ARI 30/2025
27 February 2025

From phasing-out to phasing-in: lessons from Spain's just transition governance framework

Lara Lázaro Touza | Senior Analyst, Elcano Royal Institute | @lazarotouza

Andrea Briones | Research Assistant on climate change in the Energy and Climate Programme, Elcano Royal Institute.

Sofía Tirado Sarti | Analyst on climate change in the Energy and Climate Programme, Elcano Royal Institute | @TiradoSarti

Alina Averchenkova | Senior Research Fellow, Elcano Royal Institute | @averchenkova

Elena López Gunn | Senior Research Fellow, Elcano Royal Institute | @elopezgunn

Gonzalo Escribano | Senior Analyst and Director of the Energy and Climate Change Programme, Elcano Royal Institute | @g_escribano

Theme

This paper analyses the just transition concept, its origins and recent developments in the EU and in Spain, including citizen support for it. It also reflects on the future of just transition, suggesting broader framings that include the development of an innovative governance instrument, Just Renewable Transition Agreements (JRTAs), which would help share the benefits of the transition more fairly and increase social acceptance of the deployment of renewables and related technologies and infrastructures.

Summary

This paper briefly reviews the concept of just transition. It highlights some of the key elements of just transition governance frameworks, mainly focusing on the EU and Spain. The analysis examines elements of the Spanish just transition framework that could potentially be modified and applied to other countries in the EU and elsewhere. It additionally ponders the demand for just transition in Spain by analysing the results of a survey of Spanish citizens' views on climate change. Lastly, it reflects on Spain's forthcoming update of its Just Transition Strategy by putting forward a proposal to expand Just Transition Agreements that have been used for the coal and nuclear phase-out by developing a new instrument, Just Renewable Transition Agreements (JRTAs). JRTAs are envisaged as a tool to foster renewable deployment that ensures meaningful

citizen [1] and stakeholder [2] engagement. They can also provide conflict-resolution instruments through negotiation and equitable renewable benefit-sharing that can additionally help to limit any social backlash against renewable deployment.

The analysis is structured as follows: section (1) sets out a brief historical overview of the just transition; section (2) analyses Spain's just transition governance framework; section (3) describes the support for just transition in Spain; section (4) reflects on the upcoming review of Spain's Just Transition Strategy, putting forward the authors' proposal of JRTAs as an innovative governance instrument for renewable benefit-sharing and project acceptance; finally, we present our conclusions.

Analysis

1. A historical overview of just transition

The concept of a just transition emerged as a response to the socio-economic challenges posed by the shift towards environmental policies, especially for those communities and industries that were highly dependent on fossil fuels. Its roots can be traced back to the 1970s, and subsequently, in the 1990s, to the US trade union movement. The concept gained significant traction in international climate negotiations during COP13 in Bali (2007). At that conference, trade unions issued a statement emphasising the imperative of addressing the specific needs of regions that were most affected by decarbonisation policies. Calls were made to prioritise justice, human rights and social protection, and to ensure upskilling and reskilling of workers.

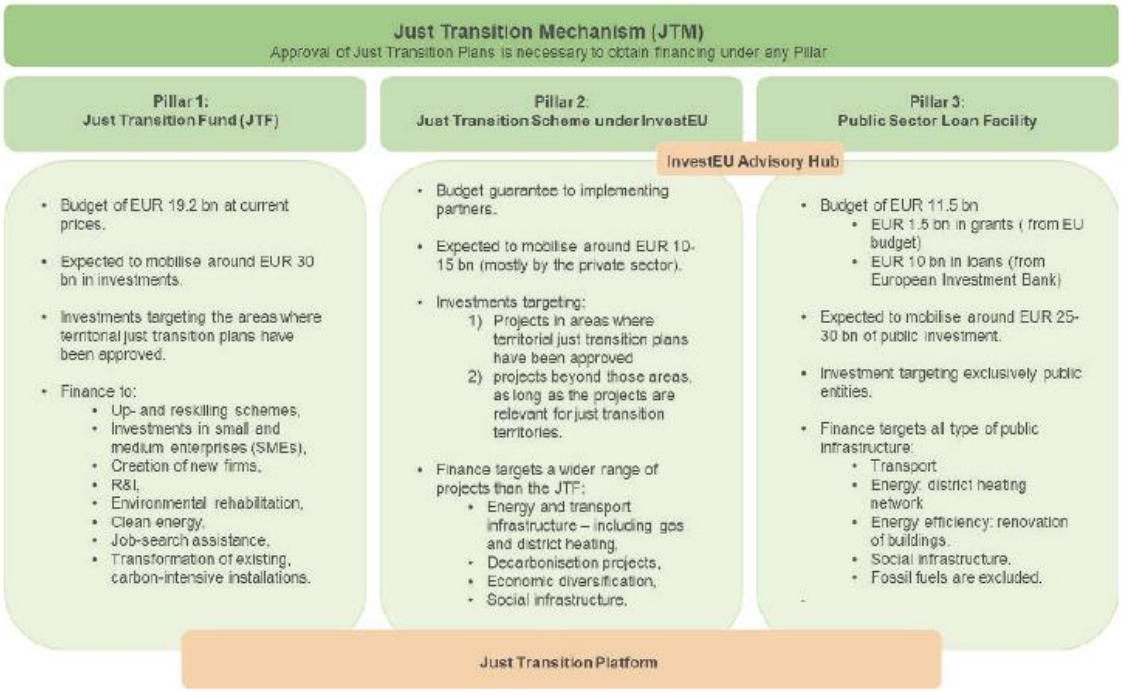
Globally, the International Labour Organisation (ILO) played a pivotal role in the development of just transition initiatives, with its 2015 'Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All', emphasising social dialogue and the alignment of environmental, social and labour policies. According to the ILO, 'a Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind'. As regards international climate negotiations, the Paris Agreement recognises the need for policies that safeguard workers and communities during the green transition, while numerous declarations, partnerships and calls to action have been developed since.

Within the EU, the European Green Deal (2019) underscored the importance of just transition strategies as a key lever for achieving climate neutrality by 2050. The EU's Just Transition Mechanism (JTM) provides financial support to reduce the impacts of the net-zero transition. To gain access to financial support from any of the three funding pillars of the JTM, Member States are required to submit territorial Just Transition Plans, tailoring measures to specific regional challenges and development needs.

[1] Citizen engagement means a two-way interaction between citizens and governments that gives people a voice in decision-making processes (adapted from African Union Development Agency, 2022).

