TRACKING THE UPWARD SOCIAL CONVERGENCE

Sustainable Development and Social Rights in the Future of the EU

TRACKING THE UPWARD SOCIAL CONVERGENCE:
SUSTAINABLE DEVELOPMENT AND SOCIAL RIGHTS IN THE FUTURE OF THE EU

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Research Team

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ACRONYMS

AROPE	At Risk Of Poverty or Social Exclusion
BES	Equitable and Sustainable Wellbeing Index
EC	European Commission
ECL	European Climate Law
EGD	European Green Deal
EPI	Environmental Performance Index
EPSR	European Pillar of Social Rights
ESRI	European Social Rights Indicator
ETS2	Emissions Trading System 2
EU	European Union
EUR-Lex	Access to European Union Law
HDI	Human Development Index
JTF	Just Transition Fund
JTM	Just Transition Mechanism
MDGs	Millennium Development Goals
MPI	Multidimensional Poverty Index
MSI	Multidimensional Synthetic Indicator
NEET	Not in Education, Employment, or Training
NUTS	Nomenclature of Territorial Units for Statistics
RRF	Recovery and Resilience Facility
SCF	Social Climate Fund
SDGs	Sustainable Development Goals
SSB	Social Scoreboard
EU	European Union
UN	United Nations
UNDP	United Nations Development Programme

EXECUTIVE SUMMARY

After the 2008 crisis, awareness of the role of social rights as a foundational component of the European Union has significantly increased. The **debate on upward social convergence** (i.e., convergence towards higher standards of social rights) **within the EU** has become central, not only as a prerequisite for the prosperity of European societies but also for the very existence of the European Union as a political entity. Conversely, the erosion of social rights and territorial inequalities (both between member states and within them) can be considered an existential threat to the EU as we know it today, and even more so to the process of integration.

The European Pillar of Social Rights (EPSR), launched in 2017, and the European Green Deal (EGD) are key initiatives aimed at ensuring social and environmental sustainability. The report shows how the **European Social Rights Indicator (ESRI) and Environmental Performance Index (EPI) have shown notable improvements** across the EU from 2010 to 2023. Northern European countries, such as Denmark, Finland, and Sweden, consistently outperform Southern and Eastern European countries in both social and environmental metrics.

As concerning social rights, **post-2008, Southern European countries faced significant socio-economic challenges, exacerbated by austerity measures**. The period from 2010 to 2019 marked a significant decline in social rights and economic stability across Southern Europe. Countries in this region saw deteriorating employment conditions, higher rates of NEET (Not in Education, Employment, or Training), and an overall reduction in social protection and inclusion scores.

In stark contrast, **the response to the COVID-19 pandemic involved expansive fiscal policies at both national and EU levels**, which helped mitigate the adverse effects on social rights and economic conditions. Indeed, from 2020 onwards, despite the initial downturn caused by the pandemic, there was a rapid and robust recovery in social and economic indicators in Southern Europe. The comprehensive response led to improvements in employment rates and a quicker recovery of social protection systems compared to the post-2008 period.

The divergent outcomes between the 2008 financial crisis and the COVID-19 pandemic highlight the **critical role of policy responses**. Austerity measures led to prolonged socio-economic difficulties in Southern Europe, whereas expansive fiscal interventions during the pandemic facilitated a faster recovery and better social outcomes. Moving forward, **targeted policy interventions focusing on education, healthcare access, and labour market reforms** are essential to **sustain upward convergence** and mitigate regional disparities within the EU.

Policy Recommendations

- Enhance infrastructure and economic opportunities in lagging regions, focusing on rural poverty and youth employment.
- Implement inclusive labour market policies, promote gender equality in education and employment, and close the gender pay gap.
- Invest in green technologies and renewable energy to ensure economic development aligns with environmental sustainability.
- Strengthen governance and policy effectiveness to achieve better social and environmental outcomes across all regions.

1. INTRODUCTION

After the 2008 crisis, awareness of the role of social rights as a foundational component of the European Union has significantly increased. The debate on upward social convergence (i.e., convergence towards higher standards of social rights) within the EU has become central, not only as a prerequisite for the prosperity of European societies but also for the very existence of the European Union as a political entity. Conversely, the erosion of social rights and territorial inequalities (both between member states and within them) can be considered an existential threat to the EU as we know it today, and even more so to the process of integration.

The launch of the European Pillar of Social Rights (EPSR) in 2017 was accompanied by the creation of a dashboard with 35 indicators to monitor its effective implementation. The Social Scoreboard (SSB) focuses on three main areas - (i) equal opportunities, (ii) fair working conditions, and (iii) social protection and inclusion - and has been officially adopted by European institutions, fuelling public debate on the topic through a set of official, shared, and freely accessible information (Mascherini et al., 2018).

The parallel emergence of awareness at the EU level about the need for a green transition leading to climate neutrality through emissions balancing, along with the crisis linked to the COVID-19 pandemic, has highlighted the close link between the Green Deal and social justice. This process, which began even before the European Green Deal (2019), poses multiple environmental, economic, technological, legal, political, and social challenges. In 2021, the EU launched the "Just Transition Fund" (JTF), a financial instrument within the cohesion policy framework, aiming to support territories facing severe socio-economic challenges resulting from the transition to climate neutrality, promoting the sustainable structural change of society as a whole. These synergies must be supported at the European, national, and, most importantly, local levels.

The following report analyzes the evolution of the situation in different European regions (NUTS2 level) and countries (NUTS0 level), with a twofold purpose. On one hand, it aims to provide a methodologically robust knowledge base on the evolution of social rights in the EU at the union, national, and regional levels, to assess the extent of geographical convergence in terms of social rights and to understand trends and diverse patterns across the various components of the SSB. On the other hand, we analyzed the parallel evolution of social rights and environmental performances, to promote a reflection on how the European Green Deal, particularly through the Just Transition Fund mechanism, ensures that the transition to a climate-neutral economy occurs equitably at the territorial level.

To achieve this goal, we applied the Multidimensional Synthetic Indicator (MSI) procedure to the SSB dashboard of indicators to develop the European Social Rights Indicator (ESRI) (Mauro et al., 2018), developed in the EUROSHIP Horizon project by Biggeri and coauthors in their

Working Paper n.27 (2023). The main added value of developing a composite indicator lies in its capacity to measure multi-dimensional phenomena on a unidimensional scale, thus facilitating comparisons across time and units (Noll, 2018). To also consider environmental performance aspects and developments brought by major investments over the last five years, we focused on the data dashboard provided by the Environmental Performance Indicator and conducted a qualitative analysis of the extensive policy monitoring documentation carried out in various member states, to better understand the directions taken and the available data.

By using a sub-national disaggregation technique to monitor the implementation of the European Pillar of Social Rights, we addressed territorial and gender-related inequalities while dealing with the SSB. Nationally aggregated indicators conceal the existence of significant territorial inequalities, with, for example, very high levels of rural poverty in Southern and Eastern Europe (Copus et al. 2015). The actual individual level of social rights enjoyment depends on individual characteristics (level of education, gender, etc.) as well as on how these characteristics interact with the structural characteristics of the place of residence. Indeed, the asymmetric impacts of intra-country social and economic inequalities question the ability of the current development model to promote social cohesion (Rodriguez-Pose 2018).

The actual and/or perceived marginalization of certain areas not only undermines social cohesion at the EU level but can also lead to the rise of populism (Rebechi and Rohde, 2022) and the growth of anti-EU sentiments (Dijkstra, 2020). Thus, the use of sub-national disaggregation techniques to monitor the implementation of the European Pillar of Social Rights uncovers the impact of many EU-level policies (including key actions for social cohesion such as programs funded through the European Social Fund) that are directed at regions, interacting with fund allocation (Hermans et al., 2021).

The report is structured as follows. Section 1 discusses how the notions of 'green transition' and 'just transition' have been addressed in the past decade, retracing the key milestones through major EU policy documents and strategies, notably the European Pillar of Social Rights, the European Green Deal (EGD), and the Recovery and Resilience Facility (RRF). Section 2 presents the analytical and methodological framework for the research and the construction of the ESRI index. Section 3 examines European environmental convergence, also exploring the synergies between social and environmental convergence. Section 4 presents the analysis results, assessing the degree of realization of upward social convergence through a NUTS 0 and 2 analysis of the ESRI. Section 5 focuses on Italy and reflects on the implications of the correlation between convergence and policy types.

2. THE PATH TOWARDS A SUSTAINABLE AND INCLUSIVE EUROPE

There is growing awareness that the current era, characterized by successive, interlinked, and multidimensional shocks (from the 2008 recession and the 2010 European debt crisis to the Covid-19 pandemic and the ongoing wars in Ukraine and Gaza, along with the 2015 refugee crisis) and structural challenges (demographic trends, labor market transformations, digitalization, and climate change. EC 2023a), marks the onset of a transformative phase for European societies.

The framework to steer this transformative phase is the European Green Deal (EGD), launched in 2019. The EGD is a comprehensive strategy to achieve climate neutrality by 2050, transforming the EU into a modern, resource-efficient, and competitive economy with no net emissions of greenhouse gases. The European Green Deal is indeed the current growth strategy of the EU, aiming to align the green transition with economic growth, thereby setting the EU on a green economic growth path. It encompasses various policy areas, including energy, agriculture, industry, and biodiversity, and emphasizes the need for a Just Transition to ensure the integration of environmental sustainability with economic and social inclusivity (European Commission, Eurofound).

The concept that social and ecological issues are interdependent is not new, originating from the concept of sustainable development, first defined in the 1987 Brundtland report as development that meets present needs without compromising the ability of future generations to meet their own. Sustainable development consists of three pillars: environmental, social, and economic, although there is debate about the relationship between these pillars.

Since the late 1990s, scholars have called for integrating social and ecological policy objectives (Cahill and Fitzpatrick, 2002; Fitzpatrick, 2011), and with the rising awareness of climate change, they increasingly focused on the interlinkages between climate change, social policy, and justice. Climate change disproportionately impacts disadvantaged groups and countries, which have contributed the least to the problem and have the lowest capacity to mitigate or adapt to its effects (Chancel, 2022). This inequality is reflected in the distribution of emissions, with the wealthiest responsible for a significant portion of emissions growth since 1990 (Chancel, 2022).

What is new to the Green Deal is the awareness that trade-offs are present in the transition towards a greener sustainable economy, as the green transition will not be automatically socially fair nor reduce social inequalities per se. Studies have shown that several policy tools used to address climate change disproportionately disadvantage poorer or vulnerable populations. Indeed, climate change mitigation policies impact labor markets, with employment risks for workers in high-carbon sectors, while market-based instruments like carbon or energy taxes and subsidies for low-carbon technologies often favor the wealthier

who can afford the upfront costs of low-energy technologies (Grösche and Schröder, 2014) and disproportionately affect poorer households through taxes on necessities (Büchs et al., 2021). The fairness of the green transition requires a series of adjustments in terms of offering opportunities and mitigating risks, to ensure that no one is left behind during the green transformation, leaving no one behind – territories, social groups, individuals.

The reference framework for ensuring a socially fair transition for all is provided by the European Pillar of Social Rights (EPSR). Proclaimed in 2017 at the Gothenburg Summit, the EPSR sets out 20 key principles aimed at ensuring fair and well-functioning labor markets and welfare systems across the EU. These principles are divided into three categories: equal opportunities and access to the labor market, fair working conditions, and social protection and inclusion. The EPSR is primarily a coordinating instrument of European governance, aimed at improving social outcomes across Member States. It is categorized as a "soft" governance tool, meaning that its implementation relies heavily on the cooperation and commitment of Member States to adapt, expand, and reform social legislation within their own jurisdictions.

The Just Transition Mechanism (JTM) and its Just Transition Fund (JTF) – introduced with the EGD - aimed at supporting regions most affected by the transition (€17.5 billion fund for 2021-2027), focusing narrowly on specific territories and sectors (high carbon economies), as well as on a few welfare policies aiming at facilitating the transition of workers through vocational training and reskilling. Furthermore, it was unclear what role the EU would play in steering national welfare states in adapting to the challenges of the green transition. Indeed, the EPSR is not legally binding for member states, and there were no details in the EGD on how the implementation of the Pillar and welfare states should adapt to the Green transition (European Commission, EUR-Lex).

THE EUROPEAN PILLAR OF SOCIAL RIGHTS IN 20 PRINCIPLES
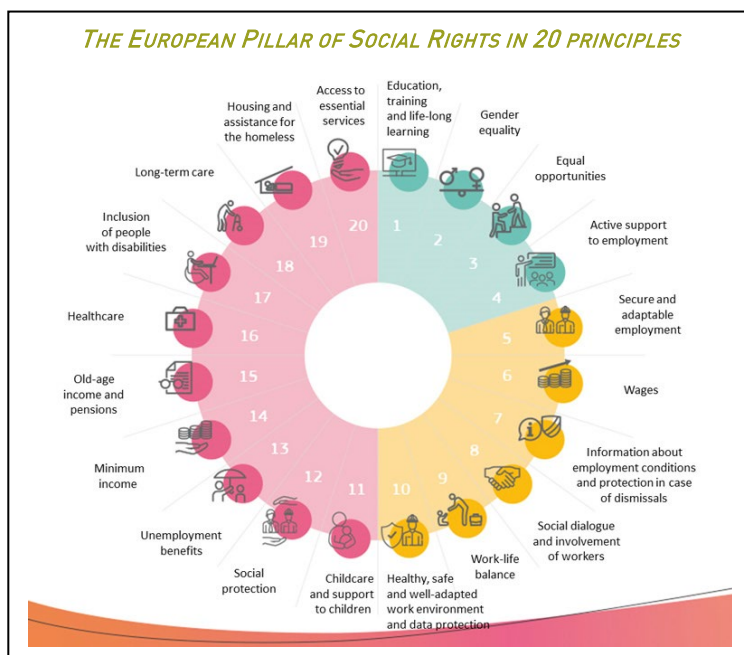
Despite initial shortcomings, new initiatives have gradually developed a more comprehensive European framework for Just Transition. The COVID-19 pandemic underscored vulnerabilities in health, social, and economic systems, prompting the EU to reinforce its commitment to social rights and inclusive well-being. The crisis accelerated digital and green transitions, with a renewed focus on resilience and solidarity. The pandemic's economic impact highlighted the necessity of robust social protection systems and the need for a coordinated EU response to recover sustainably and inclusively (Eurofound, European Commission).

Key elements of the EU framework for a Just Transition have been outlined since 2021. First, in response to the economic fallout from the COVID-19 pandemic, the EU established the Recovery and Resilience Facility (RRF, 2021, €806.9 billion) as part of the NextGenerationEU recovery plan. The RRF aims to support Member States in their recovery and transformation efforts, providing significant financial support to implement reforms and investments that foster economic recovery while advancing the green and digital transitions (European Commission, European Commission).

