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Financing the Green Transition

European Green Transition Strategy: possible sociological implications

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Agenda

- European Green Transition Strategy – why and how?
- European Green Deal challenges – social aspects
- European Green Deal – challenges for the labour market
- Possible resistance to change of workers – sociological aspects
- Skills polarization on the labour market
- Social partners' approaches for green transition

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European Green Transition Strategy – why and how?

- The critical task → to reduce greenhouse gas emissions to a level that will slow or even halt the temperature rise.
- Alarming forecasts have determined European society to implement changes → **European Green Transition Strategy**

→ The European Green Deal (EGD)

(Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions, presented in December 2019).

→ **'Fit for 55'** – a package of legislative proposals to ensure a just and inclusive transition (presented to the Council of Europe in July 2022; EC, 2023a).

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European Green Transition Strategy – how?

- **New European Bauhaus** (NEB) → support the green transformation of Europe by building a community of values around the assumptions and goals of green transformation (EC, 2021b).
- **New European Bauhaus** → the understanding and socialisation of climate protection goals at the level of local communities will facilitate the effective implementation of the general concepts and specific programs planned under the green transition.
- **New European Bauhaus** → introducing values such as sustainable development, rational resource management, and environmental protection into people's daily lives.
- **New European Bauhaus** covers: the EGD, territorial policies, cultural and creative sectors, the social dimension, education and skills, the digital decade, the research and innovation, the industrial and entrepreneurial dimension (EC, 2023a).

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European Green Transition Strategy – how?

- **Just transition** → mitigate the adverse effects of implementing the green transition, which may be felt in particular in industries undergoing structural change and in regions whose economies are based on industry and fossil fuel extraction (EC, 2023b).
- **Just Transition Fund (JTF)** → €55 billion by 2027 (EC, 2023c).
- **The Strategy for Financing the Transition to a Sustainable Economy** → strengthening risk resilience for sustainable development and enhancing the financial sector's contribution to the green transition (EC, 2021a).

Source: EC, 2019

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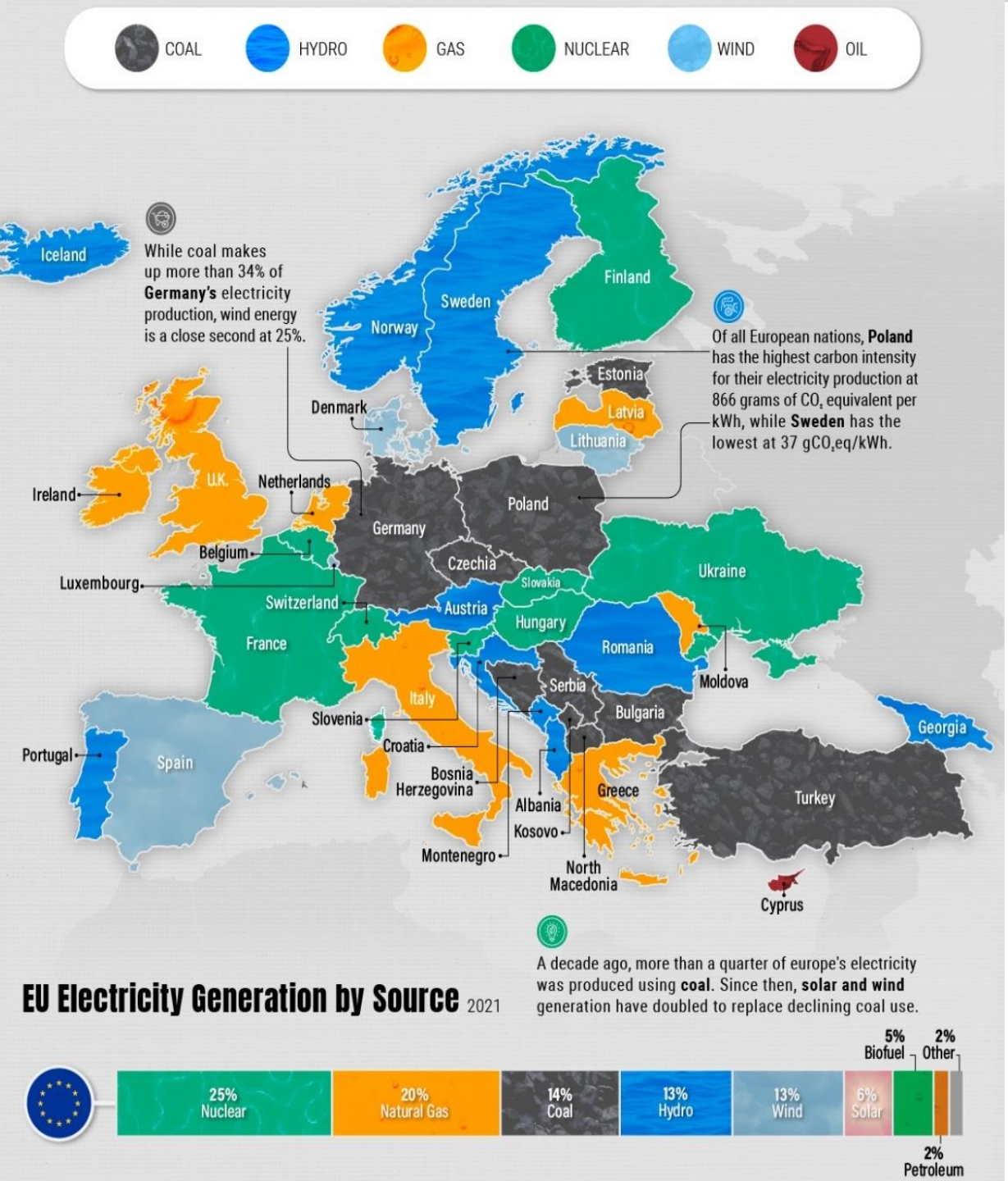
European Green Deal – challenges

- **EGD will require significant structural changes in the extractive and energy production sectors**, as well as in the energy-intensive (steel, chemicals, cement production) and resource-intensive (clothing, electronics, plastics manufacturing, construction) sectors.
- Implementing the changes will require ensuring that consumers have an adequate supply of goods, including energy, at acceptable prices → increasing recycling efficiency, developing ICT technologies, and clean manufacturing technologies, e.g. emission-free steel production, hydrogen as a fuel, carbon capture energy production, storage and utilisation.



