21	19	20	21	22	21
LV	55.2	56.2	57.9	59.7	60.8	62.1	61.4	61.5	6.3	0.1	15	18	16	17	16	16	16	19
LT	54.9	54.2	56.8	55.5	56.3	58.4	60.6	64.1	9.2	3.5	17	20	18	22	21	20	20	17
LU	61.2	65.9	69.0	69.2	70.3	72.4	73.5	74.7	13.5	1.2	11	10	8	9	9	9	9	7
HU	52.4	51.8	50.8	51.9	53.0	53.4	54.2	57.3	4.9	3.1	23	24	26	26	26	26	25	26
MT	54.4	57.8	60.1	62.5	63.4	65.0	65.6	67.8	13.4	2.2	18	13	14	14	14	13	13	14
NL	74.0	74.0	72.9	72.1	74.1	75.9	77.3	77.9	3.9	0.6	3	4	4	5	5	3	3	2
AT	58.7	61.3	63.3	65.3	66.5	68.0	68.8	71.2	12.5	2.4	12	12	12	12	12	11	10	10
PL	55.5	56.9	56.8	55.2	55.8	56.6	57.7	61.9	6.4	4.2	14	15	17	23	23	23	21	18
PT	53.7	54.4	56.0	59.9	61.3	62.2	62.8	67.4	13.7	4.6	19	19	20	15	15	15	15	15
RO	50.8	51.2	52.4	54.5	54.4	54.5	53.7	56.1	5.3	2.4	25	25	24	24	25	25	26	27
SI	62.7	66.1	68.4	68.3	67.7	67.6	67.5	69.4	6.7	1.9	9	9	9	10	10	12	12	12
SK	53.0	52.4	52.4	54.1	55.5	56.0	56.0	59.2	6.2	3.2	22	23	25	25	24	24	24	23
FI	73.1	74.4	73.0	73.4	74.7	75.3	75.4	74.4	1.3	-1.0	4	3	3	4	4	5	4	8
SE	80.1	79.7	82.6	83.6	83.8	83.9	83.9	82.2	2.1	-1.7	1	1	1	1	1	1	1	1

Note: Index 2023 uses data from 2021 for the most part and traces the progress in the short term (2020-2021) and longer-term (2010-2021) perspectives.

Table 6. Gender Equality Index 2023* scores and ranks, by domain and EU Member State

MS	Scores (points)							Ranks						
	Index	Work	Money	Knowledge	Time	Power	Health	Index	Work	Money	Knowledge	Time	Power	Health
EU	70.2	73.8	82.6	63.6	68.5	59.1	88.5	-	-	-	-	-	-	-
BE	76.0	75.4	90.7	74.1	64.7	71.6	88.5	5	18	2	2	15	7	11
BG	65.1	70.0	67.0	57.8	63.8	62.7	77.8	16	22	27	21	17	11	26
CZ	57.9	68.9	79.4	59.8	57.0	30.2	84.8	25	24	15	16	26	25	21
DK	77.8	82.1	89.5	69.2	72.7	73.9	88.6	3	2	3	7	2	4	10
DE	70.8	76.8	87.1	56.1	65.0	67.6	89.8	11	8	9	24	14	8	8
EE	60.2	77.5	73.3	57.8	64.4	33.0	85.1	22	7	22	22	16	21	18
IE	73.0	76.4	88.0	69.5	59.5	64.7	94.8	9	12	6	6	23	9	1
EL	58.0	68.7	71.7	57.3	67.1	30.4	85.5	24	25	23	23	13	24	17
ES	76.4	75.4	78.3	70.0	70.4	81.1	91.2	4	17	17	5	5	3	6
FR	75.7	73.2	84.9	65.2	68.7	83.8	88.3	6	19	10	11	9	2	12
HR	60.7	72.1	73.6	54.2	48.6	49.5	84.8	20	20	20	26	27	16	20
IT	68.2	65.0	80.3	60.8	67.4	62.7	89.2	13	27	14	13	12	12	9
CY	60.7	76.5	83.3	65.5	58.4	29.2	87.1	21	10	13	10	25	26	15
LV	61.5	76.4	68.1	50.4	62.6	49.1	78.9	19	14	26	27	19	17	25
LT	64.1	75.7	71.2	59.3	62.1	48.6	82.9	17	16	24	18	20	18	24
LU	74.7	79.6	93.9	70.3	62.8	64.4	90.4	7	4	1	3	18	10	7
HU	57.3	76.5	74.0	57.9	61.2	26.2	87.2	26	11	19	20	21	27	14
MT	67.8	80.0	83.3	70.1	59.4	45.3	87.4	14	3	12	4	24	19	13
NL	77.9	79.3	88.1	69.1	76.9	72.7	94.2	2	5	5	8	1	6	3
AT	71.2	76.4	88.2	65.6	68.4	55.4	91.4	10	13	4	9	10	15	5
PL	61.9	69.6	78.4	59.4	71.5	36.4	84.4	18	23	16	17	4	20	22
PT	67.4	76.5	73.6	58.7	67.8	57.4	84.1	15	9	21	19	11	13	23
RO	56.1	67.0	70.6	54.4	69.2	30.7	70.0	27	26	25	25	8	23	27
SI	69.4	75.8	84.5	60.7	69.3	56.1	86.5	12	15	11	14	7	14	16
SK	59.2	71.9	74.2	62.1	61.0	31.1	85.1	23	21	18	12	22	22	19
FI	74.4	78.0	87.4	60.5	69.7	73.9	93.1	8	6	7	15	6	5	4
SE	82.2	84.8	87.2	76.4	71.9	85.1	94.5	1	1	8	1	3	1	2

* Index 2023 uses data from 2021 for the most part.

Table 7. Gender Equality Index 2022* scores and ranks, by domain and EU Member State

MS	Scores (points)							Ranks						
	Index	Work	Money	Knowledge	Time	Power	Health	Index	Work	Money	Knowledge	Time	Power	Health
EU	68.6	71.7	82.6	62.5	64.9	57.2	88.7	-	-	-	-	-	-	-
BE	74.2	75.5	89.8	70.1	65.3	67.0	88.5	8	8	2	2	11	7	12
BG	60.7	69.3	65.0	56.2	42.7	63.0	78.0	18	20	27	21	27	9	26
CZ	57.2	67.1	79.0	58.9	57.3	29.7	84.8	23	24	15	14	17	25	21
DK	77.8	79.5	88.5	69.3	83.1	69.3	89.5	2	2	3	3	3	5	9
DE	68.7	72.9	83.5	54.7	65.0	64.8	90.0	11	16	12	24	12	8	8
EE	61.0	72.7	73.6	57.4	74.7	34.0	85.0	17	17	22	18	5	21	20
IE	74.3	76.5	87.5	68.1	74.2	61.7	95.0	7	6	4	6	6	10	2
EL	53.4	65.6	72.8	55.8	44.7	28.8	85.8	27	26	23	23	26	26	17
ES	74.6	73.6	78.7	68.3	64.0	80.6	91.7	6	12	16	5	14	3	5
FR	75.1	73.2	84.7	65.5	67.3	81.7	88.6	5	15	9	8	9	2	11
HR	60.7	69.7	74.1	53.4	51.0	49.7	85.1	19	19	20	25	21	17	19
IT	65.0	63.2	80.5	59.5	59.3	56.9	89.0	14	27	14	13	16	12	10
CY	57.3	69.9	83.1	57.8	51.3	30.1	87.0	22	18	13	15	20	24	15
LV	61.4	74.2	69.4	47.7	65.8	50.9	79.3	16	10	26	27	10	16	25
LT	60.6	73.9	70.4	57.6	50.6	45.4	82.7	20	11	24	16	22	18	24
LU	73.5	76.3	92.6	68.9	69.1	59.7	90.4	9	7	1	4	8	11	7
HU	54.2	67.5	73.8	57.1	54.3	24.8	87.3	25	21	21	19	18	27	14
MT	65.6	77.0	83.6	65.2	64.2	40.4	87.8	13	5	11	9	13	19	13
NL	77.3	78.7	86.6	67.0	83.9	68.9	94.2	3	3	7	7	2	6	3
AT	68.8	77.2	87.5	64.0	61.2	51.7	91.3	10	4	6	10	15	15	6
PL	57.7	67.3	78.1	57.5	52.5	34.4	83.6	21	22	17	17	19	20	23
PT	62.8	73.4	74.7	56.7	47.5	55.5	84.5	15	13	19	20	24	13	22
RO	53.7	67.3	70.2	52.2	50.3	32.6	70.4	26	23	25	26	23	22	27
SI	67.5	73.4	83.9	56.0	72.9	53.3	86.9	12	14	10	22	7	14	16
SK	56.0	66.5	74.8	60.9	46.3	31.4	85.2	24	25	18	12	25	23	18
FI	75.4	75.4	87.5	61.5	77.4	74.3	92.6	4	9	5	11	4	4	4
SE	83.9	83.0	85.9	74.6	90.1	84.6	95.2	1	1	8	1	1	1	1

* Index 2022 uses data from 2020 for the most part.

Table 8. Gender Equality Index 2013* scores and ranks, by domain and EU Member State

MS	Scores (points)							Ranks						
	Index	Work	Money	Knowledge	Time	Power	Health	Index	Work	Money	Knowledge	Time	Power	Health
EU	63.1	69.7	79.1	59.8	65.2	41.9	86.7	-	-	-	-	-	-	-
BE	69.3	72.7	85.5	70.6	70.3	47.9	86.5	5	7	4	3	7	7	13
BG	55.0	67.9	60.8	50.4	43.9	45.8	75.3	16	19	24	23	24	8	26
CZ	55.6	64.9	73.8	55.4	53.8	31.0	85.7	13	24	17	16	19	15	16
DK	75.2	79.8	83.6	73.2	80.4	58.0	90.3	2	2	7	1	3	3	5
DE	62.6	70.0	83.2	56.3	69.8	38.3	89.3	10	17	9	14	9	10	9
EE	53.4	71.2	65.5	51.6	73.7	21.9	82.7	20	14	23	22	5	25	21
IE	65.4	73.5	85.5	65.3	70.8	37.2	90.7	8	6	3	7	6	11	3
EL	48.6	63.6	75.3	53.4	35.6	22.3	84.3	27	26	16	21	27	24	19
ES	66.4	71.8	77.1	63.5	60.8	52.6	88.6	7	11	15	8	13	5	10
FR	67.5	71.5	83.5	62.0	66.6	52.4	86.7	6	12	8	9	11	6	12
HR	52.3	67.2	68.6	49.9	49.8	28.4	81.5	24	20	22	25	22	20	23
IT	53.3	61.3	78.9	53.8	55.1	25.2	86.3	21	27	14	20	15	22	15
CY	49.0	70.5	80.7	55.5	45.9	15.4	86.4	26	16	11	15	23	27	14
LV	55.2	72.6	58.9	49.2	62.0	34.8	77.3	15	8	27	26	12	13	25
LT	54.9	72.6	60.8	54.3	52.2	32.9	80.4	17	9	25	19	20	14	24
LU	61.2	70.9	91.8	66.3	70.2	25.6	89.8	11	15	1	5	8	21	7
HU	52.4	66.0	70.8	54.5	54.1	23.5	85.4	23	22	19	18	18	23	17
MT	54.4	65.1	79.2	65.4	54.3	20.9	90.6	18	23	13	6	16	26	4
NL	74.0	76.3	86.6	66.9	85.9	56.9	90.3	3	3	2	4	1	4	6
AT	58.7	75.3	82.8	58.9	56.0	28.4	91.1	12	4	10	11	14	19	2
PL	55.5	66.3	69.5	57.8	54.2	30.6	81.6	14	21	21	13	17	17	22
PT	53.7	71.4	71.8	50.1	38.7	34.9	84.3	19	13	18	24	26	12	20
RO	50.8	67.9	59.8	47.2	50.6	30.8	69.9	25	18	26	27	21	16	27
SI	62.7	71.9	80.3	55.0	68.3	41.1	86.8	9	10	12	17	10	9	11
SK	53.0	64.8	70.2	59.5	39.9	29.5	84.8	22	25	20	10	25	18	18
FI	73.1	74.5	84.1	58.6	80.1	69.1	89.5	4	5	6	12	4	2	8
SE	80.1	80.4	85.3	70.7	84.5	77.8	93.2	1	1	5	2	2	1	1

* Index 2013 uses data from 2010 for the most part.

Table 9. Gender Equality Index scores and ranks for the domain of work and its subdomains

MS	Score (points)																							
	Domain of work								Participation								Segregation and quality of work							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	69.7	70.2	70.6	71.1	71.4	71.6	71.7	73.8	77.6	78.3	79.2	80.4	80.9	81.3	81.1	82.3	62.6	62.9	62.9	62.9	62.9	63.1	63.3	66.2
BE	72.7	72.8	73.8	74.1	74.7	74.9	75.5	75.4	75.7	75.4	77.5	78.2	79.5	80.2	80.4	81.2	69.8	70.4	70.2	70.2	70.1	69.9	70.9	69.9
BG	67.9	68.7	68.6	69.0	69.0	69.6	69.3	70.0	81.3	82.0	82.7	83.5	83.5	84.6	83.6	83.6	56.7	57.6	56.9	57.0	57.0	57.3	57.4	58.6
CZ	64.9	65.3	66.1	67.0	67.0	67.4	67.1	68.9	78.9	79.9	81.8	83.5	84.3	84.5	83.5	83.6	53.3	53.3	53.5	53.7	53.3	53.8	53.8	56.8
DK	79.8	79.7	79.2	79.6	79.7	79.4	79.5	82.1	88.5	88.3	87.2	88.3	88.7	88.4	88.4	89.9	71.9	72.1	72.0	71.8	71.5	71.4	71.5	75.0
DE	70.0	70.6	71.4	72.1	72.1	72.4	72.9	76.8	79.0	80.2	81.9	83.3	83.6	84.2	84.9	84.6	62.1	62.1	62.2	62.3	62.2	62.3	62.5	69.6
EE	71.2	71.4	72.1	71.5	72.1	72.5	72.7	77.5	87.3	87.7	88.6	89.8	90.6	90.8	90.4	92.3	58.1	58.1	58.7	57.0	57.5	57.9	58.5	65.0
IE	73.5	73.7	73.9	75.5	75.9	76.5	76.5	76.4	77.4	77.3	78.3	81.7	82.4	82.8	82.5	85.4	69.8	70.2	69.7	69.8	69.9	70.6	70.9	68.4
EL	63.6	63.6	64.2	64.2	64.4	65.3	65.6	68.7	71.1	69.4	71.0	71.4	71.6	72.7	72.8	73.0	57.0	58.4	58.0	57.7	58.0	58.7	59.1	64.6
ES	71.8	72.3	72.4	72.9	73.2	73.7	73.6	75.4	77.0	77.5	78.0	79.1	79.3	80.2	79.4	82.3	66.9	67.4	67.3	67.1	67.5	67.8	68.2	69.0
FR	71.5	71.9	72.1	72.4	72.8	73.2	73.2	73.2	81.1	81.4	82.3	82.4	83.5	83.7	83.5	85.6	63.1	63.5	63.2	63.5	63.5	63.9	64.2	62.6
HR	67.2	68.3	69.4	69.2	69.9	70.1	69.7	72.1	75.0	75.5	78.5	78.9	79.6	79.7	79.1	80.7	60.3	61.8	61.4	60.7	61.4	61.6	61.3	64.4
IT	61.3	62.4	62.4	63.1	63.3	63.7	63.2	65.0	64.9	66.7	66.7	68.2	68.6	69.1	68.1	68.9	57.8	58.5	58.4	58.5	58.5	58.6	58.7	61.4
CY	70.5	68.9	70.7	70.7	70.8	70.6	69.9	76.5	85.2	83.4	84.7	84.9	86.2	86.0	85.0	86.1	58.3	56.9	59.0	58.8	58.2	57.9	57.5	67.9
LV	72.6	74.3	73.6	74.2	74.0	74.3	74.2	76.4	86.9	86.9	87.8	89.3	90.1	89.9	89.9	89.1	60.7	63.5	61.8	61.7	60.8	61.4	61.3	65.5
LT	72.6	72.6	73.2	73.6	74.1	74.2	73.9	75.7	86.0	86.8	88.2	89.7	90.7	91.1	90.8	91.7	61.3	60.8	60.7	60.4	60.4	60.4	60.1	62.5
LU	70.9	72.5	74.0	74.1	75.2	76.3	76.3	79.6	74.8	77.7	81.3	82.4	83.5	83.3	84.7	87.0	67.3	67.7	67.4	66.7	67.6	69.8	68.7	72.9
HU	66.0	66.4	67.2	67.4	68.0	68.0	67.5	76.5	75.8	76.9	79.6	81.0	81.3	81.1	80.7	86.4	57.5	57.4	56.7	56.0	56.9	57.0	56.4	67.7
MT	65.1	68.2	71.0	73.3	75.4	76.8	77.0	80.0	58.6	63.2	68.9	73.1	76.9	79.8	81.2	83.7	72.3	73.7	73.1	73.5	74.0	73.9	73.0	76.5
NL	76.3	76.2	76.7	77.4	77.8	78.3	78.7	79.3	78.5	78.6	79.2	80.7	81.7	82.8	83.0	87.2	74.1	73.9	74.3	74.2	74.2	73.9	74.5	72.1
AT	75.3	75.6	76.1	76.6	76.4	76.8	77.2	76.4	80.3	80.9	81.4	82.4	82.4	82.7	83.0	82.8	70.6	70.6	71.2	71.2	70.7	71.4	71.7	70.5
PL	66.3	66.6	66.8	67.0	67.3	67.2	67.3	69.6	77.9	78.3	79.5	80.2	80.8	80.6	80.4	82.6	56.5	56.5	56.2	56.0	56.1	56.0	56.4	58.6
PT	71.4	71.4	72.0	72.5	72.9	73.2	73.4	76.5	85.6	84.1	85.4	86.6	87.8	88.2	87.8	90.0	59.5	60.6	60.8	60.7	60.6	60.8	61.4	65.1
RO	67.9	67.8	67.1	67.7	67.6	67.5	67.3	67.0	78.8	78.5	77.5	79.0	78.8	78.8	78.4	74.1	58.6	58.5	58.1	58.0	58.0	57.9	57.7	60.6
SI	71.9	71.3	71.8	73.3	73.1	73.0	73.4	75.8	84.4	83.7	83.5	86.5	86.7	87.2	87.3	88.0	61.3	60.7	61.7	62.1	61.6	61.1	61.7	65.3
SK	64.8	64.9	65.5	66.5	66.6	66.8	66.5	71.9	79.0	78.8	80.6	82.6	82.7	83.2	82.7	87.4	53.1	53.4	53.2	53.5	53.7	53.7	53.5	59.1
FI	74.5	74.8	74.7	74.9	75.4	75.5	75.4	78.0	88.9	89.2	89.2	88.9	90.0	90.1	89.7	90.8	62.4	62.7	62.6	63.1	63.2	63.3	63.4	66.9
SE	80.4	81.4	82.6	83.0	82.9	83.1	83.0	84.8	91.9	93.8	95.4	95.7	95.8	95.9	95.4	93.3	70.4	70.6	71.5	71.9	71.7	72.0	72.2	77.1