[2] Stakeholder engagement refers to practices that an institution undertakes to involve *stakeholders* (individuals and organisations that either affect or are affected by the activities of an organisation or institution) in projects or activities (adapted from Thomsen, 2013).

Figure 1. Summary table of the Just Transition Mechanism



Source: Lara Miranda & Lázaro Touza (2023, p. 21).

Beyond the JTM, the EU has established several funding instruments to support just transition initiatives:

- The European Regional Development Fund (ERDF), aimed at reducing economic and territorial disparities while promoting a greener and more social economy.
- The European Social Fund+ (ESF+), which funds reskilling and upskilling programmes.
- The Recovery and Resilience Facility (RRF), which includes investments in environmental, social and digital projects. Spain is the only Member State that incorporated a specific Just Transition component (Component 10) in its National Recovery and Resilience Plan.
- The Social Climate Fund (SCF), developed in tandem with the ETS2 to provide support to vulnerable groups (suffering energy and transport poverty) that will be most affected by the expansion of the current Emission Trading System to small industry, heating and transport. Projects to be funded by the SCF will be included in the Social Climate Plans that Member States are expected to submit to the European Commission by June 2025. The SCF will mobilise €86.7 billion between 2026 and 2032 and is aimed at supporting energy efficiency, renewable energy and low-emission mobility projects as well as providing direct time-bound income support to vulnerable citizens. Support for Member States and recommendations for effective investments and public participation have been developed by the European Commission to help Member States draft their Social Climate Plans, but meaningful and ongoing participation (both in the planning and implementation phase of the Social Climate Plans) is key to ensuring a socially acceptable just transition. Funds will then be disbursed when targets and milestones are met. The SCF will be funded by Member States (25%), by the auctioning of allowances from the European

Emission Trading System, which includes the transport and building sectors (ETS2), and from 50 million allowances from the current ETS.

Despite progress, the integration of just transition principles within the European Green Deal (EGD) has been uneven, with some policies referring to just transition objectives without further guidance. Initiatives like the JTF and the SCF are expected to help address the regressive social impacts of decarbonisation policies. Adopting a framework guided by the Leave No One Behind (LNOB) principle could better embed the social dimension within the European Green Deal (EGD) and, arguably, within that of the Clean Industrial Deal. Additionally, an enhanced Just Transition Framework is needed to meet increasingly ambitious climate goals, particularly if the EU adopts a 90% greenhouse gas emission reduction goal by 2040.

2. Spain's just transition

Climate change is perceived as a the second most important threat to the world by Spanish citizens (after armed conflicts). Abundant renewable resources and technological know-how have allowed Spain's energy transition to make rapid progress, especially in terms of the deployment of renewables and the phase-out of coal. The share of coal in the electricity mix fell from 14.3% in 2018 to 2.8% in 2022, reducing greenhouse gas (GHG) emissions from coal-fired power generation by nearly 80%, according to the Just Transition Institute (2023). However, increasingly ambitious climate policies, other pressing concerns and a finite pool of worry can hinder both accelerated climate action and its public acceptance.

Some regions are opposing or delaying the implementation of climate policies as well as the deployment of renewables. To address the socioeconomic impacts of climate action, Spain has put forth numerous just transition policies and instruments. By 2019 Spain had adopted its Strategic Energy and Climate Framework. Within this, the National Energy and Climate Plan (NECP) and the Climate Change and Energy Transition Law both refer to just transition. Additionally, Spain's Strategic Energy and Climate Framework developed the first Just Transition Strategy, which will be updated in 2025.

More specifically, Spain's Climate Change and Energy Transition Law (Law 7/2021), which includes climate neutrality by 2050 as a goal, includes just transition in Title VI (Articles 27-29). It additionally mandates the development of Just Transition Strategies (JTS) and Just Transition Agreements (JTAs) as the implementation mechanism of the strategy. JTAs include the participation of devolved administrations (ie, regional governments) and stakeholders in Spain's fossil fuel and nuclear phase-out. The National Energy and Climate Plan (NECP) has recently been updated for the 2023-30 period. Spain's NECP includes measure 1.25, which refers to the Just Transition Strategy, the Just Transition Institute and an urgent action plan for mining regions, coal power plants and nuclear power plants, and calls for the instruments and measures used in implementation to be gender responsive.

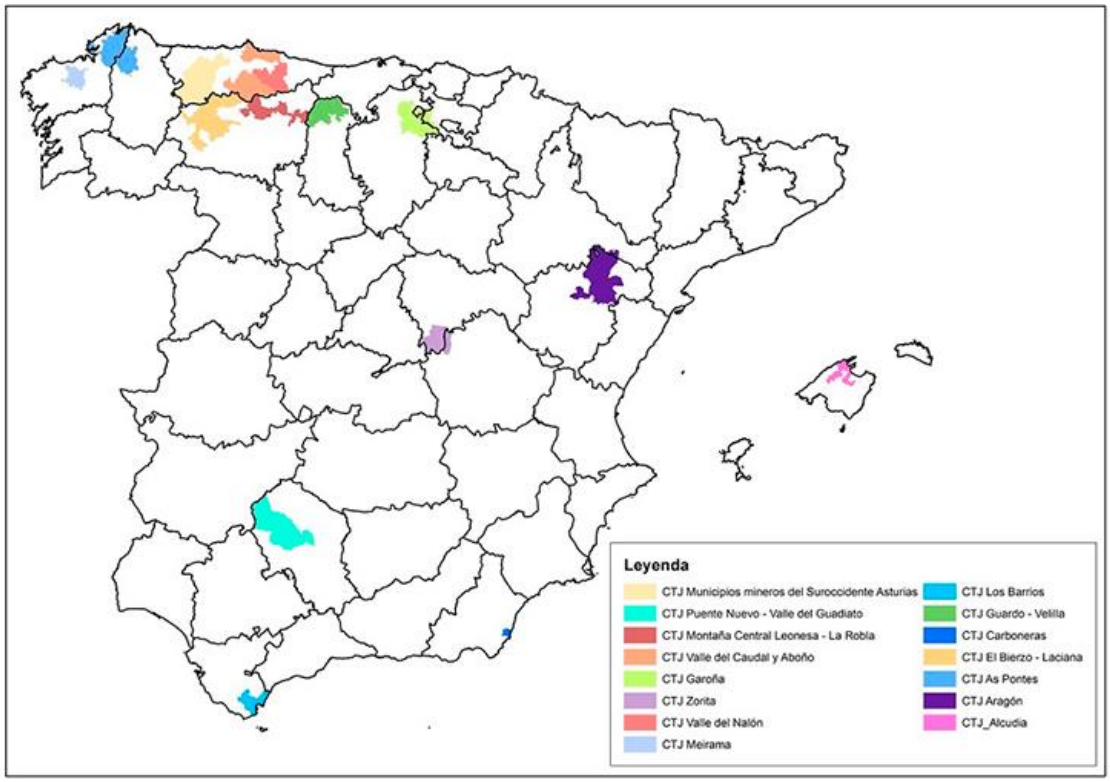
Spain's Just Transition Strategy is aligned with the ILO's guidelines for a just transition and with the Paris Agreement. It seeks to ensure that collectively agreed climate goals do not leave regions, sectors and communities behind, arguably helping to reduce