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European Green Deal – challenges

Source: https://www.visualcapitalist.com/mapped-europes-biggest-sources-of-electricity-by-country/

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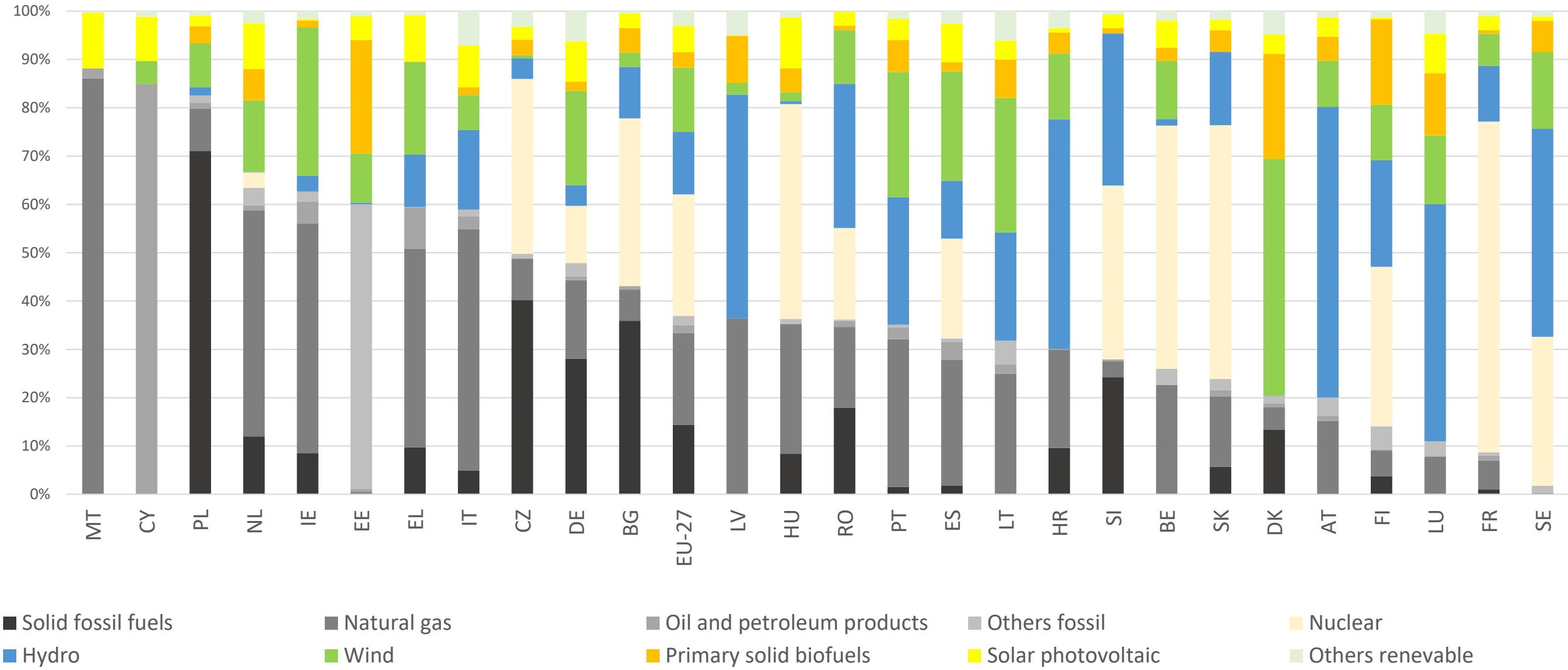
European Green Deal – challenges: Energy mix in the EU countries



Source: Eurostat [NRG_BAL_PEH, last update: 22/01/2023]

European Green Deal – challenges

- **The biggest socio-economic problems are related with solid fuel sources, because of high share of employment in European regions.** In this context **Poland, Czechia and Bulgaria** should be pointed.
- Coal as the source of energy is third important in Europe, but in Poland, Czech Republic, Germany, Bulgaria coal is still predominant in the energy mix.
- In Poland 71% of energy comes from solid fuels (mainly from hard coal – 42.6% in 2022, from brown coal – 26.5%). In 2022 renewables' share grows up, but only to 21%. In Poland the main hard coal production region is located – the Silesia region.
- Strong coal regions are located also in Germany, Czechia, Romania, Bulgaria and Greece.

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European Green Deal – challenges for the labour market

- The impact of the green transition on aggregate employment will be limited, but that shifts are likely to occur between regions, sectors, firms, occupations and task level.
- The social dimension of the European Green Deal there are, among others, **job losses and employment transitions,** as well as **reskilling and upskilling of the workforce**.
- Green policies can achieve job creation in a number of 'green' economic sectors and through a transition of the economy towards more labour-intensive services sectors, while job destruction especially occurs in 'brown' sectors whose activities get replaced by green sectors. The knock-on effects on employment in other sectors can also be significant.

European Green Deal – challenges for the labour market

Green, brown and white jobs specificity [Vandeplas et al., 2022]

Brown jobs – highly polluting activities (e.g. mining, manufacturing, agriculture)

- Approx. 5% of employment in the EU, in some regions – over 25% (in seven regions, located in Greece and in Romania – 25-31% of all jobs)
- Greening of these sectors → the contraction in labour demand (even a full phase-out, e.g. coal mining) or significant structural change

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European Green Deal – challenges for the labour market

Green, brown and white jobs specificity [Vandeplas et al., 2022]

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White jobs – relatively neutral in their environmental impact

- The large majority of jobs in the EU
- Small CO2 emissions: construction, wholesale, retail and other services together employ more than 75% of the workforce, while generating less than 12% of CO2 emissions
- The small effect of green transition on total employment, related to task content
- Some of white jobs → an expansion in labour demand is expected, in spite of not involving directly 'green tasks'

European Green Deal – challenges for the labour market

Green, brown and white jobs specificity [Vandeplas et al., 2022]

Green jobs – involve tasks aiming at reducing the impact of economic activity on the environment, ranging from waste recycling to R&D in green innovation.