M5	Rank																							
	Domain of work								Participation								Segregation and quality of work							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BE	7	8	8	9	9	9	8	18	22	24	23	24	22	22	22	23	6	6	6	6	6	7	7	7
BG	19	18	20	20	20	20	20	22	10	10	10	10	13	10	12	18	24	22	23	23	23	23	23	26
CZ	24	24	24	24	24	23	24	24	15	14	13	11	10	11	13	19	26	27	26	26	27	26	26	27
DK	2	2	2	2	2	2	2	2	3	3	6	6	6	6	6	6	3	3	3	4	4	5	5	3
DE	17	16	16	16	17	17	16	8	14	13	12	12	11	12	10	16	12	13	12	12	12	12	12	8
EE	14	14	12	17	16	16	17	7	4	4	3	2	3	3	3	2	20	21	19	22	22	21	20	17
IE	6	7	7	5	5	6	6	12	19	21	21	17	17	17	18	15	7	7	7	7	7	6	6	10
EL	26	26	26	26	26	26	26	25	25	25	25	26	26	26	26	26	23	20	22	21	21	18	18	18
ES	11	11	11	13	12	12	12	17	20	20	22	21	23	21	23	22	9	9	9	8	9	9	9	9
FR	12	12	13	15	15	14	15	19	11	11	11	14	14	13	14	14	10	11	10	10	10	10	10	20
HR	20	19	19	19	19	19	19	20	23	23	20	23	21	24	24	24	16	14	15	16	14	13	15	19
IT	27	27	27	27	27	27	27	27	26	26	27	27	27	27	27	27	21	19	20	19	18	19	19	22
CY	16	17	18	18	18	18	18	10	8	9	8	9	9	9	9	13	19	24	18	18	19	20	22	11
LV	8	6	9	7	11	10	10	14	5	5	5	4	4	5	4	7	15	10	13	14	15	14	16	14
LT	9	9	10	10	10	11	11	16	6	6	4	3	2	2	2	3	13	15	17	17	17	17	17	21
LU	15	10	6	8	8	7	7	4	24	19	15	16	12	14	11	11	8	8	8	9	8	8	8	4
HU	22	23	21	22	21	21	21	11	21	22	17	18	19	19	20	12	22	23	24	24	24	24	24	12
MT	23	20	17	11	6	5	5	3	27	27	26	25	25	23	19	17	2	2	2	2	2	2	2	2
NL	3	3	3	3	3	3	3	5	17	16	19	19	18	16	15	10	1	1	1	1	1	1	1	5
AT	4	4	4	4	4	4	4	13	12	12	14	15	16	18	16	20	4	4	5	5	5	4	4	6
PL	21	22	23	23	23	24	22	23	18	18	18	20	20	20	21	21	25	25	25	25	25	25	25	25
PT	13	13	14	14	14	13	13	9	7	7	7	7	7	7	7	5	17	17	16	15	16	16	14	16
RO	18	21	22	21	22	22	23	26	16	17	24	22	24	25	25	25	18	18	21	20	20	22	21	23
SI	10	15	15	12	13	15	14	15	9	8	9	8	8	8	8	8	14	16	14	13	13	15	13	15
SK	25	25	25	25	25	25	25	21	13	15	16	13	15	15	17	9	27	26	27	27	26	27	27	24
FI	5	5	5	6	7	8	9	6	2	2	2	5	5	4	5	4	11	12	11	11	11	11	11	13
SE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	5	4	3	3	3	3	1

Table 10. Gender Equality Index scores and ranks for the domain of money and its subdomains

MS	Score (points)																							
	Domain of money								Financial resources								Economic situation							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	79.1	79.1	80.1	81.1	81.6	82.4	82.6	82.6	70.6	71.2	73.9	74.9	75.5	76.9	77.2	77.5	88.7	88.0	86.7	88.0	88.1	88.3	88.3	87.9
BE	85.5	85.6	87.5	88.3	88.7	89.9	89.8	90.7	77.9	78.6	82.7	83.3	83.8	84.6	84.9	85.2	94.0	93.3	92.6	93.6	93.8	95	95	96.5
BG	60.8	60.5	61.9	61.8	62.3	64.5	65.0	67.0	44.7	44.2	48.2	50.2	49.6	54.6	55.3	56.9	82.8	82.7	79.5	76.1	78.2	76.1	76.5	78.9
CZ	73.8	74.0	75.9	76.7	76.8	78.9	79.0	79.4	55.1	55.8	58.8	59.8	60.4	63.8	64.2	64.1	98.7	98.1	98.1	98.2	97.6	97.5	97.1	98.3
DK	83.6	85.7	86.6	87.1	86.8	89.1	88.5	89.5	78.3	80.4	82.4	83.2	83.3	85.8	84.9	85.6	89.3	91.4	91.1	91.2	90.5	92.4	92.3	93.5
DE	83.2	84.0	84.2	86.0	84.9	86.0	83.5	87.1	77.1	78.1	81.2	82.1	82.9	84.5	85.2	86.5	89.8	90.2	87.4	90.1	86.9	87.5	81.8	87.7
EE	65.5	64.9	66.7	69.4	70.0	73.2	73.6	73.3	49.5	50.2	56.4	58.3	59.3	63.6	64.0	64.3	86.7	84.0	79.0	82.5	82.7	84.1	84.7	83.6
IE	85.5	84.4	84.7	85.5	86.5	87.8	87.5	88.0	81.1	80.7	81.0	81.7	83.3	82.6	82.3	82.2	90.2	88.2	88.6	89.5	89.8	93.3	93.1	94.1
EL	75.3	71.1	70.7	71.4	72.5	73.7	72.8	71.7	66.7	62.7	61.4	61.3	61.4	62.2	61.2	60.8	84.9	80.7	81.4	83.2	85.6	87.3	86.7	84.5
ES	77.1	76.0	75.9	76.7	77.8	78.4	78.7	78.3	70.4	69.6	71.0	72.2	72.3	73.5	73.5	73.4	84.4	82.9	81.2	81.4	83.6	83.7	84.3	83.6
FR	83.5	83.7	86.1	86.4	87.0	86.3	84.7	84.9	75.9	77.2	80.4	81.0	80.9	80.8	78.5	79.2	91.8	90.6	92.3	92.1	93.5	92.1	91.4	91.0
HR	68.6	68.9	69.9	72.2	72.6	74.0	74.1	73.6	56.2	55.7	57.1	60.1	60.6	62.1	62.3	62.8	83.8	85.2	85.6	86.9	86.9	88.1	88.3	86.4
IT	78.9	78.7	78.6	78.8	79.0	79.4	80.5	80.3	72.5	72.8	73.0	74.4	74.8	75.8	76.6	76.7	86.0	85.1	84.6	83.5	83.4	83.1	84.6	84.0
CY	80.7	81.7	79.2	80.8	81.7	82.6	83.1	83.3	74.8	76.4	72.1	72.8	72.8	76.0	75.2	75.5	87.1	87.4	87.1	89.7	91.6	89.8	91.7	91.8
LV	58.9	59.6	64.3	65.5	65.2	68.7	69.4	68.1	43.5	43.5	51.9	53.7	54.6	59.4	60.0	60.1	79.8	81.5	79.5	80.0	78.0	79.4	80.3	77.3
LT	60.8	64.3	65.6	64.7	66.1	69.9	70.4	71.2	47.8	48.4	53.5	55.0	56.0	60.9	61.6	63.2	77.3	85.5	80.4	76.1	78.0	80.4	80.4	80.3
LU	91.8	92.1	94.4	91.8	90.0	92.4	92.6	93.9	91.2	91.6	97.0	96.8	97.3	98.0	98.0	98.0	92.5	92.7	92.0	87.2	83.2	87.2	87.5	90.1
HU	70.8	69.8	70.7	71.6	72.0	73.3	73.8	74.0	51.0	52.5	55.2	55.5	56.2	58.2	58.8	59.1	98.3	92.9	90.5	92.5	92.2	92.2	92.6	92.6
MT	79.2	80.6	82.4	82.5	82.6	84.2	83.6	83.3	68.6	69.5	73.3	74.4	74.8	77.6	78.8	78.9	91.3	93.3	92.8	91.4	91.1	91.4	88.6	88.1
NL	86.6	87.0	86.8	86.7	86.2	87.0	86.6	88.1	77.7	77.6	79.1	80.4	80.4	80.9	81.4	82.5	96.5	97.5	95.4	93.5	92.4	93.5	92.1	94.0
AT	82.8	83.6	85.9	86.4	86.7	87.7	87.5	88.2	74.7	75.8	79.8	81.4	80.9	82.8	82.5	83.3	91.8	92.2	92.5	91.7	93.1	92.9	92.8	93.4
PL	69.5	70.3	73.3	75.1	75.5	76.7	78.1	78.4	54.6	56.2	61.4	62.8	63.0	65.1	65.9	66.6	88.5	88.0	87.5	89.9	90.5	90.4	92.6	92.3
PT	71.8	71.7	70.9	72.1	72.8	73.6	74.7	73.6	60.4	60.7	60.3	61.2	61.2	62.3	63.1	63.3	85.3	84.8	83.5	84.8	86.8	87.0	88.4	85.5
RO	59.8	59.2	59.4	62.0	63.0	69.1	70.2	70.6	42.5	42.7	45.7	47.2	49.3	60.1	60.8	62.3	84.2	82.1	77.3	81.6	80.4	79.5	80.9	80.1
SI	80.3	81.3	81.6	82.4	83.0	83.7	83.9	84.5	67.3	68.3	69.8	70.0	70.7	71.6	71.8	72.7	95.8	96.7	95.5	97.1	97.4	97.9	98.0	98.3
SK	70.2	72.1	74.0	74.2	75.1	75.1	74.8	74.2	51.9	53.9	56.4	56.8	57.1	57.5	56.8	55.9	95.1	96.4	97.2	96.9	98.8	98.2	98.6	98.4
FI	84.1	84.8	86.4	87.6	87.1	87.9	87.5	87.4	74.6	76.2	78.5	79.2	79.4	80.4	80.2	79.8	94.9	94.4	95.2	96.9	95.5	96.1	95.4	95.6
SE	85.3	85.3	87.5	86.8	86.8	85.4	85.9	87.2	75.9	77.4	82.3	82.1	82.0	81.9	81.4	82.6	95.8	93.9	93.1	91.9	91.9	88.9	90.7	92.1

MS	Rank																							
	Domain of money								Financial resources								Economic situation							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BE	4	4	2	2	2	2	2	2	4	4	2	2	2	3	4	4	8	8	8	5	5	5	5	4
BG	24	25	26	27	27	27	27	27	25	25	26	26	26	27	27	26	25	24	24	26	25	27	27	26
CZ	17	16	15	15	16	15	15	15	19	19	19	20	20	17	17	18	1	1	1	1	2	3	3	2
DK	7	3	5	4	5	3	3	3	3	3	3	3	4	2	3	3	15	12	12	12	14	9	10	8
DE	9	8	10	9	10	9	12	9	6	5	5	4	5	4	2	2	14	14	16	13	17	17	23	17
EE	23	23	23	23	23	23	22	22	23	23	22	21	21	18	18	17	18	22	26	22	23	21	20	22
IE	3	7	9	10	8	5	4	6	2	2	6	6	3	6	6	8	13	15	14	16	15	7	6	6
EL	16	19	20	22	21	20	23	23	16	16	16	17	17	20	22	23	21	27	21	21	19	18	19	20
ES	15	15	16	16	15	16	16	17	13	13	14	14	14	14	14	14	22	23	22	24	20	22	22	23
FR	8	9	7	7	4	8	9	10	7	8	7	8	7	9	11	10	10	13	10	8	6	11	13	14
HR	22	22	22	19	20	19	20	20	18	20	20	19	19	21	20	21	24	19	18	18	16	16	17	18
IT	14	14	14	14	14	14	14	14	12	12	12	12	11	13	12	12	19	20	19	20	21	23	21	21
CY	11	11	13	13	13	13	13	13	9	9	13	13	13	12	13	13	17	17	17	15	11	14	12	13
LV	27	26	25	24	25	26	26	26	26	26	25	25	25	24	24	24	26	26	25	25	27	26	26	27
LT	25	24	24	25	24	24	24	24	24	24	24	24	24	22	21	20	27	18	23	27	26	24	25	24
LU	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	10	11	17	22	19	18	15
HU	19	21	21	21	22	22	21	19	22	22	23	23	23	25	25	25	2	9	13	7	9	10	8	10
MT	13	13	11	11	12	11	11	12	14	14	11	11	12	11	10	11	12	7	7	11	12	12	15	16
NL	2	2	4	6	9	7	7	5	5	6	9	9	9	8	7	7	3	2	4	6	8	6	11	7
AT	10	10	8	8	7	6	6	4	10	11	8	7	8	5	5	5	11	11	9	10	7	8	7	9
PL	21	20	18	17	17	17	17	16	20	18	17	16	16	16	16	16	16	16	15	14	13	13	9	11
PT	18	18	19	20	19	21	19	21	17	17	18	18	18	19	19	19	20	21	20	19	18	20	16	19
RO	26	27	27	26	26	25	25	25	27	27	27	27	27	23	23	22	23	25	27	23	24	25	24	25
SI	12	12	12	12	11	12	10	11	15	15	15	15	15	15	15	15	5	3	3	2	3	2	2	3
SK	20	17	17	18	18	18	18	18	21	21	21	22	22	26	26	27	6	4	2	3	1	1	1	1
FI	6	6	6	3	3	4	5	7	11	10	10	10	10	10	9	9	7	5	5	4	4	4	4	5
SE	5	5	3	5	6	10	8	8	8	7	4	5	6	7	8	6	4	6	6	9	10	15	14	12

Table 11. Gender Equality Index scores and ranks for the domain of knowledge and its subdomains

MS	Score (points)																							
	Domain of knowledge								Attainment and participation								Segregation							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	59.8	61.1	62.4	62.6	62.8	62.7	62.5	63.6	66.0	68.2	71.2	71.8	72.2	72.5	72.1	74.6	54.2	54.7	54.7	54.5	54.5	54.1	54.1	54.2
BE	70.6	70.6	71.1	71.3	71.4	70.8	70.1	74.1	73.3	72.5	73.3	74.3	73.8	74.0	73.8	81.9	68.1	68.8	68.9	68.4	69.0	67.7	66.6	67.0
BG	50.4	51.9	53.3	53.2	54.9	55.2	56.2	57.8	53.9	54.6	56.1	55.4	57.3	56.3	57.0	59.7	47.1	49.3	50.7	51.0	52.7	54.1	55.4	56.1
CZ	55.4	57.7	57.3	59.0	58.4	58.5	58.9	59.8	61.4	66.3	66.9	69.9	67.7	66.4	65.3	66.5	50.0	50.2	49.2	49.8	50.3	51.6	53.1	53.8
DK	73.2	71.3	73.6	72.3	71.3	71.0	69.3	69.2	81.7	80.5	82.1	81.8	79.5	80.7	79.3	80.0	65.6	63.1	66.0	64.0	64.0	62.5	60.6	60.0
DE	56.3	57.1	52.9	53.7	54.0	54.7	54.7	56.1	59.9	62.7	61.0	62.4	63.2	64.3	64.8	67.9	53.0	51.9	45.9	46.2	46.2	46.6	46.1	46.4
EE	51.6	53.8	53.2	55.5	56.3	57.3	57.4	57.8	67.4	70.5	67.9	70.1	72.1	73.7	71.9	72.1	39.5	41.1	41.7	44.0	44.0	44.5	45.8	46.3
IE	65.3	67.7	66.4	66.9	67.3	67.4	68.1	69.5	72.7	74.0	74.1	77.8	79.3	80.2	79.7	84.2	58.6	62.0	59.6	57.6	57.2	56.7	58.2	57.4
EL	53.4	54.3	55.6	55.7	54.8	54.9	55.8	57.3	59.8	60.7	63.9	66.3	66.8	67.3	67.1	71.5	47.7	48.5	48.4	46.8	45.0	44.8	46.4	46.0
ES	63.5	64.2	65.3	67.4	67.6	67.9	68.3	70.0	71.8	73.0	73.3	76.0	76.6	76.4	77.0	81.2	56.2	56.6	58.1	59.7	59.7	60.3	60.6	60.4
FR	62.0	62.4	66.1	66.0	66.3	67.0	65.5	65.2	67.9	69.7	77.5	78.5	79.6	80.3	78.8	79.1	56.6	55.8	56.4	55.6	55.2	55.9	54.5	53.7
HR	49.9	48.5	49.8	50.4	51.6	51.8	53.4	54.2	57.5	58.7	59.3	59.2	60.6	60.1	59.0	60.4	43.3	40.0	41.8	42.9	43.9	44.7	48.4	48.6
IT	53.8	56.7	61.4	61.2	61.9	59.0	59.5	60.8	53.7	54.4	56.1	57.0	58.0	58.3	57.7	60.8	53.9	59.2	67.1	65.8	66.0	59.7	61.4	60.7
CY	55.5	58.2	58.5	56.5	56.2	56.0	57.8	65.5	73.6	73.2	73.3	73.2	73.1	71.1	71.6	78.9	41.9	46.2	46.6	43.5	43.3	44.1	46.7	54.4
LV	49.2	48.8	48.9	49.7	49.3	50.9	47.7	50.4	60.5	62.2	59.1	62.3	61.1	65.6	61.1	66.1	40.0	38.3	40.5	39.7	39.7	39.4	37.2	38.5
LT	54.3	54.7	55.8	55.9	56.2	56.1	57.6	59.3	65.0	66.2	68.4	69.4	70.0	71.0	71.6	73.4	45.4	45.3	45.4	45.0	45.0	44.3	46.3	47.9
LU	66.3	68.7	69.4	69.5	70.0	70.8	68.9	70.3	74.8	78.6	84.1	84.5	85.9	88.7	86.1	91.0	58.7	60.1	57.2	57.1	57.1	56.5	55.2	54.3
HU	54.5	54.3	56.9	56.9	57.4	57.2	57.1	57.9	59.2	59.6	64.6	63.4	64.1	63.2	63.7	65.0	50.1	49.5	50.0	51.0	51.5	51.8	51.1	51.5
MT	65.4	66.3	65.2	65.8	67.1	65.2	65.2	70.1	59.2	60.2	61.3	65.9	67.0	67.3	68.2	72.3	72.3	73.0	69.5	65.8	67.3	63.2	62.3	68.0
NL	66.9	66.9	67.3	67.1	67.3	67.4	67.0	69.1	77.1	78.0	80.9	83.4	84.1	85.5	86.7	91.9	58.1	57.5	56.0	53.9	53.9	53.1	51.7	52.0
AT	58.9	59.9	63.2	64.1	63.8	64.3	64.0	65.6	61.2	61.8	72.0	74.1	73.3	73.6	72.7	75.8	56.6	58.1	55.5	55.5	55.5	56.2	56.4	56.8
PL	57.8	56.5	56.0	56.5	57.2	57.6	57.5	59.4	62.3	61.5	61.3	61.5	63.0	62.8	61.9	63.8	53.6	51.9	51.1	51.9	51.9	52.9	53.4	55.3
PT	50.1	54.9	54.8	55.1	55.7	56.5	56.7	58.7	50.8	59.1	59.5	60.4	61.3	62.6	63.2	68.8	49.5	51.0	50.6	50.3	50.7	51.0	50.9	50.1
RO	47.2	50.2	51.8	51.5	52.4	52.8	52.2	54.4	50.1	52.7	52.9	52.4	52.6	53.4	53.1	57.6	44.4	47.9	50.7	50.7	52.2	52.1	51.3	51.4
SI	55.0	54.9	55.0	56.0	55.9	56.6	56.0	60.7	68.4	67.1	67.4	66.9	66.6	67.5	68.2	78.3	44.2	45.0	44.9	46.9	46.9	47.4	46.0	47.1
SK	59.5	59.6	60.0	60.4	61.2	61.6	60.9	62.1	59.1	58.8	58.8	59.7	60.9	60.9	59.5	62.3	59.9	60.3	61.2	61.1	61.5	62.4	62.3	61.9
FI	58.6	59.5	61.3	61.1	61.6	61.9	61.5	60.5	78.3	79.5	81.4	83.0	83.6	84.2	83.8	82.1	43.9	44.6	46.1	45.0	45.5	45.5	45.1	44.6
SE	70.7	70.9	72.8	73.8	74.2	75.2	74.6	76.4	74.4	75.6	78.5	80.2	80.5	82.6	80.5	85.4	67.1	66.6	67.5	67.9	68.4	68.4	69.1	68.4