The establishment of the RRF can be considered a quantum leap in the process of European integration (Vanhercke and Verdun 2022). To finance this instrument, the European Union (EU) issued debt of unprecedented size and scope. The RRF relies on strong mechanisms of conditionality and monitoring of fund usage, potentially enhancing the EU's influence on national policies and priorities (Bokhorst, this volume). Resources provided to the Member States are to be used to finance investments and reforms – proposed by the Member States in national Recovery and Resilience Plans (RRPs) – enabling recovery from the Covid-19 crisis in line with EU priorities set out in the RRF Regulation. A top priority is to promote the transition towards environmentally sustainable economies and societies, ensuring that the risks and opportunities arising from the transition are fairly distributed across social groups and territories.

The European Climate Law (ECL) approved in the same year translated into law the goal agreed on as part of the EGD, imposing a binding objective to become climate neutral by 2050,

i.e., the economy should have reached net-zero emissions. The law establishes the intermediate target of cutting net emissions from 1990 levels by at least 55% by 2030.

To implement this goal, the European Union (EU) enacted a number of related climate-related rules and regulations that constitute the 'Fit for 55' package. The Fit for 55 is an interconnected and comprehensive set of proposals designed to deliver the European Green Deal and the EU's climate target for 2030 as defined in the European Climate Law, cutting across most sectors of the economy to provide the regulatory basis for reaching the EU's climate targets "in a fair, cost-efficient, and competitive way". It consolidated eight existing pieces of legislation and introduced five new policies, covering areas such as climate, energy, fuels, transport, buildings, land use, and forestry. These represent a mix of different kinds of policy instruments: pricing, targets, standards, and support measures.

In March 2021, the European Commission adopted an Action Plan to implement the EPSR, setting ambitious targets for 2030. These include achieving at least 76% employment for people aged 20-64, ensuring that at least 60% of adults participate in training each year, and reducing the number of people at risk of poverty or social exclusion by at least 15 million (European Commission). The EPSR Action Plan calls on Member States to set their own targets as national contributions to achieving the EU headline targets and encourages active involvement of social partners and civil society.

The European Social Fund+, as part of the Multiannual Financial Framework 2021-2027, is the main financial instrument for the implementation of the EPSR, although the RRF, the European Regional Development Fund, the Just Transition Fund, and the proposed Social Climate Fund (SCF) also support this framework, addressing the social impacts of climate policies and funding structural investments to enhance energy efficiency and decarbonize buildings.

The Social Climate Fund represents the social branch of the Fit-for-55 package and establishes a financial instrument to support vulnerable households, micro-enterprises, and transport users. It aims to contribute to a socially fair transition towards climate neutrality by addressing the social impacts of the introduction of the emissions trading system for greenhouse gas emissions from buildings and road transport (ETS2).

The Social Climate Fund will operate from 2026 to 2032 and provide up to €65 billion in financial support to member states to implement measures and investments included in their Social Climate Plans. The SCF will be financed mainly by revenues from the newly created ETS2, a separate EU emissions trading system that will cover buildings, road transport, and additional sectors.

The Council Recommendation on ensuring a fair transition towards climate neutrality (2022), although not legally binding, is a further important element outlining the EU path towards a Just Transition. The Recommendation is underpinned by the principles of the EGD and the

EPSR and aims to ensure that the Union's transition towards a climate-neutral and environmentally sustainable economy by 2050 is fair and leaves nobody behind. The Recommendation invites member states to take a coordinated and cross-sectoral approach to adopting and implementing coherent policy measures that address employment, skills, and social aspects of climate, energy, transport, and other green transition policies. A key purpose of the Recommendation is to encourage actions in support of individuals and households in vulnerable situations, i.e., those most affected by the green transition, by making inclusive provisions in areas such as education and training, taxation and social protection, and essential services to mitigate the negative social impacts of the green transition.

Tackling Energy Poverty

The EU's Strategic Response to a Growing Crisis

The European Union has increasingly focused on addressing energy poverty, especially considering recent global energy market disruptions and security concerns stemming from Russia's invasion of Ukraine. The RePowerEU plan, launched in 2022, seeks to mitigate these issues by reducing Europe's reliance on Russian fossil fuels and transforming its energy system for better sustainability and reliability. Key actions under RePowerEU include saving energy, diversifying energy supplies, accelerating the clean energy transition, and combining smart investments and reforms.

The EU's commitment to tackling energy poverty is further highlighted by the Commission's 2020 recommendation on the subject. This recommendation emphasizes that access to adequate warmth, cooling, lighting, and energy for appliances is essential for a decent standard of living and social inclusion. To support Member States, the recommendation outlines a systematic approach to energy market liberalization and energy poverty assessment, encourages the evaluation of the distributional effects of the energy transition, and promotes the development of integrated energy and social policies to reduce energy poverty and social inequality.

The EPSR and its Social Scoreboard have strengthened social policies' roles within the Semester. Integrating the UN Sustainable Development Goals (SDGs) into the Semester has added an environmental dimension, but a better balance between economic, social, and environmental objectives is necessary (European Commission, 2019b).

The final report of the Conference on the Future of Europe, launched by the EU in 2022, contains several recommendations from European citizens on priority objectives and necessary strategies to achieve a sustainable, resilient, and prosperous EU. Among these is

ensuring the full implementation of the European Pillar of Social Rights at the union, national, regional, and local levels. To this end, the recommendations highlight the need for greater harmonization of EU social rights legislation, particularly concerning some strategic areas: minimum income, minimum wage, and access to healthcare.

The Conference's recommendations also emphasize the need for indicators that are not purely economic and are capable of capturing what is happening within member countries. Indeed, nationally aggregated indicators conceal significant territorial inequalities, with, for example, very high levels of rural poverty in Southern and Eastern Europe (Copus et al. 2015). A concrete proposal to revise the Social Scoreboard was included in the EPSR Action Plan, leading to further developments (Publications Office of the EU, European Commission, European Sources).

The 2021 revision of the Social Scoreboard, along with the headline targets, has integrated and updated the existing set of indicators to more comprehensively track progress towards the principles of the European Pillar of Social Rights. This revision was linked to the UN Sustainable Development Goals and incorporated new indicators. In enlargement countries, the updated Social Scoreboard is now used in the Economic Reform Programme (ERP) process to monitor Pillar implementation, contingent on data availability.

This comprehensive update signifies a robust step towards capturing a wider array of social dimensions. Specifically, the integration of indicators related to digital skills, childcare inclusion, and the employment gap for individuals with disabilities demonstrates a commitment to addressing various facets of societal well-being.

Despite these advancements, certain limitations persist. The Social Scoreboard primarily offers a dashboard of indicators which, while detailed, do not necessarily reveal the interconnections between different social dimensions or the trade-offs policymakers must consider. Furthermore, the disaggregated nature of the scoreboard can make it challenging to derive clear, actionable insights or effectively communicate overarching trends.

In light of these considerations, we applied the Multidimensional Synthetic Indicator (MSI) procedure to the SSB dashboard of indicators to develop the European Social Rights Indicator (ESRI) (Mauro et al., 2018) in the EUROSHIP Horizon project by Biggeri, Ciani, et al. The ESRI is designed to address these gaps by offering a more integrated, composite framework to enhance the ability to communicate complex social phenomena and facilitate more informed policy decisions. In the following section, the methodology underpinning the construction of the ESRI is thoroughly explained.

3. METHODOLOGY

Noll (2018: 954) highlights that social monitoring "(...) may be defined as a systematic and continuous observation of individual and societal well-being and related changes across time by making use of quantitative measurement instruments, e.g. indicators systems, indicator dashboards or composite indices." Since the very beginning, the use of social indicators dashboards can be motivated by the assumption that a qualitative lens is needed in order to observe and systematically assess what really matters for our societies. In his seminal work, Bauer (1966) defines social indicators as a form of quantitative evidence that enables us *"to assess where we stand and are going with respect to our values and goals, and to evaluate specific programs and determine their impact"*. Bauer's definition of social indicators underscores their role in addressing complex and multifaceted questions about societal progress, such as "where do we stand" and "where are we going," rather than simply "how rich we are." This complexity arises because social indicators must capture multidimensional aspects of well-being. Furthermore, their relevance is determined by what society collectively values, aligning them with public debate and deliberation, as noted by Sen (1999). Social indicators also emphasize a collective dimension, focusing on "where WE stand" and "OUR values and goals." Additionally, they serve as tools to evaluate the effectiveness of policies, programs, and projects, ensuring they meet intended outcomes.

As reported by Land and Michalos (2018), since the early steps of the debate about social indicators, social indicators development has been conceived to shift the focus of measurement from means (e.g. income) to ends (i.e. wellbeing, quality of life, social inclusion etc.). Thus, the implicit and explicit rationale to go beyond GDP was already clear in the late 60s (e.g. USDHEW, 1969), well before "beyond GDP" became a well-known and shared tagline in social research.

Moving effectively "beyond GDP" entailed the elaboration of concepts and frameworks more complex and multifaceted than income and other related indicators. Concepts such us standard of living (Sen, 1988), level of living (Johanson, 1973), social exclusion (Atkinson, 2000), quality of life (Diener, 1995) and then human development (Sen, 2000) and sustainable development (UN General assembly), are inherently multidimensional: as a consequence, their operationalisation needs, in first instance, a dashboard of indicators selected in coherence with the underlying key concept(s).

Not surprisingly, during the last decades several turning points of policy setting were marked by the identification and public disclosure of dashboards of indicators with the explicit aim of increasing the accountability of policy making and improving the quality of public debate. A first example to illustrate this trend are the MDGs and SDGs, which have significantly shaped the global policy agenda since 2000. The United Nations Millennium Declaration (September

2000) progress was tracked through a dashboard of 60 UN-adopted indicators. [1] Then, when in 2015 the 2030 Agenda for Sustainable Development evolved from this declaration, it started to be monitored by 231 indicators officially adopted by the UN General Assembly in 2017.[2] A similar process took place with regard to the EPSR, articulated in 20 principles and then monitored through the Social Scoreboard (SSB), with a set of 35 indicators.[3]

In parallel with the growing interest in social indexes, the use of composite indicators has become more and more popular. In the 90s, the UNDP decisively contributed to this process by developing the Human Development Index (HDI) whose success among policy makers, researchers and activists deeply influenced (and still influences) the debate about development (Stanton, 2007). The measurement of political and democratic freedoms at the national level led to the development of composite indexes such as the Freedom in the World index or the Polity Index (Högström, 2013). In several countries, efforts were put in place to elaborate composite indicators able to reduce the weight of GDP in guiding public debate and policy decisions: as an example, starting from 2013, the Italian Statistical Institute has developed the equitable and sustainable wellbeing index or BES (Giovannini and Rondinella, 2018). At the micro level, the growing attention on multi-dimensional deprivation raised the interest toward multi-dimensional poverty indexes such as the MPI developed by the Oxford Poverty and Human Development Initiative (Alkire and Santos, 2014).

From a methodological perspective, the strengths and weaknesses of the dashboard approach are usually discussed in opposition to those of multidimensional indices, and *vice versa*. The approach we take here is to focus on the complementarity of dashboard and synthetic indicators. Based on the literature on the characteristics of the two, it is possible to identify at least six reasons that can justify this complementarity.

The complementarity of dashboards and multidimensional synthetic indicators

Reason	Details
Different approaches to weighting	Dashboards allow users to decide what to focus on and weight information according to their own beliefs. Aggregated measures include differently weighted dimensions, which may be arbitrary and debatable, with often implicit normative considerations.
Interpretation vs. communication	Dashboards offer straightforward interpretation due to unaggregated dimensions, while aggregated measures are easier to communicate but may be misinterpreted, leading to inappropriate policy decisions.

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[1] See https://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm

[2] See https://sdgs.un.org/2030agenda

[3] ee https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/en/

Loss of information	Dashboards avoid loss of information, whereas synthetic indicators may lose information, especially if components are not strongly correlated. However, dashboards may delay the decisions required to construct an index.
Analysis of subgroups of the population	Dashboards facilitate the inclusion of new indicators without affecting existing ones, making them flexible for policymakers and civil society. Composite indexes may obscure subgroup specificities.
Trade-offs	Dashboards recognize the plurality of well-being elements but are unsuitable for policy decisions involving trade-offs. Composite indexes involve value judgments on substitutability, influencing policy focus.
Comparability	Dashboards allow comparison on individual indicators, highlighting strengths and weaknesses. Aggregated measures provide different comparative information, which may obscure problematic areas if overall performance is good.

Understanding the balance and interplay between these two approaches helps contextualize the development and application of new indices. While dashboards offer granularity and flexibility, composite indicators provide a more synthesized view that can simplify communication and decision-making.

This duality is exemplified in the attempt to create the European Social Rights Indicator (ESRI), which applies the Multidimensional Synthetic Indicator (MSI) procedure to obtain a composite indicator (starting from some selected indicators included in the Social Scoreboard, SSB) that measures on a unidimensional scale a complex multidimensional phenomenon such as the European countries' performance in the implementation of the European Pillar of Social Rights (EPSR). The formal development of the ESRI using the MSI follows the methods modelled by the EUROSHIP Working Paper No. 13 (Biggeri et al. 2022) and afterwards extended by the EUROSHIP Working Paper No. 27 (Biggeri et al. 2023).

Before introducing the ESRI and its formalization, let us recall here some basic insights about the composition of the indicator. ESRI composition is summarized in the table below, which displays each indicator that form the ESRI as well as its gender-based disaggregation. The indicators are ordered by pillar and by domain. Pillars that compose the ESRI indicator are based on the three main areas of the SSB, namely: Equal opportunities, Fair working conditions, Social protection and inclusion. Pillars are further composed by several domains, as reported in table below. Lastly, each domain is composed by one or more indicators. Out of the 36 initial indicators included in the SSB, 18 were selected to shape the ESRI's pillars, mainly for both practical and methodological reasons. While some indicators were excluded because of the lack of the sufficient data or to avoid biases in the aggregation (as in the case of input indicators such as expenditure), others were already included in some composite indicators already considered in the ESRI (the components of the At Risk of Poverty and Social Exclusion rates were excluded to avoid duplication of information).

Pillar	Domain	Indicator	Gender
Equal Opportunities	Education training and lifelong education	Early leavers from education and training (18-24)	T, M, F
		Adult participation in learning (25-64)	T, M, F
		Tertiary education attainment (30-34)	T, M, F
	Gender inequality in the labor market	Gender employment gap (20-64)	T
	Inequality, upward mobility and youth	Quintile share ratio (S80/S20)	T
		NEET (15-29)	T, M, F
Fair Working Conditions	Labor force structure	Employment rate (20-64)	T, M, F
		Unemployment rate (labour force aged 15-74)	T, M, F
		Youth unemployment rate (labour force 15-24)	T, M, F
	Labor market dynamics	Activity rate (15-64)	T, M, F
		Long-term unemployment rate (labour force aged 15-74)	T, M, F
	Income	Real gross disposable income of households (overall)	T
Social Protection and Inclusion	Living conditions and poverty	At-risk-of-poverty rate or social exclusion (overall) - AROPE	T
		Housing cost overburden (overall)	T
	Impact of public policies on poverty reduction	Impact of social transfers on poverty reduction (overall)	T
	Healthcare	Self-reported unmet need for medical care	T
		Healthy life years at age 65: women	F
		Healthy life years at age 65: men	M

Source: Authors' elaboration.