- Only a few percentages of total employment
- Are expected to grow and to have on average higher skills requirements than other jobs.

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European Green Deal – challenges for the labour market

Green jobs specificity

Common approach is to identify ‘green’ and ‘brown’ jobs at the occupational level.

Very popular is the green occupational labelling provided in O*NET for the US Standard Occupational Classification by Dierdorff et al. (2011). This methodology assumes that the green transition will promote employment particularly for three categories of jobs:

- jobs with new tasks and skill requirements, created to meet the needs of the green economy (“Green New and Emerging” jobs),
- existing jobs that require significant changes in tasks, skills, or knowledge (“Green Enhanced skills” jobs),
- existing jobs that do not involve any green/new tasks (“white jobs”), but that see demand grow as a result of the green transition.

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European Green Deal – challenges for the labour market

Green jobs specificity

- **Brown jobs** occur at least 7 times more frequently in brown sectors than in the rest of the economy, what could complicate the transition to other sectors – it won't be easy for workers in pollution-intensive (brown) jobs to move to more green-intensive (green) jobs and neutral (white) jobs (IMF, 2022; Vona et al., 2018).
- The probability of moving from a brown to a green job when transitioning is 4-7%, and to neutral ones – 11 percent.
- Further greening of the labour market → easier if workers already have the skills needed in more green-intensive jobs.
- Higher-skilled workers tend to be in occupations with higher green and lower pollution intensities than lower-skilled workers (IMF, 2022b).

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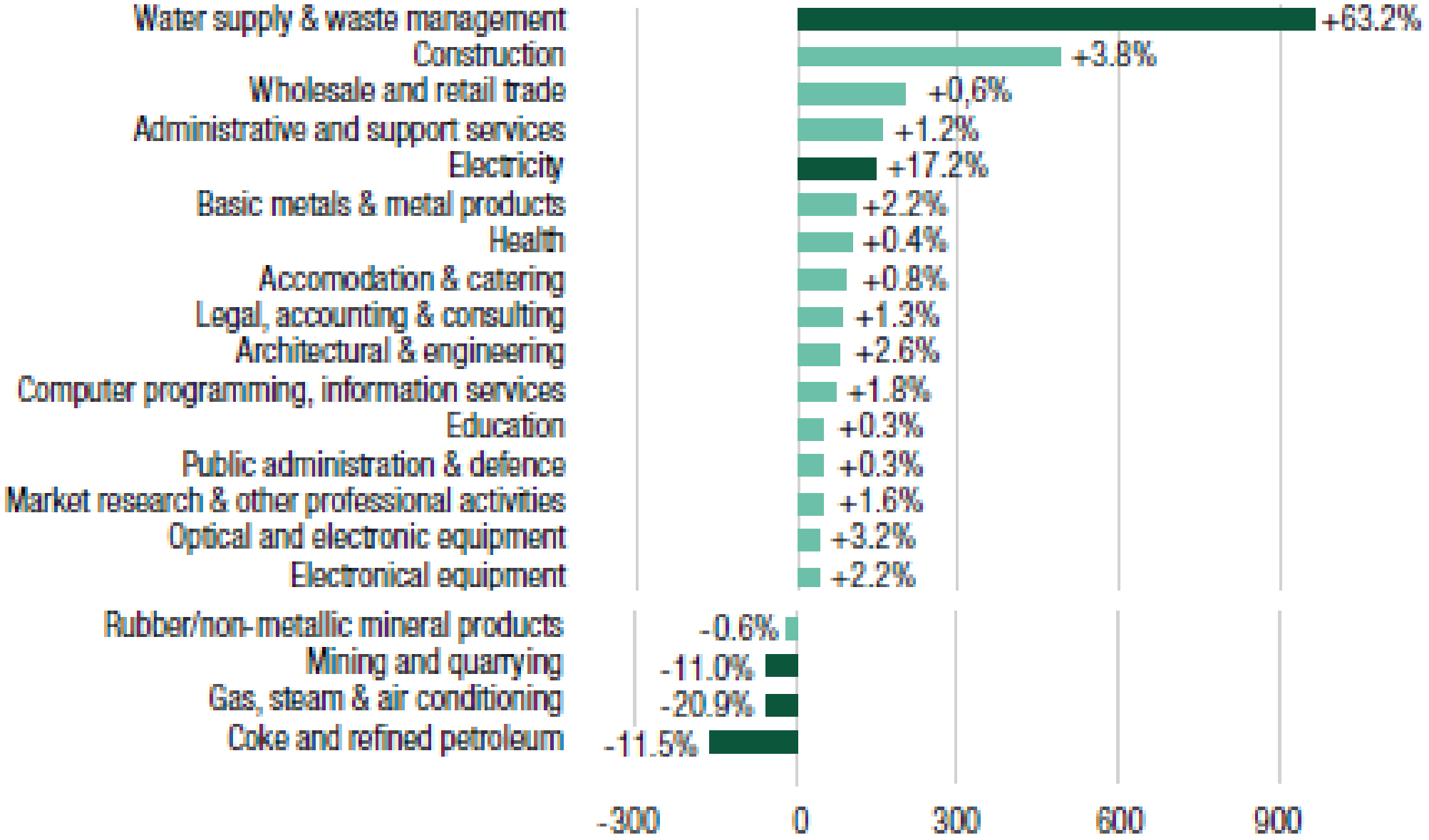
Forecast employment impact of the EGD in the EU-27 by sector – difference between EGD skills forecast scenario and baseline in thousands (bars) and in %



- The percentages indicate the difference in forecast employment growth or decline (in %) between EGD and baseline scenario.
- Dark shaded bars indicate substantial differences (+/- 10% or more).
- Sectors with low growth are not presented.

[Cedefop skills forecast, 2020]

European Green Deal – challenges for the labour market

The transition to a green economy will cause four types of changes on the labour market – job creation, job substitution, job destruction or job redefinition (BusinessEurope, 2021).

For example, in **the energy sector** potential labour market consequences are:

- disappearing jobs in the traditional energy production sectors, i.e. coal mines,
- new jobs in the renewable energy sector and related services, i.e. production of subparts for wind turbines and their maintenance,
- changes in the nature of jobs related to the change of technologies, maintenance and used materials.

