



Just Transition Platform Working Groups

Implementation Plan

April 2023

Table of contents

I.	Introduction	6
1.1.	Objectives of the Working Groups	6
1.2.	Composition and operation of the WG	6
1.3.	Objectives of the Implementation Plan	11
II.	Actions	13
	Action 1 – Develop resources to improve knowledge exchanges and to foster sharing of knowledge and lessons learnt on just transition	13
	Action 2 – Create a catalogue of selection criteria and guidelines for monitoring and implementing just transition projects	16
	Action 3 – Design a toolkit for communicating about the just transition with citizens and municipalities	20
	Action 4 – Establish a series of recommendations for effective social dialogue	25
	Action 5 – Produce a concept paper on the establishment and implementation of territorial socio-economic observatories	29
	Action 6 – Develop a checklist to measure the qualitative involvement of stakeholders in the transition and the TJTP implementation process	32
	Action 7 – Map methodologies on how to engage with vulnerable groups	35
	Action 8 – Develop a catalogue of best practice examples and key success factors of stakeholder collaboration at the sectoral and cross-sectoral level	37
	Action 9 – Develop a concept paper to advise public authorities on developing granular mapping of employment consequences	40
	Action 10 – Develop a toolkit to mobilise responses to the social impact of the transition	42
	Action 11 – Develop a good practice model of a Transformation Council	44
	Action 12 – Compile a compendium on good practices on energy transition governance in cross-border/interregional cooperation	46
	Action 13 – Develop a recommendation paper on CCU in just transition regions	49
	Action 14 – Develop a strategy paper for the governance of a CO ₂ infrastructure in the context of a just transition of the cement sector	51
	Action 15 – Draft a recommendation paper on strategies for increasing material efficiency and the utilisation of secondary steel	55
	Action 16 – Develop a strategy paper with recommendations on interregional research partnerships among JTF regions for green hydrogen for the chemical industry	57
	Action 17 – Develop a proposal for a JTM coordination platform on building of hydrogen infrastructure across JTF regions	61

III. Annexes.....	66
Annex 1 – Suggested guidelines/criteria for the selection of transition and green economy projects	66
Annex 2 – List of members of the Horizontal WG	70
Annex 3 – List of members of the Steel WG	71
Annex 4 – List of members of the Chemicals WG.....	72
Annex 5 – List of members of the Cement WG	73

Contact:**EUROPEAN COMMISSION**

Directorate-General for Regional and Urban Policy

Unit G1 — Smart and Sustainable Growth

B-1049 Brussels

E-mail: REGIO-JUST-TRANSITION@ec.europa.eu

Disclaimer:

The information and views contained in the present document are those of the members of the Just Transition Platform Working Groups on Steel, Cement, Chemicals and Horizontal Stakeholder Strategy and do not reflect the official opinion of the European Commission. The Commission does not guarantee the accuracy of the information contained therein. The Commission nor any person acting on the Commission's behalf may be held responsible for the content and the use which may be made of the information contained therein. Reuse is authorised provided the source is acknowledged and the original meaning or message of the document is not distorted. The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

I. Introduction

1.1. Objectives of the Working Groups

As a cornerstone of the [Just Transition Platform](#) (JTP), **four dedicated Working Groups (WG) for carbon-intensive regions** have been established in November 2021. These groups bring together all stakeholders from across Europe with a common concern for the people and places affected by the transition to a climate-neutral economy.

The WG for **Steel, Cement and Chemicals** each have a focus on a specific carbon-intensive sector that is heavily impacted by the transition, while a fourth Working Group focuses on **Horizontal Stakeholder Strategy**.

Through principles of problem-solving, advocacy and stakeholder inclusion, the WG provide a forum for strategic exchange on challenges shared by stakeholders involved in the transition process in carbon-intensive regions. They aim to:

- establish and strengthen networks of stakeholders;
- develop a common vision of the just transition for all people involved in the process;
- collect and share knowledge and good practices on challenges, impacts and strategies;
- find practical solutions and tools to tackle local challenges and mitigate the adverse effects of the transition process; and
- support the European Commission in identifying and developing inclusive approaches to the transition in carbon-intensive regions.

The sectoral groups focus on challenges and perspectives for their respective sectors. They aim to ensure that the decarbonisation of the respective industry happens in a fair way, leaving no one behind. The horizontal group will tackle common, cross-thematic issues in the most-affected regions and engage all stakeholder groups.

1.2. Composition and operation of the WG

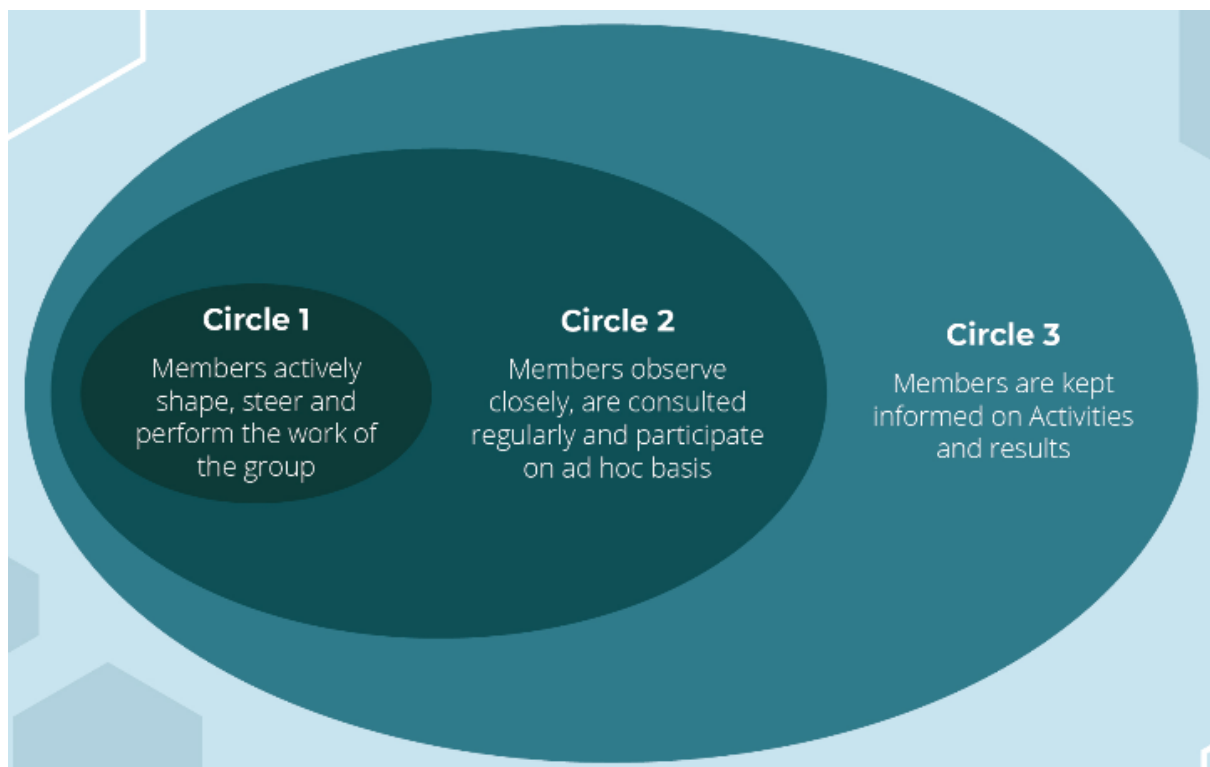
The WG' members come from national, local and regional authorities, associations representing regional, local, urban and other public authorities, organisations representing economic and social partners, and bodies representing civil society, such as non-governmental organisations.