To compute the indicator and ease the analysis, a regional dataset was constructed at the NUTS2 level for the 27-member states of the European Union, updating the information to the last year available (2023), thus obtaining a complete dataset of the indicators part of the ESRI from 2019 to 2023. For the purpose of this analysis, the NUTS2 territorial entities were clustered in three macro-regions, northern, eastern and southern Europe[4]. To address missing data, a three-step procedure was used. First, a linear interpolation was made for variables with data in prior and subsequent years by assuming a linear trend over this period. Following this, values from the NUTS1 level were distributed to the NUTS2 level based on population share. Lastly, a multiple imputation by chained equations procedure was applied separately for each macro-region of Europe to allow for some degree of structural heterogeneity (Royston and White, 2011). To prevent any imputed outliers, an upper and lower

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[4] Northern region include NUTS2 regions from Austria, Belgium, Denmark, Germany, Ireland, Netherland, Sweden, Luxembourg and France. Eastern region include Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia and Slovakia, while Southern Europe include Cyprus, Greece, Spain, Italy, Malta and Portugal.

bound was set for each imputed variable as the max and min from the observable values in each macro-region using a truncated regression specification.

Coming back to the arithmetical structure of the ESRI, the MSI is a procedure to synthetize multidimensional phenomena by ranking units on a mono-dimensional metric (Mauro et al., 2018). The main innovative feature of the MSI approach it deals with heterogeneity and substitutability. It is a tricky point as aggregation methods always have implicit or explicit consequences on the way the aggregation method deals with heterogeneity. Following Biggeri et al. (2022, p.17), "[...] arithmetic mean assumes perfect substitutability among dimensions: this means that, once the values of the different dimensions are expressed as standardized scores, proportionally higher values in one dimension can always offset low values in other dimensions regardless how low they are. The geometric mean assumes that the closer you are to zero in one dimension, the higher is the value needed in other dimensions to offset the low performance. In case the value is zero in at least one dimension, no compensation will be possible, and the value of the aggregate index will collapse to zero". In the case of MSI, the degree of substitutability is a function of the score achieved by each specific unit. Focusing on the ESRI:

$$ESRI_i = 1 - \left[\frac{1}{K}\sum_{j}(1 - X_{it})^{g(X_i)}\right]^{\frac{1}{g(X_i)}}$$

Where X is the NxK data matrix, K is the number of dimensions, N is the number of observations (i.e., number of countries or NUTS2 areas [C] * number of years[T]).

The g(.) function is what allows us to model substitutability in a more flexible way compared to the arithmetic and the geometric mean. Following Bourguignon and Chakravarty (2003) and coherently to what already done in Biggeri et al. (2022), the degree of substitutability between dimensions is defined by a function g(.) whose argument is the simple mean of the relevant Social Scoreboard dimensions:

$$g(X_i) = \begin{cases} \dfrac{b}{a} & if \; \mu < a \\ \dfrac{b}{\mu} & if \; a \leq \mu < b \\ 1 & if \; \mu \geq b \end{cases}$$

where µ is the arithmetic mean of x it and $0 \leq a < b \leq 1$ are two thresholds selected so that all units above b (or below a) have their achievements aggregated under the assumption of a perfect (or almost complementary) substitutability rate. In the specific case of ESRI, $a=0$ and $b=1$.

To construct the ESRI index from the indicators listed above, all indicators were first standardized using the min-max method based on theoretical maximum and minimum values

outlined in Appendix B. The standardized indicators (Zit) were aggregated into domains using the geometric mean:

$$Domain_{it} = \left(\prod_j Z_{it} \right)^{\frac{1}{K}}$$

The domains were aggregated into pillars and then in the final ESRI index using the MSI procedure in each step.

To measure the differences in the level of enjoyment of social rights among genders, the domains and final ESRI index were each re-constructed using the values for male and female population separately resulting in an ESRI index for the total regional population in addition to a female and male ESRI scores. The decision to conduct an analysis at a regional level obviously multiplies the number of units (namely 239 NUTS2 units): this led to the use of GIS-based data visualization techniques.

4. ESRI TRENDS AND CROSS-COUNTRY COMPARISONS

The following graphs provide an overview of general EU trend of the ESRI, its components and their disaggregation by pillar, domain, region and gender over the study period, i.e., 2010 to 2023. Overall, ESRI levels have improved across Europe, but regional and gender disparities persist. From Figure 1, which shows the overall ESRI score trend and its three pillars (Equal Opportunities, Fair Working Conditions, Social Protection), we can grasp a steady increase of ESRI. Notably, this positive trend seems to be driven by the Fair Working Conditions domain, while the Social Protection and the Equal opportunity domains show upward trends, but with a smaller growth.

Figure 1: ESRI Trend by Pillar for the EU-27, 2010-2024
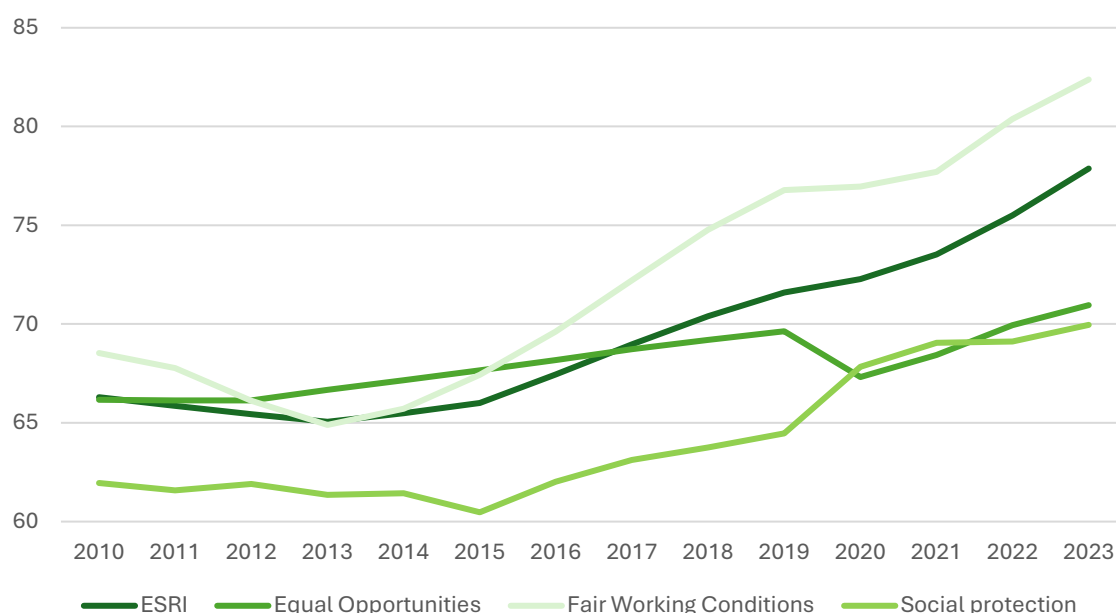
Source: Authors' elaboration

The Equal Opportunities pillar exhibits a constant improvement, particularly from 2016 onwards. Programs like the Youth Guarantee, introduced in 2013, certainly contributed to the reduction of NEET (Not in Education, Employment, or Training) rates, directly influencing the upward trend in this domain. Nevertheless, the COVID-19 pandemic (2019-2020) posed significant challenges, disrupting educational systems and training programs. Despite substantial investments to mitigate long-term negative impacts, this pillar is indeed the one that shows a slower recovery rate.

On the other hand, the Fair Working Conditions pillar – which tracks labor force structure, labor market dynamics, and household income - show a sluggish and sometimes declining

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trend in the period 2010-15, attributable to high unemployment rates and the slow economic recovery from the 2008 crisis. However, from 2016 onwards, a substantial improvement is evident. The significant spike post-2020, despite the initial Covid-related downturn, underscores the efficacy of EU interventions. The SURE instrument (Support to mitigate Unemployment Risks in an Emergency), introduced during the pandemic, provided financial support to protect jobs and incomes, leading to a quick recovery in employment rates. The broader European Recovery Plan also facilitated job preservation and creation, contributing to the sustained upward trend in fair working conditions.

Finally, the Social Protection pillar - which includes living conditions, poverty, and healthcare - shows a generally upward trend from 2010 to 2024, with a noticeable dip during the pandemic years. The steady improvements from 2019 reflect also the effect of public policies to reduce poverty, such as minimum income scheme and income support measures, that had tangible impacts during this period (as we will see in the detailed tables of the next sections). The recovery phase post-2020 shows a rapid and robust improvement, again due also to the comprehensive response through the Next Generation EU recovery plan, which provided significant funding to bolster social protection and healthcare systems.

Macro-regional variations

If we disaggregate the ESRI performance by European regions (North, South, East), we can see a common trend but still diverse regional dynamics (Figure 2), with countries in the Northern group systematically show better performance than countries in the East and even more in the South.
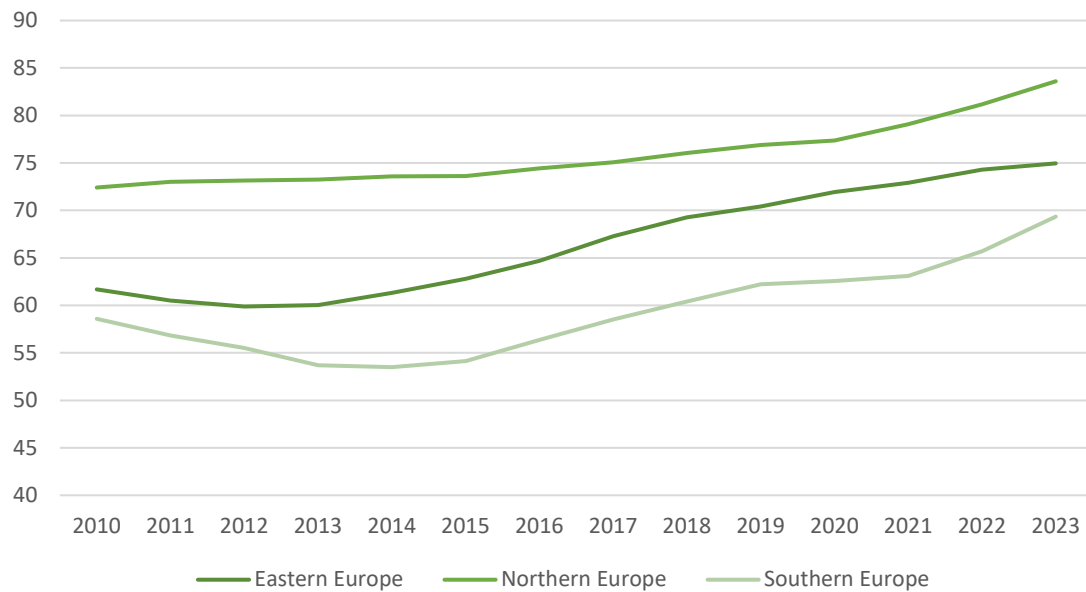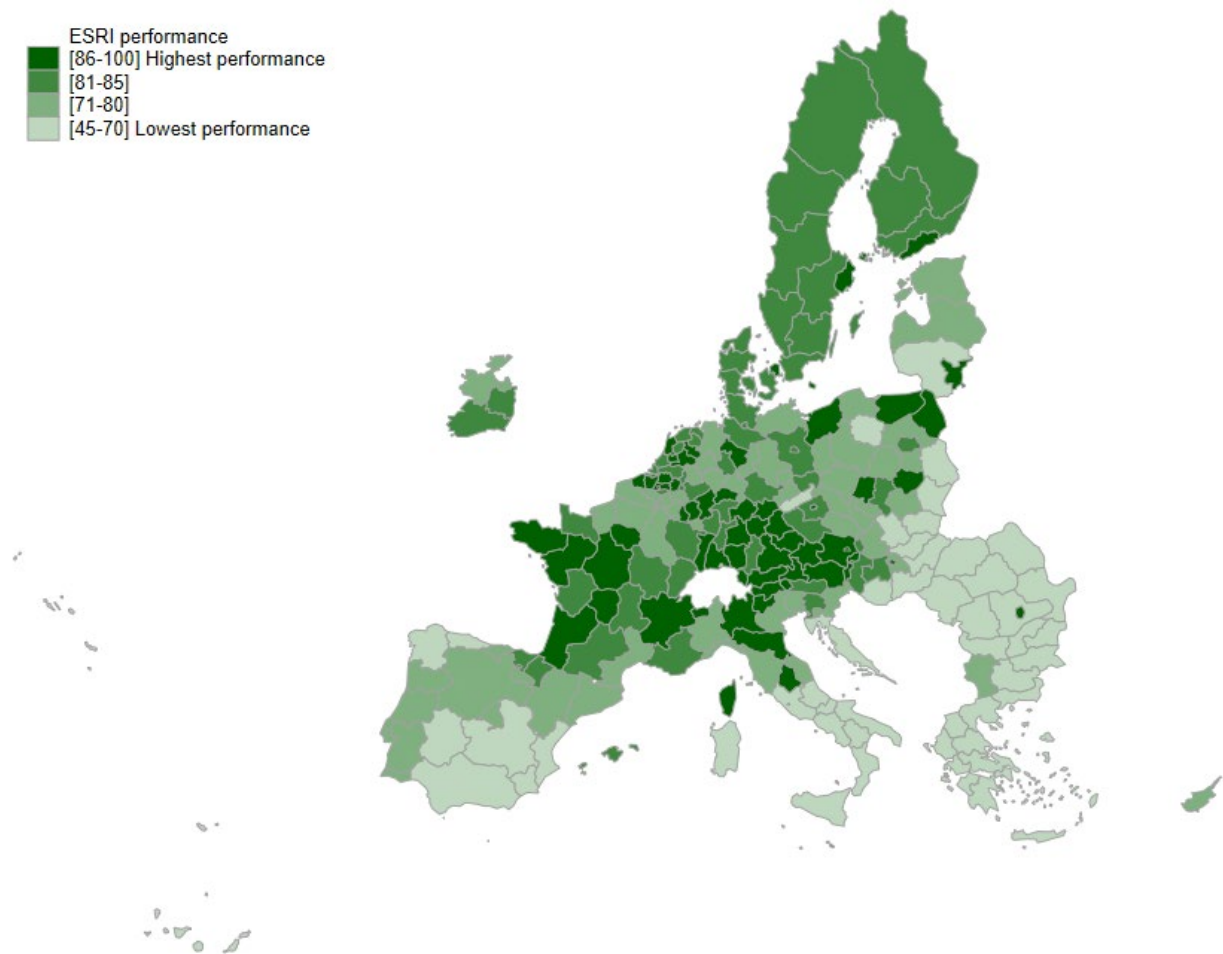
Source: Authors' elaboration[5]

Northern Europe maintains a high ESRI score throughout the period, reflecting its well-established social welfare systems and strong labor markets. The slight upward trend indicates ongoing improvements despite starting from an already high base. Eastern Europe's Eastern Europe's ESRI trend shows a notable upward trajectory, particularly from 2016 onwards, but despite these gains, challenges such as lower starting levels of social infrastructure and economic dependencies on Western Europe remain issues that could affect the long-term sustainability of these improvements. Instead, Southern Europe shows a more varied trajectory, with a notable dip around the early 2010s, followed by a gradual recovery and improvement post-2015 and also in the post-pandemic.