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Possible resistance to change of workers – sociological aspects

- **Resistance to change is higher** in these sectors, which changes on the labour market caused by green transition will be stronger – as we pointed earlier, it will be especially high **in energy sector,** first of all – **in coal mining**.
- The high resistance for change in minig sector is related to the scale of job transition, expected retraining, mobility etc. in the context of their current high renumeration and social.
- In many countries, for example in Germany and Poland, coal mining has a central place in the cultural histories and identities of the labour movement so that we may speak of a ‘coal heritage’. Coal workers have strong collective identities and take pride in being coal miners (Lewin, 2019; Sobiesiak-Penszko et al., 2022).

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Possible resistance to change of workers – sociological aspects

- **Resistance to change of workers stay in line with general public opinion on climate change and green transition**.
- In countries with high share of coal in energy mix, with high coal mining meaning, opinions on climate change and green transitions are low optimistic than in others.
- In the Eurobarometer 2022 climate change is perceived as the threat by 72% of Poles, 64% of Bulgarians, 53% Czechs, 62% Romanians and 63% Germans. For comparison, in Mediterranean countries and Sweden this percentage is much higher – over 80%.
- Although 88% of EU citizens support the goal of having a green transition that leaves no one behind, only 46% of Europeans are currently confident that by 2050, sustainable energy, products and services will be affordable for everyone. Furthermore, 43% think that private companies and businesses are not doing enough.
- In “coal mining” countries opinions regarding current jobs are lower than UE-27 average in Czech Republic, Bulgaria, Greece and Germany.

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Possible resistance to change of workers – sociological aspects

In “coal mining” countries opinions regarding current jobs are lower than UE-27 average in Czech Republic, Bulgaria, Greece and Germany

- Approx. 50% people are disagreed regarding job’s contribution to advancing green transition (among these five countries, only in Poland these opinions are more optimistic).
- In Greece people are more often agreed than average regarding “being in a job that contributes to advancing the green transition is important to you personally”.
- Greeks are in the last position regarding “current skills allow them to contribute to the green transition” (among these five countries, only in Germany results are over the UE-27 mean).

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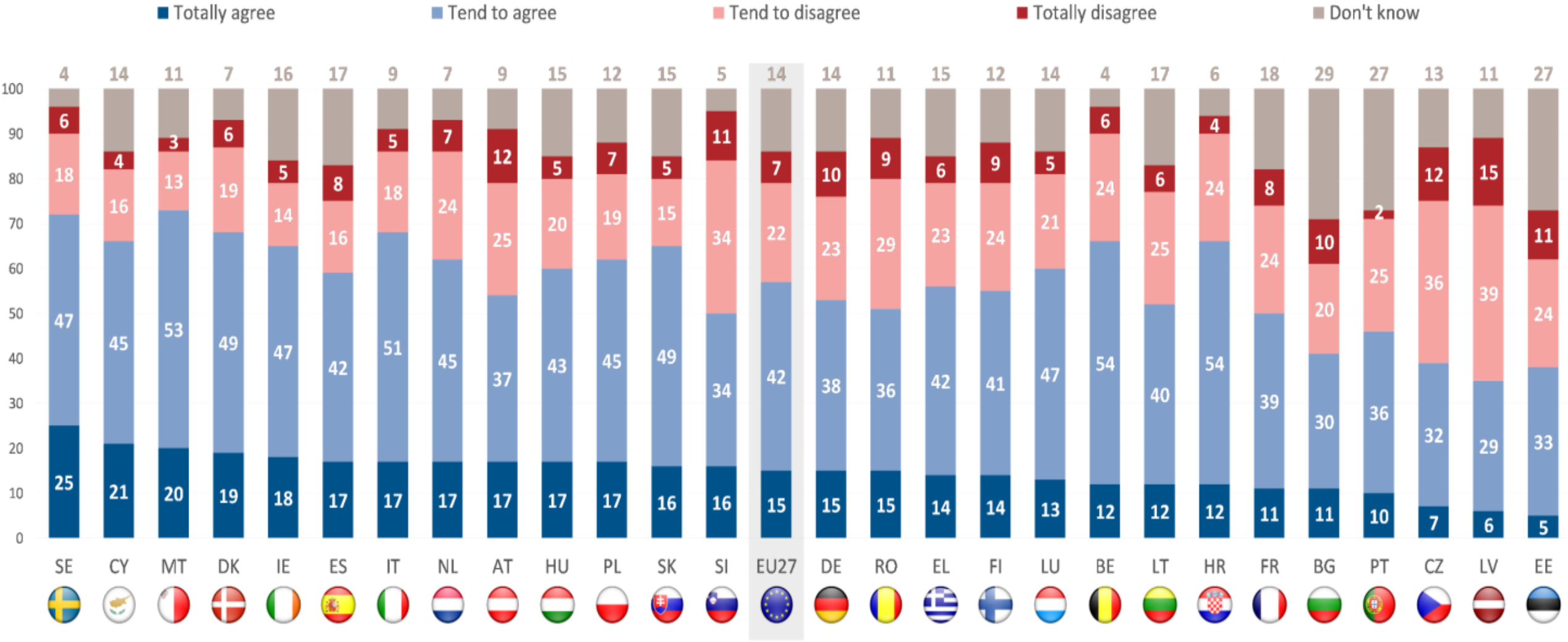
Opinions on job related issues in the green transition context – sociological aspects