Table 1: Categories of stakeholders in WGs

Stakeholder group	Description
Member States' authorities	These are national authorities from the EU27, such as ministries or national agencies.
Local and regional authorities	These are regional authorities, national representatives of local authorities, local authorities representing cities and urban areas, or other bodies organised at national, regional or local level and authorities representing the territories covered by Territorial Just Transition Plans (TJTP) with relevance for the specific carbon-intensive sector(s).
Associations representing regional, local, urban and other public authorities	These include associations representing higher educational institutions, educational and training providers, think tanks, and research organisations active and knowledgeable in the field of just transition; as well as associations representing other public authorities having an active role or expertise in just transition matters, including public procurement offices, and bodies for the promotion of equal treatment established in accordance with Directives 2000/43/EC, 2004/113/EC and 2006/54/EC.
Organisations representing economic and social partners	These include social partners' organisations, in particular those active in just transition, associations representing stakeholders; association of chambers of commerce, associations representing business, financial sector actors, consultancies representing the general interest of industries and branches, active in the field of just transition, as well as representatives of the social economy; and associations representing thematic networks representing specific economic sectors.
Bodies representing civil society, such as non-governmental organisations	These are bodies involved in the development of just transition, taking into account representativeness, geographic and thematic coverage, management capacity and expertise; as well as organisations or groups that are significantly affected or likely to be significantly affected by the implementation of the just transition strategy.

Each WG has three 'circles' of members, as illustrated in the figure below. The first circle consists of up to 21 members who actively shape, steer and perform the work of the group. These core members also support actions of their WG in the implementation phase. A second circle of close observers participates in some of the group's work on an ad hoc basis and is consulted on a regular basis. The third circle is kept informed on Working Group activities and results of the work.

Figure 1: Circle of members of the JTP WG

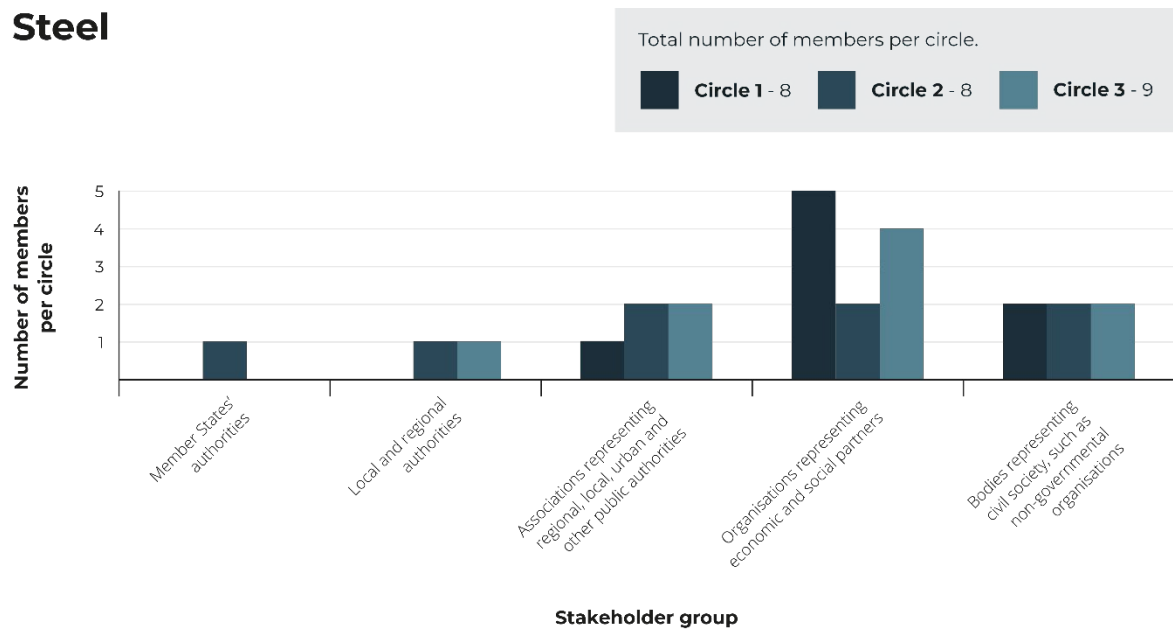


Members were selected following a call for expression of interest launched in September 2021. They are organisations/authorities, represented by one person (and if needed by an alternative representative) in the activities and meetings of the WG. In total, the four WGs are currently counting 143 members (25 in the Steel WG, 13 in the Cement WG, 25 in the Chemicals WG and 80 in the Horizontal WG).¹ The table below shows the breakdown of WG members per category of stakeholder and circle of members. The complete list of members of the four WGs can be found in Annex I.

¹ Within the Horizontal WG members have switched between first circle and second circle with two former circle 1 members moving into circle 2 and three active circle 2 members being promoted into circle 1.