We can further deepen this territorial heterogeneity if we move to a more detailed level of disaggregation. Indeed, regions mainly belonging to the group of northern countries, as well as regions in Austria, Germany and France, tend to have very high ESRI levels in the last available year (2023), as opposed to regions further south or east (Figure 3) which belong more frequently to the lowest quartile.

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[5] Northern region group includes the following countries: Austria, Belgium, Denmark, Germany, Ireland, Netherland, Sweden, Luxembourg and France. Eastern region includes Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia and Slovakia, while Southern region group includes Cyprus, Greece, Spain, Italy, Malta and Portugal.

Source: Authors' elaboration[6]

Gender

Gender disaggregation of the total ESRI do not deviate much from the Total ESRI tendency: both gender indices grow following the same trajectory, with the index for women remaining systematically on a worse performance than the index for men (Figure 4).

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[6] Northern region group includes the following countries: Austria, Belgium, Denmark, Germany, Ireland, Netherland, Sweden, Luxembourg and France. Eastern region includes Bulgaria, Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia and Slovakia, while Southern region group includes Cyprus, Greece, Spain, Italy, Malta and Portugal.

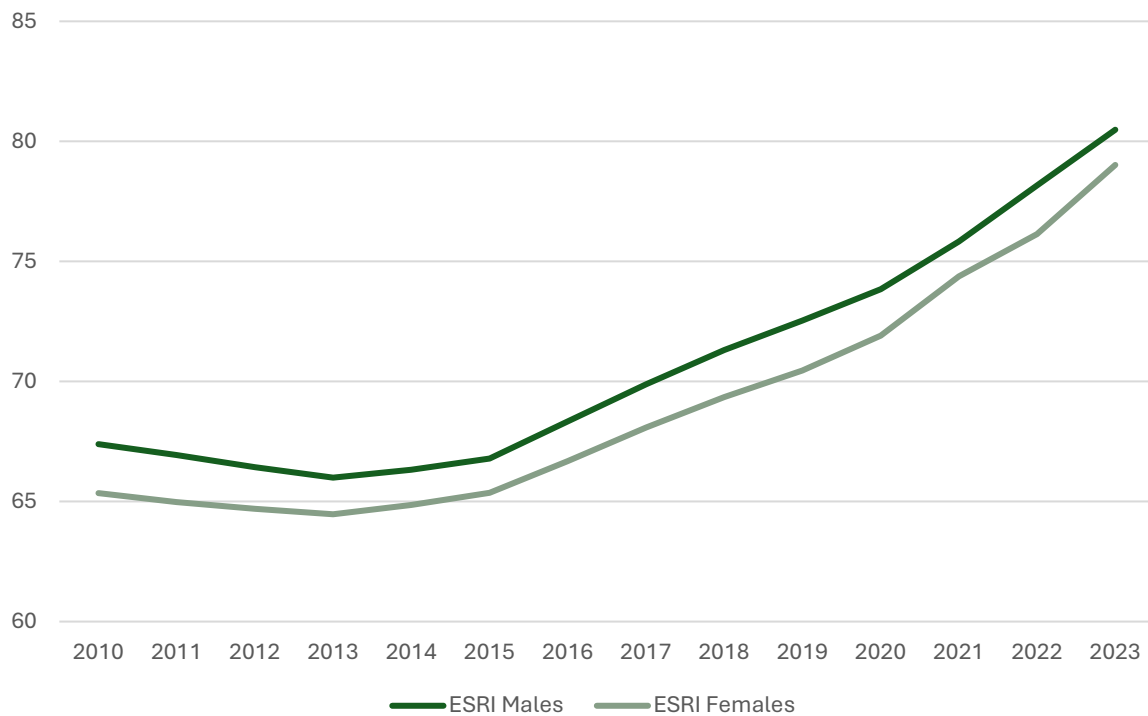*Figure 4: ESRI trend by gender 2010-2023*

Source: Authors' elaboration

Nevertheless, if we delve into the national and regional level, gender disparities remain a critical issue within the ESRI framework. Countries like Sweden, Denmark, and Finland continue to lead, showing smaller gender gaps in employment, education, and social protection. Nevertheless, NUTS2 data show that there are still notable regional differences, with a concentration of economic opportunities and social services in urban centers. For example, Austria's capital region performs exceptionally well, while more rural areas show moderate gaps.

Germany shows notable regional differences, with some regions like Hamburg and Bremen benefitting from robust social support systems and progressive policies, therefore displaying reversed gender gaps. However, other regions in eastern Germany still struggle, highlighting the legacy of historical economic disparities. The same can be said for France, that exhibits a high gender gap in in rural and economically disadvantaged areas.

In Southern Europe, countries such as Italy, Greece, and Spain exhibit larger and widespread gender gaps, particularly in labor market participation and wage equality. Again, a mixed picture characterizes Eastern Europe, with some countries like Slovenia performing relatively well in gender equality indicators, while others like Romania and Bulgaria show more significant disparities. Furthermore, Poland presents a stark contrast between regions such as the more
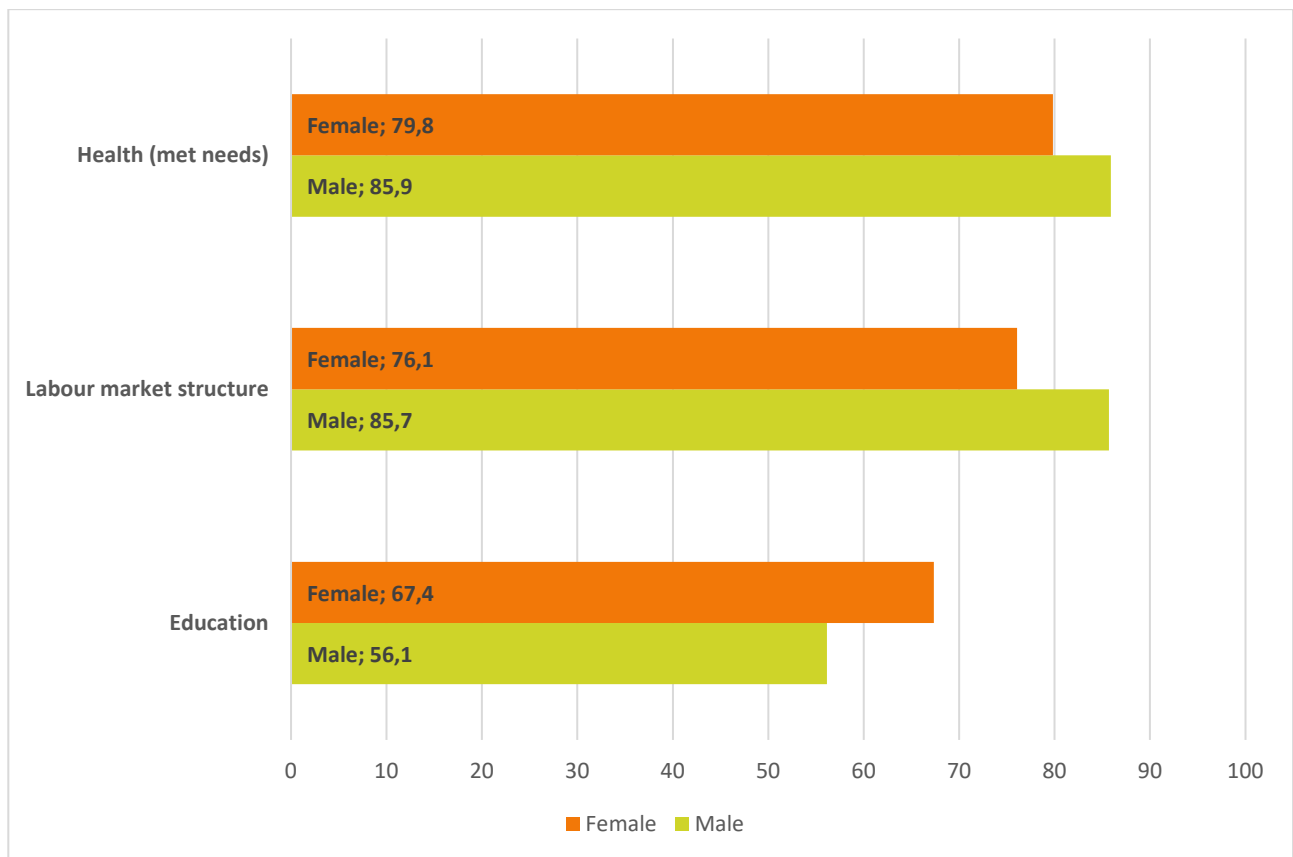
23

industrialized Greater Poland, which show moderate gaps, and regions like Lubelskie and Podkarpackie with high gender gaps.
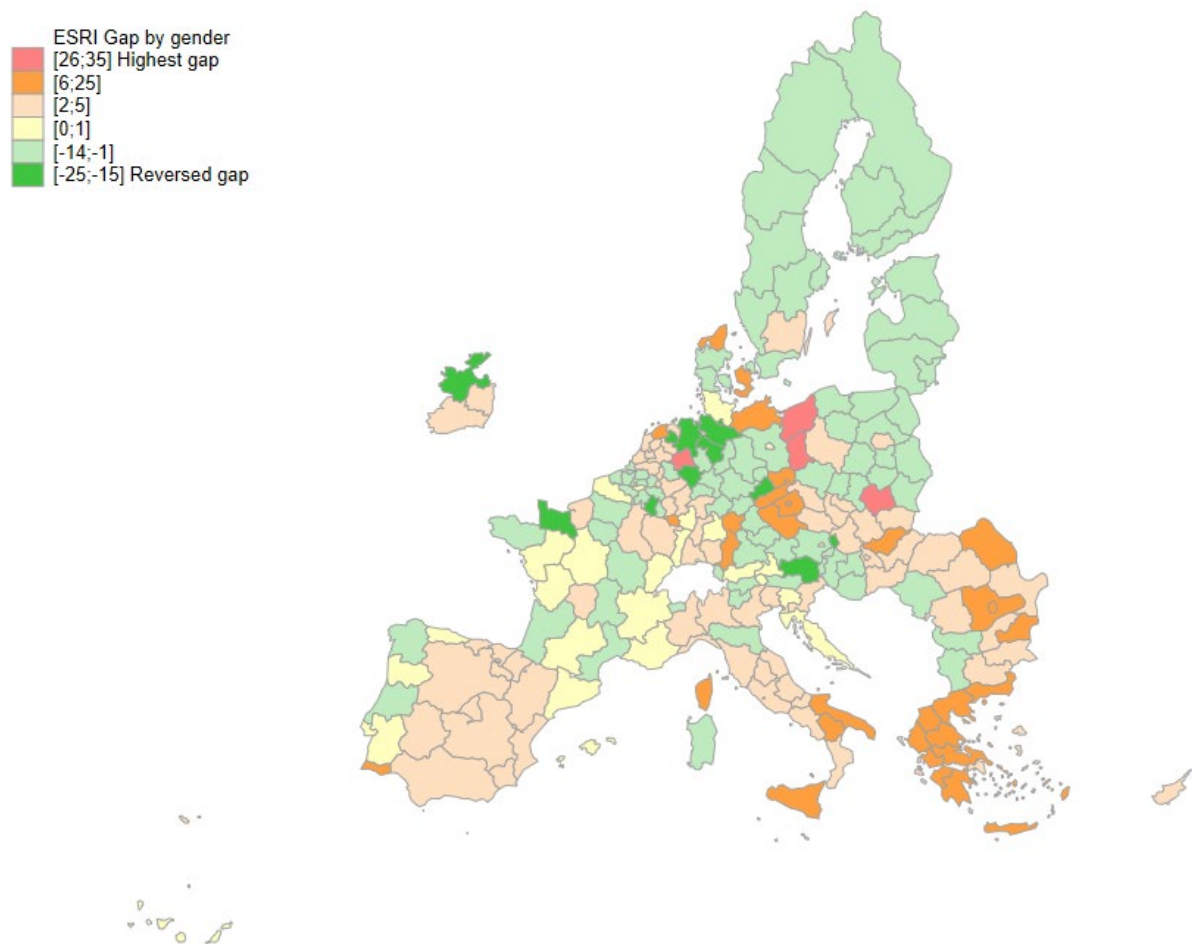
Furthermore, while the overall ESRI scores for males and females may show similar trends, a deeper examination reveals significant gender disparities within specific domains.

Source: Authors' elaboration

As expected, women have higher educational attainment rates than men, particularly in tertiary education. Even, participation in lifelong learning and vocational training is higher among women, a data that is consistent with the literature, as much as the reverse results in the Labour market structure domain. Women have historically faced lower employment rates compared to men, due to barriers such as childcare responsibilities, gender discrimination, and sectoral segregation. The pandemic exacerbated these issues, as women were more likely to be employed in sectors hardest hit by COVID-19 (e.g., hospitality, retail, care services). Post-pandemic recovery efforts have focused on reintegrating women into the labor market, and policies targeting female employment have been somewhat effective, leading to a gradual decrease in unemployment rates among women in recent years. However, disparities remain.

ESRI performance through its Dashboard

By looking at how the various EU countries perform in the various sub-indicators that make up ESRI in 2023, we can see that on average countries exhibit a good level of performance for the indicators that make up the Fair Working Condition domain, as can be seen for example from the generally good performance of Employment rate and Long-term unemployment.

The dashboard reveals a mixed picture. While there are areas of improvement and convergence, especially in education and employment, substantial disparities persist in health and income inequality. We can detect a rather worse performance in the Equal Opportunities and Social Protection and inclusion indicators, with the worst performances being shown by the Adult participation in learning and the Impact of social transfer on poverty reduction (Table 1). From a regional point of view, the stark contrast in adult participation in learning between the Nordic countries and Southern/Eastern Europe highlights a significant disparity in lifelong learning opportunities.

In Eastern and Southern Europe, also early school leaving remains a critical issue, together with high NEET rates – that confirm the challenges faced by young people in transitioning from education to the labor market. Countries like the Netherlands and Sweden have robust systems in place to support youth employment and education, whereas Romania and Greece need targeted interventions to reduce youth unemployment and enhance vocational training. Instead, higher levels of unmet needs in Southern and Eastern Europe point to gaps in healthcare accessibility, which can have profound implications for public health and quality of life.

Greece, Italy, and Bulgaria show lower employment rates, highlighting significant labor market challenges. High unemployment and underemployment, structural economic issues, and insufficient labor market reforms contribute to these lower rates, that are indeed confirmed by the higher levels of long-term unemployment.