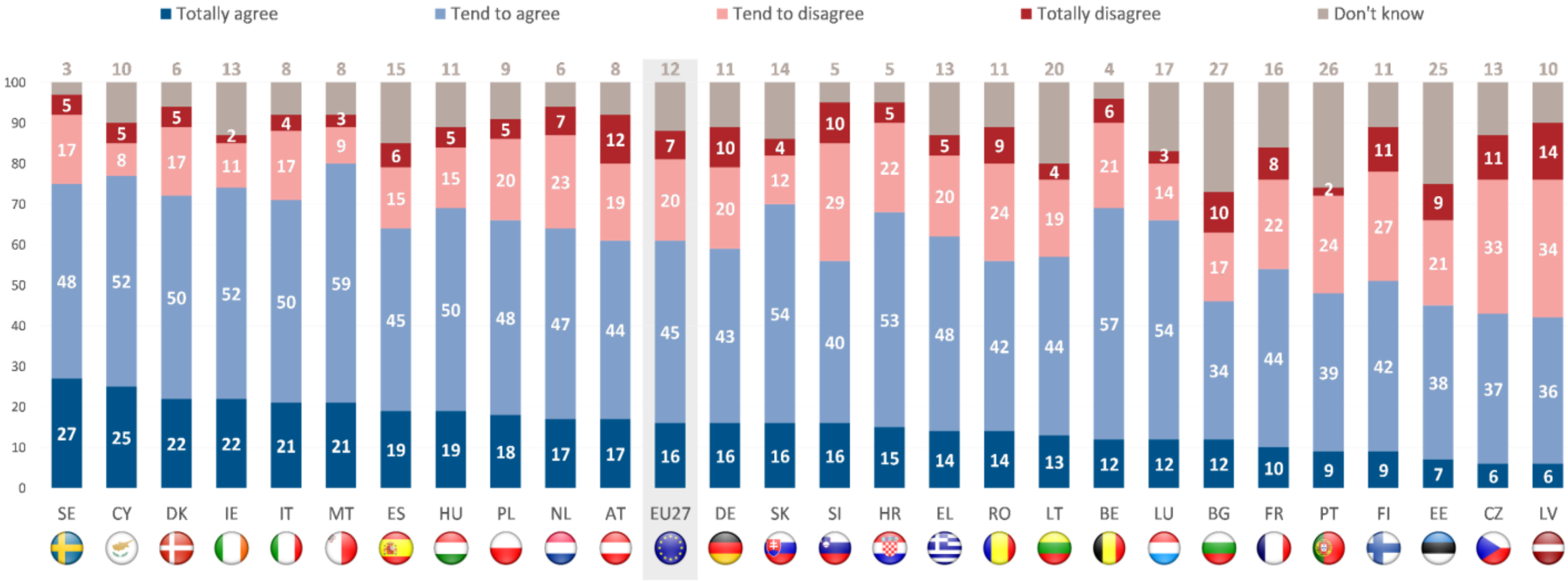
Policies to fight climate change will create more new jobs than they will remove



Source: Eurobarometer, 2022

Opinions on job related issues in the green transition context – sociological aspects

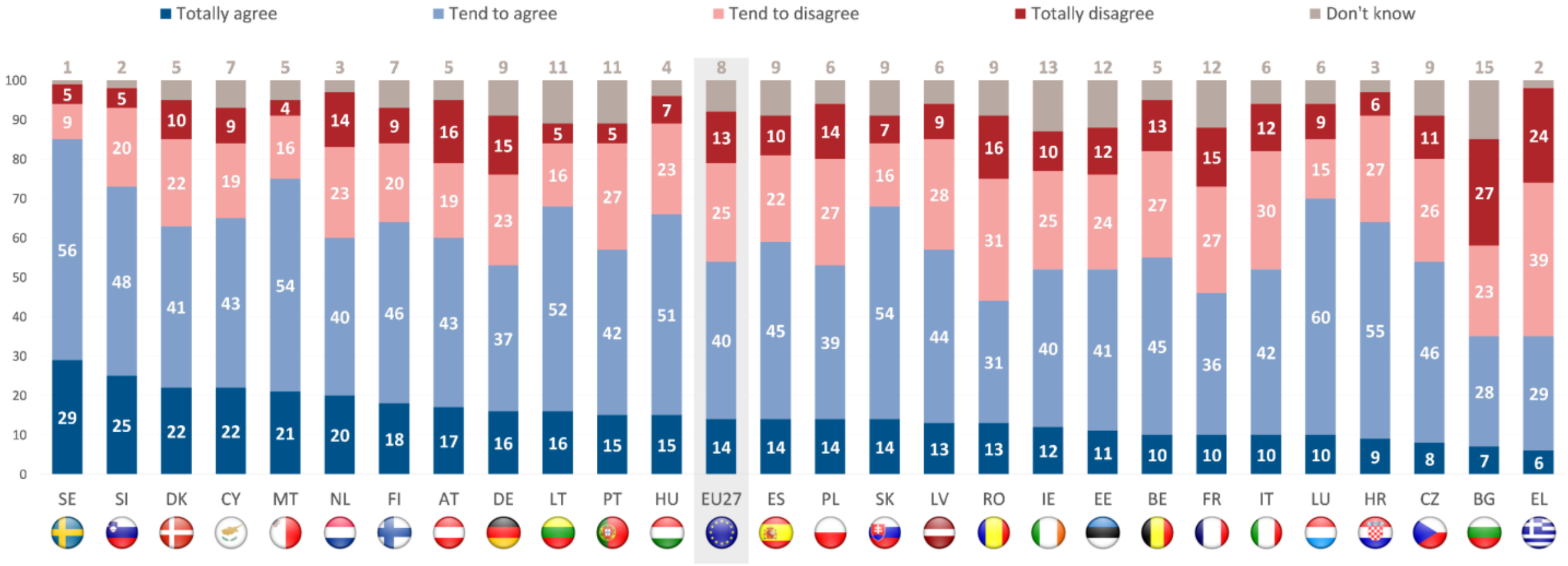
Policies to tackle climate change will create good quality jobs (in terms of earnings, job security and quality of the working environment)



Source: Eurobarometer, 2022

Opinions on job related issues in the green transition context – sociological aspects