opposition to climate policies. This first Just Transition Strategy was designed to manage the impacts of decarbonisation on regions and people whose livelihoods depend on activities that will be phased out during the transition. Through its Just Transition Strategy, Spain strives to: support vulnerable regions and people, ensure the benefits of the transition are shared fairly and enhance public participation and stakeholder engagement. Just Transition Strategies are five-year plans with specific objectives and measures. Spain's JTS, which can arguably be considered one of the most advanced globally, is said to enable an ongoing and scalable transition process. It focuses on employment creation, upskilling and reskilling, promoting economic diversification based on local resources and supporting vulnerable groups such as women, youth, rural populations and traditionally marginalised communities.

A key institution in Spain's just transition governance framework is the Just Transition Institute (ITJ), which was established in 2020 under the Ministry for the Ecological Transition and Demographic Challenge (MITECO in its Spanish acronym). Its origins can be traced back to Spain's response to EU regulations on state aid to the coal industry. Coal restructuring began in the 1990s, driven by the need to comply with rules under the European Coal and Steel Community Treaty and subsequent EU regulatory frameworks. Decision 2010/787/EU stated that aid to cover production losses received by Member States would be considered compatible with the internal market if subsidised coal mines were included in a closure plan whose deadline was 31 December 2018. That Council decision underlined the need for Member States to address the socio-economic impacts of mine closure. Some of the instruments used by Spain to deliver a just transition include:

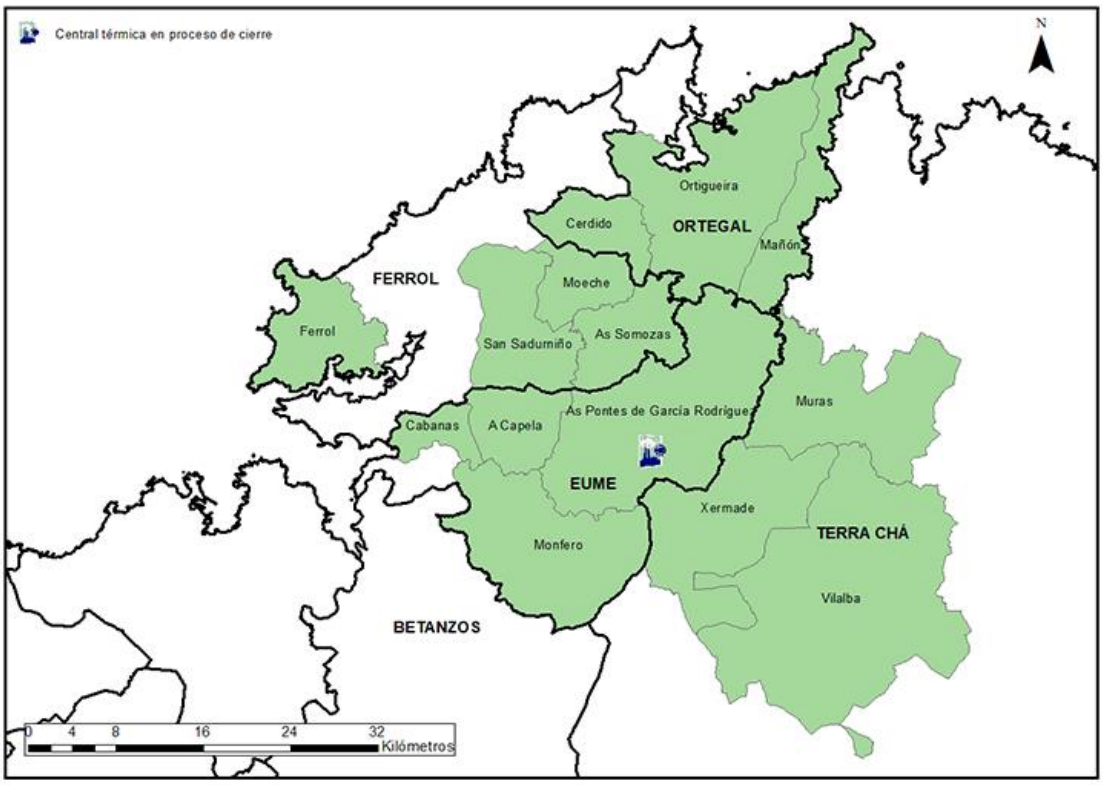
- Urgent Action Plans: reskilling programmes, early retirement schemes and business incentives for the most affected regions. The first such initiative was the Framework Agreement for a Just Transition for Coal Mining and the Sustainable Development of Mining Regions for the period 2019-27, signed in 2018 by the government, the trade unions and the main coal mining employers' organisation (*Federación Nacional de Empresarios de Minas de Carbón – Carbunión*).
- Just Transition Agreements: a co-governance tool engaging national, regional and local stakeholders to develop economic opportunities and promote upskilling and reskilling of workers, among other initiatives. In total, 15 agreements have been signed covering 197 municipalities and eight Autonomous Communities, as the Spanish regions are known (see Figure 2). An example of a JTA (in As Pontes, Galicia) can be seen in Figure 3 below, where initiatives included funding coworking spaces for small and medium size enterprises (SMEs), building a logistics centre, the development of new tourist destinations, environmental restoration projects, supporting business projects such as a tyre factory and a cellulose recycling mill and the development of a renewable hydrogen plant, among others.
- Just Transition Tenders (*concursos de nudos de transición justa*): these enable grid access to be awarded to renewable and storage projects that limit environmental damage, prioritise local benefits (including reskilling and upskilling) and are located in former coal-dependent regions.

Figure 2. Just Transition Agreements in Spain



Source: Just Transition Institute.