MS	Rank																							
	Domain of knowledge								Attainment and participation								Segregation							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BE	3	3	3	3	2	4	2	2	7	9	10	9	9	9	9	6	2	2	2	1	1	2	2	3
BG	23	24	22	24	22	22	21	21	24	25	26	26	26	26	26	26	19	18	14	14	13	12	10	10
CZ	16	14	15	14	14	14	14	16	15	13	15	13	14	17	17	19	16	16	18	18	18	17	14	14
DK	1	1	1	2	3	2	3	7	1	1	2	4	6	5	6	8	4	4	5	5	5	4	6	7
DE	14	15	24	23	24	24	24	24	18	15	20	19	19	19	18	18	14	14	22	21	20	20	23	23
EE	22	23	23	21	17	16	18	22	12	10	13	12	12	10	11	15	27	25	26	24	24	24	25	24
IE	7	5	6	7	7	6	6	6	8	6	7	7	7	7	5	4	7	5	7	8	8	8	8	8
EL	21	22	19	20	23	23	23	23	19	19	17	16	16	16	16	16	18	19	19	20	23	22	21	25
ES	8	8	8	5	5	5	5	5	9	8	9	8	8	8	8	7	11	11	8	7	7	6	7	6
FR	9	9	7	8	9	8	8	11	11	11	6	6	5	6	7	9	9	12	10	10	11	11	12	15
HR	25	27	26	26	26	26	25	26	23	24	22	24	24	24	24	25	24	26	25	26	25	23	19	20
IT	20	16	11	11	11	13	13	13	25	26	25	25	25	25	25	24	12	8	4	3	4	7	5	5
CY	15	13	14	17	18	21	15	10	6	7	8	11	11	12	13	10	25	21	20	25	26	26	20	12
LV	26	26	27	27	27	27	27	27	17	16	23	20	22	18	22	20	26	27	27	27	27	27	27	27
LT	19	20	18	19	19	20	16	18	13	14	12	14	13	13	12	13	20	22	23	22	22	25	22	21
LU	5	4	4	4	4	3	4	3	4	3	1	1	1	1	2	2	6	7	9	9	9	9	11	13
HU	18	21	16	15	15	17	19	20	20	21	16	18	18	20	19	21	15	17	17	15	16	16	17	17
MT	6	7	9	9	8	9	9	4	21	20	19	17	15	15	14	14	1	1	1	4	3	3	4	2
NL	4	6	5	6	6	7	7	8	3	4	4	2	2	2	1	1	8	10	11	12	12	13	15	16
AT	11	10	10	10	10	10	10	9	16	17	11	10	10	11	10	12	10	9	12	11	10	10	9	9
PL	13	17	17	16	16	15	17	17	14	18	18	21	20	21	21	22	13	13	13	13	15	14	13	11
PT	24	19	21	22	21	19	20	19	26	22	21	22	21	22	20	17	17	15	16	17	17	18	18	19
RO	27	25	25	25	25	25	26	25	27	27	27	27	27	27	27	27	21	20	15	16	14	15	16	18
SI	17	18	20	18	20	18	22	14	10	12	14	15	17	14	15	11	22	23	24	19	19	19	24	22
SK	10	11	13	13	13	12	12	12	22	23	24	23	23	23	23	23	5	6	6	6	6	5	3	4
FI	12	12	12	12	12	11	11	15	2	2	3	3	3	3	3	5	23	24	21	23	21	21	26	26
SE	2	2	2	1	1	1	1	1	5	5	5	5	4	4	4	3	3	3	3	2	2	1	1	1

Table 12. Gender Equality Index scores and ranks for the domain of time and its subdomains

MS	Score (points)																								
	Domain of time								Care activities								Social activities								
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	
EU	65.2	68.1	64.9	64.9	64.9	64.9	64.9	68.5	65.4	71.3	69.1	69.1	69.1	69.1	69.1	78.7	65.0	65.0	61.0	61.0	61.0	61.0	61.0	61.0	59.7
BE	70.3	71.8	65.3	65.3	65.3	65.3	65.3	64.7	72.6	75.7	68.9	68.9	68.9	68.9	68.9	82.8	68.1	68.1	61.9	61.9	61.9	61.9	61.9	61.9	50.5
BG	43.9	47.4	42.7	42.7	42.7	42.7	42.7	63.8	48.6	56.6	55.7	55.7	55.7	55.7	55.7	76.5	39.7	39.7	32.6	32.6	32.6	32.6	32.6	32.6	53.2
CZ	53.8	55.5	57.3	57.3	57.3	57.3	57.3	57.0	55.8	59.4	56.8	56.8	56.8	56.8	56.8	62.8	51.9	51.9	57.7	57.7	57.7	57.7	57.7	57.7	51.9
DK	80.4	85.4	83.1	83.1	83.1	83.1	83.1	72.7	75.8	85.5	86.1	86.1	86.1	86.1	86.1	82.4	85.3	85.3	80.2	80.2	80.2	80.2	80.2	80.2	64.1
DE	69.8	67.8	65.0	65.0	65.0	65.0	65.0	65.0	70.1	66.1	71.3	71.3	71.3	71.3	71.3	74.1	69.6	69.6	59.3	59.3	59.3	59.3	59.3	59.3	57.1
EE	73.7	70.1	74.7	74.7	74.7	74.7	74.7	64.4	80.7	73.0	85.9	85.9	85.9	85.9	85.9	92.2	67.2	67.2	65.0	65.0	65.0	65.0	65.0	65.0	45.0
IE	70.8	76.5	74.2	74.2	74.2	74.2	74.2	59.5	69.9	81.6	76.2	76.2	76.2	76.2	76.2	84.0	71.8	71.8	72.1	72.1	72.1	72.1	72.1	72.1	42.1
EL	35.6	45.2	44.7	44.7	44.7	44.7	44.7	67.1	34.2	55.1	50.9	50.9	50.9	50.9	50.9	74.8	37.1	37.1	39.3	39.3	39.3	39.3	39.3	39.3	60.2
ES	60.8	65.8	64.0	64.0	64.0	64.0	64.0	70.4	60.9	71.4	74.5	74.5	74.5	74.5	74.5	85.6	60.6	60.6	55.0	55.0	55.0	55.0	55.0	55.0	57.9
FR	66.6	70.3	67.3	67.3	67.3	67.3	67.3	68.7	70.3	78.5	70.4	70.4	70.4	70.4	70.4	81.7	63.0	63.0	64.4	64.4	64.4	64.4	64.4	64.4	57.7
HR	49.8	54.7	51.0	51.0	51.0	51.0	51.0	48.6	53.0	63.9	54.4	54.4	54.4	54.4	54.4	72.7	46.7	46.7	47.9	47.9	47.9	47.9	47.9	47.9	32.5
IT	55.1	61.4	59.3	59.3	59.3	59.3	59.3	67.4	54.5	67.6	61.2	61.2	61.2	61.2	61.2	74.2	55.7	55.7	57.4	57.4	57.4	57.4	57.4	57.4	61.2
CY	45.9	45.9	51.3	51.3	51.3	51.3	51.3	58.4	52.6	52.7	65.7	65.7	65.7	65.7	65.7	73.3	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	46.5
LV	62.0	60.8	65.8	65.8	65.8	65.8	65.8	62.6	78.2	75.1	89.8	89.8	89.8	89.8	89.8	69.9	49.2	49.2	48.2	48.2	48.2	48.2	48.2	48.2	56.1
LT	52.2	55.7	50.6	50.6	50.6	50.6	50.6	62.1	65.4	74.5	64.0	64.0	64.0	64.0	64.0	68.2	41.7	41.7	40.0	40.0	40.0	40.0	40.0	40.0	56.6
LU	70.2	71.5	69.1	69.1	69.1	69.1	69.1	62.8	72.1	74.8	79.4	79.4	79.4	79.4	79.4	86.4	68.3	68.3	60.2	60.2	60.2	60.2	60.2	60.2	45.6
HU	54.1	55.2	54.3	54.3	54.3	54.3	54.3	61.2	68.7	71.6	65.0	65.0	65.0	65.0	65.0	68.7	42.6	42.6	45.4	45.4	45.4	45.4	45.4	45.4	54.5
MT	54.3	58.7	64.2	64.2	64.2	64.2	64.2	59.4	49.7	57.9	69.0	69.0	69.0	69.0	69.0	77.6	59.4	59.4	59.8	59.8	59.8	59.8	59.8	59.8	45.5
NL	85.9	86.7	83.9	83.9	83.9	83.9	83.9	76.9	76.5	78.0	79.3	79.3	79.3	79.3	79.3	85.0	96.4	96.4	88.7	88.7	88.7	88.7	88.7	88.7	69.7
AT	56.0	65.3	61.2	61.2	61.2	61.2	61.2	68.4	44.9	61.0	62.7	62.7	62.7	62.7	62.7	76.9	69.8	69.8	59.7	59.7	59.7	59.7	59.7	59.7	60.8
PL	54.2	55.3	52.5	52.5	52.5	52.5	52.5	71.5	63.0	65.6	64.1	64.1	64.1	64.1	64.1	74.0	46.5	46.5	43.0	43.0	43.0	43.0	43.0	43.0	69.0
PT	38.7	46.0	47.5	47.5	47.5	47.5	47.5	67.8	49.3	69.5	63.3	63.3	63.3	63.3	63.3	80.3	30.4	30.4	35.7	35.7	35.7	35.7	35.7	35.7	57.3
RO	50.6	53.2	50.3	50.3	50.3	50.3	50.3	69.2	70.9	78.1	70.7	70.7	70.7	70.7	70.7	80.7	36.2	36.2	35.8	35.8	35.8	35.8	35.8	35.8	59.4
SI	68.3	72.4	72.9	72.9	72.9	72.9	72.9	69.3	64.5	72.3	69.5	69.5	69.5	69.5	69.5	77.1	72.4	72.4	76.4	76.4	76.4	76.4	76.4	76.4	62.3
SK	39.9	43.4	46.3	46.3	46.3	46.3	46.3	61.0	52.7	62.5	56.5	56.5	56.5	56.5	56.5	69.3	30.2	30.2	37.9	37.9	37.9	37.9	37.9	37.9	53.7
FI	80.1	81.0	77.4	77.4	77.4	77.4	77.4	69.7	84.2	86.0	82.2	82.2	82.2	82.2	82.2	89.9	76.3	76.3	72.9	72.9	72.9	72.9	72.9	72.9	54.0
SE	84.5	83.5	90.1	90.1	90.1	90.1	90.1	71.9	84.6	82.6	90.9	90.9	90.9	90.9	90.9	93.1	84.3	84.3	89.3	89.3	89.3	89.3	89.3	89.3	55.6

MS	Rank																							
	Domain of time								Care activities								Social activities							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BE	7	7	11	11	11	11	11	15	7	8	15	15	15	15	15	8	10	10	9	9	9	9	9	21
BG	24	23	27	27	27	27	27	17	25	25	25	25	25	25	16	23	23	27	27	27	27	27	27	19
CZ	19	18	17	17	17	17	17	26	18	23	23	23	23	23	23	27	16	16	14	14	14	14	14	20
DK	3	2	3	3	3	3	3	2	6	2	3	3	3	3	3	9	2	2	3	3	3	3	3	3
DE	9	11	12	12	12	12	12	14	11	18	10	10	10	10	10	19	8	8	13	13	13	13	13	12
EE	5	10	5	5	5	5	5	16	3	12	4	4	4	4	4	2	11	11	7	7	7	7	7	25
IE	6	5	6	6	6	6	6	23	12	4	8	8	8	8	8	7	6	6	6	6	6	6	6	26
EL	27	26	26	26	26	26	26	13	27	26	27	27	27	27	27	17	24	24	23	23	23	23	23	7
ES	13	12	14	14	14	14	14	5	17	15	9	9	9	9	9	5	13	13	16	16	16	16	16	9
FR	11	9	9	9	9	9	9	9	10	5	12	12	12	12	12	10	12	12	8	8	8	8	8	10
HR	22	21	21	21	21	21	21	27	20	20	26	26	26	26	26	22	18	18	18	18	18	18	18	27
IT	15	14	16	16	16	16	16	12	19	17	22	22	22	22	22	18	15	15	15	15	15	15	15	5
CY	23	25	20	20	20	20	20	25	22	27	16	16	16	16	16	21	22	22	21	21	21	21	21	22
LV	12	15	10	10	10	10	10	19	4	9	2	2	2	2	2	23	17	17	17	17	17	17	17	14
LT	20	17	22	22	22	22	22	20	14	11	19	19	19	19	19	26	21	21	22	22	22	22	22	13
LU	8	8	8	8	8	8	8	18	8	10	6	6	6	6	6	4	9	9	10	10	10	10	10	23
HU	18	20	18	18	18	18	18	21	13	14	17	17	17	17	17	25	20	20	19	19	19	19	19	16
MT	16	16	13	13	13	13	13	24	23	24	14	14	14	14	14	13	14	14	11	11	11	11	11	24
NL	1	1	2	2	2	2	2	1	5	7	7	7	7	7	7	6	1	1	2	2	2	2	2	1
AT	14	13	15	15	15	15	15	10	26	22	21	21	21	21	21	15	7	7	12	12	12	12	12	6
PL	17	19	19	19	19	19	19	4	16	19	18	18	18	18	18	20	19	19	20	20	20	20	20	2
PT	26	24	24	24	24	24	24	11	24	16	20	20	20	20	20	12	26	26	26	26	26	26	26	11
RO	21	22	23	23	23	23	23	8	9	6	11	11	11	11	11	11	25	25	25	25	25	25	25	8
SI	10	6	7	7	7	7	7	7	15	13	13	13	13	13	13	14	5	5	4	4	4	4	4	4
SK	25	27	25	25	25	25	25	22	21	21	24	24	24	24	24	24	27	27	24	24	24	24	24	18
FI	4	4	4	4	4	4	4	6	2	1	5	5	5	5	5	3	4	4	5	5	5	5	5	17
SE	2	3	1	1	1	1	1	3	1	3	1	1	1	1	1	1	3	3	1	1	1	1	1	15

Table 13. Gender Equality Index scores and ranks for the domain of power and its subdomains

MS	Score (points)																															
	Domain of power								Political								Economic								Social							
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021
EU	41.9	43.6	48.4	51.6	53.1	55.0	57.2	59.1	47.5	49.0	53.0	55.0	56.8	58.5	60.2	61.4	29.0	31.9	39.2	43.0	45.9	48.8	52.1	54.7	53.2	53.2	54.5	58.2	57.4	58.2	59.9	61.5
BE	47.9	50.5	53.4	55.2	55.7	61.0	67.0	71.6	65.8	70.0	70.2	67.8	68.1	72.0	80.9	87.0	32.8	36.0	38.0	40.2	41.8	53.3	63.6	72.8	50.9	51.0	57.1	61.7	60.8	59.2	58.6	58.0
BG	45.8	49.4	56.0	59.9	61.5	60.2	63.0	62.7	50.3	53.4	49.2	53.8	56.5	58.8	58.4	57.5	27.6	32.7	53.2	59.9	60.0	60.2	65.6	60.9	69.3	69.3	67.0	66.8	68.5	61.8	65.2	70.6
CZ	31.0	32.0	22.6	26.1	27.7	28.1	29.7	30.2	30.7	31.7	36.6	37.8	40.0	43.2	45.4	43.4	27.4	29.0	9.2	13.6	16.4	17.1	19.1	20.0	35.6	35.6	34.2	34.3	32.5	30.1	30.2	31.6
DK	58.0	57.5	61.5	64.9	66.2	66.8	69.3	73.9	75.1	76.1	71.2	74.2	76.0	75.3	74.1	76.1	47.5	45.6	55.7	56.5	56.0	55.1	59.2	68.5	54.8	54.8	58.7	65.3	68.3	71.8	75.7	77.5
DE	38.3	46.0	53.0	56.6	59.5	62.8	64.8	67.6	60.2	59.9	71.5	69.6	67.8	66.7	67.8	71.4	19.0	33.0	42.1	49.7	56.5	64.4	67.3	68.1	49.2	49.1	49.5	52.4	55.0	57.5	59.7	63.6
EE	21.9	22.0	28.2	34.6	36.1	36.6	34.0	33.0	34.9	33.7	44.9	48.5	49.3	47.3	50.7	55.4	21.6	22.7	23.2	23.4	24.2	27.5	25.2	21.8	13.9	13.9	21.4	36.5	39.4	37.8	30.8	29.8
IE	37.2	40.7	48.6	53.4	55.8	58.4	61.7	64.7	32.9	37.0	39.8	44.1	45.3	47.0	48.8	50.6	21.7	25.4	39.9	46.4	50.0	55.6	62.9	68.1	72.1	71.7	72.4	74.5	76.8	76.1	76.5	78.5
EL	22.3	22.3	21.7	24.3	27.0	27.0	28.8	30.4	34.3	30.7	34.7	35.8	36.5	36.1	36.2	36.0	13.6	15.3	12.1	14.9	20.4	21.1	26.4	30.7	23.8	23.6	24.2	27.0	26.4	25.7	25.0	25.5
ES	52.6	52.9	57.0	62.0	69.4	76.9	80.6	81.1	73.7	69.7	72.3	76.8	82.5	86.5	87.4	86.6	33.3	35.8	43.5	53.4	64.8	70.1	75.7	79.1	59.4	59.2	58.9	58.1	62.7	75.1	79.1	77.8
FR	52.4	55.1	68.2	78.3	79.8	81.4	81.7	83.8	64.1	70.8	77.1	80.8	83.1	84.9	86.3	86.9	41.2	43.2	70.2	82.9	84.6	85.4	85.8	86.2	54.6	54.6	58.4	71.7	72.3	74.2	73.5	78.7
HR	28.4	27.3	28.5	34.8	41.4	45.3	49.7	49.5	40.2	40.0	38.7	42.2	45.1	46.3	49.9	54.7	24.8	22.2	19.0	19.8	28.6	37.2	46.9	43.0	22.9	22.9	31.6	50.2	55.1	54.2	52.6	51.6
IT	25.2	29.4	45.3	47.6	48.8	52.2	56.9	62.7	31.7	35.8	47.4	47.9	49.3	52.8	58.8	62.4	10.6	14.8	44.7	53.1	54.9	56.7	59.5	66.6	47.8	47.8	43.7	42.5	43.1	47.5	52.7	59.2
CY	15.4	17.4	24.7	28.2	29.8	30.0	30.1	29.2	30.1	30.2	25.8	27.5	29.9	32.3	34.6	34.5	4.7	6.8	22.6	23.0	23.0	22.9	22.8	22.2	25.9	25.7	25.8	35.6	38.6	36.6	34.6	32.3
LV	34.8	37.9	39.0	44.1	49.4	50.4	50.9	49.1	38.1	43.7	40.5	36.7	40.6	43.4	43.7	41.8	37.5	42.1	44.2	45.6	46.1	48.2	49.2	45.5	29.5	29.5	33.2	51.4	64.3	61.2	61.3	62.4
LT	32.9	27.7	36.6	32.5	34.1	39.3	45.4	48.6	34.0	34.8	40.0	40.9	45.5	48.5	54.7	59.1	23.7	13.9	30.1	18.5	18.1	24.5	34.2	37.8	44.3	44.2	40.9	45.3	48.2	51.2	50.0	51.5
LU	25.6	34.9	43.5	44.8	48.4	53.4	59.7	64.4	45.3	47.6	51.1	48.9	51.5	54.6	57.7	60.9	5.2	12.5	23.5	28.2	32.1	37.5	47.3	57.8	71.5	71.2	68.2	65.2	68.6	74.2	77.9	75.9
HU	23.5	21.9	18.7	20.6	22.2	22.9	24.8	26.2	16.1	15.9	14.3	15.0	17.8	21.8	25.8	26.4	37.8	31.0	22.1	23.1	23.7	23.0	21.4	20.5	21.4	21.5	20.9	25.1	25.8	24.1	27.7	33.4
MT	20.9	25.0	27.4	32.2	32.8	37.5	40.4	45.3	30.0	29.1	30.5	32.9	33.1	35.3	35.7	39.8	12.4	21.9	24.4	24.0	24.2	29.9	34.6	40.9	24.5	24.6	27.5	42.2	44.2	49.8	53.4	57.1
NL	56.9	56.6	52.9	50.0	57.2	64.0	68.9	72.7	69.5	66.0	70.6	70.6	71.9	73.4	74.8	76.4	40.4	41.8	33.1	29.3	45.9	58.7	69.6	72.0	65.8	65.8	63.4	60.2	56.7	60.7	62.9	70.1
AT	28.4	30.8	34.9	39.9	44.2	48.2	51.7	55.4	60.3	60.3	59.1	61.1	65.9	74.7	78.9	81.6	9.3	11.8	17.4	21.1	24.4	28.0	30.6	32.0	40.7	40.8	41.1	49.3	53.7	53.6	57.2	65.3
PL	30.6	34.8	35.1	29.1	30.0	31.5	34.4	36.4	36.6	43.5	46.1	43.6	44.3	45.6	46.9	47.2	27.5	33.8	38.2	33.1	34.1	35.7	37.3	38.9	28.6	28.6	24.4	17.0	17.8	19.2	23.2	26.2
PT	34.9	29.7	33.9	46.7	51.1	53.6	55.5	57.4	41.9	42.4	48.7	56.7	59.0	62.6	64.5	65.1	20.4	12.6	16.4	36.3	44.9	47.9	46.9	44.7	49.6	49.3	48.9	49.4	50.4	51.4	56.6	64.9
RO	30.8	28.8	33.2	38.8	37.5	34.7	32.6	30.7	23.5	26.5	32.9	40.8	41.6	41.0	36.1	31.8	28.0	20.4	21.4	20.5	21.5	19.0	17.8	15.7	44.4	44.4	51.8	69.7	59.3	53.6	54.1	57.6
SI	41.1	51.5	60.6	57.6	55.0	53.0	53.3	56.1	44.5	46.3	65.4	67.3	64.4	59.2	55.6	56.2	29.9	56.4	61.5	50.4	44.7	45.1	45.0	53.6	52.3	52.3	55.3	56.2	57.7	55.8	60.5	58.8
SK	29.5	25.4	23.1	26.8	29.6	30.7	31.4	31.1	31.0	28.4	29.0	35.3	36.9	37.2	36.8	36.8	34.1	23.7	14.6	17.9	23.3	26.3	27.6	27.5	24.3	24.4	29.1	30.4	30.0	29.6	30.6	29.6
FI	69.1	73.2	65.3	66.7	71.9	74.3	74.3	73.9	86.1	86.3	84.8	78.8	83.9	90.4	91.1	91.1	52.5	62.0	47.6	52.5	59.2	60.8	61.0	58.9	73.1	73.2	68.9	71.5	74.8	74.6	73.8	75.0
SE	77.8	75.2	79.5	83.4	84.2	84.5	84.6	85.1	92.1	93.0	93.9	95.1	94.9	95.0	95.5	95.9	58.7	52.6	60.8	69.4	71.7	70.7	69.4	69.2	87.1	87.1	87.8	87.9	87.8	89.8	91.4	92.9