Figure 2: Overview of the members of the WGs, per circle

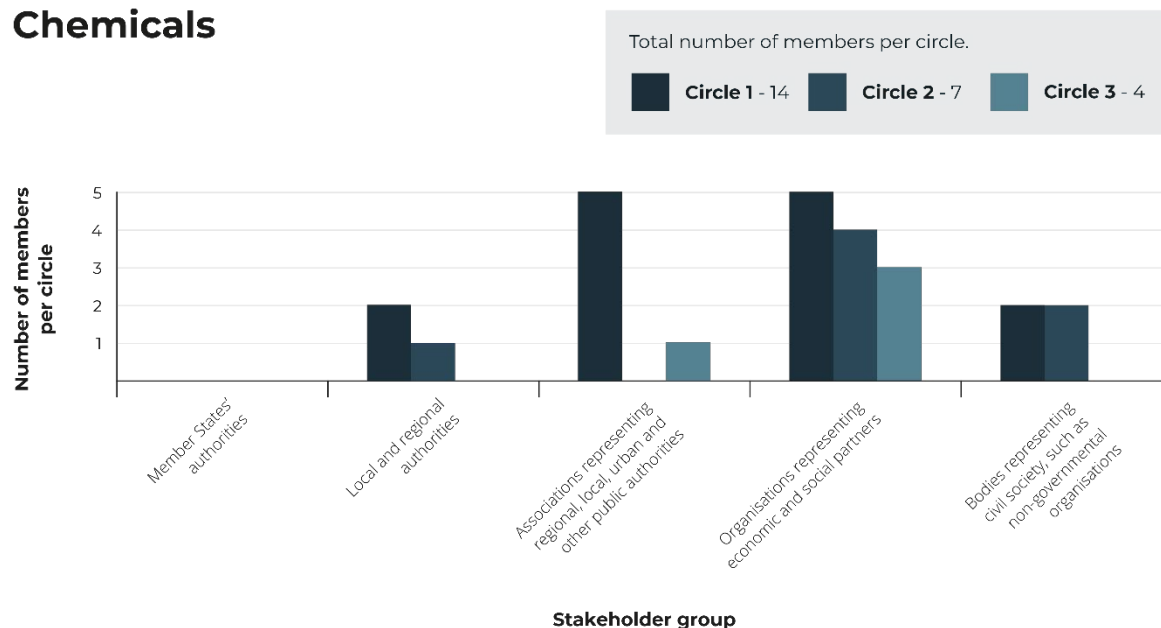
Steel



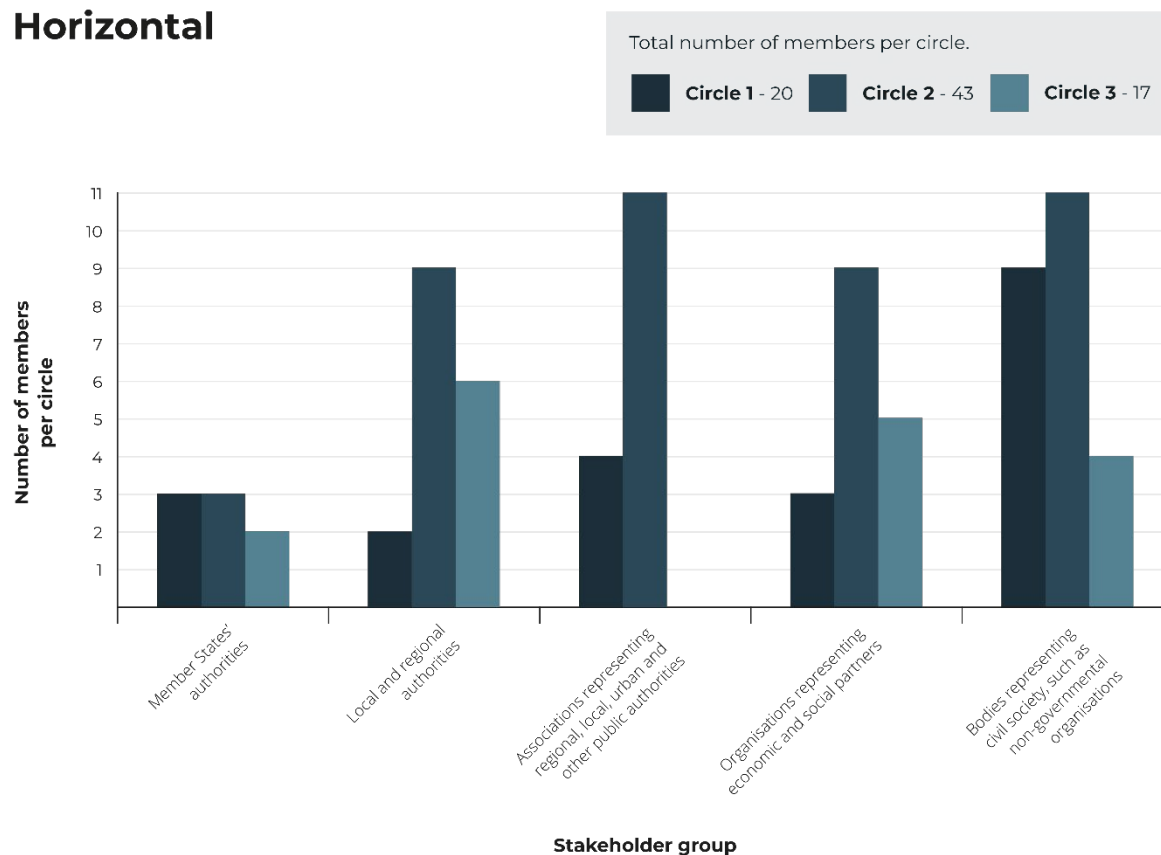
Cement



Chemicals



Horizontal



Each WG meets at least twice a year. These meetings are key milestones for the groups, bringing together participating stakeholders to define and launch actions that address their priority themes.

Following their official launch and first meeting alongside the JTP Meeting in November 2021, the groups began gathering inputs and working on Scoping Papers

outlining their focus areas and objectives. The four WGs' Scoping Papers have been finalised in May 2022 and can be found on the [JTP WGs webpage](#).

1.3. Objectives of the Implementation Plan

The common Implementation Plan describes the actions identified by the four WG to address the challenges and issues identified in their Scoping Papers. It outlines the rationale behind each action with regards to the focus areas of the Working Groups, as well as the concrete activities that the WGs will carry out to execute these actions. The Implementation Plan also indicates a provisional planning for performing each action (including, if relevant, intermediary outputs) and mentions the WG members involved in each action. As such, the Implementation Plan can be seen as the roadmap for the work of the WGs and their members.

Each WG started to draft their own Implementation Plan, elaborating on actions specific to the focus of their group. In the first draft of their Implementation Plans, the WG members identified and defined a provisional set of actions that could address and tackle the identified challenges and bottlenecks of the focus areas, as outlined in their WG Scoping Paper. Each action has one or more action leader(s), who act as 'owners' of a specific action, and they are responsible for leading and coordinating its development into the final version.

The four draft Implementation Plans were submitted to consultation of the second circle members of the WGs in December 2022. Feedback from the consultation was considered and integrated into the Plans.

The four draft Implementation Plans have been merged into this common Implementation Plan, which presents all the actions formulated by the four JTP WGs. Considering that many of the actions elaborated by the WG members are either cross-cutting or cross-sectoral, having a common Implementation Plan enhances the synergies between actions and the collaboration between members of different WGs. Moreover, some actions with similar objectives, which were initially elaborated independently by different WGs in their draft plans, have been merged for better results and impacts. Many actions presented in this Implementation Plan are cross-cutting and applicable to all Just Transition Fund (JTF) regions, while some actions may be relevant for specific sectors (i.e. steel, cement and/or chemicals). An overview of the actions presented in the common Implementation Plan can be found in the table below.