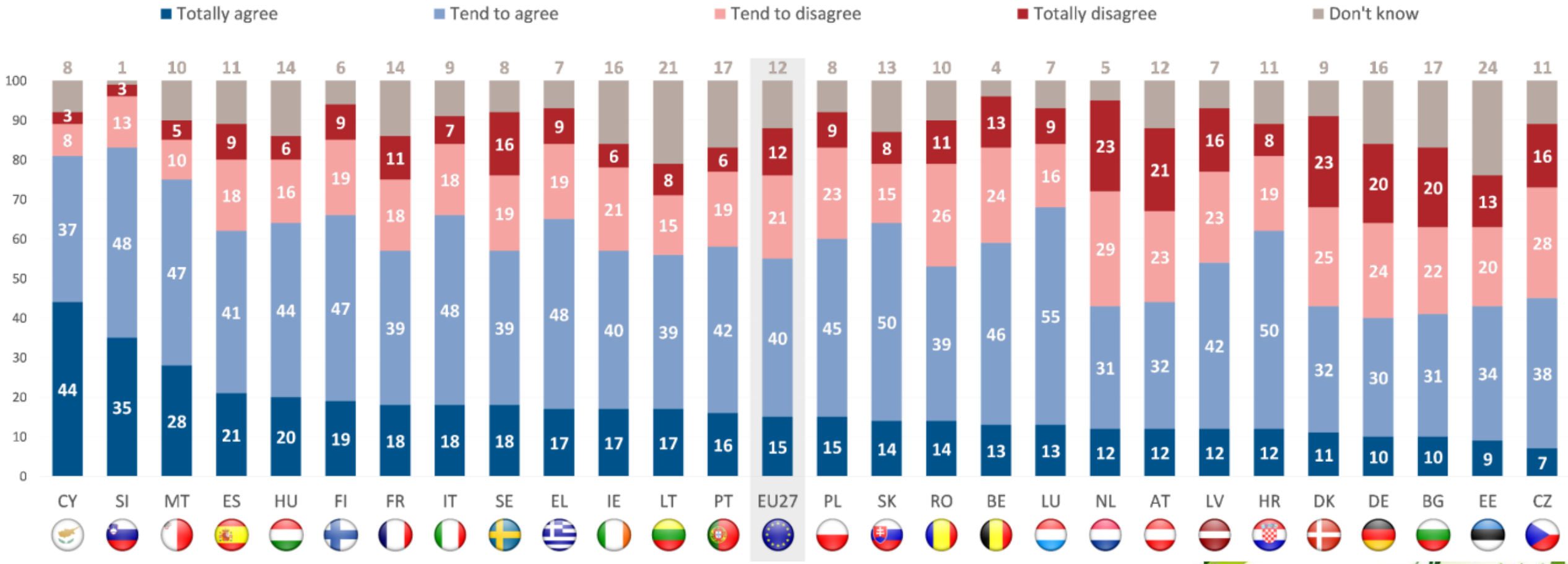
Your current skills allow you to contribute to the green transition



Source: Eurobarometer, 2022

Opinions on job related issues in the green transition context – sociological aspects

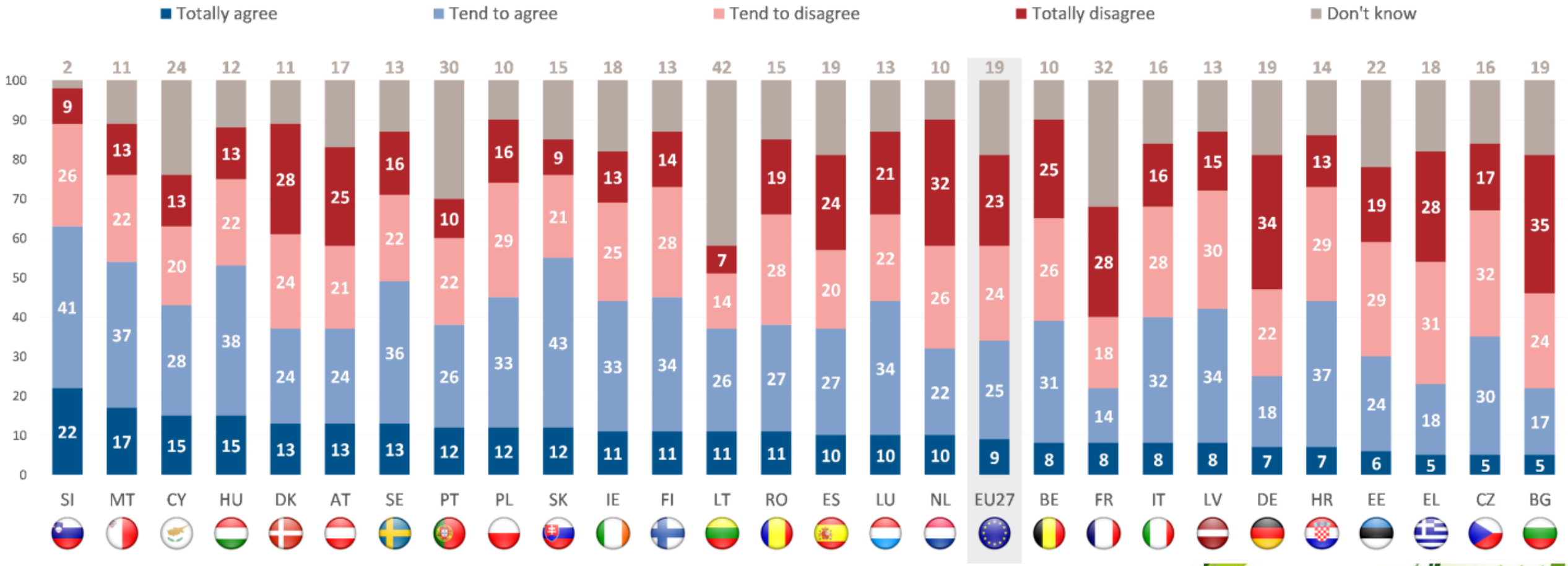
Being in a job that contributes to advancing the green transition is important to you personally



Source: Eurobarometer, 2022

Opinions on job related issues in the green transition context – sociological aspects

Your job is contributing to advancing the green transition



Source: Eurobarometer, 2022

Possible resistance to change of workers – sociological aspects

- Considerations regarding green transition is related to the culture of a country (for example, Hofstede country-level culture measures (2010)).
- Individualism, uncertainty avoidance, and long-term orientation positively influences green economy. By contrast, power distance, masculinity, and indulgence have negative and robust impact on all measures of a green economy.
- Legislating environmental regulations or focusing on green technologies can be harmful for a green economy in countries with high levels of individualism, power distance, and indulgence.
- In more masculine countries, green economies can be promoted through technology rather than regulation.
- The level of economic and financial development influences the relationship between national culture and the green economy (Chien-ChiangLee et al., 2022).