Table 1: Levels of ESRI Variables in 2023
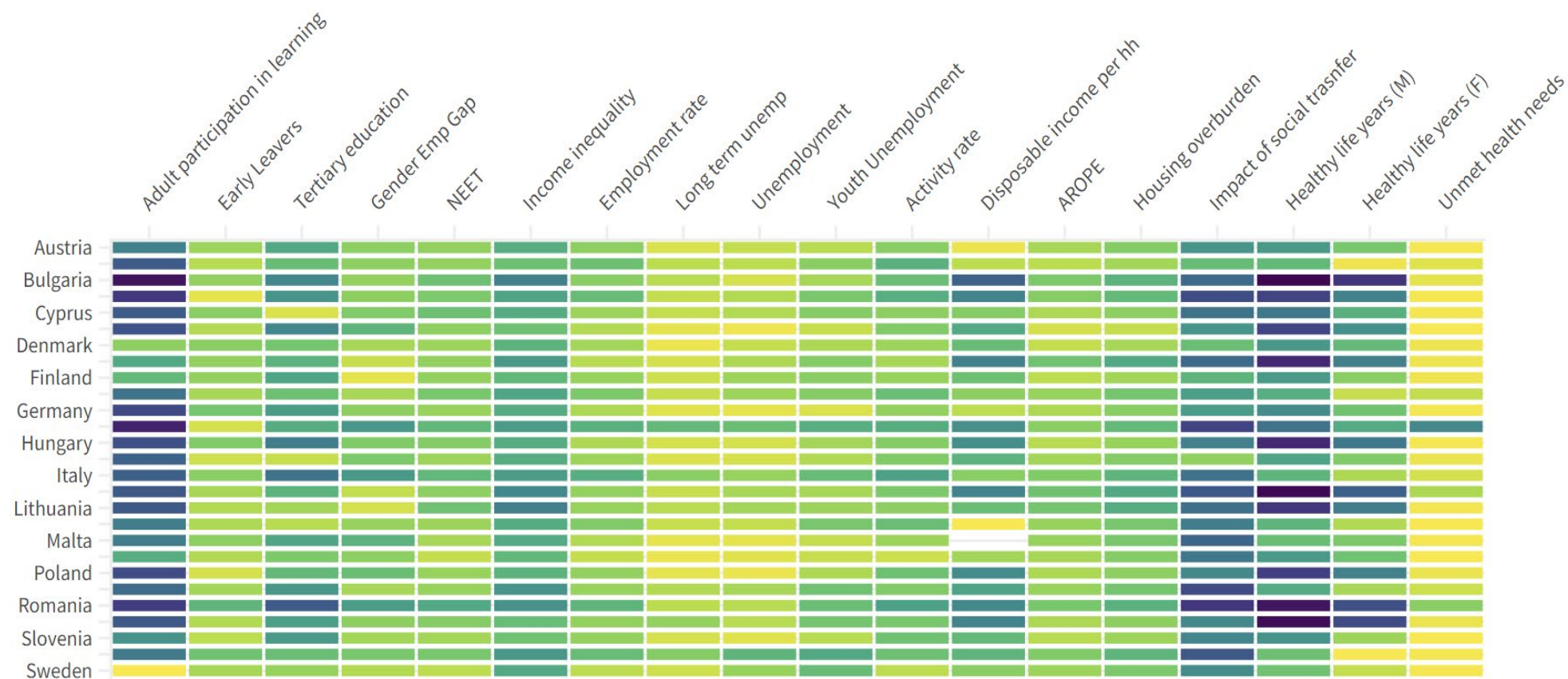
ESRI evolution over time

Looking instead at how ESRI at the national level has evolved over time, Figure 7 below shows ESRI levels by country in 2010, 2019 and 2023. Several aspects emerge: the first is that for all countries ESRI has tended to grow over time, although the rates of growth differ from country to country: no country has a lower level of ESRI in 2023 than in 2010. Furthermore, Greece is the only country to have a lower ESRI in 2019 than in 2010, probably due to the major debt crisis that

Source: Authors' elaboration
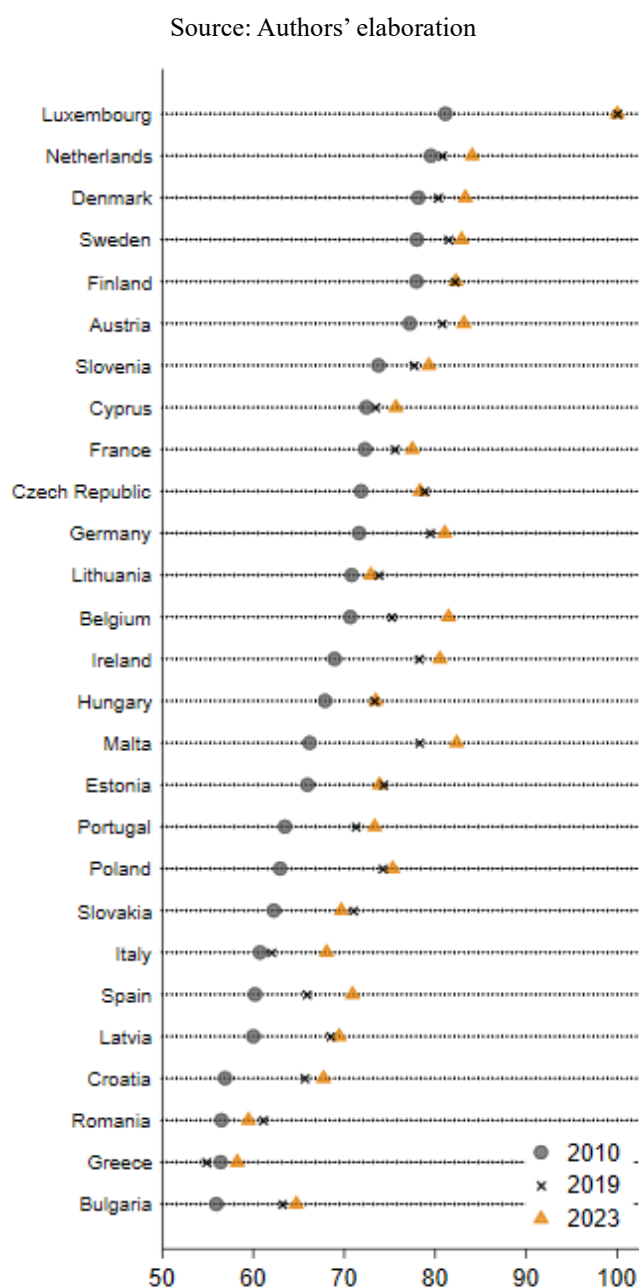
hit the country and the subsequent austerity measures introduced. Finally, consistent with what we have seen above, Eastern European countries, such as the Czech Republic, Hungary, Estonia, Poland, etc., although they experienced significant increases in ESRIs between 2010 and 2019, their growth practically stopped between 2019 and 2023.

We then disaggregated the changes in ESRI at the subnational level. If we look at the regional changes in the ESRI over 2010-2023 period, we see again that improvements in the ESRI are quite widespread among regions under consideration. It is interesting to note how the regions of Spain and Italy (especially the southern regions) have shown significant improvements in ESRI between 2010 and 2023. However, as we have seen, these improvements have not been sufficient to reach the average standard. In the next page, the ESRI change is detailed through all its indicators.
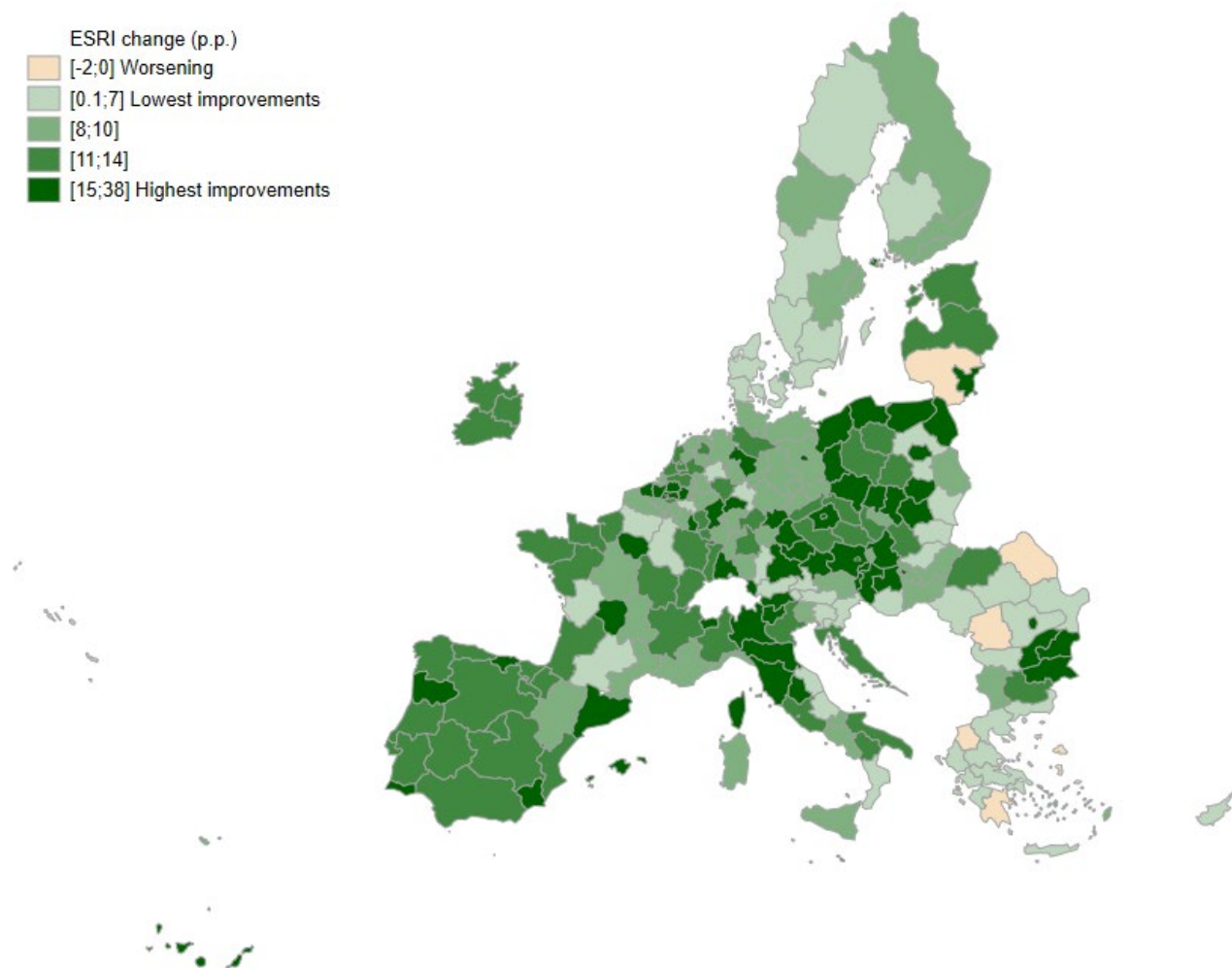
Source: Authors' elaboration[7]

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[7] ESRI changes have been divide into quartiles. Regions in light orange belong to the lowest quartile but have been colored differently as they reported a worsening in ESRI levels.

The data indicate an overall improvement in social rights across the EU, with most regions showing positive changes between 2010 and 2023. However, the degree of improvement varies significantly across different regions and domains, highlighting persistent disparities. The map shows widespread improvements in ESRI scores, particularly in Western Europe, Spain, Portugal, and parts of Central Europe. On the other side, some regions in Eastern Europe (i.e. Romania, Greece), have shown limited improvements or even worsening conditions.

Malta (27.3), Portugal (26.6), and Spain (16.7) have made substantial strides in education indicators. Luxembourg (22.1) and Malta (36.6) have made notable progress also in closing the gender gap, while Estonia (-4.0), Lithuania (-6.4), and Latvia (-7.9) have shown growing worsening. A domain of significant improvement across several countries is that of NEET, which saw significant reductions in Ireland (26.4), Latvia (21.4), and Estonia (17.0). This matched in Estonia also a strong improvement in labor force structure and long-term unemployment indicators. Overall, the change rates reveal a complex landscape of social rights progress across the EU, with overall improvement and persistent significant regional disparities.

The Covid-19 Effect

While looking at the evolution of ESRI over time (Figure 7 and 8), it becomes evident that 2020 represented an important turning point – both in positive and negative terms. We therefore divided the period from 2010 to 2023 into two sub-periods to better capture the effects of structural changes that occurred during this time window. For this reason, the two maps below show the changes at the ESRI level between 2010 and 2019 and then between 2020 and 2023. We also included a more detailed table with the ESRI indicators' change between 2019 and 2023.

Again, it is evident that from 2010 to 2019, Italy and Greece experienced a decline, with their ESRI scores in 2019 being worse in some regions than in 2010. In contrast, from 2019 to 2023, it is the Eastern European regions that struggled more.

Figure 9: ESRI Change 2010-2019
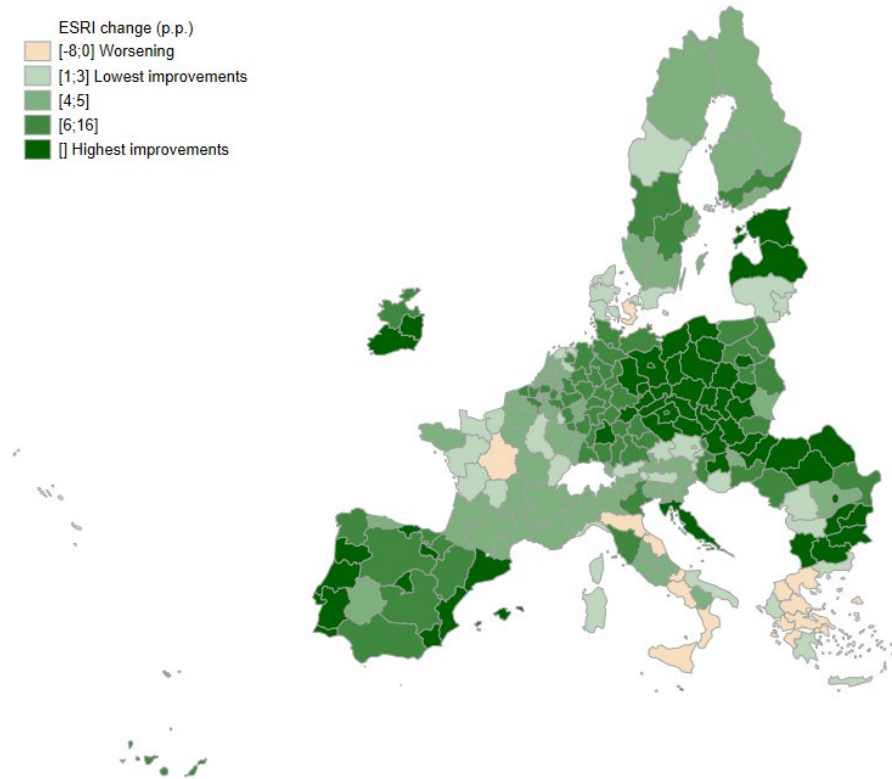
Source: Authors' elaboration