Table 2: Overview of actions

Action	Title	Contributing WGs	Target audience
Action 1	Develop resources to improve knowledge exchanges and to foster sharing of knowledge and lessons learnt on just transition	Horizontal	Public authorities, citizens, civil society organisations, economic actors, social partners
Action 2	Create a catalogue of selection criteria and guidelines for monitoring and implementing just transition projects	Horizontal	Public authorities
Action 3	Design a toolkit for communicating about the just transition with citizens and municipalities	Horizontal	Public authorities, civil society organisations, citizens
Action 4	Establish a series of recommendations for effective social dialogue	Cement, Chemicals, Horizontal	Public authorities, employers and trade union organisations
Action 5	Produce a concept paper on the establishment and implementation of socio-economic observatories	Horizontal, Steel	Public authorities
Action 6	Develop a checklist to measure the qualitative involvement of stakeholders in the transition and TJTP implementation process	Horizontal	Public authorities
Action 7	Map methodologies on how to engage with vulnerable groups	Horizontal	Public authorities
Action 8	Develop a catalogue of best practice examples and key success factors of stakeholder collaboration at the sectoral and cross-sector level	Horizontal	Economic actors
Action 9	Develop a concept paper to advise public authorities on developing granular mapping of employment consequences	Cement, Chemicals, Steel	Public authorities, employers and trade union organisations, academia
Action 10	Develop a toolkit to mobilise responses to the social impact of the transition	Chemicals	Public authorities, social workers
Action 11	Develop a good practice model of a Transformation Council	Chemicals	Public authorities
Action 12	Compile a compendium on good practices on energy transition governance in cross-border/interregional cooperation	Chemicals	Public authorities, chemical industry
Action 13	Develop a recommendation paper on carbon capture and utilisation (CCU) in just transition regions	Chemicals	Public authorities, chemical industry, academia
Action 14	Develop a strategy paper for the governance of a CO ₂ infrastructure in the context of a just transition of the cement sector	Cement	Public authorities, cement industry
Action 15	Prepare a recommendation paper on strategies for increasing material efficiency and the utilisation of secondary steel	Steel	Public authorities
Action 16	Develop a strategy paper with recommendations on interregional research partnerships for green hydrogen for the chemical industry	Chemicals	Public authorities, chemical industry, academia

Action 17	Develop a proposal for a Just Transition Mechanism (JTM) coordination platform on building of hydrogen infrastructure across JTF regions	Chemicals	Public authorities, chemical and energy industries, academia
------------------	--	-----------	--

II. Actions

Action 1 – Develop resources to improve knowledge exchanges and to foster sharing of knowledge and lessons learnt on just transition

Category: Horizontal

1. Issue to be addressed

The regions in transition to a green economy are facing similar challenges. Some regions have discovered good solutions to specific problems, others are still struggling to find the appropriate solutions. By improving exchanges and learning on just transition, regions will better learn from one another, and new solutions and synergies will be identified to overcome the challenges. Furthermore, knowledge exchange activities bring together all the people who are working separately on the JTM/TJTPs and make them aware of each other.

Moreover, the existing knowledge and lessons learnt need to be better promoted so that all regions in transition could benefit from them.

2. Objectives of the action

The objectives of this action are to:

1. **Improve the knowledge exchange activities** (by providing a short guide on how to implement knowledge exchange events across the EU and beyond);
2. **Better promote the knowledge exchange opportunities** (by providing a database with opportunities that finance knowledge exchange activities);
3. **Foster knowledge and lessons-learnt sharing** (by largely promoting the lessons learnt and knowledge exchange activities).

By reaching these objectives, well-informed stakeholders can be mobilised and give learning incentives to less advanced regions, establishing valuable links between regions and improving the sharing of good practices. Actions will build on an analysis, which will look at:

- what is useful for stakeholders (their needs);
- what are the existing available sources; and
- what could be the features of the tool/database which respond to their needs.

3. Outputs

Expected outputs to come out of this action are:

1. A **short guide** on how to implement knowledge exchange events across the EU and beyond (including guidance on how to organise meaningful and targeted exchanges and peer-to-peer exchanges based on good and bad practice examples);
2. A **database with funding opportunities** for knowledge exchange activities to be integrated into the JTP website;

3. A **database of regions** available to share their best practices and host exchange activities.²

Moreover, WG members could explore the possibility of developing a funding strategy to blend public and private funding as part of the outputs of this action.

4. Implementation

Along the three expected outputs, there will be three key implementation steps under this action.

1. Development of a short guide on how to organise knowledge exchanges events, based on previous good and bad experiences and at least one exchange activity organised in 2023: the team will conduct online research on work already done and previous experiences of regions in transition participating in exchanges activities.³ Volunteers from regions in transition that will organise knowledge exchange events in 2023 will be interviewed so that the best (and worst) practices and lessons learnt could be added in the guide. In collaboration with the communication team, the guide will be designed to be attractive and will be widely promoted.
2. Research for opportunities that fund knowledge exchange events: online research will be conducted on different websites, especially European Union websites, in order to find financing opportunities for organising knowledge exchange activities. Also, the team will actively identify existing opportunities on different events and will receive suggestions from other volunteers.
3. Development of a repository with information on knowledge exchanges, best practices and lessons learnt. In collaboration with the communication team and those responsible for managing the JTF website, an assessment will be made to determine whether a section on the JTF online platform could be designed and created and all the outputs presented before could be published on the respective online platform. All the other teams would contribute to this online section with the outputs provided, different materials and suggestions.

All outputs should be accessible for all sorts of stakeholders, including small municipalities, employment agencies, and youth for a who can then also become active with participating in or organising knowledge-sharing activities/events. Once ready, they should be promoted to stakeholders in the just transition area and through contacts available through the WG.

5. Stakeholders to be involved

The successful implementation of the actions is based on the collaboration with all WG members and action groups under the other focus areas. The cooperation with the communications team is essential for the implementation of the online platform. All three circles of the WG are to be involved in the promotion of the online forms in order to identify relevant stakeholders.

6. Expected impact of the action

The stakeholders in the regions in transition will be able to find out easier about knowledge exchange opportunities. Thus, more opportunities will arise for advanced regions to share their best practices and lessons learnt with catching-up regions in transition. Stakeholders

² Including regions who participated in EU technical assistance and exchange programmes (e.g. START, exchangeEU, JTP TA, TARGET etc.)

³ E.g. through exchangeEU programme and Cities affiliations

will be able to implement more impactful exchange activities by following the guide developed, so that, eventually, better solutions for a just transition will be identified and implemented in regions.

7. WG members involved

Action Leader: Valea Jiului Society

Contributors: Trakia University, Forschungszentrum Jülich, EURADA, Pernik Municipality, Digital Communication Network Hub Southeast Europe, Coal Commission Secretariat at Eszterházy Károly Catholic University.