MS	Rank																															
	Domain of power							Political							Economic							Social										
	2010	2012	2015	2017	2018	2019	2020	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BE	7	8	8	9	10	8	7	7	6	5	8	8	7	8	5	3	10	8	13	12	14	11	7	3	11	11	10	9	10	11	13	16
BG	8	9	7	6	6	9	9	11	10	10	12	12	12	12	14	13	12	5	3	4	6	6	10	5	5	5	6	6	8	8	8	
CZ	15	15	25	25	25	25	25	25	23	21	21	21	22	21	20	20	15	14	27	27	27	27	26	26	18	18	18	23	23	23	24	23
DK	3	3	4	4	5	5	5	4	3	3	6	5	5	5	8	8	3	4	4	4	7	10	11	6	8	8	8	7	7	7	5	5
DE	10	10	9	8	7	7	8	8	9	9	5	7	8	9	9	9	21	11	10	9	6	4	5	8	13	13	13	13	15	12	12	12
EE	25	25	21	19	19	20	21	21	17	20	16	14	14	16	16	16	19	17	18	18	20	20	23	24	27	27	26	21	21	21	22	24
IE	11	11	11	10	9	10	10	9	20	17	19	16	17	17	18	18	18	15	11	10	9	9	8	7	3	3	2	2	2	2	4	3
EL	24	24	26	26	26	26	26	24	18	22	22	23	24	24	23	24	22	21	26	26	25	25	22	21	24	24	25	25	25	25	26	27
ES	5	6	6	5	4	3	3	3	4	6	4	4	4	3	3	5	9	9	9	5	3	3	2	2	7	7	7	11	9	3	2	4
FR	6	5	2	2	2	2	2	2	7	4	3	2	3	4	4	4	4	5	1	1	1	1	1	1	9	9	9	3	4	5	7	2
HR	20	21	20	18	17	17	17	16	14	16	20	18	18	18	17	17	16	18	22	23	17	16	15	16	25	25	20	15	14	14	19	19
IT	22	18	12	12	14	14	12	12	21	18	14	15	15	14	11	11	24	22	7	6	8	8	10	9	14	14	15	19	20	20	18	14
CY	27	27	23	23	23	24	24	26	24	23	26	26	26	26	26	25	27	27	19	20	23	24	24	23	21	21	23	22	22	22	21	22
LV	13	12	14	15	13	15	16	17	15	13	17	22	21	20	21	21	7	6	8	11	10	12	12	14	19	19	19	14	8	9	10	13
LT	14	20	15	20	20	18	18	18	19	19	18	19	16	15	15	13	17	23	15	24	26	22	19	19	16	16	17	18	18	18	20	20
LU	21	13	13	14	15	12	11	10	11	11	11	13	13	13	13	12	26	25	17	16	16	15	13	12	4	4	4	8	5	6	3	6
HU	23	26	27	27	27	27	27	27	27	27	27	27	27	27	27	27	6	13	20	19	21	23	25	25	26	26	27	26	26	26	25	21
MT	26	23	22	21	21	19	19	19	25	24	24	25	25	25	25	22	23	19	16	17	19	18	18	17	22	22	22	20	19	19	17	18
NL	4	4	10	11	8	6	6	6	5	7	7	6	6	7	7	7	5	7	14	15	11	7	3	4	6	6	6	10	13	10	9	9
AT	19	16	17	16	16	16	15	15	8	8	10	10	9	6	6	6	25	26	23	21	18	19	20	20	17	17	16	17	16	16	14	10
PL	17	14	16	22	22	22	20	20	16	14	15	17	19	19	19	19	14	10	12	14	15	17	17	18	20	20	24	27	27	27	27	26
PT	12	17	18	13	12	11	13	13	13	15	13	11	11	10	10	10	20	24	24	13	12	13	14	15	12	12	14	16	17	17	15	11
RO	16	19	19	17	18	21	22	23	26	26	23	20	20	22	24	26	12	20	21	22	24	26	27	27	15	15	12	5	11	15	16	17
SI	9	7	5	7	11	13	14	14	12	12	9	9	10	11	14	15	11	2	2	8	13	14	16	13	10	10	11	12	12	13	11	15
SK	18	22	24	24	24	23	23	22	22	25	25	24	23	23	22	23	8	16	25	25	22	21	21	22	23	23	21	24	24	24	23	25
FI	2	2	3	3	3	4	4	5	2	2	2	3	2	2	2	2	2	1	6	7	5	5	9	11	2	2	3	4	3	4	6	7
SE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	2	2	2	4	5	1	1	1	1	1	1	1	1

Table 14. Gender Equality Index scores and ranks for the domain of health and its subdomains

MS	Score (points)																																
	Domain of health								Status								Behaviour								Access								
	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	
EU	86.7	86.7	87.1	87.8	87.8	87.8	88.7	88.5	90.4	90.6	90.9	91.9	92.0	92.2	91.9	91.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	77.8	77.8	96.2	96.2	97.0	98.3	98.3	98.2	97.6	97.3
BE	86.5	86.4	86.3	86.3	86.5	86.3	88.5	88.5	92.6	93.4	93.3	93.3	93.6	93.3	93.8	94.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3	75.1	75.1	99.3	98.1	98.0	97.9	98.4	98.1	98.3	97.8
BG	75.3	75.8	76.4	77.1	77.2	77.2	78.0	77.8	88.1	88.4	88.1	89.0	89.1	89.1	88.4	87.8	52.3	52.3	52.3	52.3	52.3	52.3	52.3	54.4	54.4	92.6	94.1	96.9	98.5	98.5	98.8	98.8	98.7
CZ	85.7	85.7	86.0	86.3	86.3	86.3	84.8	84.8	89.1	89.0	89.6	90.0	90.0	89.9	89.9	89.8	72.3	72.3	72.3	72.3	72.3	72.3	72.3	68.6	68.6	97.9	98.0	98.2	98.7	98.9	98.9	99.1	98.9
DK	90.3	90.2	89.6	89.9	89.7	89.5	89.5	88.6	92.2	92.6	91.6	92.4	91.1	91.6	92.0	90.4	81.7	81.7	81.7	81.7	81.7	81.7	81.7	81.9	81.9	97.8	96.9	96.2	96.3	96.8	95.9	95.2	93.8
DE	89.3	89.4	90.5	90.5	90.6	90.7	90.0	89.8	90.4	90.2	91.8	92.0	92.3	92.5	91.6	91.1	80.9	80.9	80.9	80.9	80.9	80.9	80.9	79.7	79.7	97.5	97.9	99.7	99.7	99.7	99.8	99.9	99.8
EE	82.7	82.1	81.5	81.9	81.6	82.2	85.0	85.1	83.4	83.2	84.1	83.9	83.8	85.2	86.0	85.7	70.1	70.1	70.1	70.1	70.1	70.1	70.1	76.1	76.1	96.8	94.7	91.9	93.5	92.6	92.9	93.8	94.7
IE	90.7	90.4	90.6	90.9	91.3	91.3	95.0	94.8	96.5	96.5	96.8	97.1	97.6	97.7	96.8	96.8	79.0	79.0	79.0	79.0	79.0	79.0	79.0	89.7	89.7	98.0	97.0	97.3	97.9	98.8	98.6	98.7	98.2
EL	84.3	83.9	83.1	83.5	84.0	84.3	85.8	85.5	94.1	93.5	93.4	93.3	94.4	95.2	94.9	94.3	66.6	66.6	66.6	66.6	66.6	66.6	66.6	71.0	71.0	95.7	94.8	92.3	93.8	94.1	94.5	93.9	93.5
ES	88.6	89.1	89.6	90.1	90.1	90.3	91.7	91.2	92.4	93.6	93.2	94.1	94.4	95.2	93.8	92.6	78.6	78.6	78.6	78.6	78.6	78.6	78.6	83.7	83.7	95.7	96.2	98.3	98.9	98.7	98.6	98.1	97.9
FR	86.7	86.8	87.1	87.4	87.4	87.4	88.6	88.3	91.0	91.6	91.6	91.9	92.1	92.1	92.5	92.5	74.0	74.0	74.0	74.0	74.0	74.0	74.0	78.0	78.0	96.8	96.6	97.6	98.1	97.9	98.1	96.4	95.3
HR	81.5	82.8	83.3	83.7	83.7	83.8	85.1	84.8	85.1	85.7	86.4	87.5	87.4	87.6	88.3	88.2	68.3	68.3	68.3	68.3	68.3	68.3	68.3	70.9	70.9	93.1	97.0	97.8	98.1	98.3	98.3	98.3	97.6
IT	86.3	86.5	86.3	88.7	88.4	88.4	89.0	89.2	91.1	91.3	91.3	95.1	94.3	94.4	93.9	94.6	74.2	74.2	74.2	74.2	74.2	74.2	74.2	76.1	76.1	94.9	95.5	94.8	99.0	98.6	98.6	98.6	98.6
CY	86.4	87.1	88.2	88.4	88.0	87.9	87.0	87.1	93.7	94.4	95.5	96.1	94.8	94.6	94.8	94.9	73.0	73.0	73.0	73.0	73.0	73.0	73.0	70.2	70.2	94.4	96.0	98.4	98.4	98.4	98.4	98.9	99.2
LV	77.3	77.9	78.4	78.3	78.4	79.3	79.3	78.9	80.0	80.5	79.8	79.0	79.9	80.4	81.4	80.6	65.5	65.5	65.5	65.5	65.5	65.5	65.5	64.9	64.9	88.3	89.7	92.3	92.9	92.1	94.6	94.5	93.8
LT	80.4	79.6	79.1	79.8	80.0	80.3	82.7	82.9	81.9	79.7	78.5	80.0	81.0	81.2	80.3	81.4	64.8	64.8	64.8	64.8	64.8	64.8	64.8	71.6	71.6	98.1	97.7	97.5	98.2	97.8	98.3	98.5	97.8
LU	89.8	90.0	89.0	89.6	89.5	89.9	90.4	90.4	93.8	94.4	92.0	91.9	91.5	93.0	93.7	94.0	78.5	78.5	78.5	78.5	78.5	78.5	78.5	79.1	79.1	98.3	98.4	97.7	99.7	99.7	99.7	99.6	99.3
HU	85.4	85.9	86.0	86.6	87.0	86.7	87.3	87.2	84.2	85.9	85.8	86.6	87.6	86.9	88.0	88.4	76.8	76.8	76.8	76.8	76.8	76.8	76.8	77.0	77.0	96.3	96.0	96.5	97.6	97.9	97.6	98.3	97.4
MT	90.6	91.6	91.8	92.1	92.0	92.3	87.8	87.4	93.8	95.3	95.6	96.2	95.8	96.4	95.8	94.7	81.7	81.7	81.7	81.7	81.7	81.7	81.7	71.0	71.0	97.0	98.6	99.0	99.6	99.4	99.8	99.7	99.3
NL	90.3	89.7	89.9	90.0	90.0	90.2	94.2	94.2	93.6	91.8	91.7	92.1	92.2	92.8	93.4	93.2	79.3	79.3	79.3	79.3	79.3	79.3	79.3	89.9	89.9	99.2	99.3	99.9	99.9	99.9	99.6	99.6	99.6
AT	91.1	91.5	91.7	91.7	91.9	91.9	91.3	91.4	91.0	91.7	91.3	91.5	91.8	91.9	92.8	93.4	84.6	84.6	84.6	84.6	84.6	84.6	84.6	82.2	82.2	98.1	98.8	99.8	99.7	99.9	99.7	99.9	99.7
PL	81.6	81.7	82.2	83.2	83.1	83.3	83.6	84.4	85.8	85.9	86.6	87.3	87.4	87.7	87.5	87.9	67.9	67.9	67.9	67.9	67.9	67.9	67.9	70.7	70.7	93.4	93.6	94.5	97.0	96.7	97.2	94.6	96.6
PT	84.3	84.4	83.6	84.5	84.6	84.8	84.5	84.1	83.3	84.6	82.6	84.0	84.2	84.5	85.4	85.1	75.5	75.5	75.5	75.5	75.5	75.5	75.5	73.9	73.9	95.2	94.2	93.9	95.2	95.2	95.8	95.6	94.6
RO	69.9	70.2	70.4	71.1	71.2	71.3	70.4	70.0	87.9	88.5	88.6	88.6	88.7	89.2	89.2	88.5	42.5	42.5	42.5	42.5	42.5	42.5	42.5	40.7	40.7	91.6	92.1	92.9	95.7	96.0	95.9	96.0	95.3
SI	86.8	87.3	87.7	87.1	86.9	87.8	86.9	86.5	86.3	87.9	89.1	89.4	88.3	90.7	91.3	91.6	75.9	75.9	75.9	75.9	75.9	75.9	75.9	73.6	73.6	99.8	99.8	99.8	97.5	97.8	98.2	97.8	96.0
SK	84.8	85.0	85.3	85.8	85.5	85.5	85.2	85.1	85.4	86.1	87.4	88.1	87.8	87.7	87.7	87.3	73.1	73.1	73.1	73.1	73.1	73.1	73.1	72.9	72.9	97.6	97.5	97.3	98.0	97.4	97.6	96.7	96.9
FI	89.5	89.3	89.7	89.7	89.3	89.5	92.6	93.1	90.5	90.2	91.1	90.9	90.3	90.5	91.2	92.4	81.9	81.9	81.9	81.9	81.9	81.9	81.9	90.7	90.7	96.6	96.4	96.8	96.8	96.3	96.6	96.0	96.3
SE	93.2	93.0	94.1	94.7	94.5	94.6	95.2	94.5	95.7	95.7	97.4	96.9	96.3	96.4	96.3	94.8	89.3	89.3	89.3	89.3	89.3	89.3	89.3	91.2	91.2	94.5	94.2	95.8	98.0	98.1	98.2	98.3	97.7