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Skills polarization on the labour market

- **Implementing the EGD tends to ease rather than exacerbate job polarisation** (Cedefop, 2011; Cedefop, 2012).
- Greening the EU economy will not rely solely on high-skilled workers. The employment benefits of the EGD will be diffused across almost all occupational categories (Cedefop, 2021).
- In the line of green transition **the employment gains are slightly more pronounced for some of the medium- and low-skilled occupations**. Some occupations (e.g. in coal mining) will face employment decline while others (e.g. emerging occupations in hydrogen production) will see growth (EC, DG ENER, 2021).
- One of the impacts of the EGD is 400,000 medium-level jobs not being lost because of increased labour market needs spearheaded by EGD policies. These additional jobs may concern assembling new technology (such as electric vehicle engines) or its implementation (building renovation and installing clean energy-based heating systems) (Cedefop, 2021).

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Skills polarization on the labour market

- The analysis of changes on the occupational level points towards the importance of highly skilled non-manual occupations in driving (as with scientists) and supporting (public officials and managers) EGD implementation → prognosed significant employment increases for science and engineering (associate) professionals, business and administration professionals, chief executives, senior officials and legislators, administrative and commercial managers, and information and communications technology professionals.
- The EGD-driven employment trends are likely to benefit a broad range of medium-skill occupations. In relative terms, the highest impact is expected for refuse workers, building and related trades workers, electrical and electronic trades workers and drivers as well as for customer service clerks and assemblers (Cedefop, 2021).

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Skills polarization on the labour market

- In the energy sector on each level of skills high decreasing is expected.
- For the coke and refined petroleum products because of EGD the decreasing of the highly skilled non-manual occupations will be lower by -62.7 thousands, for skilled non-manual: -14.5 thousands, for elementary occupations – by 13.7 thousands, but the highest will be for skilled manual occupations: -76.8 thousands in the EU-27.
- In gas, steam and air conditioning the highest decreasing is expected for highly skilled non-manual occupation (36,000 from 60,300 loss jobs).
- It the mining and quarrying decreasing scale is similar (-58,200), especially for skilled manual occupations (-31,400) (Cedefop, 2021).

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Skills polarization on the labour market

- In mining, the energy transition calls for mobility-oriented up- and re-skilling, so that workers can make the transition to greener sectors or occupations. Workers extracting coal can acquire new skills to find employment in renewable energy technologies – the developing their technical knowledge for application of energy efficiency measures and for application of renewable energy technologies; as well as upgrade their skills for emergent energy markets is important (BusinessEurope, 2022).
- On the other hand, workers in coal and other fossil fuels have many of the skills needed to fill positions in growing clean energy sectors (IEA, 2022).

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Skills polarization on the labour market

‘Skills for the green transition’ include skills and competences but also knowledge, abilities, values and attitudes needed to live, work and act in resource-efficient and sustainable economies and societies. They are:

- technical: required to adapt or implement standards, processes, services, products and technologies to protect ecosystems and biodiversity, and to reduce energy, materials and water consumption. Technical skills can be occupation-specific or cross-sectoral;
- transversal: linked to sustainable thinking and acting, relevant to work (in all economic sectors and occupations) and life. Alternatively referred to as ‘sustainability competences’, ‘life skills’, ‘soft skills’ or ‘core skills’.

Skills polarization on the labour market

- A total of 571 ESCO skills and knowledge concepts are labelled as green. This includes: 381 skills, 185 knowledge concepts, and 5 transversal skills.
- The green concepts aim to cover the activities of the European labour market. As such, skills range within different economic sectors, from energy production and distribution to manufacturing processes, from waste management and pollution standards to auditing and impact assessment, from research to education (ESCO, 2022).
- 4 skills are related to finance, banking and insurance.

Skills polarization on the labour market

ESCO green skills specific to finance, banking and insurance

Concept Url	Preferred Label	Status	Skill Type	Reuse Level	Description
Finance, banking and insurance					
http://data.europa.eu/esco/skill/203083ca-b051-4c28-8986-fc8731bacee5	sustainable finance	released	knowledge	sector-specific	The process of integrating environmental, social and governance (ESG) considerations when making business or investment decisions, leading to increased longer-term investments into sustainable economic activities and projects.
http://data.europa.eu/esco/skill/4300b453-9bcf-474c-9ee3-92ec2229720c	global standards for sustainability reporting	released	knowledge	sector-specific	The global, standardised reporting framework that enable organisations to quantify and communicate about their environmental, social and governance impact.
http://data.europa.eu/esco/skill/7109d172-c370-47fe-ac81-8fe93550a9e3	impact investing	released	knowledge	sector-specific	Investment strategy aimed at investing in organisations or initiatives with a social or environmental outlook, which in turn generates financial gains but also a positive impact in society.
http://data.europa.eu/esco/skill/86f0bb12-6491-4be7-8306-c88900e91a63	green bonds	released	knowledge	sector-specific	The financial instruments traded in financial markets that aim at raising capitals for projects with specific environmental benefits.

Social partners' approaches for green transition

- Green transitions pose major challenges for trade unions in carbon-intensive economies.
- From social partners' point of view, green transitions should be consider in parallel to digitalisation (as a crucial driver of greening by providing low-emission technologies and fostering accessibility of emergent green solutions, e.g. shared mobility platforms).
- Green transition should be also put in the context of broader trends such as globalisation, liberalisation, labour market flexibilisation, the Covid crisis, the war in Ukraine, etc.
- The green transition debate is at earlier stage of development, although most of the European social partners plans to address green transition challenges (Bednorz et al., 2022).

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Social partners' approaches for green transition

- Unions neither naturally oppose nor enthusiastically support green transitions but adopt a range of different strategies.
- Some of them try to protect existing jobs in fossil fuel industries and fend off the closure of carbon-emitting plants for climate reasons. They see green transitions as zero-sum games of jobs-versus-environment in which their role is to protect their members' job interests in threatened industries, and they are rather silent on climate change and sceptical of the need for green transitions (Kalt, 2022).
- In contrast, some of unions are adopting reactive strategies – don't deny the need for phasing out fossil fuels, advocate for slow and gradual phase-outs accompanied by just transition plans for affected members, communities and regions (Thomas, Doerflinger, 2020).