Inputs from second circle members:

- [H2020-AURORAL](#) interoperability middleware and digital environment to integrate solutions: H2020-AURORAL could provide examples for knowledge exchange in the field of innovation and investment in regional scale Smart Communities' solutions.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action. Each activity will have different sub-activities and draft outputs will be presented to the involved WG members for feedback and suggestions so that the final deadlines can be met.

Table 3: Indicative timeline of steps

When	What
November 2023	Short guide on how to implement knowledge exchange events across the EU and beyond: the development of a brief guide on how to organise knowledge exchanges events based on previous experiences and at least one exchange activity organised in 2023.
May 2023	Funding opportunities database: research for opportunities that fund knowledge exchange events.
December 2023	Knowledge exchange section on the JTF website: Development of a repository with information on knowledge exchanges, best practices and lessons learnt, where the guide and the different online form will be uploaded.

9. Links and synergies with existing initiatives and projects

Strong links with other initiatives exist such as the [exchangeEU programme](#) and the [resources/best practice examples](#) developed under the Initiative for coal regions in transition. Further connections could be made with the ongoing project on [Functional Areas in European Union](#) developed by the European Commission and the World Bank (focused on functional areas, but also functional areas in transition).

Action 2 – Create a catalogue of selection criteria and guidelines for monitoring and implementing just transition projects

Category: Horizontal

1. Issue to be addressed

The TJTPs are all quite general documents (roughly between 20–25 pages long), only giving general indications of the direction the region will be heading in. Frequently, regions are not fully prepared for the green transition, due to the enormity of the undertaking and sometimes having low capacity to scope, develop and implement projects (especially in regions with smaller municipalities and which are predominantly rural). On the one hand, the transition process is taking place extremely quickly (taking into account that it is an administrative, bureaucratic and political process with public consultation aspects). On the other, it is going too slow considering the emergency of the climate crisis.

Many regions joined the just transition process not long ago (in the past two years since the JTM was established) and frequently there has been an extreme and rapid mental shift in the political approach in these regions (from 'coal forever' to a green transition), which signifies that often resistance and lack of knowledge on green transition remain important aspects influencing the process.

The funding from the JTF is definitely not sufficient for the actual transition needs of the regions. In some regions (especially the larger ones, more important politically and with large coal-related industries), such as Upper Silesia (Poland) or Heves (Hungary, around the Mátra Power Plant), the funding will be supplemented by national funds from other sources and also from EU ones (such as from the Modernisation Fund, Innovation Fund, CF, ERDF and ESF), while smaller and less important regions will have to be more creative with getting funding to finance the process.

The political situation in many countries is unstable for transition and this will definitely influence the process. Issues can range from frequently changing governments, like in Bulgaria, through to anti-EU and anti-climate politicians in power (Hungary and Poland), to recurring pushes for coal prolongation (e.g. Poland) or coal-to-gas conversions (e.g. Hungary). Especially in Central and Eastern European countries, high levels of corruption add additional complexity to processes of project selection and implementation. There, the very limited involvement of civil society also creates problems because the preparation of the TJTPs was unusual, which was due to the requirement to have civil society participate in the process. Civic engagement needs to be continued and monitored during the project implementation and selection.

Finally, frequently there are low levels of knowledge about environmental issues, solutions and requirements among authorities on all levels. Thus, such aspects as environmental impact assessments or following the 'Do not significant Harm' or 'Polluter pays' principle are not at the forefront of their strategies, approaches and practices. For example, in many countries waste incinerators are treated as 'ecological', the circular economy concepts remain unknown, the economy remains as prioritised over ecological issues, and gas is considered to not emit greenhouse emissions.

All of these factors mean that it will be a challenge to:

- a) Develop a large amount and variety of projects that will enable the actual implementation of the plan. While many regions have some flagship projects that they have submitted as part of the TJTPs, **this does not mean that there is a**

comprehensive strategy ready concerning the process. To a large extent, there is both a need for larger projects that would encompass the whole region⁴ and provide the funding of smaller projects, especially community-led ones.

- b) Include projects of regional scope that will speed along the decarbonisation, develop an alternative economy and protect the ecology, but to also develop more local projects that will help smaller municipalities to move forward towards a green transition.
- c) Ensure continued participation of civil society in the just transition process in the selection, implementation and as recipients of funding.
- d) Avoid misappropriation of funding.

2. Objectives of the action

The objective of the action is, therefore, to design a selection criteria catalogue for public authorities that they could use in the selection process for just transition projects, and to design guidelines for the monitoring and implementation of the projects. This should provide public authorities that lack experience and capacity with concrete criteria that will help them make a diverse, objective and fair selection of projects – for JTF calls as well as others that incentivise a green transition.

3. Outputs

The output of the action would be a list of selection criteria that public authorities could use as guidelines for selecting just transition and green economy projects that can be realised by a variety of stakeholders. In Annex 1 is a suggested list of guidelines/criteria catalogue that spans three pillars and corresponding (sub-)criteria as well as pin-pointers to the 'must have' and 'nice to have' criteria.

4. Implementation

The action will be implemented based on [Bankwatch's Methodology for project implementation](#), that provides support for the monitoring and evaluation of project selection and project implementation processes.

Good project selection involves ensuring that the process is *transparent* and based on *clear and well-informed criteria* resulting from the various conducted analysis and diagnoses of the region. A wide representation of relevant stakeholders in the decision-making and appraisal bodies should be ensured. The *project selection criteria should be set out in the implementation documents*, and they should be consistent with the relevant plans and analyses prepared for the region, indicating what priority projects will be supported to enable achieving the expected results. The *assessment process should also be described in the implementation documents and designed in such a way that enables making well-informed and objective decisions on which projects meet the criteria and can receive funding*. Appraisal criteria should be made *publicly available and easily accessible* to all interested applicants. Support should be provided to applicants so that interesting projects can be put forward even by stakeholders that have less experience with proposing projects in such a form.

In order to ensure **good governance** during the implementation phase, there has to be *a clear, transparent and logical structure of the project implementation phase*.

⁴ e.g. economic re-development investment boosters, development of new value chains and triggering green investment, energy efficiency and RES boosters, building renovations, district heating and individual heating re-development projects, re-purposing of former mining areas, etc.

Upon the completion of the initial project appraisal and selection stage, this stage must be closely followed by ongoing project monitoring and *ex post* evaluation of the progress of specific projects and of the entire process. To ensure good monitoring of the projects, it is important that the monitoring body be made up of a wide variety of representatives of different stakeholders, who will focus their attention on various aspects of the project implementation.

In addition, stakeholders from outside this body should also be provided with opportunities to voice their feedback on the project implementation process. Furthermore, easy access to all relevant information concerning project progress has to be ensured on a regular basis for all interested parties, fostering accountability.

The monitoring body should have a clear scope of activities and responsibilities and be run in a transparent and structured manner. It is also necessary that there be clear decision-making procedures, ensuring accountability.