Note: ESRI changes have been divide into quartiles. Regions in light orange belong to the lowest quartile but have been colored differently as they reported a worsening in ESRI levels.
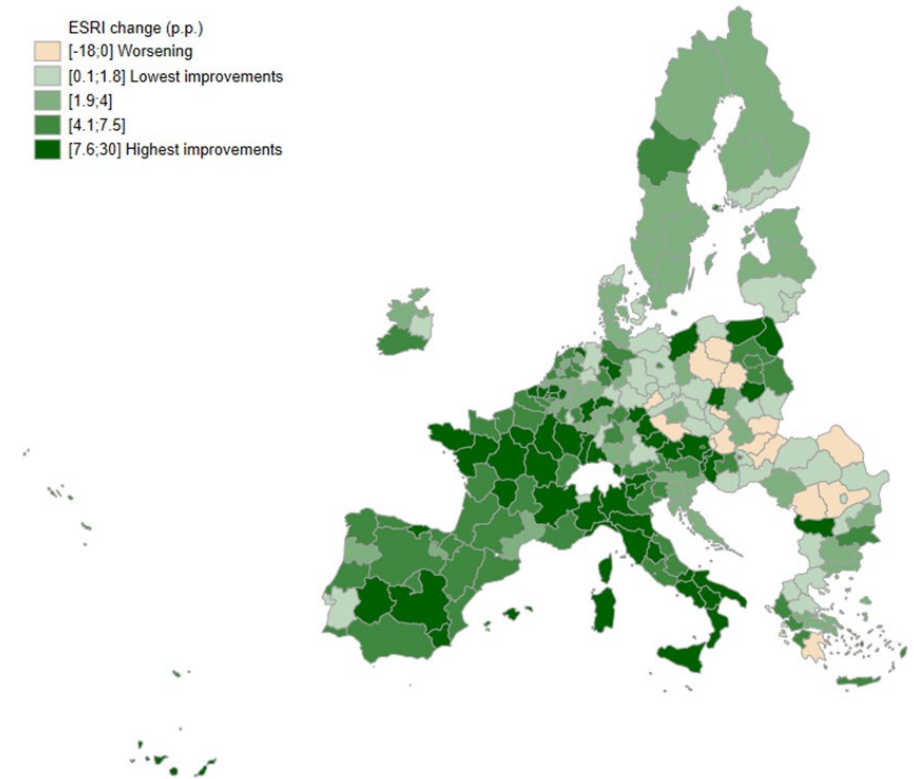
Figure10: ESRI Change 2019-2023

Source: Authors' elaboration

Note: ESRI changes have been divide into quartiles. Regions in light orange belong to the lowest quartile but have been colored differently as they reported a worsening in ESRI levels

The first map shows that both Italy and Greece experienced significant declines in their ESRI scores during this period, to be linked to structural problems but also to the aftermath of the financial crisis and austerity measures. The second map highlights a shift in the regions facing difficulties. From 2019 to 2023, many regions in Eastern Europe that experienced steady improvements in the 2010s, now show a decline in their ESRI scores. Interestingly, during the same period, Western and Southern European regions, including parts of Spain, Portugal, and some regions in Italy, show significant improvements, probably due also to the RRF investments.

When looking at the different indicators' change rate 2019-23, we can see what are the domains where the Covid-19 pandemic and the following measures taken at the national and EU level impacted the most our data. During Covid, many countries experienced a spike in unemployment rates, as well as an immense pressure on healthcare systems, but there was also a varied response in terms of social protection measures.

As concerning labor market inclusion, while prior to the pandemic many countries were experiencing a gradual improvement, after 2020 we can see a sharp increase in unemployment rates and although there was a partial recovery in several countries in 2022-2023, this had varying degrees of success. Indeed, the most positive changes were primarily in the dimensions that constitute Fair Working Conditions, while there is a noticeable overall deterioration in the dimension that measures the impact of social transfers in reducing the poverty rate.

Notably, Italy is one of the few countries that shows an improvement in this index by 13%. Examining the raw data for this indicator, we see that Italy has experienced a substantial improvement in this index since 2021, a trend that could be linked to the introduction of measures such as the Reddito di Cittadinanza. The same cannot be said, however, of Italy's performance in the labour market, although in the Italian PNRR many funds have been devoted to the reform of the active labour market policies and to the strengthening of Public services[8].

An Upward Social Convergence?

The overall aim of the Social Pillar is to fuel the upward social convergence across Europe: in other words, a fair development model for the EU should favor a general improvement in the realization of Social Rights for all. Ideally, countries (regions) presenting lower social rights standards should catch up to better off countries (regions). Conditional Beta convergence can be used to empirically verify whether upward social convergence in the EU is achieved or, at least, is in progress.

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[8] Obviously, the labour market impact of the PNRR measures is difficult to evaluate, given the short time horizon. However, preliminary data for instance on the Italian GOL programme shows limited success, with only one third of participants in an active employment relationship six months after entering the programme (European Commission, 2024).

We then looked at the Beta convergence in total ESRI scores for the EU27 NUTS2 regions as well as each macro-region. Across the entire EU27, there is evidence of a barely detectable convergence as witnessed by the slightly downward sloping trendline in black. Higher levels of convergence are seen within both Northern and Eastern regions, while Southern regions have experienced increased divergence in ESRI scores between 2010-19.

The next graph (Figure 12) shows instead the so-called 'sigma convergence' for the entire EU27: the trend of the standard deviation of the ESRI over time. If the standard deviation decreases between countries, then we can conclude there is convergence.

FIGURE 11: ESRI REGIONAL DIVERGENCE
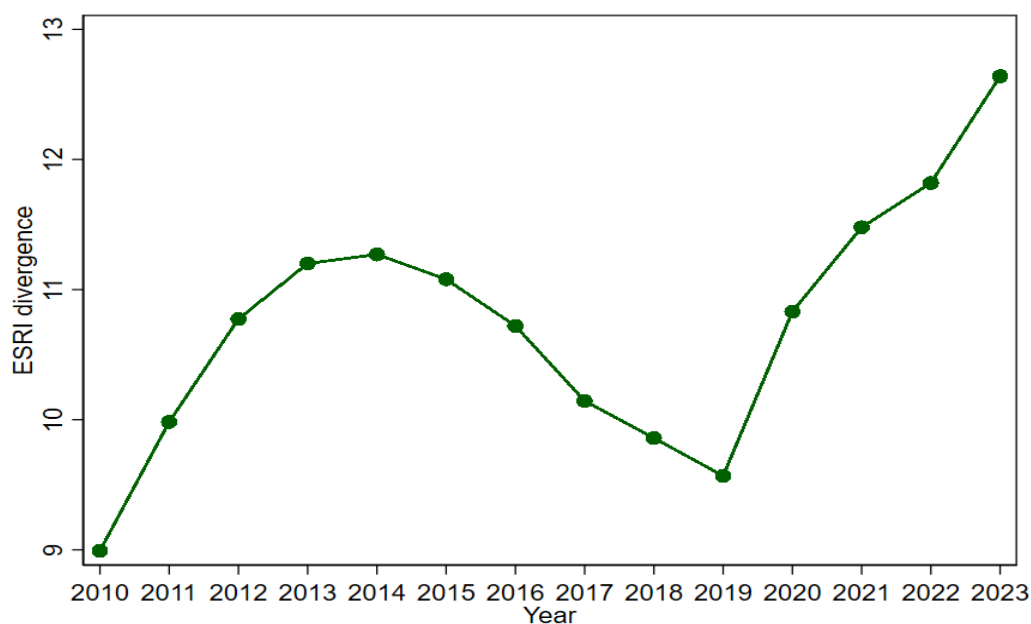
Source: Authors' elaboration[9]

After 2008 there has been a constant increase of the divergence that continued in the aftermath of the financial crisis European countries, driven mainly by increasing deviations within Southern regions. The trend reverses from 2014-2019 with reduced deviations across Europe suggesting convergence in ESRI scores. From 2020 onwards, divergence increased significantly again, indicating that social disparities between regions have grown.

The areas of greatest convergence are typically found in education and employment in Western and Northern Europe. In contrast, health outcomes and income inequality show less convergence, with persistent challenges in Southern and Eastern regions. To address these disparities, targeted policy interventions are necessary, focusing on improving education and employment opportunities, reducing income inequality, and enhancing healthcare access in lagging regions.

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[9] In Figure 5 we have reported the sigma convergence calculated at the regional level for each year from 2010 to 2023.

5. NATIONAL FOCUS: ITALY

We have decided to use NUTS2 analysis to focus on the situation in Italy, examining the trends in various regions over the period from 2010 to 2023. By analyzing the evolution of all ESRI dimensions, we can indeed gain insights into the progress and ongoing challenges, examining regional variations and identifying specific trends within the country.

The ESRI data for 2023 highlights a mixed performance in social rights across Italy, with significant variations between regions. While some northern and central regions demonstrate substantial improvements, southern regions continue to face significant challenges. In Northern Italy, Lombardia exhibits strong performance in labor force structure, income, and living conditions. However, Lombardia faces challenges in education and gender equality, but have also seen growing income disparities (like in Lazio), suggesting that economic growth has not been equally distributed across different social groups.

Veneto and Emilia-Romagna show high scores in education, labor force structure, and health. Similarly, Trentino and Alto Adige/Südtirol perform exceptionally well, particularly in education and health. These also made significant strides in gender equality over the last decade, indicating effective gender policies and social changes. Among the top performers, it is to be noted that Veneto and Tuscany have shown considerable improvements in education over the past decade.

Next to Tuscany, Umbria also shows strong performance in education and living conditions and demonstrate effective public policies on poverty reduction. Lazio, on the other hand, shows moderate performance, facing challenges in gender equality and the impact of public policies on poverty reduction.

Overall, the ESRI data from 2010 to 2023 paints a complex picture of social rights progress across Italy. While northern and some central regions demonstrate strong performance and substantial improvements, southern regions continue to face significant challenges. Furthermore, the most positively changed indicators are those related to education and gender equality, while income inequality and youth conditions show the most marked worsening. Labor force structure, income, and living conditions remain indeed the most critical indicators impacting the overall ESRI score.

Figure 12: ESRI dimensions in Italian regions in 2023

ESRI in 2023

25 40 55 70 85 100
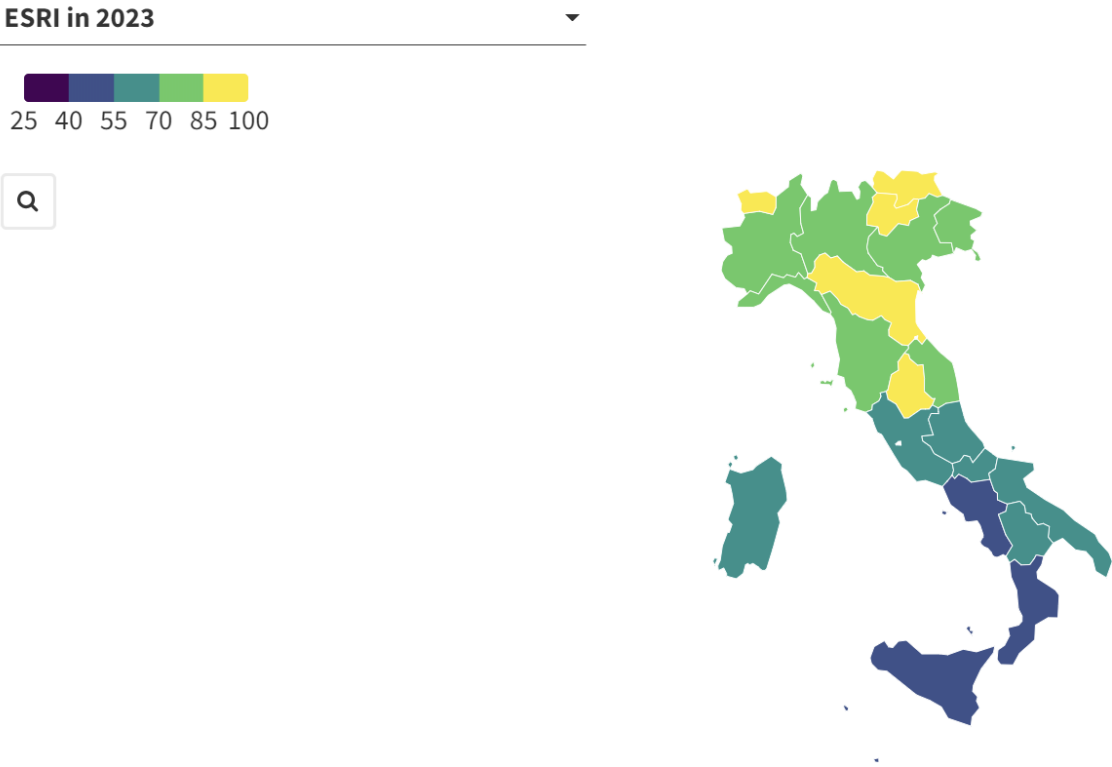
Figure 13: Change in ESRI dimensions in Italian regions 2010-2023

Rating

-25   0   15   30 40

6. SOCIAL RIGHTS AND ENVIRONMENTAL PERFORMANCES

Nowadays we have quite a strong consensus about the need to embrace an approach to development that goes beyond the increase in national income, wealth and\or added value. Instead, we aim for a

multidimensional approach mainly focused on measuring the ends of the development process rather than the means (Land and Michalos 2018; Stiglitz, Sen and Fitoussi 2010). The development of the sustainable human development framework can be framed within this stream of research and debate (Pelenc et al., 2013). Basically, the sustainable human development framework is based on four main pillars: (i) productivity\value addiction, (ii) equality, (iii) environmental sustainability and (iv) participation (Biggeri and Mauro, 2018).

In this sub-section, the relation between ESRI and EPI (Environmental Performance Index) is considered, in order to assess how the evolution of Social Rights in Europe is moving forward together with Environmental performances, in a sort of convergence between environmental and social sustainability. The Environmental Performance Index (EPI) data for the EU-27 countries from 2012 to 2022 provides, indeed, a valuable lens through which to examine the broader trends in sustainability transition and inclusive wellbeing within the European Union. EPI was developed by the Yale Center for Environmental Law and Policy, and it provides a data-driven summary of the state of sustainability around the world. Using 58 performance indicators across 11 issue categories, the EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality. But how are EU-27 countries performing in terms of EPI?

EPI Scores & Ranking, 2012-2022

| Country	EPI global ranking 2022	EPI 2022	EPI 2012	EPI global ranking 2012
Denmark	1	77,9	63	1
Finland	3	76,5	55,5	13
Malta	4	75,2	49,8	35
Sweden	5	72,7	56,9	9
Luxembourg	6	72,3	58,8	4
Slovenia	7	67,3	58,7	5
Austria	8	66,5	59,3	3
Netherlands	11	62,6	56,7	11
France	12	62,5	56,1	12
Germany	13	62,4	60,2	2
Estonia	14	61,4	55,3	14
Latvia	15	61,1	52,9	22
Croatia	16	60,2	43	70
Slovakia	18	60	56,8	10
Czech Republic	19	59,9	54,7	16
Belgium	21	58,2	52,1	24
Cyprus	22	58	52	26
Italy	23	57,7	51,7	29
Ireland	24	57,4	54,9	15
Spain	27	56,6	49,3	37
Greece	28	56,2	51,9	28
Romania	30	56	50,7	30
Lithuania	31	55,9	52,7	23
Hungary	33	55,1	53,1	21
Bulgaria	41	51,9	47,3	43
Poland	46	50,6	50,6	32
Portugal	48	50,4	52	26

Figure 12: EPI composition

A first striking fact is that Denmark maintained the top position globally from 2012 to 2022. In particular, its success is to be attributed, according to the EPI Dashboard, to its early adoption of renewable energy, particularly wind power, and its comprehensive approach to environmental regulation and green technology investment. But besides, Denmark, if we look at 2022, all of the EU-27 countries are among the global top performers in the EPI index, taking almost all positions between 1 and 20.