Figure 3. Just transition agreement in As Pontes (A Coruña and Lugo, Galicia)



PROJECTS IN PROGRESS AS PONTES JTA

MUNICIPAL PROJECTS — 14 PROJECTS

€8 MILLION — 11 MUNICIPALITIES

- **Revitalisation of spaces for SMEs,** entrepreneurs and/or coworking in Cabanas and Moeche.
- **Construction of industrial building** for logistics centre at As Pontes.
- **Restoration of the Battery of San Felipe Castle** in Ferrol as a new tourist attraction hub.
- **Environmental restoration** of the pine woodland and dunes at Cabanas.
- **Rehabilitation of** municipal hostel and socio-cultural centre, linked to the coastal path of Camino de Santiago at Ortigueira.
- **Creation of the International Centre for Woodturning** in Xermade.
- **Centre for the Elderly at** Mañón
- **Social housing** at As Somozas.

MAJOR BUSINESS PROJECTS

Sentury Tire's smart tyre factory:
- >€500 million investment and 750 jobs.
- The factory will multiply the volume of traffic at the Port of Ferrol and will be located in the former Endesa coal mine.

Ence recycled fibre and virgin cellulose mill:
- €355 million investment and 150 jobs.
- The factory will be located on the site of Endesa power plant.

EDP and Reganosa H2Pole renewable hydrogen plant:
- €156 million investment and 60 jobs.
- €15 million in aid from the IDAE (H2 Pioneers).

1,300 MW renewables from Endesa:
- To be mostly used for supplying Galician industries, such as Alcoa and Sentury.
- Creation of a wind power maintenance logistics centre for its installations in Spain.

Source: Just Transition Institute (2024).

As for the impact of Spain's JTS so far, Figure 4 summarises its main features and achievements.

Figure 4. Spain: four years 'towards a just energy transition'

New institutional framework	Establishment of the Just Transition Strategy & Just Transition Institute.
Employment	Support for schemes to preserve employment and retain affected workers. Development of support programmes for local businesses and entrepreneurs.
Innovative governance mechanisms	15 Just Transition Agreements, Just Transition Tenders in renewable energy nodes (eg, Teruel), 1,300 trained workers and self-generated energy for 3,800 beneficiaries.
Environmental restoration	3,700 hectares of former mining facilities have been restored, for which €200 million was disbursed, prioritising the employment of former miners.
Municipal development	Support for 200+ municipal projects with €203 million in grants for entrepreneurship, tourism, health infrastructures and social housing, among others.
Cultural programme	Dinamiz-ARTj programme, with 1,400+ applications for performances in 136 municipalities.
Consultations & workshops	Just Transition Agreements were signed with local and regional governments. 800+ actors have submitted proposals. Follow-up meetings have been held in the different territories. Support was provided to 197 municipalities for submitting project proposals.

Source: Just Transition Institute (2023).

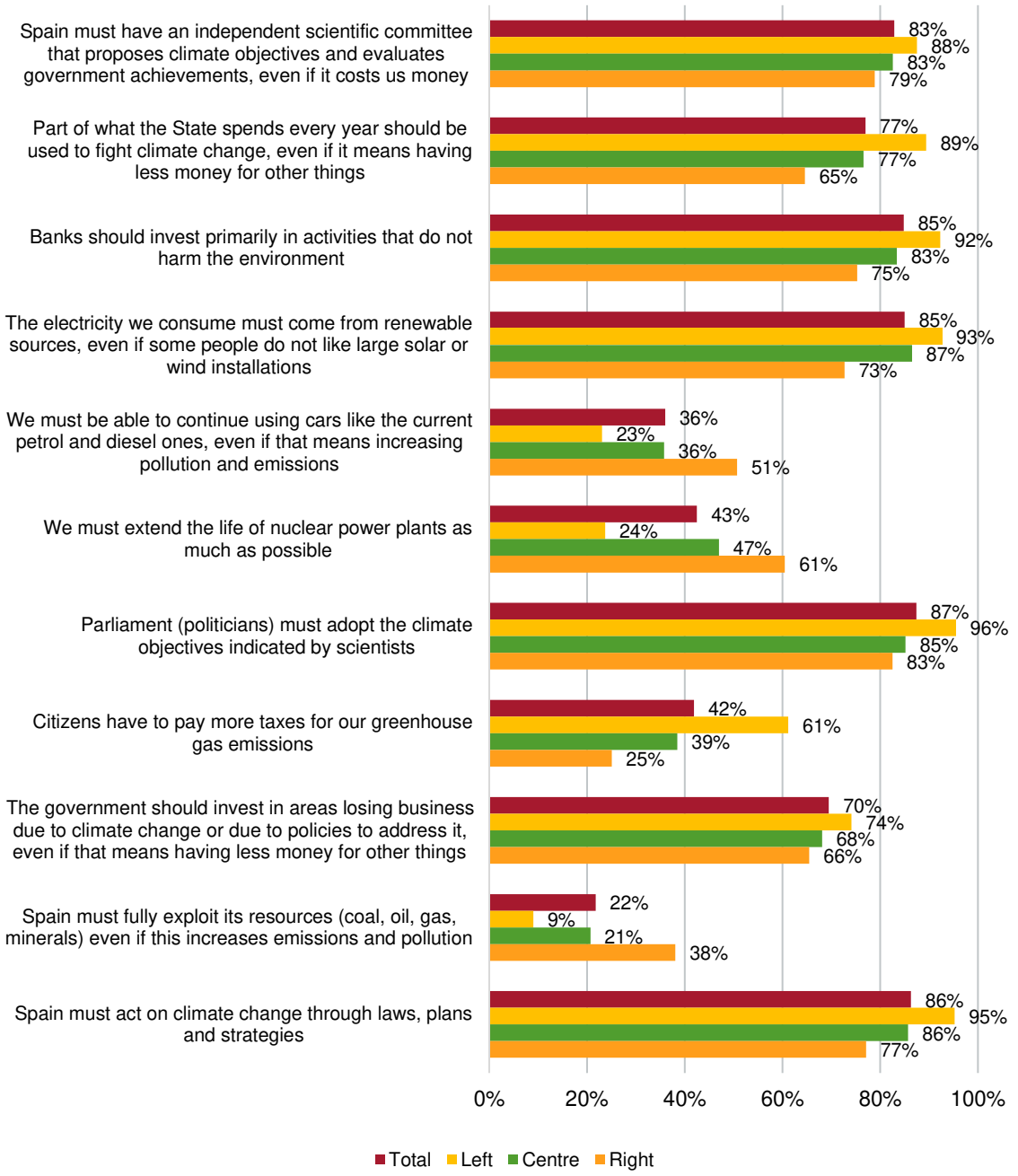
3. Citizen support for a just transition in Spain