Another important aspect of implementation governance is ongoing evaluation of the entire process and its specific stages, keeping in mind that the just transition of such regions will last years if not decades, with new funding options probably being made available along the way. It is necessary to set clear indicators that can show whether progress is being made in reaching the goals set in the TJTP.

Project streamlining should be adjusted to address ongoing analyses of the process, with attention being paid to what can be done to better answer the needs of the region as the situation changes and time passes.

5. Stakeholders to be involved

The primary target group of this activity are the authorities, institutions or bodies in a given country and/or region that are responsible for preparing project selection criteria and project evaluation processes.

However, the action needs to include all relevant national and regional stakeholders in a participatory and inclusive process of preparing project selection criteria and the project evaluation procedures. This is especially true for the Monitoring Committees that will be set up with the purpose of making decisions regarding European fund spending. It would be recommended that, since Monitoring Committees are set up to deal with all the funds within the regional operational programmes, separate WG be set up to deal specifically with the just transition region funding. To be in line with the programming process, these Monitoring Committees should include local and regional stakeholders representing civil society, trade unions, SMEs, affected communities and groups, etc.

6. Expected impact of the action

The expected impact of the action is the creation of comprehensive project selection criteria that take into account a wide variety of indicators to ensure a just transition to a zero-emission economy. It will allow for raising ambition in the regions and ensuring that the funds are spent in a way that is in accordance with the set just transition goals.

7. WG members involved

Action Leader: Central and Eastern European (CEE) Bankwatch Network, CSD

Contributors: Midlands Region, EURADA, Pernik Municipality, Romanian Ministry, Greek Task Force for JTF of the Management Unit SA, Estonian Ministry of Finance, Coal Commission Secretariat at Eszterházy Károly Catholic University.

Inputs from second circle members:

- [H2020-AURORAL](#): inputs from H2020-AURORAL and joint investment road mapping for Smart Communities.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action.

When	What
January 2023	Preparation of publication on project selection criteria (Bankwatch and CSD) taking into account comments from second circle consultations.
February 2023	Publication.
Throughout 2023	Advocacy of proposed project selection criteria at events, conferences, workshops, trainings among local, regional and national authorities responsible for the just transition process in their respective countries/regions.

9. Links and synergies with existing initiatives and projects

Better links should be established between these indicators developed in the framework of the assessment of the TJTPs projects and the indicators that measure the implementation of the measures and projects within the framework of the operational programmes, the revised NECPs and the other strategic instruments that national governments are developing to enable the green transition. This action tries to establish synergies and complementarities with other methodologies that have been developed for the assessment of strategic sustainable plans:

- The indicators for designing TJTP projects build on the [Center for the Study of Democracy's \(CSD's\) comparative methodology for evaluating the just transition process in Central and Eastern Europe](#) that CSD has previously developed and recently piloted for the assessment of the draft version of the Bulgarian TJTP.
- The indicators are also complementary with the methodology of [the Green Recovery Tracker](#) for assessing the effects of individual measures contained in national recovery plans and packages on the transition to a climate-neutral economy. The key indicator for the assessments there is the effect of any given measure on climate mitigation, i.e. emissions reductions, in the context of the transition to climate neutrality. CSD has piloted this methodology for the evaluation of the measures in the Bulgarian Recovery and Resilience Plan (RRP).
- The development of the second pillar of the indicators 'Decarbonisation ambition' is closely interlinked with the national long-term decarbonisation strategies for 2050 and the revision of the NECPs, as the second pillar indicators are national decarbonisation objectives.
- The development of the Bulgarian Roadmap for Carbon Neutrality until 2050 as a key reform of the Bulgarian RRP and its underlying scenarios that are currently being deliberated among the key Bulgarian energy stakeholders and civil society representatives as part of the Energy Transition Commission of the Consultative Committee on the implementation of the European Green Deal in Bulgaria could also enhance the complementarities between both processes and strategic documents.

The activities in this action draw on ongoing initiatives and activities undertaken by:

- CEE Bankwatch Network (within the scope of the RegENERateLIFE project)
 - [Just Transition Project Implementation Checklist](#);
 - Bankwatch member groups are or will be participating in the Monitoring Committees set up in the different CEE countries for the 2021–2027 fund spending horizon, which will also have some influence on the selected project selection criteria; and
 - is in direct contact with national and regional authorities responsible for managing the JTF process, and advocate for introducing project selection criteria with reflecting high climate and environmental ambitions and fair and inclusive procedures.

Action 3 – Design a toolkit for communicating about the just transition with citizens and municipalities

Category: Horizontal

1. Issue to be addressed

As identified in the [Horizontal Stakeholder Strategy Working Group Scoping Paper](#), communication about the transition and the just transition approach is vital. This means communicating, among others, about:

- climate change and socio-economic costs of inaction;
- the direction and timeline of the transition;
- the changes taking place, including the commitment to phase out fossil fuels for the reduction of greenhouse gas emissions and other negative environmental impacts; and
- the just transition approach and best practices.

Moreover, this communication must be targeted at and accessible to the various groups that are concerned and affected by the transition to climate neutrality.

Without such communication, use of just transition resources might not be optimised. In order to direct JTFs and support to where they are needed, the people and regions who are most impacted by the shift to climate neutrality must be engaged in designing and implementing the transition itself, meaning they also need to be consulted and actively engaged in the design and implementation of the process, with buy-in to the transition taking place. Communication will also boost awareness about the direction of travel and the just transition plans themselves, increasing investor certainty, accelerating the change and lowering overall costs.

Because just transitions take place at the local level, information should be targeted, and extra special care should be taken to communicate to those groups with the least resources, but who are most impacted by the transition, to engage proactively.

2. Objectives of the action

The objective of this action is to help primarily **local-level public authorities/municipalities** communicate about the just transition to citizens and to raise awareness among **citizens and municipalities** about what the Just Transition Fund does and how to make use of it. This will also mean assisting and guiding regional and national authorities to provide the relevant support to municipalities. The toolkit should inform and guide authorities in:

1. why it is necessary to communicate (showing benefits for all citizens and explaining the need for continued transition despite energy crisis);
2. what to communicate (relevant aspects of just transition);
3. who to communicate relevant aspects of just transition to; and
4. how to communicate (the right channels/media/events).

Furthermore, it should include a glossary/'ABC'/simple definition of what the just transition entails and how funding works, so JTF beneficiaries and citizens enjoy a common and accessible understanding of the basic principles of just transition, boosting the relevance and value of exchanges, in turn boosting interregional communication and assisting in the development of common standards for measuring and implementing just transition.

3. Outputs

The **main outputs of this action** will be a document that addresses the needs as per the findings of a survey, with references to exchanges about just transition communication needs and techniques, and best practices, as well as a 'just transition ABC' for citizens and municipalities. These should facilitate and support exchange and engagement, ensuring a common understanding of just transition and underpinning just transition processes and communication between beneficiaries.