MS	Rank																															
	Domain of health							Status							Behaviour							Access										
	2010	2012	2015	2017	2018	2019	2020	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	2010	2012	2015	2017	2018	2019	2020	2021	
EU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
BE	13	15	14	16	16	16	12	11	8	8	6	8	8	8	8	7	19	19	19	19	19	19	14	14	2	6	9	16	11	16	15	13
BG	26	26	26	26	26	26	26	26	17	18	19	18	17	19	19	22	26	26	26	26	26	26	26	25	24	16	9	10	7	8	8	
CZ	16	17	16	17	17	17	21	21	16	16	16	16	16	17	17	17	18	18	18	18	18	18	24	24	8	7	8	8	6	6	6	7
DK	5	5	8	8	8	9	9	10	10	9	11	9	14	14	13	16	5	5	5	5	5	5	7	7	9	13	19	22	20	22	23	26
DE	9	8	5	5	5	5	8	8	15	14	9	11	9	11	14	15	6	6	6	6	6	6	8	8	11	8	4	2	4	2	2	1
EE	21	22	23	23	23	23	20	18	24	25	24	25	25	24	24	24	20	20	20	20	20	20	13	13	14	21	27	26	26	27	27	23
IE	3	4	4	4	4	4	2	1	1	1	2	1	1	1	1	1	8	8	8	8	8	8	4	4	7	12	14	17	7	9	9	10
EL	19	20	21	21	20	20	17	17	3	7	5	7	6	4	4	6	23	23	23	23	23	23	20	20	17	20	26	25	25	26	26	27
ES	10	10	9	6	6	6	5	6	9	6	7	6	5	5	7	11	9	9	9	9	9	9	5	5	18	16	7	7	8	10	16	11
FR	12	13	13	13	13	14	11	12	12	12	12	13	11	12	12	12	15	15	15	15	15	15	10	10	13	14	12	13	15	17	19	21
HR	23	21	20	20	21	21	19	20	22	23	22	21	23	22	20	20	21	21	21	21	21	21	21	21	24	11	10	12	13	13	14	15
IT	15	14	15	11	11	11	10	9	11	13	13	5	7	7	6	5	14	14	14	14	14	14	12	12	20	19	21	6	9	8	10	9
CY	14	12	11	12	12	12	15	15	6	5	4	4	4	6	5	2	17	17	17	17	17	17	23	23	22	17	6	10	12	11	7	6
LV	25	25	25	25	25	25	25	25	27	26	26	27	27	27	26	27	24	24	24	24	24	24	25	25	27	27	25	27	27	25	25	25
LT	24	24	24	24	24	24	24	24	26	27	27	26	26	26	27	26	25	25	25	25	25	25	18	18	5	9	13	11	18	12	11	12
LU	7	6	10	10	9	8	7	7	4	4	8	12	13	9	9	8	10	10	10	10	10	10	9	9	4	5	11	4	3	4	4	5
HU	17	16	17	15	14	15	14	14	23	22	23	23	21	23	21	19	11	11	11	11	11	11	11	11	16	18	18	18	16	18	13	16
MT	4	2	2	2	2	2	13	13	5	3	3	3	3	3	3	4	4	4	4	4	4	4	19	19	12	4	5	5	5	1	3	4
NL	6	7	6	7	7	7	3	3	7	10	10	10	10	10	10	10	7	7	7	7	7	7	3	3	3	2	1	1	1	5	5	3
AT	2	3	3	3	3	3	6	5	13	11	14	14	12	13	11	9	2	2	2	2	2	2	6	6	6	3	2	3	2	3	1	2
PL	22	23	22	22	22	22	23	22	20	21	21	22	22	21	23	21	22	22	22	22	22	22	22	22	23	25	22	20	21	20	24	18
PT	20	19	19	19	19	19	22	23	25	24	25	24	24	25	25	25	13	13	13	13	13	13	15	15	19	23	23	24	24	24	22	24
RO	27	27	27	27	27	27	27	27	18	17	18	19	18	18	18	18	27	27	27	27	27	27	27	27	26	26	24	23	23	23	20	22
SI	11	11	12	14	15	13	16	16	19	19	17	17	19	15	15	14	12	12	12	12	12	12	16	16	1	1	3	19	17	14	17	20
SK	18	18	18	18	18	18	18	19	21	20	20	20	20	20	22	23	16	16	16	16	16	16	17	17	10	10	15	15	19	19	18	17
FI	8	9	7	9	10	10	4	4	14	15	15	15	15	16	16	13	3	3	3	3	3	3	2	2	15	15	17	21	22	21	21	19
SE	1	1	1	1	1	1	1	2	2	2	1	2	2	2	2	3	1	1	1	1	1	1	1	21	22	20	14	14	15	12	14	

Annex 3. Indicators included in the Gender Equality Index 2023

Table 15. Indicators included in the domain of work by EU Member State, Gender Equality Index 2023

MS	Participation								Segregation and quality of work											
	Full-time equivalent employment (% , 15-89)				Duration of working life (years)				Employed people in Education, Human Health and Social Work activities (% , 15-89)				Ability to take an hour or two off during working hours to take care of personal or family matters (% , 15+ employed)				Career Prospect Index (0-100 points)			
	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap
EU	42.5	57.4	49.6	-14.9	33.6	38.1	35.9	-4.5	30.4	8.4	18.6	22.0	29.0	37.2	33.4	-8.2	61.5	63.1	62.4	-1.6
BE	41.2	54.4	47.4	-13.2	32.1	35.7	34.0	-3.6	40.2	12.0	25.2	28.2	27.4	32.7	30.2	-5.3	66.2	66.5	66.4	-0.3
BG	46.5	58.9	52.4	-12.4	31.2	34.1	32.7	-2.9	19.3	4.1	11.2	15.2	22.6	31.3	27.3	-8.7	65.6	62.3	63.9	3.3
CZ	48.2	65.8	56.8	-17.6	32.7	39.0	35.9	-6.3	27.1	5.7	15.1	21.4	18.1	28.1	23.7	-10.0	60.9	65.4	63.1	-4.5
DK	49.0	59.4	53.9	-10.4	38.5	42.1	40.3	-3.6	43.2	13.6	27.5	29.6	36.5	46.8	42.0	-10.3	70.4	72.9	71.7	-2.5
DE	43.1	59.9	51.1	-16.8	36.7	40.5	38.7	-3.8	32.2	9.7	20.2	22.5	31.8	39.2	35.8	-7.4	65.5	67.9	66.7	-2.4
EE	52.6	65.0	58.3	-12.4	38.8	38.9	38.8	-0.1	27.3	4.8	15.9	22.5	34.6	42.9	38.8	-8.3	65.8	64.8	65.3	1.0
IE	47.1	61.7	54.0	-14.6	35.3	41.3	38.4	-6.0	35.7	9.3	21.6	26.4	32.6	43.0	38.1	-10.4	64.6	64.1	64.3	0.5
EL	34.1	53.1	43.2	-19.0	29.1	36.1	32.8	-7.0	24.7	8.2	15.2	16.5	29.5	35.2	32.8	-5.7	51.0	52.2	51.6	-1.2
ES	41.3	55.1	47.9	-13.8	33.8	37.4	35.7	-3.6	26.5	8.3	16.7	18.2	35.6	38.1	37.0	-2.5	56.1	57.3	56.8	-1.2
FR	44.3	53.8	48.7	-9.5	34.8	37.5	36.1	-2.7	33.6	10.5	21.8	23.1	16.0	21.1	18.6	-5.1	63.8	66.7	65.3	-2.9
HR	41.4	53.9	47.4	-12.5	31.3	35.4	33.4	-4.1	26.4	4.6	14.6	21.8	38.2	50.2	44.7	-12.0	59.8	61.0	60.4	-1.2
IT	31.3	51.1	40.7	-19.8	26.9	35.9	31.6	-9.0	26.9	7.3	15.5	19.6	26.9	34.9	31.5	-8.0	51.9	55.7	54.0	-3.8
CY	50.2	62.6	56.2	-12.4	34.1	41.3	37.7	-7.2	20.2	6.1	12.7	14.1	42.9	47.8	45.5	-4.9	53.0	50.8	51.9	2.2
LV	49.8	61.4	55.0	-11.6	35.7	36.0	35.9	-0.3	27.5	5.2	16.4	22.3	36.3	42.8	39.5	-6.5	62.7	60.7	61.8	2.0
LT	54.1	63.4	58.4	-9.3	37.6	36.3	36.9	1.3	26.7	5.5	16.1	21.2	28.8	39.5	34.1	-10.7	61.9	63.2	62.5	-1.3
LU	51.1	63.9	57.3	-12.8	33.1	36.5	34.9	-3.4	28.5	10.7	18.9	17.8	32.0	37.9	35.2	-5.9	70.1	72.5	71.3	-2.4
HU	49.6	64.0	56.4	-14.4	33.8	37.4	35.7	-3.6	25.0	6.0	14.8	19.0	36.1	41.4	38.9	-5.3	64.4	63.5	64.0	0.9
MT	49.0	68.2	58.9	-19.2	33.3	41.4	37.4	-8.1	30.8	10.6	18.9	20.2	45.4	51.0	48.7	-5.6	69.0	67.0	67.8	2.0
NL	45.1	61.4	52.4	-16.3	40.5	44.3	42.4	-3.8	39.5	11.0	24.4	28.5	47.3	66.9	57.7	-19.6	61.0	62.4	61.7	-1.4
AT	41.7	59.8	50.3	-18.1	35.7	39.9	37.9	-4.2	28.5	8.8	18.0	19.7	35.6	43.1	39.6	-7.5	64.3	65.4	64.9	-1.1
PL	46.6	62.9	54.3	-16.3	31.7	36.6	34.2	-4.9	25.6	5.1	14.4	20.5	23.4	36.0	30.3	-12.6	60.1	59.2	59.7	0.9
PT	50.6	60.4	55.1	-9.8	36.6	38.7	37.7	-2.1	32.1	8.5	20.2	23.6	29.0	34.9	32.0	-5.9	55.6	57.0	56.3	-1.4
RO	38.8	57.7	47.9	-18.9	27.2	34.7	31.1	-7.5	19.5	3.8	10.3	15.7	25.4	34.2	30.6	-8.8	66.0	67.1	66.6	-1.1
SI	48.7	59.0	53.8	-10.3	35.0	37.1	36.1	-2.1	31.2	7.4	18.3	23.8	30.6	37.8	34.5	-7.2	60.4	61.5	61.0	-1.1
SK	51.0	62.4	56.4	-11.4	33.2	36.0	34.6	-2.8	28.2	5.1	15.9	23.1	20.5	28.2	24.5	-7.7	65.7	66.8	66.2	-1.1
FI	47.9	55.1	51.3	-7.2	38.7	40.0	39.3	-1.3	38.3	8.9	23.0	29.4	32.9	51.3	42.5	-18.4	65.4	66.7	66.1	-1.3
SE	52.8	61.4	57.0	-8.6	41.0	43.6	42.3	-2.6	40.1	12.6	25.5	27.5	46.8	58.5	53.0	-11.7	66.7	68.1	67.4	-1.4

Source:
Eurostat, EU LFS, 2021;
EIGE's calculation.

Source:
Eurostat, EU LFS, (lfsi_dwl_a), 2021.

Source:
Eurostat, EU LFS, (lfsa_egan2), 2021.

Source:
Eurofound, EWCTS, 2021;
EIGE's calculation.

Source:
Eurofound, EWCS, 2015;
EIGE's calculation.

Table 16. Indicators included in the domain of money by EU Member State, Gender Equality Index 2023

MS	Financial resources								Economic situation							
	Mean monthly earnings (PPS, working population)				Mean equivalised net income (PPS,16+)				Not-at-risk-of-poverty, ≥60 % of median income (% 16+)				S20/S80 income quintile share (% 16+)			
	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap
EU	2,321	2,818	2,581	-497	20,261	21,221	20,725	-960	82.8	84.6	83.7	-1.8	20.3	19.9	20.1	0.4
BE	2,778	3,075	2,927	-297	23,866	25,198	24,518	-1,332	87.4	88.3	87.8	-0.9	29.7	28.1	28.8	1.6
BG	1,078	1,256	1,168	-178	12,056	12,483	12,261	-427	76.3	80.1	78.1	-3.8	13.7	14.0	13.8	-0.3
CZ	1,463	1,845	1,669	-382	15,222	16,212	15,703	-990	90.3	93.7	92.0	-3.4	29.3	29.7	29.4	-0.4
DK	2,868	3,479	3,160	-611	24,812	26,113	25,449	-1,301	86.4	87.9	87.1	-1.5	25.5	24.7	25.0	0.8
DE	2,765	3,461	3,135	-696	26,902	28,141	27,508	-1,239	83.3	84.9	84.1	-1.6	20.2	19.6	19.8	0.6
EE	1,461	1,896	1,653	-435	16,037	17,101	16,533	-1,064	75.6	81.4	78.3	-5.8	20.6	19.0	19.7	1.6
IE	2,597	3,084	2,833	-487	22,814	23,772	23,284	-958	86.3	88.1	87.2	-1.8	25.7	25.3	25.5	0.4
EL	1,524	1,802	1,672	-278	11,227	11,602	11,408	-375	80.8	81.4	81.1	-0.6	17.8	17.1	17.4	0.7
ES	1,961	2,290	2,135	-329	18,631	19,140	18,879	-509	78.8	80.4	79.6	-1.6	16.7	16.8	16.8	-0.1
FR	2,282	2,798	2,548	-516	22,727	23,965	23,319	-1,238	85.2	87.9	86.5	-2.7	22.9	22.5	22.7	0.4
HR	1,572	1,783	1,681	-211	12,213	12,721	12,458	-508	78.2	82.4	80.3	-4.2	20.3	21.3	20.7	-1.0
IT	2,201	2,620	2,435	-419	20,039	20,838	20,426	-799	80.2	81.5	80.8	-1.3	17.2	16.8	17.0	0.4
CY	1,941	2,303	2,123	-362	21,473	22,389	21,916	-916	85.4	88.0	86.7	-2.6	23.3	23.8	23.5	-0.5
LV	1,349	1,697	1,514	-348	13,341	15,017	14,095	-1,676	71.8	79.1	75.1	-7.3	15.1	14.4	14.5	0.7
LT	1,316	1,549	1,427	-233	15,963	17,849	16,821	-1,886	76.5	82.9	79.4	-6.4	16.7	15.6	16.0	1.1
LU	3,497	3,625	3,576	-128	36,528	38,248	37,409	-1,720	83.1	84.9	84.0	-1.8	22.2	21.9	22.0	0.3
HU	1,408	1,677	1,546	-269	10,940	11,413	11,163	-473	86.7	87.7	87.2	-1.0	24.6	23.6	24.1	1.0
MT	2,238	2,662	2,475	-424	21,961	22,656	22,322	-695	82.1	84.9	83.6	-2.8	20.6	20.3	20.4	0.3
NL	2,374	2,938	2,663	-564	25,659	26,815	26,231	-1,156	85.1	85.9	85.5	-0.8	26.3	25.5	25.9	0.8
AT	2,343	3,018	2,738	-675	26,909	27,797	27,343	-888	85.6	87.3	86.4	-1.7	24.6	24.9	24.7	-0.3
PL	1,677	2,018	1,855	-341	15,016	15,571	15,281	-555	84.4	85.8	85.1	-1.4	25.2	24.1	24.6	1.1
PT	1,367	1,541	1,452	-174	14,506	14,974	14,724	-468	81.1	82.8	81.9	-1.7	18.0	17.8	17.9	0.2
RO	1,732	1,782	1,758	-50	9,805	9,942	9,871	-137	78.2	79.6	78.9	-1.4	14.9	14.0	14.6	0.9
SI	1,847	2,084	1,972	-237	18,690	19,204	18,948	-514	87.0	88.8	87.9	-1.8	30.2	30.3	30.3	-0.1
SK	1,285	1,628	1,461	-343	9,862	10,158	10,005	-296	88.1	89.6	88.8	-1.5	31.8	32.3	32.0	-0.5
FI	2,419	2,953	2,667	-534	22,214	23,208	22,700	-994	89.0	88.7	88.8	0.3	27.9	26.5	27.2	1.4
SE	2,628	3,024	2,822	-396	22,448	23,109	22,779	-661	84.1	85.4	84.7	-1.3	24.7	23.9	24.2	0.8
	Source: Eurostat, SES, (earn_ses18_20), 2018.				Source: Eurostat, EU SILC, (ilc_di03), 2021; LU: break in time series.				Source: Eurostat, EU SILC, (ilc_li02), 2021; LU: break in time series.				Source: Eurostat's calculation EU SILC, 2021; LU: break in time series.			

Table 17. Indicators included in the domain of knowledge by EU Member State, Gender Equality Index 2023

MS	Attainment and participation								Segregation			
	Graduates of tertiary education (% , 15-89)				People participating in formal or non-formal education and training (% , 15-89)				Tertiary students in the fields of Education, Health and Welfare, Humanities and Art (tertiary students) (% , 15+)			
	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap
EU	27.7	25.9	26.8	1.8	18.6	17.5	18.1	1.1	42.6	20.7	32.6	21.9
BE	37.0	32.9	35.0	4.1	21.1	20.4	20.8	0.7	51.5	28.8	41.6	22.7
BG	27.0	20.3	23.8	6.7	9.8	9.7	9.7	0.1	43.4	21.7	33.5	21.7
CZ	21.7	20.4	21.1	1.3	14.2	13.8	14.0	0.4	47.3	21.1	36.0	26.2
DK	36.2	28.8	32.5	7.4	32.8	25.8	29.3	7.0	51.4	25.0	40.0	26.4
DE	22.9	29.5	26.2	-6.6	14.8	15.2	15.0	-0.4	40.3	17.1	28.6	23.2
EE	41.7	27.1	34.9	14.6	25.9	20.0	23.0	5.9	45.9	17.2	34.1	28.7
IE	44.0	38.2	41.1	5.8	24.7	22.9	23.8	1.8	47.6	23.2	36.3	24.4
EL	26.7	27.9	27.3	-1.2	14.3	13.5	13.9	0.8	35.5	16.1	25.7	19.4
ES	33.8	31.6	32.7	2.2	23.2	20.7	21.9	2.5	49.4	25.1	38.2	24.3
FR	34.3	31.4	32.9	2.9	19.9	18.4	19.2	1.5	37.5	19.4	29.4	18.1
HR	22.5	18.8	20.7	3.7	13.8	11.4	12.6	2.4	36.9	16.9	28.3	20.0
IT	16.7	13.5	15.2	3.2	16.1	15.8	16.0	0.3	47.3	24.7	37.3	22.6
CY	39.8	35.5	37.7	4.3	16.2	15.7	15.9	0.5	47.5	21.5	36.1	26.0
LV	37.6	25.5	32.1	12.1	18.6	14.1	16.4	4.5	43.8	13.6	30.6	30.2
LT	40.2	32.1	36.4	8.1	16.3	14.1	15.3	2.2	45.4	17.9	33.8	27.5
LU	41.4	40.9	41.1	0.5	28.1	27.0	27.5	1.1	35.9	19.5	28.2	16.4
HU	26.2	21.5	24.0	4.7	12.8	13.5	13.1	-0.7	41.3	19.2	31.1	22.1
MT	25.7	23.4	24.5	2.3	19.5	17.9	18.7	1.6	50.5	28.9	41.7	21.6
NL	33.9	34.5	34.2	-0.6	31.9	30.8	31.3	1.1	36.5	18.6	28.1	17.9
AT	27.6	30.6	29.1	-3.0	21.2	18.6	19.9	2.6	41.7	21.7	32.5	20.0
PL	29.7	22.0	26.0	7.7	12.8	12.2	12.5	0.6	39.6	20.2	31.7	19.4
PT	26.7	18.8	23.0	7.9	20.3	20.2	20.3	0.1	38.4	18.1	28.9	20.3
RO	14.5	13.6	14.1	0.9	11.9	12.7	12.3	-0.8	33.9	17.7	26.6	16.2
SI	35.8	27.9	31.8	7.9	26.2	23.2	24.6	3.0	42.5	17.1	31.7	25.4
SK	25.7	19.7	22.8	6.0	13.1	12.4	12.7	0.7	50.9	25.8	40.4	25.1
FI	37.7	29.0	33.4	8.7	37.9	29.4	33.6	8.5	49.9	17.4	35.0	32.5
SE	43.6	32.2	37.8	11.4	42.9	32.9	37.9	10.0	52.5	29.4	43.4	23.1
	Source: Eurostat, EU LFS, 2021; EIGE's calculation.				Source: Eurostat, EU LFS, 2021; EIGE's calculation.				Source: Eurostat, Education statistics, (educ_uoe_enrt03), 2021.			