To understand citizen support for a just transition in Spain, a specific question on this topic was included in the Elcano Royal Institute's 2023 survey on citizens and climate change (Lázaro-Touza, González Enríquez & Martínez, 2024). Using a five-point Likert scale, a representative sample of the Spanish population was asked about the extent to which they agreed (from strongly agree to strongly disagree) with the statement 'the government should invest in areas that stand to lose economically due to the impacts of climate change or due to climate action, even if this means having less resource for other projects'. Note that the question seeks to understand respondent support for a broad concept of just transition that encompasses both just adaptation (as it refers to public investment in areas affected by climate impacts, see Paavola & Adger, 2006) and just transition as defined by the ILO (as it relates to support for public investment in areas that will be affected by climate policies).

Almost 70% of respondents stated they agreed or strongly agreed with this statement, with support for just transition investments being the policy that garnered the highest consensus across the ideological spectrum compared with other policy statements (see Figure 5 below). This just transition-related question was one of the many items included in a survey to assess the level of knowledge, concern, attitudes, intentions and

behaviours of Spanish citizens regarding climate change and the technologies, policies and measures proposed to address it.

Figure 5. Agreement with climate policies according to ideology (% 'Strongly agree' + 'Agree', N = 1,000)



Source: Lázaro-Touza, González Enríquez & Martínez (2024).

To analyse the independent variables that were statistically significant in increasing the likelihood of accepting government investments in just transition initiatives, a logistic regression model was used. In the model, $P\ (Y_i = 1)$ is the probability that a citizen supports a just transition in Spain, x_i^T are the explanatory variables of the model, and β are the coefficients, which are estimated using the maximum likelihood method.

$$P(Y_i = 1) = \frac{e^{X_i^T \beta}}{1 + e^{X_i^T \beta}}$$

The explanatory variables included in the analysis are designed to capture a range of attitudinal, socio-economic and demographic factors that could potentially affect citizen support for the just transition. These variables are detailed in Figure 6.

Figure 6. Definition of variables

Variable	Definition
Support for a just transition[3]	Support = 1 (strongly agree + agree) Non-support=0 (neither agree nor disagree + disagree + strongly disagree)
Sex	Female = 1 Male = 0
Age (>18)	Age in years (quantitative variable)
Ideology	Self-reported ideological positioning (scale from 0, left, to 10, right): Left = 0+1+2+3 Centre = 4+5+6 Right = 7+8+9+10
Size of the municipality	T1: up to 25,000 inhabitants T2: 25,001-50,000 inhabitants T3: 50,001-100,000 inhabitants T4: >100,000 inhabitants
Income	I1: Low income: < €1,081[4] I2: Middle income: €1,081-€2,000 I3: Middle-high income: €2,001-€3,000 I4: High income: >€3,001
New Ecological Paradigm (NEP) Scale[5]	NEP1: <53 points (Low pro-environmental worldview) NEP2: 53-58 points NEP3: >59 points (high pro-environmental worldview)
Agreement	Agreement stands for a dummy variable indicating areas with just transition agreements (= 1) or areas without a just transition agreement (= 0)

Source: the authors.

As shown in Figure 6 below, people on the left of the ideological spectrum, those living in smaller municipalities and those in the lowest income bracket are more likely to support public investments in just transition compared to wealthier individuals, those on the right of the ideological spectrum and those living in larger cities.

[3] Survey question: the government should invest in areas losing business due to climate change or due to the policies to address it, even if that means having less money for other things.
[4] Note that €1,081 was Spain's minimum gross monthly wage when the survey was conducted.

[5] The New Ecological Paradigm (NEP) scale (Dunlap *et al.*, 2000) measures the pro-ecological worldview of interviewees by presenting them with 15 statements and asking about their agreement/disagreement with the statement using a five-point Likert scale. The lower the score (which ranges from 15 to 75 points), the lower the pro-ecological worldview of respondents.

Figure 7. Modelling results[6]

Variables	Coefficient (standard error)
intercept	0.5955* (0.3500)
Sex	-0.0408 (0.1444)
Age	-0.0013 (0.0044)
Ideology	
Centre	0.0639 (0.1664)
Left	0.3516** (0.1821)
Size of municipality	
T2	0.0877 (0.2383)
T3	-0.4494** (0.2225)
T4	-0.2037 (0.1637)
Income	
I1	0.6359** (0.2653)
I2	0.3216 (0.2359)
I3	0.2639 (0.2545)
Agreement	-0.1969 (0.1997)
Number of observations	896
Hit rate[7]	69.6%
Log-likelihood	-605.1293

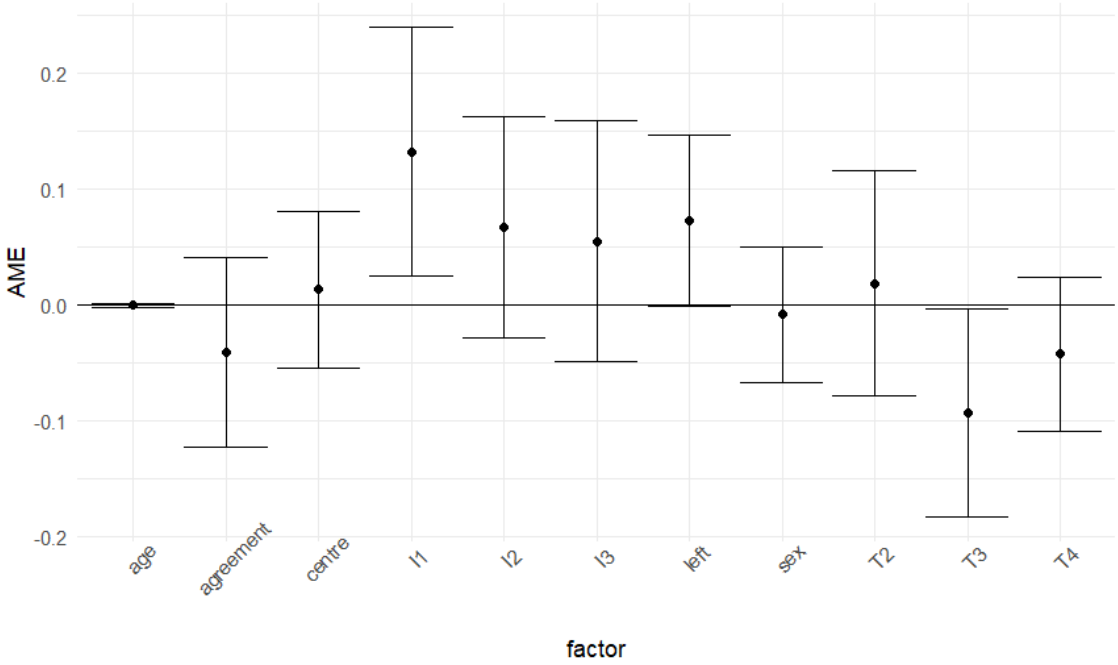
Note that * indicates the variable is statistically significant at 5% level. Note that ** indicates the variable is statistically significant at 10% level. There are 104 missing values because respondents did not provide an answer to the income and ideology questions. Source: the authors.