4. Implementation

What work has already been done?

The Secretariat of the Coal Regions in Transition Initiative has already produced a useful guide for those delivering the transition, see '[Governance of transitions toolkit](#)' (slides 10-14). The '[Transition Strategies](#)' toolkit', developed in the context of the Coal Regions in Transition Initiative, explains the basis for transition strategies and includes a definition with pointers to other sources such as the ILO Guidelines on just transition.

Meanwhile, WWF has done previous work with mayors that the WG members can build on and use for a more general-citizen-friendly guidebook, as well as consult with partner organisations.⁵

The main challenge is a lack of locally targeted, municipality and citizen-friendly information around just transition, and of information presented in a way which facilitates real cooperation (and not just unidirectional information flow) between stakeholders and authorities.

WG members must therefore first identify how to accessibly target information – and what information must be conveyed – at the local level. There is a need to bring together the different stakeholders to proactively highlight the challenges they face and the mechanisms they are currently using – or could use – to address them. This will be facilitated by a common understanding of the just transition, what it means and how it takes place in EU regions. Finally, there is a need to reference best practice so that it can be replicated and scaled-up across the EU – and so that, where common challenges exist, common, effective approaches can be developed without the need for multiple trial and error processes.

⁵ See for example: https://wwfeu.awsassets.panda.org/downloads/wwf_mayors_brief_eng_final.pdf

Building on the existing work, the WG will:

- Develop a multilingual survey for municipalities, public bodies and for citizen groups, to identify what information they still need to engage effectively with just transition. This survey should focus on the needs for information and accessible communication at local level, recognising the different 'stages' of the transition and how this can affect demand and need. It will be distributed via various channels (JTP Secretariat, Committee of the Regions, the WG members and potentially also the Forum of Mayors, EuroCities). Results of the survey will be analysed and will inform the development of the transition guide.
- Develop a short guide outlining just transition and what it means in EU frameworks, as well as the EU just transition approach, designed for municipalities and ordinary citizens/citizen groups. It should include a map of the regions identified to require targeted just transition support and include an index with contact points for just transition support in the European Commission for each country. The aim should be to highlight how regions are not alone, why the transition is happening and why the just transition approach is different to past transitions. The purpose is to establish a common understanding of just transition objectives and reasoning to enable engagement with just transition processes. The work might build on existing materials and actions to raise awareness about the just transition in EU and non-EU regions.
- The Working Group members of this Action will bring together the outputs and expertise from the WG members involved with Actions 1, 7, 8, and 4, to produce a toolkit/handbook collating best practices and methods for communication about just transition (both examples where communication was used to raise awareness and where communication was used to engage more extensively). Where possible, it will build on and highlight real life examples and include recommendations. Further bad communication practices could bring merit in demonstrating how not to communicate. This can be made available to Managing Authorities for the EU JTF.

Accounting for risks

The WG members will consider the below outlined risks in the implementation of this Action:

Risk	Level	Mitigating actions
Few survey responses	Medium	Share the survey via multiple channels and I; complement survey with targeted exchanges with stakeholders.
Low capacity to support actions	Medium	Set clear action leads, identify 'nice to haves' versus essential outputs, work in synergy with the other action groups, and identify and build on existing work as far as possible.
Lack of engagement from non-action group partners	Medium	Work with a wide range of partners and build on existing work as far as possible.

5. Stakeholders to be involved

The main stakeholders to involve within the Working Group beyond those contributing to this particular action, are those engaged in Actions 1, 7, 8, and 4. The WG members, through the JTP Secretariat, will also seek to engage the members of the second circle of the horizontal stakeholder strategy Working Group and the advice and support of the European Committee of the Regions, in particular though connecting with the heads of delegation thanks to their connections and convening power with regions.

The WG members will also seek the opinions of those within their own regions through awareness and promotion of the survey – such as municipalities as well as citizen groups, such as energy communities or cooperatives. Furthermore, regional hubs of Smart Communities could be consulted.

6. Expected impact of the action

The action will develop insights and tools for municipalities and other public bodies (i.e. counties) to strengthen their communication with local citizens and citizen groups on just transition. This will provide the foundations for national and regional authorities to support municipalities with the information they need, and for municipalities to be empowered to engage and to involve their citizens in planning and implementing just transitions.

7. WG members involved

Action Leader: Mags Bird (WWF European Policy Office)

Contributors: Social Platform, Midlands, Forschungszentrum Jülich, Valea Jiului Society, Digital Communication Network Hub South East Europe, Estonian Ministry of Finance, Coal Commission Secretariat at Eszterházy Károly Catholic University.

Inputs from second-circle members:

- Energy Management Institute: inputs from Stara Zagora (Bulgaria) on the collection of needs and experiences from the local level via events, meetings with representatives of different communities, etc.
- H2020-AURORAL project: integration with regionally localised Smart Communities hubs benefiting from interoperability digital environment to integrate and scale-up green, blue and bright transition solutions.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action.

When	What
January– March 2023	<p><u>Translation and launch of survey</u> for municipalities, public bodies and for citizen groups, to identify what information they need to engage with just transition: distributed via the JTP Secretariat to the Committee of the Regions, the Just Transition Platform and potentially also the Forum of Mayors, EuroCities, among others.</p> <p>The aim is for responses from the second circle and from at least half of the EU13 heads of delegation in the Committee of the Regions</p>

	(CoR), and half from the EU14. This means an expected 43 second-circle member responses and 15 CoR heads of delegation responses as a minimum.
April–May 2023	<p><u>Analyse survey results and share</u> with WG members to inform both: i) focus and scope of further activities/outputs below; ii) other actions within the common Implementation Plan.</p> <p>Survey results will be presented at the April JTP meeting, and a document of key findings shared with other action groups to support, in particular, work related to stakeholder engagement (action groups 4 and 6 and 7).</p>
May–June 2023	<p>Development of a <u>short guide 'what the just transition is: for EU regions'</u> (working title): outlining the rationale for a just transition approach in the EU, designed for municipalities and ordinary citizens/citizen groups, building on existing work where available. The expected length is two–four pages and should cover what is the just transition, why the transition is happening, and which regions are affected, among other focuses.</p> <p><i>Nice to have:</i> images and infographics for use on Social Media. Translation into multiple languages.</p>
March–August 2023	<p>Exchanges with members of Action groups 1, 7, 8, and 4; as well as potentially with municipalities, national governments, civil society, EU Commission officials and MEPs on just transition awareness and communication practices (good and bad).</p> <p>The WG members will capture findings from the exchanges and best practice as identified.</p>
October 2023	Showcase the short guide at the JTP conference.
September–December 2023	<p><u>A Handbook of existing and best practices for communication about just transition will be developed</u> – building on earlier discussions and action group collaborations and including recommendations for different decision-makers.</p> <p><i>Nice to have:</i> infographics to help expedite information to those actively managing the just transition on the ground.</p>

9. Links and synergies with existing initiatives and projects

Links and synergies exist with the Coal Regions in Transition Initiative that has provided first information on communication approaches. Further links exist with work performed by the WWF. In the implementation of the action, the WG members plan to collaborate with the JTP Secretariat at a broader scale as well as the CoR and potentially also the Forum of Mayors, EuroCities and [Europe Beyond Coal](#). Finally, some inspiration could be taken from the [Rybnik 360 project](#) and the [H2020-Auroral project](#).