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Social partners' approaches for green transition

- Within internal conditions of these choice, sectoral interests, organisational identities, internal structures and coalition partners should be noted (Clarke, Lipsig-Mummé, 2020). As high-carbon sectors decline and low-carbon sectors expand through green transitions, unions tied to high-carbon sectors are likely less supportive of green transitions than those in low-carbon sectors.
- The unions with a stake in politics beyond the workplace more likely become transition agents because it is in their ideology that the renewal of union power hinges on broader social change. In contrast, unions with a business union ideology and a mandate limited to collective bargaining about wages and working conditions see their power interests best served by protecting existing member interests (Kalt, 2022).
- Unions with social movement identities, in contrast, are more likely to pursue more transformative strategies to increase their societal power resources (Barca, Leonardi, 2018).

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Social partners' approaches for green transition

- Unions' internal structures matter as well – unions with strong internal democracy, abundant resources and collective identities not tied to coal to more likely support transitions (Kalt, 2022).
- Furthermore, the degree to which coal is a central component of union members' culture and identity matters as well (Lewin, 2019).
- Inter-union exchanges and involvements in just transition initiatives of global union federations may also influence union strategies (Felli, 2014).

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Social partners' approaches for green transition

- The political- and socio-economic environment also influences unions' responses to green transitions (Stevis, Felli, 2015). Declining industrial employment, falling unionisation rates and the spread of precarious employment have eroded unions' structural and associational power in early industrialised countries. This makes unions cautious of green transitions that follow similar logics of capitalist restructuring.
- If unions see the potential for green transitions to counteract economic liberalisation, their engagement in green transition could be wider (Galgóczi, 2020).
- Furthermore, the specific conditions in sunset industries matter as well. If high-carbon industries have markedly better employment conditions compared to the rest of the economy, unions are more likely to take a defensive stance towards green transitions seeking to dismantle high-carbon industries.

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Social partners' approaches for green transition

- The situation at the national level is highly heterogeneous. The Nordic and continental European countries (such as Germany, Austria, and the Netherlands) are perceived as the best performers in terms of social dialogue in the green transition context, and social partners in CEE countries (especially Poland, Hungary, or Slovakia) are "weak, inactive, scattered, and facing an unsupportive legal environment".
- In the last group of countries specially problematic is poor efficiency of implementing of consultation with social partners regarding the Just Transition Fund, the Climate Law, the New Adaptation Strategy, the Circular Economy Action Plan, the Social Climate Fund, and the RRF (Recovery and Resilience Facility) funds (Bednorz et al., 2022).

Social partners' approaches for green transition

- Interesting activity was proposed by European Trade Union Institute (ETUI), delivering an online course on "Green Social Dialogue" (https://www.etui.org/training/green-social-dialogue). The training explored the role of collective bargaining and social dialogue in response to climate change and sustainable development.
- Union strategies also depend on governance contexts, i.e. the industrial relations system, the role of the state and policy discussions on decarbonisation and just transition. More union support for green transitions can be expected if just transition policy initiatives are on the table and the industrial relations system allows unions to exercise institutional power in the policy process. Additionally, social partners' engagement could be wider because of intensity of public transition debate (Kalt, 2022).
- Organisational culture and identity also matter.

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Additional slides (only in case of free time)

The role of culture in greening of banking sector

- Culture is the principal determinant of the perceptions of customers and stakeholders, which include bank employees, and is the critical element that needs to be addressed in order to fix the mistrust that afflicts the industry and individual banks.
- Developing green culture is the outcome of green knowledge and environmental education (Afridi et al., 2023).
- Green culture is defined as a collective activity conducted in a public manner to address climate challenges (Cai et al., 2019).

The role of culture in greening of banking sector

- In the case of the banking sector, shareholder theory seems to fit particularly well with the spread of the concept of green finance into the organization culture. Stakeholder theory suggests, an organization must include stakeholders' interest in the strategy and product development process (Atkinson et al., 1997, Freeman, 1984; Harrison and St. John, 1996; Polonsky, 1996).
- Firstly, decision making about greening should be more informed and in tune with those stakeholders to whom the actions will affect.
- Secondly, there should be greater satisfaction from stakeholders with the new green banking products.
- This in turn will lead to a greater chance of a successful implementation of the green initiatives.

The role of culture in greening of banking sector

- On the one hand, banks usually attach the term “green banking” with their prospectus of activities to attract customers and deal with them, that means customers green attitude and greater environmental awareness are influencing banks to go for environmentally responsible banking activities.
- Customer satisfaction on green banking initiatives has been addressed by several researches, in different dimensions. Since the employees are the implementers of the green banking initiatives and could have a greater understanding of the phenomenon, it is very important to investigate the perception of employees on green banking that could influence banks’ decision to adopt green banking.
- External factors include competitors and customers, and sustainable growth can be achieved by raising awareness and demonstrating positive attitudes toward green financing (Mir, Bhat 2022).

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The role of culture in greening of banking sector – internal and external facilitators

- Employees, investors and directors are internal driving factors who can be driven to greenery and create green products and services, as well as make environmentally friendly policies, and, therefore, contribute to sustainability.
- The success of an organisation’s programme is conditioned by the involvement of its employee (Dhar et al., 2008).
- Employee awareness development and training on environmental and social risk and the relevant issues should be a continuous process as part of the bank's Human Recourse Development (Rahman, Perves, 2016).
- Training and development of relevant skills within bank employees are important to speed up the acceptance of green banking culture (Narang, 2015).

SMEs in green transtition process

- Only 58% of SMEs have already invested or are planning to invest in climate care measures, compared to 78% of large companies. At the same time, SMEs point to the numerous barriers (especially lack of finance and human barriers) (European Investment Banks, 2020).
- In an international study conducted by the SME associations has found that that more than 90% of SME associations reported SMEs experiencing strong or very strong external pressure to achieve climate neutrality. This pressure comes from different source like from society, EU politics, from investors, national governments, customers and supply chain partners (EC, 2022).
- Access to public funds and fiscal incentives may accelerate the development of green activities among SMEs (Cecere et al., 2018).
- The challenges SMEs face in adapting to market practices for sustainable finance and other emerging environmental, social and governance (ESG) disclosure requirements may limit their ability to use sustainable finance instruments.