Not only, as this was not the situation in 2012. Several countries greatly improved their scores and their position in the global ranking. Among these, Croatia had a remarkable increase of 17.2 points, probably due also to the adoption of EU environmental standards and increased investment in environmental infrastructure, supported by EU cohesion funds aimed at newer member states (European Commission, 2020). Also, Malta's significant improvement in its EPI score showcases the impact of targeted environmental policies and the integration of sustainability into national development strategies. This aligns with the literature that emphasizes the importance of small island states adopting tailored sustainability strategies to overcome unique environmental challenges (Pelling & Uitto, 2001).

FIGURE 14: EPI CHANGE 2012-2022

Source: Authors' elaboration
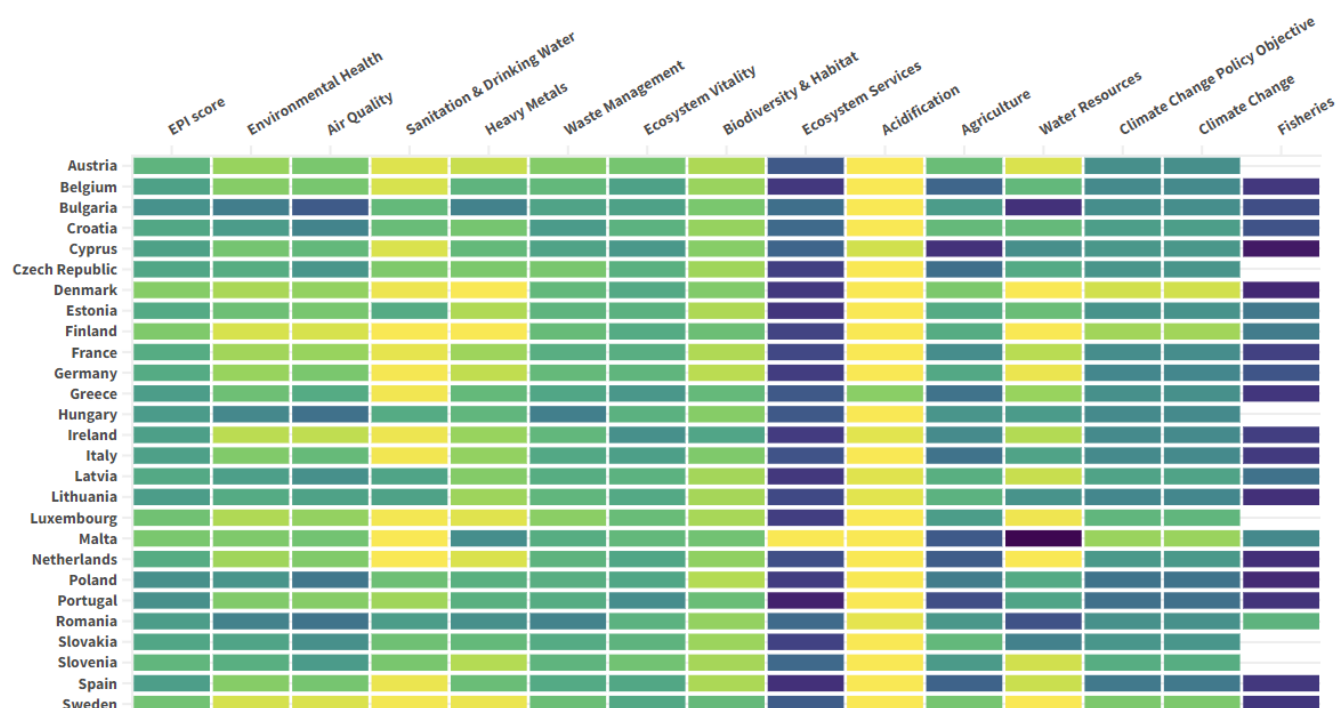
Source: Authors' elaboration

If we look at the EPI Dashboard (Table 6), we can see how the increased adoption of renewable energy sources has contributed significantly to the improvement in climate change indicators. More in general, environmental health, air quality, sanitation & drinking water, climate change policy objective, and waste management are the top positive influencers on the EPI score. On the other hand, poor scores in environmental health, air quality, heavy metals, and unsustainable agricultural practices are the most significant negative influences on the EPI score.

The reduction in PM2.5 exposure across several EU countries reflects major strides in improving air quality. This progress is significant given the well-documented health impacts of air pollution (WHO, 2016), and EU regulations on emissions from vehicles and industrial sources have played a crucial role in these improvements, demonstrating the effectiveness of stringent environmental standards and monitoring. The notable improvements in climate change indicators, especially in Nordic countries, underscore the EU's leadership in global climate action. Nordic countries, in particular, have been at the forefront of adopting ambitious climate policies, including carbon pricing, renewable energy targets, and energy efficiency measures (OECD, 2019).

From the geographical perspective dividing Europe into Northern, Southern, and Eastern regions, the Environmental Performance Index (EPI) data from 2012 to 2022 reveals distinct trends and patterns among these regions. Northern European countries, particularly Denmark, Finland, and Sweden, consistently rank among the top in the EPI. These countries have made significant progress in climate change indicators, largely due to ambitious climate policies, widespread adoption of renewable energy, and comprehensive strategies to reduce carbon emissions (Hedegaard, 2014).

In Southern Europe, with the exception of Malta, countries often face challenges related to air quality and waste management, although there have been overall enhancements in environmental health indicators, with better access to clean water and improved sanitation infrastructure (European Environment Agency, 2019).

Then, Eastern European countries, such as Bulgaria and Romania, generally show slower progress in improving their EPI scores. Some improvements were made in air quality and the reduction of household solid fuel use. However, the region still struggles with higher pollution levels compared to the rest of the EU.

As concerning the Italian case, while Italy's EPI score in 2012 was relatively moderate compared to other EU-27 countries, by 2022 it had shown several improvements. In particular, Italy notably reduced PM2.5 and NOx emissions, and made significant progress in increasing the share of renewable energy in its energy mix. The country has invested heavily in solar and wind energy but has also shown improvements in access to clean water and sanitation, enhanced its waste management practices, and expanded its network of protected areas, contributing to better conservation of biodiversity.

Overall, Italy's improvements in EPI scores are closely linked to a strong alignment with EU policies, investments in renewable energy, and improvements in air quality and waste management. However, challenges remain, particularly in urban air quality and regional disparities.

An EPI-ESRI Convergence?

To complete the picture outlined in this report, we have compiled data from the ESRI and EPI indices in two scatter plots (Figure 14 and 15) that detail the situation in 2022 and the change rate 2012-2022. We have added to these figures the data on GDP to provide an immediate visualization of how different countries are managing the balance between environmental sustainability, social wellbeing, and economic growth.

The scatter plots reveal critical insights into the relationship between environmental performance, social rights, and economic conditions across EU countries. While some countries demonstrate balanced growth and synergies, others face trade-offs that require nuanced policy interventions.
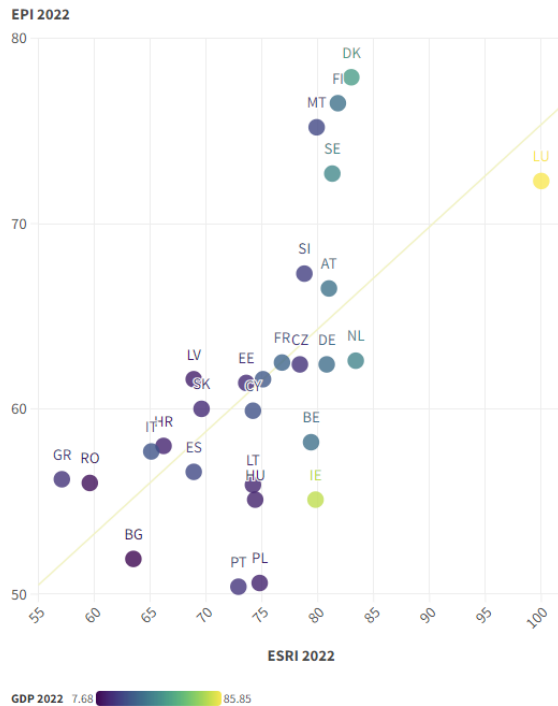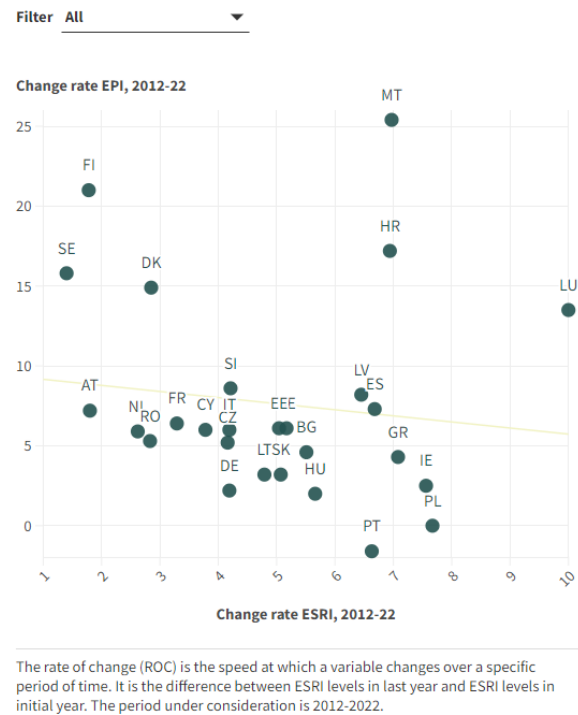
The rate of change (ROC) is the speed at which a variable changes over a specific period of time. It is the difference between ESRI levels in last year and ESRI levels in initial year. The period under consideration is 2012-2022.

The scatter plots indicate that economic growth does not uniformly correlate with improvements in EPI or ESRI. Higher GDP countries like Luxembourg, Denmark, and Sweden generally show better EPI and ESRI scores, reflecting the advantage of greater financial resources in implementing effective policies. However, GDP alone is not a definitive predictor, as countries like Ireland, despite having high GDP, show only moderate EPI and ESRI scores. Furthermore, sustainable development theory posits that economic growth should be decoupled from environmental degradation and social inequality (UN, 2015). The case of Germany and the Netherlands supports this view, demonstrating that policy effectiveness, innovation, and governance quality are critical determinants of sustainability outcomes (Sachs, 2015).

With the Nordic countries consistently leading in both EPI and ESRI scores, the stagnant or declining areas are for example Portugal and Greece, that have shown minimal improvement in their EPI scores, with Greece even exhibiting a negative trend in ESRI change rate. Eastern and Southern European countries also face significant challenges in improving their EPI and ESRI scores, grappling with economic hardships, weaker institutional capacities, and political instability, which hinder sustainable development efforts.

If Luxembourg, Denmark, and Sweden high EPI and ESRI scores indicate that it is possible to achieve synergies between sustainability and social wellbeing, the analysis reveals potential trade-offs between economic growth and environmental sustainability. Countries with significant economic growth sometimes show less improvement in environmental indicators, suggesting that economic activities may negatively impact environmental conditions.

7. CONCLUSIONS AND POLICY RECOMMENDATIONS

The analysis of social rights and environmental performance through the ESRI and EPI scores across Europe have highlighted several critical insights and trends over the past decade. The ESRI reveals an overall positive trend in social rights across the EU from 2010 to 2023. This trend is primarily driven by improvements in fair working conditions, despite significant disruptions caused by the COVID-19 pandemic. Nevertheless, there is not an upward convergence trend among territories. Regional disparities remain significant, with Northern European countries consistently performing better than those in Southern and Eastern Europe. High levels of poverty in Southern and Eastern Europe persist, challenging the overall upward social convergence.

The pandemic had a profound impact on social rights, as much as the EU's response impacted the course of certain countries (i.e. Italy), facilitating a rapid recovery in many areas, particularly in employment rates. Gender disparities in social rights remains evident, with women generally lagging behind men in employment and wage equality, despite higher educational attainment rates. Regional differences within countries further complicate the picture, highlighting the need for targeted interventions to address these disparities. The analysis of EPI and ESRI convergence reveals that economic growth alone does not guarantee improvements in social rights or environmental performance. While higher GDP countries tend to perform better on both indices, policy effectiveness, innovation, and governance quality are crucial determinants of sustainability outcomes. In light of these results, some policy recommendations are proposed here to address the identified disparities and promote an effective upward social and environmental convergence.

For Policy-makers

- Address the persistent regional disparities in social rights by implementing targeted policies that focus on education, employment opportunities, healthcare access, and infrastructure improvements in underperforming regions, particularly in Southern and Eastern Europe.
- Strengthen gender equality policies, particularly in regions where disparities are most pronounced, such as Southern and Eastern Europe. This could include promoting female participation in STEM fields, closing the gender pay gap, and improving work-life balance support.
- Build on the success of post-Covid-19 recovery measures. These initiatives have shown the effectiveness of coordinated fiscal policies in mitigating social and economic disparities. Furthermore, develop and institutionalize mechanisms for rapid and coordinated EU-wide responses to future crises, ensuring that social rights and regional equity are maintained during recovery efforts.
- Align social and environmental policies to foster a virtuous cycle where improvements in social rights are coupled with advancements in environmental performance. Northern Europe serves as a model in this regard, demonstrating how investments in green technologies can coexist with robust social welfare systems.

- Utilize the ESRI as a tool to monitor progress and ensure that all EU regions are on a path towards upward social convergence. Regularly update and refine the ESRI to include more granular, regionally disaggregated data, particularly in gender-sensitive indicators.

For academics

- Conduct more granular studies at the regional (NUTS2) level to better understand the local dynamics that contribute to regional disparities in social rights. Explore factors that lead to successful upward convergence in some regions and stagnation or divergence in others. Moreover, broaden the scope of research to encompass a comprehensive gender-sensitive analysis. This should involve the development and use of gender-disaggregated indicators that account for the full spectrum of gender identities. Such an approach is essential for generating more meaningful and inclusive insights, particularly within established frameworks like the ESRI.
- Innovate in the methodologies used to measure social and environmental convergence, potentially incorporating qualitative data, big data analytics, and machine learning to offer deeper insights.
- Expand research to include comparisons with non-EU countries to understand how different political, social, and economic contexts affect social rights and sustainability outcomes. This could provide valuable insights for both EU policymakers and those in other regions.

For Civil society

- Raise awareness about the importance of upward social convergence and the risks of regional disparities within the EU. Mobilize communities around key issues such as gender equality, social protection, and environmental justice.
- Act as a watchdog to ensure that policies aimed at reducing regional and social inequalities are effectively implemented. Use tools like the ESRI to track progress, regularly publishing reports and findings that highlight ongoing disparities in social rights, environmental performance, and regional development.