[6] The NEP scale has not been included in the estimated model, because NEP scale and ideology are highly correlated. Tests have been done with different clustering of the municipality size, income and NEP Scale variables, but the differences in the results were not statistically significant.

[7] Percentage of the observations that is correctly predicted by the model.

The average marginal effects depicted in Figure 8 indicate that people self-reporting on the left of the ideological spectrum are 7.3% more likely to support a just transition compared with those on the right of the ideological spectrum. Low-income interviewees, earning less than €1,081 per month, are 13.21% more likely to support just transition policies compared with high income interviewees making more than €3,001 per month. Citizens living in larger municipalities (between 50,001 and 100,000 inhabitants) are 9.33% less likely to support a just transition compared with those who live in smaller municipalities (up to 25,000 inhabitants).

Figure 8. Average Marginal Effects (AME)



Source: the authors.

4. The future of just transition in Spain

Having analysed Spain's current just transition framework and acknowledging the existence of broad citizen support for the development of just transition policies in Spain, this section reflects on elements that could be considered in the upcoming Just Transition Strategy in Spain. The first JTS has largely focused on addressing the impacts of coal and nuclear phase-outs. The updated JTS is expected to continue addressing the impacts of fossil fuel phase-out while expanding its sectoral scope. The updated strategy is expected to be ready by the end of 2025, which provides a short (*circa* one year) window of opportunity to shape Spain's second Just Transition Strategy.

Spain's net-zero transition will require an accelerated phase-in of renewables in addition to phasing out fossil fuels. This transition can deliver a profound social transformation, particularly if it manages to address emerging resistance against renewable deployment through projects that foster local development and employment while contributing to reduce rural depopulation. However, to maximise socio-economic benefits, it is essential to promote the active participation of citizens and stakeholders and to develop long-lasting projects in regions in transition.

To address the challenges of renewable deployment, and provide regions in transition with locally-tailored economic opportunities, the Ministry for Ecological Transition and the Demographic Challenge (MITECO) organised several public participation sessions in March and April 2024. These sessions sought to co-create a shared vision for renewable energy deployment in Spain, ensuring that the transition is inclusive and considers local development needs. Key topics in these discussions included: (1) the deployment of renewable energy; (2) short and long-term employment opportunities; (3) gender equality and efforts to halt population decline in rural areas; (4) sustainable mobility; (5) energy efficiency and prosumers; (6) strengthening the 'community' and intersectoral discussions, reinforcing local identities and promoting collective work; and (7) public participation. The main takeaways from the sessions are summarised in Figure 9.

Figure 9. 'Listening & participation process: renewable energy and territory' (MITECO): key takeaways

SESSION 1 RENEWABLE ENERGY & TERRITORY: CHALLENGES AND OPPORTUNITIES

The transition must reconcile social, environmental and economic priorities while helping limit global mean temperature increases to 1.5ºC.

- Collaborative approaches are essential to trebling installed renewable capacity and doubling energy efficiency. Existing efforts remain insufficient, demanding significant consensus and transformation of production and consumption patterns.
- Recommendations: foster diverse stakeholder collaboration, include stakeholder perspectives in policy and project design and ensure data-driven decision-making to develop balanced solutions for renewable energy integration.

SESSION 2 THE SOCIAL DIMENSION OF RENEWABLE ENERGY PROJECTS

People must benefit from decarbonisation; territories must benefit from renewable energy installations: the greater and more evenly distributed the social benefits, the more appealing these projects will be to local communities, garnering greater support.

- Renewable energy can support sustainable local jobs, strengthen rural economies and reduce energy poverty through self-consumption initiatives and efficiency improvements. Women's role in the renewable sector to address depopulation was also highlighted.
- Recommendations: develop or strengthen the tools to analyse the social impacts of projects; prioritise local employment and self-consumption; improve women's participation through training and financial support; develop targeted interventions for vulnerable groups.

SESSION 3 RENEWABLE ENERGY AND THE DEMOGRAPHIC CHALLENGE

The term 'geographies of discontent' refers to territories with grievances, depopulation and limited access to services. There is a need to shift away from urban-centric perspectives, recognising that rural territories have their own views, needs and priorities. It is a complex process that must be approached holistically.

- Multi-level governance and local returns from renewable projects are essential to support rural areas. Energy communities need protection and continuity despite changes in government.

- Recommendations:
  - Social dimension: ensure transparency, active dialogue and consensus-building to improve rural wellbeing and prioritise female employment.
  - Local returns: establish agreements for equitable territorial representation in decision-making. Reinvest project returns from renewable deployment in the territory to halt depopulation.
  - Energy communities and large-scale developers: reach a balance between large-scale and small-scale developers and protect energy communities.
  - Skills and cooperation: support energy-related and communication capacity-building programmes.

SESSION 4 ENVIRONMENTAL & TERRITORIAL INTEGRATION OF RENEWABLE PROJECTS

The deployment of renewables must adhere to international, European and national biodiversity conservation commitments and ensure environmental and territorial integration.

- Good practices include: environmental zoning; development and dissemination of a centralised biodiversity data system; and the incorporation of biodiversity protection criteria along with territorial and social integration measures in renewable projects.
- Recommendations: deepen territorial and environmental planning, including the identification of degraded areas to minimise the impacts of renewables on biodiversity; strengthen the systematic monitoring of species and the interactions with human activities; consolidate Environmental Impact Assessments (EIA) and enhance adaptive management; use pilot areas like biosphere reserves for scalable solutions; and ensure transparency, communication and the participation of the territories involved.