Table 18. Indicators included in the domain of time by EU Member State, Gender Equality Index 2023

MS	Care activities								Social activities							
	People caring for and educating their children or grandchildren, elderly or disabled people, every day (% , 18-74)				People doing cooking and/or housework, every day (% , 18-74)				Workers doing sporting, cultural or leisure activities outside of their home, at least daily or several times a week (% , 16-74 employed)				Workers involved in voluntary or charitable activities, at least once a month (% , 16-74 employed)			
	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap
EU	33.5	24.6	29.1	8.9	63.1	35.7	49.5	27.4	28.6	34.4	31.7	-5.8	10.9	14.7	12.9	-3.8
BE	31.4	24.2	27.8	7.2	64.0	41.1	52.6	22.9	25.8	32.2	28.8	-6.4	7.9	17.5	12.4	-9.6
BG	42.9	31.8	37.3	11.1	71.7	36.6	54.1	35.1	24.7	32.5	28.7	-7.8	8.1	10.8	9.5	-2.7
CZ	33.8	19.4	26.6	14.4	58.3	20.4	39.4	37.9	23.0	27.8	25.8	-4.8	6.7	8.1	7.5	-1.4
DK	14.7	21.3	18.0	-6.6	59.8	42.3	51.0	17.5	32.2	38.0	35.5	-5.8	14.0	23.9	19.7	-9.9
DE	21.2	12.6	16.8	8.6	44.3	25.4	34.7	18.9	20.8	27.8	24.5	-7.0	13.4	17.7	15.7	-4.3
EE	16.9	17.7	17.3	-0.8	50.7	38.7	44.8	12.0	25.0	34.3	29.7	-9.3	4.9	12.5	8.7	-7.6
IE	36.0	28.0	32.1	8.0	67.8	45.5	56.8	22.3	9.6	23.7	16.7	-14.1	12.0	18.0	15.0	-6.0
EL	37.2	30.5	33.9	6.7	65.0	27.2	46.7	37.8	25.9	25.4	25.6	0.5	10.1	10.2	10.2	-0.1
ES	40.9	33.4	37.1	7.5	64.4	43.9	54.2	20.5	33.3	38.9	36.0	-5.6	8.5	15.0	11.7	-6.5
FR	31.2	23.4	27.4	7.8	68.1	42.8	55.7	25.3	30.3	35.9	33.2	-5.6	8.7	12.5	10.6	-3.8
HR	38.9	28.2	34.4	10.7	77.9	34.0	59.5	43.9	12.1	24.0	16.9	-11.9	4.2	8.2	5.8	-4.0
IT	33.6	24.5	29.2	9.1	72.4	33.7	53.3	38.7	27.6	34.0	31.3	-6.4	11.5	12.9	12.3	-1.4
CY	41.0	28.4	34.7	12.6	70.2	33.2	52.3	37.0	19.1	27.1	23.1	-8.0	5.8	6.3	6.0	-0.5
LV	40.5	24.2	32.9	16.3	73.2	34.8	55.4	38.4	23.9	28.4	26.0	-4.5	11.1	17.0	13.9	-5.9
LT	34.9	20.7	28.0	14.2	64.9	28.8	47.8	36.1	21.4	20.6	21.0	0.8	10.4	11.3	10.8	-0.9
LU	29.5	21.4	25.5	8.1	62.1	49.2	55.7	12.9	23.0	33.0	28.3	-10.0	7.3	4.8	5.9	2.5
HU	27.9	19.2	23.6	8.7	59.3	22.6	41.4	36.7	23.6	31.2	27.7	-7.6	9.2	11.5	10.4	-2.3
MT	32.4	15.8	24.2	16.6	78.2	62.9	70.5	15.3	22.5	41.5	32.7	-19.0	5.3	6.3	5.8	-1.0
NL	30.3	25.8	28.0	4.5	68.9	43.7	56.2	25.2	46.4	48.0	47.3	-1.6	11.6	20.2	16.2	-8.6
AT	32.0	23.0	27.5	9.0	61.1	32.6	47.0	28.5	25.7	33.4	29.6	-7.7	14.3	19.6	17.0	-5.3
PL	48.2	32.2	40.3	16.0	66.9	34.0	51.0	32.9	42.8	46.5	44.7	-3.7	11.1	14.3	12.8	-3.2
PT	42.7	32.4	37.8	10.3	73.1	42.8	58.7	30.3	28.6	38.2	33.4	-9.6	10.4	15.7	13.0	-5.3
RO	51.7	40.3	46.0	11.4	65.7	38.2	51.8	27.5	24.8	27.5	26.3	-2.7	17.9	12.6	15.0	5.3
SI	26.3	23.8	25.0	2.5	69.2	28.7	47.7	40.5	29.9	35.9	33.5	-6.0	10.7	10.6	10.7	0.1
SK	37.3	23.9	30.7	13.4	52.8	22.6	37.7	30.2	24.1	29.5	27.2	-5.4	7.6	9.3	8.6	-1.7
FI	23.7	21.5	22.6	2.2	61.9	45.3	53.4	16.6	36.5	47.0	42.0	-10.5	6.2	14.9	10.7	-8.7
SE	24.7	25.0	24.9	-0.3	60.6	46.2	53.3	14.4	25.2	36.8	31.7	-11.6	10.8	16.5	14.0	-5.7
	Source: EIGE survey on unpaid care, 2022; EIGE's calculation.				Source: EIGE survey on unpaid care, 2022; EIGE's calculation.				Source: EIGE survey on unpaid care, 2022; EIGE's calculation.				Source: EIGE survey on unpaid care, 2022; EIGE's calculation.			

Table 19. Indicators included in the domain of power by EU Member State, Gender Equality Index 2023

MS	Political						Economic				Social					
	Share of Ministers (%)		Share of members of Parliament (%)		Share of members of Regional Assemblies (%)		Share of members of boards in largest quoted companies, supervisory board or board of directors (%)		Share of members of Central Bank (%)		Share of members of public research funding (%)		Share of Board Members in publically owned broadcasting organisations (%)		Share of Members of highest decision making body of the national olympic sport organisations (%)	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
EU	33.4	66.6	32.7	67.3	29.9	70.1	30.5	69.5	26.5	73.5	40.2	59.8	36.6	63.4	19.1	80.9
BE	47.5	52.5	43.4	56.6	42.8	57.2	37.9	62.1	36.7	63.3	40.0	60.0	31.3	68.7	17.7	82.3
BG	38.8	61.2	24.9	75.1	27.2	72.8	16.2	83.8	47.6	52.4	51.6	48.4	36.7	63.3	22.8	77.2
CZ	23.5	76.5	21.3	78.7	21.8	78.2	19.9	80.1	0.0	100.0	26.7	73.3	14.1	85.9	7.3	92.7
DK	32.5	67.5	40.8	59.2	42.2	57.8	36.0	64.0	33.3	66.7	47.4	52.6	46.7	53.3	23.5	76.5
DE	44.9	55.1	33.0	67.0	31.7	68.3	36.3	63.7	33.3	66.7	42.4	57.6	34.1	65.9	21.0	79.0
EE	34.4	65.6	27.6	72.4	28.9	71.1	9.1	90.9	14.7	85.3	20.0	80.0	15.4	84.6	13.7	86.3
IE	24.9	75.1	27.0	73.0	25.6	74.4	30.3	69.7	39.3	60.7	47.3	52.7	50.0	50.0	22.9	77.1
EL	14.0	86.0	20.9	79.1	21.4	78.6	18.1	81.9	13.9	86.1	12.0	88.0	16.7	83.3	10.8	89.2
ES	45.9	54.1	41.6	58.4	46.8	53.2	31.7	68.3	50.0	50.0	51.8	48.2	42.9	57.1	26.4	73.6
FR	50.0	50.0	38.5	61.5	48.8	51.2	45.3	54.7	45.5	54.5	41.7	58.3	47.0	53.0	35.9	64.1
HR	27.0	73.0	29.5	70.5	29.9	70.1	26.7	73.3	18.5	81.5	23.8	76.2	46.7	53.3	10.5	89.5
IT	39.0	61.0	35.6	64.4	22.9	77.1	39.2	60.8	30.2	69.8	30.4	69.6	38.9	61.1	23.3	76.8
CY	20.8	79.2	17.6	82.4	15.3	84.7	10.3	89.7	12.5	87.5	23.1	76.9	18.5	81.5	8.6	91.4
LV	26.3	73.7	28.9	71.1	16.8	83.2	23.7	76.3	28.6	71.4	68.8	31.3	69.2	30.8	25.9	74.1
LT	40.6	59.4	26.9	73.1	31.3	68.7	19.5	80.5	23.1	76.9	36.0	64.0	30.6	69.4	19.7	80.3
LU	31.4	68.6	33.3	66.7	25.8	74.2	20.2	79.8	37.0	63.0	55.6	44.4	48.1	51.9	20.9	79.1
HU	15.4	84.6	12.8	87.2	14.2	85.8	10.6	89.4	11.1	88.9	3.8	96.2	38.1	61.9	11.2	88.8
MT	12.3	87.7	17.4	82.6	25.9	74.1	12.1	87.9	26.1	73.9	41.5	58.5	29.2	70.8	10.6	89.4
NL	46.8	53.2	35.7	64.3	33.5	66.5	37.6	62.4	35.3	64.7	52.9	47.1	27.6	72.4	30.4	69.6
AT	49.3	50.7	40.7	59.3	35.7	64.3	32.3	67.7	0.0	100.0	39.1	60.9	46.7	53.3	14.7	85.3
PL	19.9	80.1	27.6	72.4	27.5	72.5	23.8	76.2	17.4	82.6	22.6	77.4	12.5	87.5	6.1	93.9
PT	37.3	62.7	39.1	60.9	29.8	70.2	29.0	71.0	20.0	80.0	41.7	58.3	50.0	50.0	13.4	86.6
RO	9.7	90.3	19.8	80.2	20.1	79.9	15.8	84.2	0.0	100.0	44.9	55.1	31.6	68.4	13.4	86.6
SI	27.6	72.4	23.9	76.1	32.3	67.7	22.5	77.5	30.8	69.2	52.4	47.6	34.4	65.6	5.5	94.5
SK	21.5	78.5	21.8	78.2	14.0	86.0	28.1	71.9	0.0	100.0	12.8	87.2	22.2	77.8	10.9	89.1
FI	54.6	45.4	45.8	54.2	46.3	53.7	35.2	64.8	25.0	75.0	42.5	57.5	42.9	57.1	29.5	70.5
SE	51.4	48.6	47.5	52.5	47.8	52.2	37.4	62.6	31.4	68.6	53.6	46.4	54.9	45.1	52.2	47.8
	Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022), National governments (all ministers: Junior ministers + Senior ministers); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022), National parliaments (both houses); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); BG, EE, IE, CY, LT, LU, MT, SI: local level is used (2022); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); IT, RO: break in time series (only 2018); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); EIGE's calculation.		Source: EIGE, Gender Statistics Database, WMID, (3-y average, 2020-2021-2022); EIGE's calculation.	

Table 20. Indicators included in the domain of health by EU Member State, Gender Equality Index 2023

MS	Status												Behaviour								Access							
	Self-perceived health, good or very good (% , 16+)				Life expectancy in absolute value at birth (years)				Healthy life years in absolute value at birth (years)				Population who don't smoke and are not involved in harmful drinking (% , 15+)				Population doing physical activities and/or consuming fruits and vegetables (% , 15+)				Population without unmet needs for medical examination (% , 16+)				Population without unmet needs for dental examination (% , 16+)			
	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap	Women	Men	Total	Gap
EU	66.6	71.5	69.0	-4.9	82.9	77.2	80.1	5.7	64.2	63.1	63.6	1.1	72.7	55.6	64.6	17.1	37.6	42.6	40.0	-5.0	94.6	96.0	95.2	-1.4	94.8	95.3	95.0	-0.5
BE	74.0	78.7	76.3	-4.7	84.3	79.4	81.9	4.9	64.4	64.8	64.6	-0.4	71.8	50.9	61.6	20.9	37.0	41.1	38.9	-4.1	96.7	97.3	97.0	-0.6	94.1	94.0	94.1	0.1
BG	63.7	71.7	67.5	-8.0	75.1	68.0	71.4	7.1	65.1	61.6	63.4	3.5	69.6	47.4	59.1	22.2	11.3	19.8	15.3	-8.5	97.3	97.5	97.4	-0.2	96.9	97.3	97.1	-0.4
CZ	65.3	70.3	67.7	-5.0	80.5	74.1	77.2	6.4	63.4	60.7	62.1	2.7	69.6	50.4	60.2	19.2	26.7	33.4	30.0	-6.7	97.2	97.7	97.5	-0.5	97.8	97.7	97.7	0.1
DK	67.1	70.0	68.6	-2.9	83.3	79.6	81.5	3.7	54.8	58.2	56.5	-3.4	61.5	43.0	52.4	18.5	66.1	59.7	62.9	6.4	88.5	87.7	88.1	0.8	89.8	88.4	89.1	1.4
DE	61.0	65.0	63.0	-4.0	83.3	78.4	80.8	4.9	66.5	64.7	65.6	1.8	61.0	43.5	52.4	17.5	51.8	54.6	53.2	-2.8	99.4	99.5	99.5	-0.1	99.1	99.0	99.0	0.1
EE	56.1	60.6	58.2	-4.5	81.4	72.7	77.2	8.7	58.0	54.9	56.5	3.1	78.5	54.7	67.5	23.8	34.5	35.1	34.8	-0.6	84.9	90.1	87.3	-5.2	96.4	96.8	96.6	-0.4
IE	81.3	80.9	81.1	0.4	84.3	80.5	82.4	3.8	68.0	66.4	67.2	1.6	69.0	59.3	64.2	9.7	55.9	55.4	55.7	0.5	96.1	97.5	96.8	-1.4	97.1	98.4	97.8	-1.3
EL	76.4	80.0	78.2	-3.6	82.9	77.4	80.2	5.5	66.6	64.7	65.7	1.9	75.9	58.8	67.8	17.1	24.5	31.5	27.9	-7.0	86.6	88.9	87.7	-2.3	88.6	89.3	88.9	-0.7
ES	68.5	73.9	71.1	-5.4	86.2	80.4	83.3	5.8	62.6	63.0	62.8	-0.4	78.5	69.3	74.0	9.2	38.2	46.6	42.3	-8.4	96.8	97.6	97.2	-0.8	94.4	94.6	94.5	-0.2
FR	65.9	69.9	67.8	-4.0	85.5	79.3	82.4	6.2	66.9	65.5	66.2	1.4	72.3	55.5	64.3	16.8	38.2	43.5	40.7	-5.3	92.2	94.7	93.4	-2.5	90.3	91.5	90.8	-1.2
HR	60.6	64.7	62.6	-4.1	79.8	73.6	76.7	6.2	59.3	57.9	58.6	1.4	70.5	55.2	64.0	15.3	25.2	29.9	27.2	-4.7	93.6	94.7	94.1	-1.1	97.1	96.7	96.9	0.4
IT	71.0	76.2	73.5	-5.2	84.9	80.5	82.7	4.4	68.5	67.7	68.1	0.8	80.3	68.7	74.8	11.6	24.8	29.8	27.2	-5.0	97.2	98.0	97.6	-0.8	97.0	97.5	97.3	-0.5
CY	76.4	77.8	77.1	-1.4	83.4	79.2	81.3	4.2	66.8	64.5	65.7	2.3	84.1	59.8	72.3	24.3	24.4	31.4	27.8	-7.0	99.5	99.6	99.5	-0.1	96.7	97.2	96.9	-0.5
LV	46.0	54.7	49.8	-8.7	78.0	68.2	73.1	9.8	55.4	52.2	53.8	3.2	79.4	49.5	66.1	29.9	22.7	27.4	24.8	-4.7	88.8	91.0	89.8	-2.2	88.1	87.6	87.9	0.5
LT	44.9	52.3	47.8	-7.4	78.8	69.5	74.2	9.3	59.8	55.4	57.6	4.4	82.4	51.7	68.4	30.7	31.2	33.7	32.3	-2.5	95.2	96.8	95.9	-1.6	96.6	97.6	97.1	-1.0
LU	74.3	78.4	76.4	-4.1	84.8	80.5	82.7	4.3	61.6	62.3	62.0	-0.7	67.2	46.5	56.8	20.7	49.1	52.8	51.0	-3.7	97.9	98.1	98.0	-0.2	98.4	98.3	98.3	0.1
HU	61.8	68.0	64.7	-6.2	77.8	70.7	74.3	7.1	63.5	61.6	62.6	1.9	71.9	56.6	64.6	15.3	34.6	38.9	36.6	-4.3	92.9	95.3	94.1	-2.4	97.3	98.1	97.6	-0.8
MT	70.0	75.7	73.0	-5.7	84.3	80.8	82.5	3.5	68.5	68.9	68.7	-0.4	73.5	58.2	65.6	15.3	21.7	21.9	21.8	-0.2	98.5	98.9	98.7	-0.4	98.3	99.0	98.6	-0.7
NL	72.5	73.7	73.1	-1.2	83.0	79.7	81.4	3.3	59.6	61.0	60.3	-1.4	75.5	57.5	66.6	18.0	70.7	73.9	72.3	-3.2	98.9	98.6	98.8	0.3	99.3	99.1	99.2	0.2
AT	71.8	72.6	72.2	-0.8	83.7	78.8	81.3	4.9	61.3	61.5	61.4	-0.2	70.7	56.1	63.6	14.6	44.5	47.7	46.0	-3.2	99.0	99.4	99.2	-0.4	99.0	98.9	99.0	0.1
PL	61.4	67.9	64.4	-6.5	79.6	71.6	75.5	8.0	64.6	60.7	62.7	3.9	75.9	55.6	67.8	20.3	24.3	27.1	25.5	-2.8	89.7	92.0	90.8	-2.3	97.4	97.5	97.4	-0.1
PT	46.5	54.2	50.1	-7.7	84.4	78.5	81.5	5.9	57.4	59.3	58.4	-1.9	83.0	62.0	73.3	21.0	26.3	29.7	27.9	-3.4	93.3	95.4	94.3	-2.1	86.4	87.5	86.9	-1.1
RO	68.7	77.1	72.8	-8.4	76.6	69.2	72.8	7.4	58.2	57.3	57.8	0.9	73.0	35.2	54.8	37.8	6.2	14.0	10.0	-7.8	89.6	93.0	91.3	-3.4	93.3	94.6	93.9	-1.3
SI	66.7	71.5	69.1	-4.8	83.8	77.7	80.7	6.1	67.3	63.7	65.5	3.6	68.1	54.0	61.1	14.1	31.3	38.8	35.1	-7.5	92.9	94.9	93.9	-2.0	91.8	92.7	92.2	-0.9
SK	62.0	68.4	65.1	-6.4	78.2	71.2	74.6	7.0	57.5	56.2	56.9	1.3	76.5	56.2	66.7	20.3	31.0	40.6	35.7	-9.6	91.4	92.6	92.0	-1.2	95.8	95.8	95.8	0.0
FI	68.3	72.0	70.1	-3.7	84.6	79.3	81.9	5.3	61.7	61.6	61.7	0.1	68.8	56.5	62.5	12.3	75.1	72.9	74.1	2.2	93.8	95.3	94.6	-1.5	91.7	92.7	92.2	-1.0
SE	70.4	74.3	72.3	-3.9	84.9	81.3	83.1	3.6	67.9	68.9	68.4	-1.0	80.3	64.9	72.6	15.4	60.3	57.4	58.8	2.9	94.9	95.6	95.3	-0.7	95.6	96.2	95.9	-0.6
	Source: Eurostat, EU SILC, hlth_silc_01), 2021; LU: break in time series.				Source: Eurostat, Mortality data, (demo_mlexpec), 2021; EU, CZ, HR, PT: break in time series.				Source: Eurostat, Mortality data, (hlth_hlye), 2021; LU: break in time series.				Source: Eurostat, EHIS, 2019; Eurostat calculations; FI, EU: EIGE estimation.				Source: Eurostat, EHIS, 2019; Eurostat calculations.				Source: Eurostat, EU SILC, hlth_silc_08), 2021; LU: break in time series.				Source: Eurostat, EU SILC, hlth_silc_09), 2021; LU: break in time series.			