REFERENCES

Alcidi, C., Corti, F., Gros, D., & Liscai, A. (2022). 13. Towards a Socially Just Green Transition. grEEning EuropE, 187. Amores, A. F., Maier, S., & Ricci, M. (2023). Taxing household energy consumption in the EU: The tax burden and its redistributive effect. Energy Policy, 182, 113721.

Alberti, V., Banys K., Caperna G., Del Sorbo M., Fregoni M., Havari E., Kovacic M., Lapatinas A., Litina A., Montalto V., Moura C., Neher F., Panella F., Peragine V., Pisoni E., Stuhler J., Symeonidis K., Verzillo S., & Boldrini M. (2021). Monitoring multidimensional inequalities in the European Union. Luxembourg: Publications Office of the European Union. doi:10.2760/20973, JRC123911.

Alkire, S., & Robles, G. (2016). Measuring multidimensional poverty: dashboards, union identification, and the multidimensional poverty index (MPI). OPHI Res Prog, 2, 1.

Alkire, S., & Robles, G. (2017). Multidimensional poverty index summer 2017: Brief methodological note and results. OPHI Methodological Notes, 45.

Alkire, S., & Santos, M. E. (2014). Measuring Acute Poverty in the Developing World: Robustness and Scope of the Multidimensional Poverty Index. World Development, 59, 251-274.

Anand, S., & Sen, A. (1997). Concepts or human development and poverty! A multidimensional perspective. United Nations Development Programme, Poverty and human development: Human development papers, 1-20.

Arpino, B., & Obydenkova, A. V. (2020). Democracy and political trust before and after the great recession 2008: The European Union and the United Nations. Social Indicators Research, 148(2), 395-415.

Atkinson, R. (2000). Combating social exclusion in Europe: the new urban policy challenge. Urban studies, 37(5-6), 1037-1055.

Baeten, R., Sabato, S., Signorelli, P., Moth, R., & Neary, D. (2018). Towards inclusive service delivery through social investment in the EU.

Baiocco, S., Alcidi, C., Corti, F., & Di Salvo, M. (2022). Changing social investment strategies in the EU (No. 2022/01). JRC Working Papers Series on Labour, Education and Technology.

Ballas, D., Clarke, G., Hynes, S., Lennon, J., Morrissey, K., & O'Donoghue, C. (2013). A review of microsimulation for policy analysis. Spatial microsimulation for rural policy analysis, 35-54.

Bartzokas, A., Giacon, R., & Macchiarelli, C. (2022). Exogenous shocks and proactive resilience in the EU: The case of the Recovery and Resilience Facility. Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT).

Belloni, A., Chernozhukov, V., & Hansen, C. (2014). High-dimensional methods and inference on structural and treatment effects. Journal of Economic Perspectives, 28(2), 29-50.

Bellucci, M., Biggeri, M., Ferrone, L., & Gai, L. (2021). ESGI Score: un sistema di misurazione delle performance non finanziarie delle banche italiane. Bancaria, 9, 70-80.

Bericat, E., & Jiménez-Rodrigo, M. L. (2019). The Quality of European Societies – A Compilation of Composite Indicators. Springer International Publishing.

Berik, G. (2020). Measuring what matters and guiding policy: An evaluation of the Genuine Progress Indicator. International Labour Review, 159(1), 71-94.

Biggeri, M., & Bortolotti, L. (2020). Towards a "Harmonious Society"? Multidimensional Development and the Convergence of Chinese Provinces. Regional Studies.

Biggeri, M., & Ferrone, L. (2021a). Child Sustainable Human Development Index (CSHDI): Monitoring Progress for the Future Generation. Ecological Economics, forthcoming.

Biggeri, M., & Ferrone, L. (2021b). Measuring Child Multidimensional Deprivation: A Sustainability Perspective. Sustainability, 13(7), 3922.

Biggeri, M., & Mauro, V. (2018). Towards a more 'sustainable' human development index: Integrating the environment and freedom. Ecological Indicators, 91, 220-231.

Biggeri, M., Bortolotti, L., & Mauro, V. (2020). The Analysis of Well-Being Using the Income-Adjusted Multidimensional Synthesis of Indicators: The Case of China. Review of Income and Wealth.

Biggeri, M., Clark, D. A., Ferrannini, A., & Mauro, V. (2019). Tracking the SDGs in an 'integrated' manner: A proposal for a new index to capture synergies and trade-offs between and within goals. World Development, 122, 628-647.

Boulanger, P. M. (2008). Sustainable development indicators: a scientific challenge, a democratic issue. S.A.P.I.EN.S [Online], 1.1. Available at: http://sapiens.revues.org/166.

Bourguignon, F., & Chakravarty, S. (2003). The measurement of multidimensional poverty. Journal of Economic Inequality, 1, 25–49.

Brilli, Y., Del Boca, D., & Pronzato, C. D. (2016). Does child care availability play a role in maternal employment and children's development? Evidence from Italy. Review of Economics of the Household, 14, 27-51.

Bryman, A., Becker, S., & Sempik, J. (2008). Quality criteria for quantitative, qualitative and mixed methods research: A view from social policy. International journal of social research methodology, 11(4), 261-276.

Büchs, M., & Koch, M. (2017). Postgrowth and wellbeing: Challenges to sustainable welfare. Springer.

Cahill, M., & Fitzpatrick, T. (2002). Environmental Citizenship: Rights and Responsibilities in Environmental Policy. Edward Elgar Publishing.

Cantillon, B., & Van Lancker, W. (2013). Three shortcomings of the social investment perspective. Social Policy and Society, 12(4), 553-564.

Cantillon, B., & Vandenbroucke, F. (Eds.). (2014). Reconciling work and poverty reduction: How successful are European welfare states? Oxford University Press.

Chernozhukov, V., Wüthrich, K., & Zhu, Y. (2021). An exact and robust conformal inference method for counterfactual and synthetic controls. Journal of the American Statistical Association, 116(536), 1849-1864.

Ciani, F, Biggeri, M, Francescutto, A (2023) Intersectionality and the assessment of gaps in social citizenship, EUROSHIP Working Paper no. 27. Oslo: Oslo Metropolitan University. DOI: 10.6084/m9.figshare.22630681.

De Graaf, W., & Maier, R. (2017). The welfare state and the life-course: Examining the interrelationship between welfare arrangements and inequality dynamics. Social Policy & Administration, 51(1), 40–55.

Diener, E. (1995). A value based index for measuring national quality of life. Social Indicators Research, 36(2), 107-127.

Dijkstra, L. (2020). Towards a More Resilient Europe. Regional Studies, 54(6), 831-841.

ECR, (2019). European regional social socreboard. Available online at: https://cor.europa.eu/en/engage/studies/Documents/European%20Regional%20Social%20Scoreboard/European-Regional-Social-Scoreboard.pdf

Eneroth, M., Gábos, A., Kneeshaw, J., Marchal, S., Nelson, K., & Nieuwenhuis, R. (2019). Towards an IPOLIS Social Policy model, Deliverable 8.2. Leuven: InGRID-2 project 730998 – H2020.

Esping-Andersen, G. (2002). Why we need a new welfare state. Oxford University Press.

Eurofound. (2021). European Green Deal and the impact on labour markets. Publications Office of the European Union.

Eurofound. (2023). Social services in Europe: Adapting to a new reality. Publications Office of the European Union. https://eurofound.link/ef22007

European Commission (2022), Study on social services with particular focus on personal targeted social services for people in vulnerable situations, Brussels.

European Commission (2023a), The future of social protection and of the welfare state in the EU, Publications Office of the European Union, Luxembourg.

European Commission, Directorate-General for Justice and Consumers, Franklin, P., Bambra, C., Albani, V., Gender equality and health in the EU, Publications Office, 2021

European Commission. (2019). Reflection Paper: Towards a Sustainable Europe by 2030. Publications Office of the European Union.

European Commission. (2023). The European Green Deal. Retrieved from European Commission

European Commission. (2023a). Transforming the EU's Economy for a Sustainable Future: Green Deal and Beyond.

European Commission. (2023b). 2023 Strategic Foresight Report: Sustainability and people's wellbeing at the heart of Europe's Open Strategic Autonomy. Secretariat-General.

Ferragina, E. (2022). Welfare state change as a double movement: Four decades of retrenchment and expansion in compensatory and employment-oriented policies across 21 high-income countries. Social Policy & Administration, 56(5), 705-725.

Fleurbaey, M., & Blanchet, D. (2013). Beyond GDP: Measuring welfare and assessing sustainability. Oxford University Press.

Gábos, A., & Kopasz, M. (2014). Concept paper for an integrated poverty and living conditions indicator system (IPOLIS) database. Leuven: InGRID project 312691 – FP7.

Gábos, A., Tomka, Z., & Tóth, I. (2021). Diversity and change in citizenship: mapping poverty in Europe. EUROSHIP Working Paper No. 2. Oslo: Oslo Metropolitan University.

Giovannini, E., & Rondinella, T. (2018). Going beyond GDP: theoretical approaches. In Handbook of Research on Economic and Social Well-Being. Edward Elgar Publishing.

Giovannini, E., Benczur, P., Campolongo, F., Cariboni, J., & Manca, A. R. (2020). Time for transformative resilience: the COVID-19 emergency (No. JRC120489). Joint Research Centre.

Gomez, R. (2015). The economy strikes back: Support for the EU during the Great Recession. JCMS: Journal of Common Market Studies, 53(3), 577-592.

Hall, P. A. and Gingerich, D. W. (2009) 'Varieties of Capitalism and Institutional Complementarities in the Political Economy: An Empirical Analysis', British Journal of Political Science, 39, 449–482.

Hemerijck, A. (2018). Social investment as a policy paradigm. Journal of European Public Policy, 25(6), 810–827. Hemerijck,

Hernanz, V., Malherbet, F., & Pellizzari, M. (2004). Take-up of Welfare Benefits in OECD Countries: A Review of the Evidence (OECD Social, Employment and Migration Working Papers No. 17). Paris: OECD.

Hindman, M. (2015). Building better models: Prediction, replication, and machine learning in the social sciences. The Annals of the American Academy of Political and Social Science, 659(1), 48-62.

Hirvilammi, T., & Koch, M. (2020). Sustainable welfare beyond growth. Sustainability, 12(5), 1824.Korpi, W., Ferrarini, T., & Englund, S. (2013). Women's opportunities under different family policy constellations: Gender, class, and inequality tradeoffs in western countries re-examined. Social Politics, 20(1), 1-40.

Högström, J. (2013). Does the choice of democracy measure matter? Comparisons between the two leading democracy indices, Freedom House and Polity IV. Government and Opposition, 48(2), 201-221.

Johansson, S. (1973). The level of living survey: A presentation. Acta Sociologica, 16(3), 211-219.

Klugman, J., Rodríguez, F., & Choi, H. J. (2011). The HDI 2010: new controversies, old critiques. The Journal of Economic Inequality, 9(2), 249-288.

Lafortune, G., Fuller, G., Moreno, J., Schmidt-Traub, G., & Kroll, C. (2018). SDG index and dashboards: detailed methodological paper.

Land, K. C., & Michalos, A. C. (2018). Fifty years after the social indicators movement: Has the promise been fulfilled?. Social Indicators Research, 135(3), 835-868.

Maggino, F. (2017). Dealing with syntheses in a system of indicators. In Complexity in society: From indicators construction to their synthesis (pp. 115-137). Springer, Cham.

Matsaganis, M., & Leventi, C. (2014). The distributional impact of austerity and the recession in Southern Europe. South European Society and Politics, 19(3), 393-412.

Mauro, V., Biggeri, M., & Maggino, F. (2018). Measuring and monitoring poverty and well-being: A new approach for the synthesis of multidimensionality. Social Indicators Research, 135(1), 75-89.

Nieuwenhuis, R. (2022) 'No Activation without Reconciliation? The Interplay between ALMP and ECEC in Relation to Women's Employment, Unemployment and Inactivity in 30 OECD countries, 1985–2018', Social Policy and Administration, https://doi.org/10.1111/ spol.12806

Noll, H.-H. (2004). Social indicators and quality of life research: Background, achievements and current trends. In N. Genov (Ed.), Advances in sociological knowledge over half a century. Paris: International Social Science Council.

Noll, H.-H. (2018). Social Monitoring and Reporting: A Success Story in Applied Research on Social Indicators and Quality of Life. Social Indicators Research, 135, 951–964. doi.org/10.1007/s11205-016-1513-0

Noll, H.-H., & Zapf, W. (1994). Social indicators research: Societal monitoring and social reporting. In I. Borg & P. Ph. Mohler (Eds.), Trends and perspectives in empirical social research. Berlin/New York: de Gruyter, 1-16.

Nussbaum, M. C. (2011). Creating Capabilities: The Human Development Approach. London: The Belknap Press of Harvard University Press.

Rogan, E., & Bradley, E. (2016). Investing in social services for states' health: identifying and overcoming the barriers. New York: Milbank Memorial Fund.

Sabato, S., & Theodoropoulou, S. (2022). The socio-ecological dimension of the EU's recovery: Further traction for the European Green Deal? In B. Vanhercke, S. Sabato, & S. Spasova (Eds.), Social policy in the European Union: State of play 2022 (pp. 43-67). European Trade Union Institute and Observatoire Social Européen.

Sachs, J. (2015). The Age of Sustainable Development. Columbia University Press.

Sachs, J., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2021). Sustainable Development Report 2021. Cambridge: Cambridge University Press.

SDSN and IEEP (2020). The 2020 Europe Sustainable Development Report: Meeting the Sustainable Development Goals in the face of the COVID-19 pandemic. Paris and Brussels: Sustainable Development Solutions Network and Institute for European Environmental Policy.

Sen, A. (1988). The standard of living. Cambridge University Press.

Sen, A. (1999). Development as Freedom. Oxford: Oxford University Press.

Sen, A. (2000). A decade of human development. Journal of Human Development, 1(1), 17-23.

Social Protection Committee (2015). Portfolio of EU Social Indicators for the monitoring of progress towards the EU objectives for social protection and social inclusion, 2015 Update. Luxembourg: Publications Office of the European Union.

Stanig, P., Kayser, M., & Kelvin, L. (2013). Governance Indicators: Some Proposals. In Governance Challenges and Innovations: Financial and Fiscal Governance, pp. 189-220.

Stanton, E. A. (2007). The Human Development Index: A History. Working Paper Series 127. Political Economy Research Institute, University of Massachusetts Amherst.

Stiglitz, J. E., Sen, A., & Fitoussi, J. P. (2010). Mismeasuring our lives: Why GDP doesn't add up. New York: The New Press.

Tarabusi, E. C., & Guarini, G. (2016). Level dependence of the adjustment for unbalance and inequality for the human development index. Social Indicators Research, 126(2), 527-553.

Thevenon, O. (2016) 'Do 'Institutional Complementarities' Foster Female Labour Force Participation?', Journal of Institutional Economics, 12, 471–497

Vanhercke, B., & Verdun, A. (2022). Social Policy in the European Union: State of Play 2021. European Trade Union Institute.

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