SESSION 5 ONGOING PROJECTS: MONITORING IMPACTS & CORRECTIVE MEASURES

EIAs and monitoring are a tool for preventing and reducing environmental impacts of renewable deployment. They furthermore deliver long-term coexistence of renewables and biodiversity.

- Corrective measures and comprehensive zoning tools ensure project compatibility with the environment. Best practices include corrective and compensatory measures that enable recovery of degraded habitats or conservation plans for specific species, among others.
- Recommendations: strengthen participation processes to ensure the public is informed and can participate effectively in project authorisation processes, build capacity in public administrations (local and regional) to monitor compliance with EIAs and monitoring plans; advance digital tools for planning and monitoring (eg, visualisation tools, AI, radars, drones); and create a catalogue of best practices in different territories that could be adapted and replicated elsewhere.

SESSIONS 6 & 7 THE INTEGRATION OF RENEWABLES INTO LOCAL ECONOMIC ACTIVITY & THE SHARED RESPONSIBILITY OF PUBLIC ADMINISTRATIONS IN THE DEPLOYMENT OF RENEWABLE ENERGY PROJECTS

While renewable energy is a key tool for addressing the climate emergency, projects can face local opposition due to a lack of information, limited transparency and insufficient integration of local needs. Public administrations need to collaborate effectively to ensure equitable distribution of benefits and responsibilities.

- Renewables provide opportunities for rural development but, to reap their benefits, they require transparency, participation, outreach and engagement to develop locally acceptable projects. Transparency and public participation at an early stage in the project help avoid the feeling that the deployment of renewables has already been

planned and decided, with consultation being no more than a box-ticking exercise that could lead to a 'closed project' effect.

- Recommendations:
  - Territorial distribution: prioritise the use of degraded areas and develop equitable zoning strategies to optimise land use while avoiding conflicts with existing economic activities.
  - Local empowerment: create business and industrial hubs around renewable energy generation sites and promote local employment through targeted training programmes and incentives for local suppliers.
  - Public administration support: support measures for local authorities to participate in energy planning and encourage collaboration between administrations to improve governance and coordination.
  - Energy communities: invest in developing energy communities to ensure residents have a stake in renewable projects, fostering trust and long-term engagement.
  - Innovative approaches: develop mapping tools to include social and environmental criteria in project planning and adopt measures to ensure projects meet the needs of local economies.
  - Best practices: provide communities in transition with access to the best information available, including scalable projects and initiatives that have been developed in other territories.

Source: the authors based on MITECO (2024).

Given the information discussed above on both the supply and demand for just transition policies (measured though the support for these policies through the Elcano survey), the increasingly severe impacts of climate change and the very ambitious renewable deployment goals Spain has set itself under its updated NECP, the future just transition strategy could include at least eight initiatives.

First, *stay the course on a just transition* for the phase-out of fossil fuels while expanding its focus. This would mean including in its remit a broader set of economic sectors that are increasingly affected by climate change (and that would therefore benefit from a just adaptation)[8] and by climate policies. These sectors would include those mentioned in the first JTS: tourism, construction, industry, transport, waste and water management, and agriculture, among others. Second, *strengthen public engagement and governance* by promoting participatory decision-making processes involving citizens and stakeholders early on in the project planning stage and throughout the whole process. Transparent and targeted communication campaigns could arguably help bridge ideological divides and counteract opposition to climate policies. Third, *promote local empowerment* and socio-economic integration by prioritising investments in community-driven projects and prosumer promotion initiatives, particularly to support vulnerable groups and to create local employment opportunities. Enhance the technical and financial capacities of local authorities to encourage their active role in energy planning.

[8] Note that according to Paavola & Adger (2006, p. 594-595) fair (aka just) adaptation would entail 'the participation of affected communities in planning and decisions regarding collective adaptation measures' adhering to four principles: 'avoiding dangerous climate change, forward-looking responsibility, putting the most vulnerable first and equal participation of all'. Governments, the authors argue, fail to treat all citizens equally, with poorer citizens having fewer opportunities to voice their demands regarding climate action and being disproportionately affected by climate change compared to people in higher income brackets.

Fourth, promote *gender equality* by expand training programmes for women in traditionally male-dominated sectors, such as energy, while fostering female-led entrepreneurial initiatives in rural areas. Fifth, support *rural development* by integrating renewable energy projects in rural development plans to help limit depopulation and foster economic growth. Sixth, enhance *transparency* by developing robust monitoring mechanisms to evaluate the social, economic and environmental impacts of renewable energy initiatives. Establish a centralised repository of best practices and case studies to facilitate knowledge-sharing and the scaling-up of renewable projects. Seventh, strengthen *collaboration* across ministries, with devolved administrations, with other EU Member States and internationally to learn about other just transition practices, help disseminate Spain's experience and build a robust Global Just Transition Framework that can be adapted to suit local needs.

Lastly, *expand the concept of just transition* to include a just deployment of renewables, low carbon technologies and infrastructures. This could be done by: (a) taking into account the recommendations arising from the Spanish government public participation process on renewables (enhance Social Impact Assessments, facilitate community and stakeholder engagement early on in the project, search for economic opportunities for the regions where renewables are deployed, engage cities and towns in climate action and strive for a gender-responsive just transition); and (b) establishing new just transition governance mechanisms for the phase-in of renewables and other decarbonisation technologies and infrastructures (Escribano *et al.*, 2023).

4.1. A new instrument: the Just Renewable Transition Agreements (JRTAs)

The authors' proposal for a new just transition governance mechanism that could help to both meet ambitious renewable targets –in accordance with Spain's updated NECP– and address ongoing renewable deployment conflicts comprises the development of 'Just Renewable Transition Agreements' (JRTAs). The proposed JRTAs would be akin to the Just Transition Agreements in Spain for the phase-out of fossil fuels but designed for the phase-in of renewables and other technologies and infrastructures that will be needed to reach climate neutrality.

In a similar way to the JTA for coal and nuclear phase-out, JRTAs could involve the following steps:

(a) Reach an agreement between the national government, the regional and local governments as well as with renewable companies to work on a JRTA.
(b) Agree on the geographical scope of the JRTA.
(c) Undertake a diagnosis of the local impacts of the renewable, technological or infrastructure projects being proposed.
(d) Enable stakeholder engagement and organise public participation processes in the project ideation/planning phase.