Annex 4. Gender Equality Index: conceptual and measurement frameworks at a glance

The Gender Equality Index is a unique measurement tool that synthesises the complexity of gender equality as a multi-dimensional concept into a user-friendly and easily interpretable measure. The computation of the Gender Equality Index is based on the internationally accepted methodology on building composite indicators developed by the European Commission's Joint Research Centre (JRC) and the Organisation for Economic Co-operation and Development (OECD) (Nardo et al., 2008).

Developing a conceptual framework is the first step to define the structure of the Gender Equality Index and what is measured and provides the basis for the selection and combination of variables into a meaningful index.

The measurement framework of the Gender Equality Index includes the development of both a metric to calculate gender gaps and the methodology to aggregate gender gaps in sub-domains, domains and the Gender Equality Index. It includes the calculation of final scores of the Gender Equality Index for each Member State and the EU.

A more detailed explanation of the conceptual framework is presented in the 1st edition of the Gender Equality Index (EIGE, 2013) and the methodology to calculate the Gender Equality Index in the current version is described in the methodological report (EIGE, 2017d).

Calculating the Gender Equality Index in brief

Conceptual framework

The choice of domains for the Gender Equality Index was guided by in-depth reviews of key gender equality policy documents at the EU and international level, theoretical equality frameworks at the international level, and literature relevant to each of the identified domains and sub-domains. The Gender Equality Index consists of six core domains (work, money, knowledge,

Figure 44. Overall structure of the Gender Equality Index



time, power, health), which are combined into the Index, and two additional domains (intersecting inequalities and violence) (Figure 44). The additional domains are conceptually related to gender equality but cannot be included in the core Index because they measure a phenomenon that only applies to a selected group of the population. This occurs when considering issues that are related to women only, as in the case of gender-based violence against women, or when examining gender gaps among specific population groups (people with a disability; lone parents; etc.). Each domain is further subdivided into sub-domains (EIGE, 2013).

The experiences of women and men within the domain of **work** vary significantly. Women are much less likely to participate in the labour market and more likely to work on a part-time basis (EIGE, 2021f). Furthermore, women dominate sectors such as education and health, and are greatly under-represented in science, technology and engineering. Finally, the domain also considers how women and men get on in the labour market by considering the issue of quality of work. This is a gendered issue, as women are disproportionately

involved in non-standard and/or precarious work that may hold fewer opportunities for training and promotion, which in turn may contribute to further segregation (EIGE, 2018).

Gender equality and employment is a major focus of the European Pillar of Social Rights (EPSR), which include a commitment to support Member States in achieving equality between women and men with regard to labour market opportunities and treatment at work, focusing not only on creating more jobs but also better jobs. This commitment has been inscribed in a number of strategic documents including the EU Gender Equality Strategy 2020-2025, where the emphasis is on increasing women's employment, in conjunction with the reduction of labour market segregation. This is complemented by one of the EU headline targets to achieve at least 78 % employment rate of the population aged 20-64 by 2030 and at least halve the gender employment gap compared to 2019.

The domain of **money** examines financial resources and economic situation of women and men. Financial resources include earnings and other forms of income, for example social transfers. Women tend to have lower financial resources than men and this have an impact on the economic situation of women and men throughout the life-course, with women as a result being both less financially independent and more at-risk-of-poverty than men (EIGE, 2019b; European Commission, 2023a). The income distribution between the richest and poorest women and men is also an important aspect when assessing the economic situation.

The principle of equal pay for work of equal value has been enshrined in the European Treaties since 1957. The elimination of the gender pay gap and its root causes is one of the key priorities of the EU Gender Equality Strategy 2020-2025. In 2022, the EU achieved a major breakthrough on the Commission's proposal for a directive on pay transparency. In addition, EPSR identifies the need for women and men to have equal opportunities to acquire pension rights and established an EU headline target to reduce the number of people at risk of poverty or social exclusion within the EU by at least 15

million by 2030. The Gender Equality Strategy takes a strong stand on the importance for social and economic policies, taxation and social protection systems not to perpetuate structural gender inequalities based on traditional gender roles in the realms of work and private life.

The domain of **knowledge** shows differences between women and men in terms of education and training. A greater proportion of young women now reach at least upper secondary school and they outnumber men as university graduates. However, patterns of segregation remain deeply rooted in the EU. Although women increasingly enter male-dominated fields, the contrary remains untrue. Overall, the greatest gender segregation prevails in STEM (science, technology, engineering and mathematics) to the detriment of women and in health, education and welfare studies to the disadvantage of men. In addition, skills and competences need to be expanded through lifelong learning, in line with fast changing world of work and technological development, although participation remains low for both women and men.

At policy level, the EU aims to increase adult participation in training to 60 % and further reduce early school leaving. Gender Equality Strategy 2020-2025 seeks to eliminate gender segregation in educational paths, studies and professions. The European Skills agenda also addresses horizontal segregation, stereotyping and gender gaps in education and training. The Digital education action plan 2021-2027 will specifically seek to increase the inclusion of women in digital and STEM study fields and careers, including as entrepreneurs.

The fourth domain of **time** focuses on the trade-off between economic, care and other social activities (including leisure, volunteering or charity activities). Over the past decades we have observed a remarkable increase in women's participation in the labour market. However, it did not lead to a more equal share of time spent on caring activities. On the contrary, decreasing differences in time spent on unpaid care are due to women's reduced involvement rather than men's greater contribution. As a result, this can translate into fewer opportunities to spend time in other activities, including social, cultural or civic activities.

The balance between work, care and social activities is emphasised in key EU strategic documents. Work-life balance directive introduced the minimum standards for family leave and flexible working arrangement to reach equal sharing of caring responsibilities between partners. EPSR, Gender Equality Strategy 2020-2025 and the most recent EU Care Strategy all address the need to achieve a better work-life balance for women and men. Their focus is on promoting long-lasting changes in gender roles, institutional practices and the organisation of work and unpaid care, with changes that do not merely affect women but also men, children and the whole of society.

The domain of **power** examines how the attainment of gender equality can be greatly affected by women's lack of participation in decision-making. The representation of women and men in decision-making shows very large differences. There is an overall democratic deficit in the EU at all political levels and boards of largest companies. In addition, there is a low proportion of women in social areas, including for example in top positions on scientific boards, public broadcasters or largest sports federations.

Leading equally throughout society is a key political priority of the EU. Gender equality strategy 2020-2025 acknowledges that gender parity is needed for successful leadership, especially in view of complex challenges decision-makers face today. With the adoption of the Directive on improving the gender balance on corporate boards the Commission and Member States committed to strive to lead by example in ensuring gender parity in the EU.

The domain of **health** focuses on differences between women and men in terms of health status, behaviour and access to health structures. There are differences, both related to sex and gender, between women and men. First, women live longer, but have shorter healthy life years. There are also differences in behaviours, leading to differences in determinants of health. Men are for example at greater risk of violent death, of being victims of car accidents, smoking, and drinking, or engaging in unsafe sex. Finally, women may be more likely to access health

structures because of their gendered role in society and their reproductive needs, although their position in households can deprive them of access to health as it makes them give priority to the needs of others over their own (EIGE, 2021e).

At policy level, EPSR emphasises the need to reduce health inequalities as well as to ensure better access to health care systems. In addition, the Gender Strategy focuses on addressing gender-specific health risks and diseases as well as tackling gender-based inequalities in health-care and long-term care and health outcomes.

Intersecting inequalities is the first additional domain of the Index. The values of this domain are not taken into account when calculating the final score of the Index. Since women and men cannot be considered as homogeneous groups, this domain looks at other characteristics that may affect gender equality (e.g. age, family status, education, migration background, dis/ability, etc). On the one hand, the concept of diversity contends that focusing solely on the binary categories of gender is not sufficient, while on the other hand the number of intersecting categories is theoretically as great as the number of individuals concerned. The problem is compounded by pragmatic issues such as determining the areas of gender equality that can be examined under the principle of intersecting inequalities. Being a cross-cutting issue, different gender gaps exist between different groups in all of the domains considered in the Index. For example, it has been noted by several studies that the most disadvantaged groups during the recent COVID-19 pandemic were young women and men and lone parents, mostly mothers, as they were worst hit by job losses (EIGE, 2022d).

The values of non-discrimination, equality and respect for human rights and human dignity are enshrined in the EU treaties (e.g. Articles 2 and 3(3) of the Treaty on European Union — TEU). Article 8 of the Treaty on the Functioning of the European Union (TFEU) empowers the EU to introduce measures eliminating inequalities and urges it to promote equality between men and women through all its policies. Article 19 TFEU grants the EU the competence to combat discrimination based

on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation. The Charter of Fundamental Rights of the EU goes further including new types of discrimination (genetic features, language, opinions, membership of a national minority, property and birth) and asserts that non-discrimination should be observed on the grounds described. The Gender Equality Strategy 2020-2025 commits to address intersectionality of gender with other grounds of discrimination across EU policies.

Violence is the second additional domain of the Index. Due to both conceptual and methodological considerations, it is not combined into the core of the Index. First, conceptually, acts of violence targeting women are the corollary of structural inequalities experienced by women in many aspects of life — work, health, money, power, education and unpaid care — and remains the most brutal manifestation of gender inequality. From this point of view, the domain of violence brings an important aspect to the core domains of the Gender Equality Index. Second, statistically, unlike the core domains, the domain of violence does not measure differences between women and men; rather, it examines women's experiences of violence. The main objective is to eliminate violence against women, not to reduce gaps.

EIGE developed a three-tier structure of measurement to provide the most complete and reliable picture of violence against women in the EU. The first - a composite measure - combines indicators on the extent of violence against women. The second tier - additional indicators - cover the broader range of forms of violence against women defined in the Istanbul Convention. Finally, the contextual factors include some of the root causes of violence against women. Designed to monitor Member State compliance with the obligations set out in the Istanbul Convention, they cover six dimensions: policies, prevention, protection and support, substantive legislation, involvement of law enforcement agencies, and societal framework.

Ending gender-based violence is a high policy priority of the EU. EU accession to the Istanbul convention is a priority in 2020-2025 gender equality strategy. In parallel the Commission proposed a Directive on preventing and combatting violence against women and domestic violence.

Measurement framework

The measurement framework of the Gender Equality Index includes the development of both a metric to calculate gender gaps and a methodology to aggregate gender gaps in sub-domains, domains and the Gender Equality Index. It includes the calculation of final scores of the Gender Equality Index for each Member State and the EU. The Gender Equality Index is calculated following several steps (EIGE, 2017d).

Step 1: Selection of indicators

Each subdomain and domain have a determined number of indicators. The initial selection of the indicators was made on a theoretical basis, and based on a review of official statistical sources at the European level. The current version of the Gender Equality Index is composed by 31 indicators, included in 14 subdomains, and further included in 6 domains (see [Annex 1](#)).

Step 2: Processing indicators

The selected indicators are then processed in order to ensure that they measure gender equality in a homogenous way (more details in EIGE, 2017, p.10-11). All indicators used in the Gender Equality Index must have a positive sign, i.e. a higher value indicates being closer to EU targets or a 'desirable situation', so that higher values can be regarded positively⁽¹⁴⁸⁾.

As for the domain of power, a particular transformation is used. Due to the characteristics of data in the domain of power, which is often provided on a quarterly or biannual basis, a simple average from all available data points for

⁽¹⁴⁸⁾ For example, variables measuring 'participation in tertiary education' or 'healthy life years' have a positive direction, as it is desirable to increase educational attainment or to live a long healthy life. On the contrary, the variable measuring 'being at risk of poverty' implies a negative sign or interpretation, which means that for the Index the indicator was reversed to 'not being at risk of poverty'.

each year is computed. Additionally, in order to smooth ‘jumps’ in time series of data on small decision-making bodies, the average of 3 consecutive years is considered.

All indicators are expressed in relative terms, using the closest reference population. This facilitates the comparison of populations with different structures and sizes ⁽¹⁴⁹⁾. In the case of indicators in the domain of power, the reference population is the 3-year average of the population over 18 in each country, in line with the calculation of the variables in the domain ⁽¹⁵⁰⁾.

The final list of indicators of the Gender Equality Index is presented in the table in Annex 1, which includes the name of the indicator, reference population, short name, detailed description (including brief methodological notes and survey questions), data providers, data sources, method of calculation (whether it was EIGE’s calculation with microdata or EUROSTAT calculation under request), and the time reference of data used.

Step 3: Calculating the gender gap metric

The metric developed for the Gender Equality Index measures gender gaps by considering the relative position of women and men, by taking the absolute value of the difference. This means that a gender gap where women are at a disadvantage compared to men (for example with earnings) is treated in the same way as where men are at a disadvantage (for example educational attainment in third level education), (more details in (EIGE, 2017d, pp. 11-13), p.11-13).

Each indicator is transformed into a final metric, starting from the calculation of the gender gap. The gender gap is a relative indicator that can be calculated for any values for women and men in the interval [0; 1], identifying gender equality point at 0 and inequality at 1. For reasons of interpretability, the values are reversed

by taking its complementary value. This yields values where 1 stands for complete gender equality, with any value below that indicating a proportional lack of gender equality in a given indicator, with full gender inequality at 0.

$Y_{(X_{it})}$ measures the gaps between women and men, where the calculation is carried out for the indicator X for the i-th country in the period t in order to obtain the percentage that women (\bar{X}_{it}^W) represents over the average of the two values of women and men (\bar{X}_{it}^a).

$$Y_{(X_{it})} = \left| \frac{\bar{X}_{it}^W}{\bar{X}_{it}^a} - 1 \right| \quad (1)$$

Step 4: Calculating the correcting coefficient

The correcting coefficient $\alpha_{(X_{it})}$ is the other element in the metric used to transform the original variables.

Correcting coefficients have been introduced in the metric in order to take into account the level of achievement. Member States with similar gender gaps are treated differently according to the level of achievement reached at indicators level. The higher the level of achievement, the higher the correction of the gender gap.

The purpose of the correcting coefficient is to compare the performance of each country with the best performer in the EU. In a particular variable, the further the score of a country diverges from the level of the best performer, the more the score will be adjusted.

The correcting coefficient for each indicator is calculated in the following way, where \bar{X}_{it}^T is the total of the indicator (T, total of women and men) of the country i at the time t.

$$\alpha_{(X_{it})} = \sqrt{\frac{\bar{X}_{it}^T}{\max\{\bar{X}_{i2005}^T, \bar{X}_{i2010}^T, \bar{X}_{i2012}^T, \bar{X}_{i2015}^T\}}} \quad (2)$$

⁽¹⁴⁹⁾ For example, to measure the population without ‘unmet needs for medical examination’, the number of women and men with those unmet needs was divided by the total population aged 16 years or over.

⁽¹⁵⁰⁾ For example, for the indicators measuring the share of members of the national parliaments, the indicator was calculated as the percentage of women in parliaments averaged over 3 years (i.e. for 2021, using the average of 2020, 2021 and 2022) among the population in each country aged 18 and older (closest reference population) also averaged over the same 3 years.

The square root in the formula has been introduced to balance the contribution of the level of achievement and the gender gap in the final metric (more details in EIGE, 2017, p.13-14).

The denominator of the formula is the benchmark for each indicator, identified in the maximum value (T, total of women and men) among all the Member States in the year 2005, 2010, 2012 and 2015.

In this way, the denominator is fixed value in each edition of the index. If in subsequent years the level achieved in a specific indicator of a specific country is larger than its fixed benchmark, the value of its correcting coefficient will

be trimmed to 1 (i.e. there will be no correction applied). When these fixed benchmarks are obsolete, they will be moved and the time series will be recalculated in order to keep time comparability.

Corrections are not applied to the sub-domain of caring activities of the domain of time, and to the domain of power (more details in (EIGE, 2017d), p.14).

Maximum of each indicator in the year 2005, 2010, 2012 and 2015, and used to calculate the correcting coefficients are displayed in the table below.

Table 21. Maximum of the indicators (2005, 2010, 2012, 2015)

Domain	Sub-domain	Indicator	MAX
WORK	Participation	FTE	60.9
		Duration	41.2
	Segregation and quality of work	Segregation	27.7
		Flexibility	52.6
		Prospects	71.7
MONEY	Financial resources	Earnings	3492
		Income	33457
	Economic situation	Poverty	91.8
		S20/80	0.3
KNOWLEDGE	Attainment and participation	Graduates	36.8
		Participation	39.0
	Segregation	Segregation	48.2
TIME	Care activities	Care	-
		Cooking	-
	Social activities	Leisure	57.2
		Voluntary	35.5
POWER	Political	Ministers	-
		Parliament	-
		Regional Assemblies	-
	Economic	Boards companies	-
		Central Banks	-
	Social	Research	-
		Sport	-
HEALTH	Status	Self-perceived health	82.8
		Life expectancy	83.0
		Healthy life years	73.9
	Behaviour	Risk behaviour	74.3
		Healthy behaviour	63.6
	Access	Medical	99.7
		Dental	99.3

Step 5: Calculating the final metric

The final metric for each indicator is the combination of the gender gap and the correcting coefficient. The final metric provides a measure of gender gaps adjusted by levels of achievement. It is dimensionless (allowing comparability since measurement units of variable have been eliminated), and bound between [1; 100]. It also allows interpretability, as each indicator is considered in terms of distance from the equality point (set at 100), and maintains comparability among indicators within each country.

The final metric that, $\Gamma_{(x_{it})}$, can be expressed as:

$$\Gamma_{(x_{it})} = 1 + [\alpha_{(x_{it})} \cdot (1 - Y_{(x_{it})})] \cdot 99 \quad (3)$$

Step 6: Aggregating for sub-domain, domain and Index level

The final step is to group the data according to the structure provided by the measurement framework (more details in (EIGE, 2017d), p.14-16).

All indicators within each subdomain are aggregated, creating indices at the subdomain level. Subsequently these are aggregated at the domain level. Finally, all the domain indices are aggregated, creating the overall Gender Equality Index (see table 22). At subdomain level the aggregation is made using the arithmetic mean (i.e. the mean of the metric of each indicators in the subdomain), with equal weights. Aggregation at domain level is based on geometric mean, that is that to the scores of subdomains a geometric mean is applied in order to obtain a score for each domain, with equal weights. The final aggregation to get the Gender Equality Index is made using a geometric mean of the 6 scores of the domain, by applying specific weights to the domains (see table 23), provided by using the Analytic Hierarchy Process.

The Gender Equality Index takes a value [1; 100], where value of 1 for complete gender equality, and with full gender inequality at 0.



Table 22. Characteristics of the Gender Equality Index

	Variables	Sub-domains	Domains
Weighting	Equal	Equal	Experts (AHP)
Aggregation	Arithmetic	Geometric	Geometric
Normalisation	Metric by construction acts as a normalisation method		
Imputation	Closest values Average of MS for EU Expectation-Maximisation (EM)	No imputation	No imputation

Table 23. Mean experts' weights used for the Gender Equality Index (rounded) ⁽¹⁵¹⁾

Work	Money	Knowledge	Time	Power	Health
0.19	0.15	0.22	0.15	0.19	0.10

⁽¹⁵¹⁾ Weights with 15 digits, used in the calculation of Gender Equality Index, are the following: (Work, 0.193293420026752) (Money, 0.154066793988684) (Knowledge, 0.216676323111808) (Time, 0.14589100376959) (Power, 0.190954414426013) (Health, 0.0991180446771528).