(e) Identify investment, reskilling,[9] cultural, social or other projects that could occur in addition to renewable, technological and infrastructure deployment projects to enhance local acceptance of projects.
(f) Identify funding sources and support local governments and communities in accessing those funds.
(g) Develop and implement the JRTAs.
(h) Monitor and report on the implementation of JRTAs (including citizen and stakeholder perceptions of JRTA implementation) and build a database of JRTAs to help spread best practices and learning experiences in Spain and in other countries.

JRTAs could provide the private sector, communities and local governments involved in renewables and related projects with an institutional framework, a structured and transparent processes to design locally supported projects that consider the needs of communities while limiting opposition to renewables[10]. Drawing on best practices from CSOs and the private sector, JRTAs could be implemented under existing institutions, such as the Just Transition Institute or the *Instituto para la Diversificación y Ahorro de la Energía* (IDAE).

Conclusions

This paper has analysed just transition as a process by which the shift to a green and resilient economy –one that limits greenhouse gas emissions and adapts to the impacts of climate change– is undertaken in a way that is perceived as fair and inclusive; a just transition that provides job opportunities for workers and ensures sectors, regions and people are not left behind. The analysis has reviewed salient elements in the governance of just transition, from the ILO guidelines on just transition to the inclusion of the term and the development of partnerships on the matter spurred on by the Paris Agreements and international climate negotiations thereafter.

On an EU level, the European Green Deal (EGD) will continue to guide climate action in the current institutional cycle, although with a greater competitive and simplification focus and amid geopolitical and trade tensions. Implementing climate goals under the EGD will entail countering growing push-back against decarbonisation by some sectors, and social opposition to climate policies, both for the phase-out of fossil fuels and for the phase-in of renewable projects, technologies and infrastructures. Strengthening partnerships with likeminded partners and garnering greater support from citizens is recognised by the EGD as key in reaching climate neutrality, as is the need to develop just transition strategies. The EU has developed various mechanisms and instruments to support the just transition, allowing countries like Spain to allocate part of the funds from the Recovery and Resilience Facility to this end. However, the integration of just

[9] Despite the fact that, according to ECNO, progress regarding jobs in the renewable sector in the EU was significant in 2022, in Spain, CES (2024, p. 51) shows that, between 2011 and 2023, 'brown' job opportunities grew for people with lower levels of educational attainment while 'green jobs' were reduced. For people with higher levels of educational attainment, also in the 2011-23 period, the reverse was true; 'green jobs' have increased significantly and 'brown jobs' have been reduced. This trend should be monitored to provide opportunities for all in the low carbon transition and to avoid environmental elitism and disaffection with the low-carbon transition among people with lower levels of educational attainment.
[10] Projects like EUDEMON, expert analyses and CSO initiatives, among others, could help address conflicts arising from the deployment of renewables, feeding into the JRTAs.

transition across EU policies has been uneven to date. Looking ahead, the Social Climate Fund, developed to limit the impact of the expansion of the EU's ETS, is expected to help address opposition to climate action. The 2040 climate goal (which could strive for a 90% greenhouse gas emission reduction compared to 1990 levels if an agreement is reached at the EU level) could require expanding just transition governance and funding instruments to additional sectors that are required to reduce their emissions, as well as to sectors that will deploy their decarbonisation technologies and infrastructure in (renewable) resource-rich communities. As the impacts of climate change increase, so the demands for just adaptation could also be greater in the future.

Spain's just transition governance framework was presented as one of the most advanced in the EU and, arguably, the world, alongside that of France –whose ecological transition contracts inspired Spain's Just Transition Agreements– and Colombia. Just Transition is a core element of Spain's Strategic and Energy framework. This framework effectively integrates the just transition into Spain's Climate Change and Energy Transition Law and into its updated National Energy and Climate Plan. In addition, Spain developed its first Just Transition Strategy, which mainly focused on the coal and nuclear phase-out; a strategy that, according to the Just Transition institute, seeks to drive industrial policy design, foster economic development, provide job opportunities, support upskilling and reskilling of workers in regions in transition, ensure the benefits of the transition are shared and address the impacts of the transition in an inclusive manner (engaging citizens and stakeholders alike). These innovative governance instruments could help inspire other countries, in the EU and elsewhere, in the development of their own, locally adapted, just transition frameworks.

The Elcano survey results on the extent to which Spanish citizens support the allocation of public funds to just adaptation and just transition were also analysed. These results show that 70% of citizens support such an allocation. Not only does a large majority of respondents support a just transition than encompasses mitigation and adaptation, it is also the climate policy, out of a broad set of climate policies considered by respondents, that garnered the greatest consensus across the ideological spectrum. As for the variables that are statistically significant in determining whether the allocation of public funds to the just transition is accepted, respondents on the left of the ideological spectrum, those living in smaller municipalities and those in the lowest income bracket are more likely to support public investments in just transition compared to wealthier individuals, those on the right of the ideological spectrum and those living in larger cities.

Finally, the paper reflects on the future of Spain's Just Transition Strategy, which is set to be updated in 2025. Building on the first Just Transition Strategy, the updated strategy is expected to stay the course as regards the phase-out of fossil fuels and to expand the sectors covered by the just transition (industry, construction, tourism and agriculture, etc). Since decarbonisation goals in Spain's updated NECP are highly ambitious –requiring significant additional deployment of renewables, which have experienced opposition in some regions–, Spain could consider adapting its governance, support and engagement experience on just transition for the phase-out of fossil fuels to develop a new governance instrument for the fair and socially acceptable phase-in of renewables. This paper proposed the development of Just Renewable Transition Agreements (JRTAs). Stakeholder engagement and citizen demands such as those voiced during the

'listening and public participation workshops on renewables and territory' could be considered early on in the project design and then in the project implementation phase. Expert analyses and CSO initiatives, among others, could help address conflicts arising from the deployment of renewables, feeding into the JRTAs. Projects like EUDEMON, for example, promote cultural and systemic change by designing customised processes for managing the social and environmental conflicts that arise in renewable deployment through dialogue and mediation, promoting collaborative approaches to manage eco-social challenges.

While public concern about climate change as a global threat remains high, concern alone is insufficient to support the climate action needed to deliver climate neutrality. Policies must be actionable, clearly communicated and adaptable to regional needs. Progressive policies, regional analyses, peer influence and sustained engagement between all levels of government, citizens and stakeholders is essential to ensure policies are fair, reflect local realities and needs, and enhance climate policy acceptance (Lipari *et al*., 2024).