The final metric of Gender Equality Index is the following:

$$I_i^t = \prod_{d=1}^6 \left\{ \prod_{s=1}^{ns_d} \left[\sum_{v=1}^{n_s} \frac{\Gamma(X_{ivt})}{n_s} \right]^{\frac{1}{ns_d}} \right\}^{w_{AHP_d}} \quad (4)$$

$$i = 1, \dots, 27$$

$$d = 1, \dots, 6$$

$$s = 1, \dots, 14$$

$$v = 1, \dots, 31$$

n_s = number of indicators in the sub – domain s

ns_d = number of sub – domains in the domain d

$$w_{AHP_d} \in [0,1]$$

Annex 5. Break in time series

The Gender Equality Index 2023 was affected by changes occurred in some of the statistical sources used for its computation. Those changes can be grouped in three blocks.

First, for the first time the Index benefits from the new EIGE survey data on gender gaps in care, individual and social activities carried out across the EU in 2022. This resulted in the update of the 4 indicators included in the domain of time that remained unchanged since the 2017 edition. The use of this new source of information implies a break in the time series of 4 indicators, due to a different data collection mode compared to the original sources (EWCS and EQLS).

Second, the Regulation (EU) 2019/1700, which is in force from 1 January 2021 onwards, has introduced some changes that have affected, among other surveys, the EU-LFS ⁽¹⁵²⁾. Those changes have implied a break in the time series of 4 indicators included in the Index, specifically due to changes in:

- the reference population, which moved **from people aged 15 years and over to 15-89 years**;
- the **definition of population and household**;
- the criteria for classifying the **absences from work**;
- the measurement of the **actual working hours** (quarterly).

Finally, for the first time since 2017 the Gender Equality Index could benefit from the new data of the 2021 EWCTS survey (Eurofound). Nevertheless, a change in the data collection mode of this survey ⁽¹⁵³⁾ implies a break in the time series of one indicator of the Index.

Those methodological changes will affect the **domain of time, knowledge and work**, as well as the **overall Index** and the analysis of **intersecting inequalities** of the respective indicators. The table below summarises the methodological changes in the 9 affected indicator.

Table 24. Methodological changes in the indicators used for the Gender Equality Index 2023

Domain	Sub-domain	N	Indicator	Source		
				Index 2022	Index 2023	Changes
WORK	Participation	1	Full-time equivalent employment rate (% , 15+ population)	Eurostat, EU LFS	Eurostat, EU LFS	Methodological changes and range of age (15-89)
	Segregation and quality of work	3	Employed people in Education, Human Health and Social Work activities (% , 15+ employed)	Eurostat, EU LFS	Eurostat, EU LFS	Range of age (15-89)
		4	Ability to take an hour or two off during working hours to take care of personal or family matters (% , 15+ workers)	Eurofound, EWCS	Eurofound, EWCTS (2021)	Methodological change (EWCTS (Telephone survey))
KNOWLEDGE	Attainment and participation	10	Graduates of tertiary education (% , 15+ population Graduates)	Eurostat, EU LFS	Eurostat, EU LFS	Range of age (15-89)
		11	People participating in formal or non-formal education and training (% , 15+ population)	Eurostat, EU LFS	Eurostat, EU LFS	Methodological changes and range of age (15-74)
TIME	Care activities	13	People caring for and educating their children or grandchildren, elderly or people with disabilities, every day (% , 18+ population)	Eurofound, EQLS (2016)	EIGE Time use survey (2022)	Methodological changes and range of age (18-74)
		14	People doing cooking and/or housework, every day (% , 18+ population)	Eurofound, EQLS (2016)	EIGE Time use survey (2022)	Methodological changes and range of age (18-74)
	Social activities	15	Workers doing sporting, cultural or leisure activities outside of their home, at least daily or several times a week (% , 15+ workers)	Eurofound, EWCS (2015)	EIGE Time use survey (2022)	Methodological changes and range of age (16-74)
		16	Workers involved in voluntary or charitable activities, at least once a month (% , 15+ workers)	Eurofound, EWCS (2015)	EIGE Time use survey (2022)	Methodological changes and range of age (16-74)

⁽¹⁵²⁾ https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_Labour_Force_Survey_-_new_methodology_from_2021_onwards

⁽¹⁵³⁾ <https://www.eurofound.europa.eu/surveys/2021/european-working-conditions-telephone-survey-2021>

When this type of methodological changes occurs, it would be advisable to calculate two indices: one with the old methodology and another with the new methodology. This would provide a linkage between the old and new methodologies, showing exactly what part of the new index score is due to methodological changes and what part is due to the evolution of society, implementation of policies, etc. However, this ideal scenario is not possible in the case of the Gender Equality Index since our statistics providers have not produced an unchanged version of their indicators.

Even though we cannot know the exact impact of those methodological changes in the 2023 Index, the following statistical techniques can inform us about the adequacy of the time series analysis (trend analysis).

1. For each of the 9 indicators affected by the methodological changes, we analysed the statistical similarity of the distributions of the raw data used in 2022 and 2023 Index editions, by computing the Hellinger distance (HD).

The HD is bound between 0 and 1, when the distance is 0 the two distributions are identical and when it is 1 they show the maximum distance. A value lower than 0.2 indicates an acceptable degree of similarity.

The analysed indicators have a low HD (Table 25), showing that their distributions in 2022 and 2023 have an acceptable degree of similarity. Therefore, the impact of the methodological changes is low and the time series analysis can be considered adequate.

Table 25. Hellinger distance for the indicators with methodological changes

N	Indicator	Sources compared (sources used in 2022 and 2023 editions)	Hellinger distance
1	FTE	EU-LFS 2020 vs. EU-LFS 2021	0.02
3	Segregation	EU-LFS 2020 vs. EU-LFS 2021	0.04
4	Flexibility	EWCS 2015 vs. EWCTS 2021	0.08
10	Graduates	EU-LFS 2020 vs. EU-LFS 2021	0.01
11	Participation	EU-LFS 2020 vs. EU-LFS 2021	0.05
13	Care	EQLS 2016 vs. EIGE-TUS 2022	0.19
14	Housework	EQLS 2016 vs. EIGE-TUS 2022	0.13
15	Leisure	EWCS 2015 vs. EIGE-TUS 2022	0.08
16	Voluntary	EWCS 2015 vs. EIGE-TUS 2022	0.10

2. Analysing the individual impact of each indicator in the overall Index through correlation and contribution analysis.

2.1. Correlation analysis

The Pearson correlation between the final metric of each affected indicator and the scores of the domains, as well as the overall Index, are not very high (<0.8) in most of the cases (Table 26). Therefore, we can consider that the impact of the indicator is not high,

and hence the impact of the methodological changes neither, even if we cannot measure it.

For those cases where the correlations are high, in principle we could not conclude anything about the impact of the methodological changes. Nevertheless, as they were also high in 2022 we could think that actual values are not altered by those changes. Consequently, the time series analysis can be considered adequate.

Table 26. 2023 and 2022 Correlation matrices for the indicators with methodological changes

	WORK		MONEY		KNOWLEDGE		TIME		POWER		HEALTH		INDEX	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
FTE	0.65	0.49	0.04	0.02	0.14	0.08	-0.12	0.28	0.02	0.09	0.06	-0.03	0.10	0.17
Segregation	0.61	0.63	0.80	0.77	0.78	0.77	0.41	0.56	0.67	0.62	0.71	0.73	0.83	0.77
Flexibility	0.67	0.73	0.23	0.46	0.32	0.52	-0.01	0.55	0.11	0.52	0.36	0.48	0.26	0.65
Graduates	0.57	0.62	0.61	0.66	0.66	0.67	0.16	0.53	0.41	0.44	0.59	0.66	0.57	0.63
Participation	0.69	0.74	0.77	0.72	0.72	0.72	0.52	0.85	0.65	0.63	0.73	0.74	0.82	0.83
Care	0.16	0.50	0.16	0.21	0.21	0.16	0.48	0.62	0.35	0.39	0.27	0.29	0.36	0.45
Housework	0.61	0.70	0.52	0.42	0.60	0.41	0.37	0.80	0.58	0.46	0.39	0.28	0.68	0.62
Leisure	-0.04	0.72	0.07	0.73	0.06	0.72	0.82	0.94	0.19	0.67	0.03	0.73	0.22	0.87
Voluntary	-0.16	0.58	-0.01	0.64	-0.09	0.45	0.48	0.84	0.05	0.41	-0.05	0.62	0.06	0.64

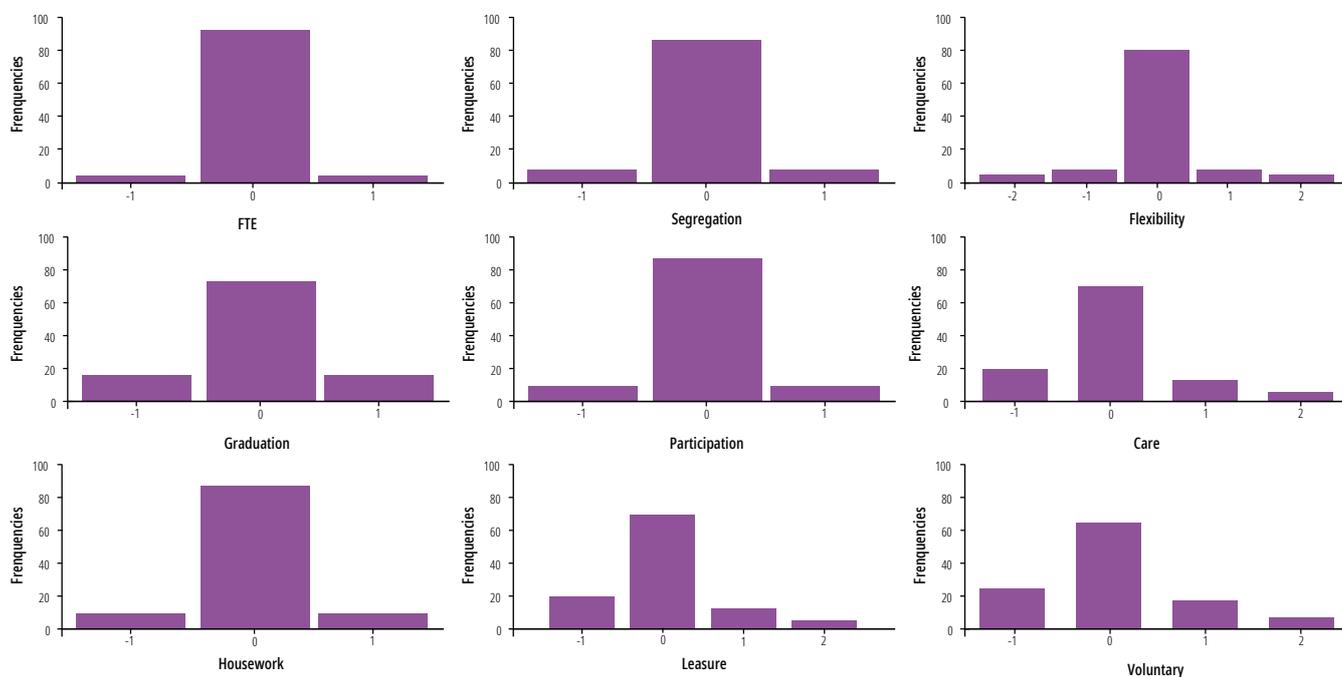
2.2. Contribution analysis

This analysis is done by removing one indicator at a time and recomputing the Index to study the changes in ranks and in scores.

Removing the analysed indicators (one by one) results in very little rank and score

changes compared to the original Index (Figure 45). For instance, more than 90 % of the countries keep exactly the same position in FTE. This shows that the impact of these indicators is not particularly high, therefore the impact of the methodological changes neither. Hence, the time series analysis can be considered adequate.

Figure 45. Histogram of the rank differences when removing one affected indicator at a time



Annex 6. Additional statistical data from EIGE survey on gender gaps in unpaid care, individual and social activities, 2022

Table 27. Share of most used means of transport during a typical week by sex, level of education, degree of urbanization and income (% , 16-74, EU, 2022)

Car among the top 3 modes of transport

	Women	Men	Gender gap (pp)
Education			
Low	62.0	64.1	- 2.1
Medium	66.3	71.6	- 5.4
High	69.4	73.3	- 4.0
Degree of urbanization			
Densely populated area	56.6	63.2	- 6.7
Intermediate density area	71.6	74.6	- 2.9
Sparsely populated area	76.5	78.1	- 1.5
Income decile			
No personal income	60.5	52.1	8.4
First income decile	57.9	47.8	10.1
Second income decile	61.1	56.9	4.2
Third income decile	64.2	69.3	- 5.2
Fourth income decile	70.8	65.9	5.0
Fifth income decile	71.2	73.4	- 2.2
Sixth income decile	69.8	74.6	- 4.8
Seventh income decile	72.0	74.8	- 2.8
Eighth income decile	70.3	78.9	- 8.5
Ninth income decile	73.3	78.8	- 5.5
Tenth income decile	74.0	81.7	- 7.7
Overall			
Population, 16-74 years	66.0	70.1	- 4.1

Public transport among the top 3 modes of transport

	Women	Men	Gender gap (pp)
Education			
Low	28.6	26.7	1.8
Medium	32.6	28.7	3.9
High	34.6	31.6	3.1
Degree of urbanization			
Densely populated area	45.3	39.2	6.1
Intermediate density area	23.3	22.4	0.9
Sparsely populated area	19.2	16.9	2.3
Income decile			
No personal income	33.6	42.6	- 8.9
First income decile	36.4	36.6	- 0.2
Second income decile	33.5	33.6	- 0.1
Third income decile	29.2	29.1	0.1
Fourth income decile	31.8	31.4	0.3
Fifth income decile	30.5	25.1	5.4
Sixth income decile	29.2	26.2	3.1
Seventh income decile	33.7	26.7	7.0
Eighth income decile	34.3	25.9	8.4
Ninth income decile	32.5	27.9	4.6
Tenth income decile	28.2	28.2	- 0.1
Overall			
Population, 16-74 years	32.1	29.0	3.2

Walking among the top 3 modes of transport

	Women	Men	Gender gap (pp)
Education			
Low	42.7	39.6	3.1
Medium	46.7	43.5	3.2
High	48.0	46.9	1.1
Degree of urbanization			
Densely populated area	49.6	46.1	3.5
Intermediate density area	44.4	43.9	0.5
Sparsely populated area	41.3	36.3	5.0
Income decile			
No personal income	53.6	50.7	2.9
First income decile	55.0	49.7	5.4
Second income decile	48.6	48.8	-0.1
Third income decile	43.8	39.6	4.2
Fourth income decile	41.6	45.0	-3.4
Fifth income decile	44.2	41.3	2.9
Sixth income decile	40.7	42.1	-1.4
Seventh income decile	44.7	43.5	1.2
Eighth income decile	42.5	41.7	0.9
Ninth income decile	39.6	41.0	-1.4
Tenth income decile	40.6	42.5	-1.9
Overall			
Population, 16-74 years	46.0	43.4	2.7

Private bike or scooter among top 3 modes of transport

	Women	Men	Gender gap (pp)
Education			
Low	12.7	20.0	-7.2
Medium	16.6	21.6	-5.0
High	15.8	21.9	-6.1
Degree of urbanization			
Densely populated area	15.7	20.9	-5.2
Intermediate density area	16.5	23.4	-6.8
Sparsely populated area	12.9	18.6	-5.7
Income decile			
No personal income	12.0	19.4	-7.4
First income decile	16.1	20.9	-4.8
Second income decile	17.1	20.4	-3.3
Third income decile	13.8	20.9	-7.2
Fourth income decile	12.8	20.2	-7.3
Fifth income decile	16.5	24.2	-7.7
Sixth income decile	15.2	21.7	-6.5
Seventh income decile	16.7	21.5	-4.8
Eighth income decile	16.1	24.1	-8.1
Ninth income decile	12.9	20.8	-7.9
Tenth income decile	16.2	21.0	-4.8
Overall			
Population, 16-74 years	15.4	21.3	-5.9

Source: EIGE survey on gender gaps in unpaid care, individual and social activities, 2022. QG1. "What means of transport do you use most often during a typical week? This includes transport to work".

Note: The sample includes all individuals. Responses include: 'car', 'car sharing (including taxi)', 'privately owned motorbike or moped', 'public transport (bus, metro, tram, ferry, train, ship, etc.)', 'privately owned bike or scooter (including electric)', 'shared bike, scooter or moped (including electric)', 'walking', 'no daily or regular mobility', 'other' and 'don't know'. In this graph 'no daily or regular mobility' is not shown. Respondents were free to report up to 3 of the most often used means.

Annex 7. Summary of NECPs' gender references

Austria's NECP states that Austria is following a national gender mainstreaming strategy with the aim to achieve equality by keeping a gender perspective in mind in all areas and at all levels of policymaking. Furthermore, the NECP restates Austria's national and international obligations on gender equality. However, concrete actions are missing.

Belgium's NECP takes gender concerns in their impact assessment of planned policies and measures into account. In a section on impacts on inequalities, it is acknowledged that energy and climate policies can have a gendered impact on employment, risk of poverty, representation and communication actions due to different awareness of sustainability. At the international level, the plan recognises the risks to women in the Global South, where increased interest in biofuels may put women at greater risk of land seizures, threats, violence and abuse. The Belgian NECP states the country's commitment to combating any form of discrimination and to including a gender dimension in mobility and country planning policies from start to finish.

Finland's NECP states that in the development of the plan several consultations and workshops were organised for stakeholders. Among these, an open workshop on the gender effects of the climate change plan was organised to which gender experts were invited. Moreover, it is stated that Finland joined the Women in Energy (C3E) initiative.

Hungary's NECP does not mention gender, however regarding the improvement of the labour market in the energy sector, the plan aims to facilitate equal opportunities for women and vulnerable social groups, either through separate 'just transition strategies' or 'just transition agreements'.

Ireland's NECP includes a section on gender equality, in which the commitment to integrating a gender perspective into decision-making on a wide range of policies is stated. The plan also

refers to Ireland's National Strategy for Women and Girls 2017–2020, which includes a commitment to take gender equality issues into account in the implementation of the National Strategy to Combat Energy Poverty. Moreover, Ireland is committed to mainstreaming gender equality in all programmes of the Sustainable Energy Authority of Ireland.

Luxembourg's NECP contains a segment on equal opportunities and human rights. The plan recognises that climate change has gender-specific effects and that an increase in women's participation will expand the effectiveness and level of ambition for fighting climate change. The plan states Luxembourg's commitment to Agenda 2030 and the SDG 5 on gender equality as well as other international agreements. The plan mentions that Luxembourg's strategy for providing resources for international financing to fight climate change is based on a number of guiding principles, including gender equality.

Portugal's NECP makes a reference to Agenda 2030, and SDG 5 on gender equality was identified as a priority next to other goals. However, this remains the only mention of gender issues in the plan.

Romania's NECP provides measures to promote gender equality in education and vocational training related to research, innovation, and competitiveness in the energy sector. The two mentioned measures are building partnerships with the energy industry and supporting education in the field of energy by fostering gender equality.

Spain's NECP states that the plan has a strong commitment to a gender perspective, however no further explanation is given. It is mentioned that women's share in renewable energy jobs is lower in Spain compared to international levels, 26 % compared to 32 % respectively, and women's participation on equal conditions will increase in the renewable energy sector.

Sweden's NECP entails a separate section on gender mainstreaming underlining the country's commitment to gender equality at EU and international level, also referring to its feminist foreign policy. It is mentioned that at the

request of Sweden's government, the Swedish Environmental Protection Agency has submitted a proposal for further integration of gender equality in the implementation of the Paris Agreement.



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