Action 4 – Establish a series of recommendations for effective social dialogue

Category: Horizontal, Chemicals, Cement

1. Issue to be addressed

The European Social Model linking economic to social progress is part of Europe's success story and is unique in the world. Social dialogue (bipartite between management and labour or tripartite between management, labour and governments) and the right to collective bargaining are cornerstones enshrined in the Charter of Fundamental Rights of the European Union while social dialogue is enshrined in the Treaty on the Functioning of the European Union (Article 152–155). At the global level, the International Labour Organisation developed very concrete guidelines on just transition following the adoption of the Paris Agreement in 2015. They define social dialogue as an integral part of the institutional framework for policymaking and implementation at all levels.

Where social dialogue is well developed, it has played an important role in coping with crises and managing structural changes in a socially-just way. The concept of a just transition cannot be thought of without effective social dialogue at its heart.

Social dialogue is regulated on the EU-level through legislation, in particular:

- directive establishing a general framework for informing and consulting employees (2002/14/EC), which requires companies to inform and consult with its employees regarding the company's development, economic situation, the development of employment as well as change in work organisation or in contractual relations;
- the EWC Recast Directive which requires Member States to provide for the right to establish European Works Councils in companies or groups of companies with at least 1 000 employees in the EU and the other countries of the European Economic Area (Norway, Iceland and Liechtenstein), when there are at least 150 employees in each of two Member States;
- the recently adopted Minimum Wage Directive (13 September 2022) requires all EU Member States to target a collective bargaining coverage of at least 80 % and, where that is not achieved, to draft national action plans to raise the collective bargaining coverage.

Social dialogue of in-transition regions will play an important role, not only in terms of attracting investments that lead to sustainable employment creation in transition regions, but also in assuring the quality of employment, as well as the quality of adequate training and educational offers. Sectoral social dialogue and bargaining would allow for a regional approach and facilitate, for example, planning of job-to-job transitions between companies and pooling of resources to devise adequate training offers. However, legislation in some Member States makes social dialogue above company level difficult or even impossible.

In line with the partnership principle in the governance of cohesion funds, stakeholders should be involved in the management of the funds. Social partners are the main actors in industrial relations systems and, specifically, collective bargaining, and therefore naturally need to be stakeholders in strategies and programming that affect the transition within the labour market.

In some Member States, trade unions are a strong part of the democratic system and a natural partner in the negotiations of these just transition processes. It is, however, not

always the case that public authorities and employers engage in meaningful social dialogue and collective bargaining with affected workers.

ETUC and IndustriAll Europe recently conducted a survey among their affiliated trade unions to evaluate their involvement in the design and implementation of TJTPs. While the survey highlighted some good practices in countries with a well-established tradition of social dialogue, it also showed that many countries are still currently not involving workers and their trade unions in these discussions – or they do so in a very superficial manner. Out of 21 national unions or federations that answered the survey, 10 indicated that they had not been involved in the design of the TJTPs. Several of those who indicated they had been somehow involved in the drafting of their TJTP said their involvement has not been sufficient and their input is not properly taken into consideration.

Strengthening the social dialogue is needed especially in the face of potential carbon leakage or limiting operation by major chemical companies in the consequence of spiking prices of gas due to the Russian war in Ukraine.

2. Objectives of the action

This action aims to promote and develop guidelines along the principle of effective social dialogue with trade unions (works councils) and collective bargaining in all the green transition aspects that affect workplaces and transition strategies (effects of mitigation policies, adaptation policies, circular economy policies can have on employment, health and safety, training, reskilling and upskilling, wages, collective bargaining coverage, also through a gender/age/ethnicity background lens).

It aims at facilitating the design and implementation processes of the TJTPs, especially in countries where there is not a well-established tradition of social dialogue, based on the right to bargain collectively, reaching negotiated agreements and granting genuine partnerships. This will be enhanced by a short position paper outlining the establishment of a legal basis for social partners' role in the anticipation and management of change.

3. Outputs

There are several outputs for this action:

- recommendations for national/regional and local governments to facilitate a meaningful involvement of social partners (representatives of trade unions and employer organisations) and for strengthened social dialogue and collective bargaining structures (increased collective bargaining coverage);
- recommendations for the continuous involvement of trade union representatives in events organised by the JTP (with sessions dedicated to discussing the specific role of trade unions, social dialogue and collective bargaining in the design and implementation of TJTP, as already done in the October 2022 JTP Conference);
- guidelines for an effective dialogue between social partners (representatives of management and labour, e.g. employer organisations and trade unions);
- recommendations for a legal framework defining and guaranteeing rights and obligations for employers (organisations), trade unions and where applicable regional or national authorities;
- Action 5 (see below) and the establishment of an observatory is also linked to the outputs of this action.

4. Implementation (planned activities by the WG)

WG members and social partners at the appropriate level will liaise with governments or the respective authorities to define the meaningful involvement of social partners (trade

unions and employer organisations) in the anticipation, management and monitoring of the just transition process, developments on the labour market and the readjusting strategies to keep potential negative impacts to a minimum. Alongside these dialogues, further ones will be carried out with the Secretariat to discuss the continued involvement and engagement of trade unions, social dialogue, and collective bargaining in the design and implementation of TJTPs in future JTP conferences.

Based on these discussions, WG members will draft the recommendations set out under '3. Outputs', aiming at social partners' active involvement in the implementation, monitoring and assessment of TJTPs, that will contain the right to initiate proposals to readjust strategies where necessary.

The agreements will set out the necessary steps being taken to implement adequate social dialogue mechanisms to strengthen collective bargaining in line with European and national legislation.

5. Stakeholders to be involved

The stakeholders to be involved include:

- the JTP Secretariat, relevant Directorates/units of the European Commission (e.g. DG REGIO, DG EMPL, Joint Research Centre);
- public authorities, Representatives of governments and regional authorities;
- Social partners at the respective level, regional, national, sectoral, European (representative employers organisations and trade unions);
- European trade union federations: EUTC, industriAll Europe, EFBWW and their national/regional affiliates;
- European employers organisations (Eurofer for steel, European Chemical Employers Group (ECEG) for the chemical sector) and their national/regional affiliates;
- Eurofound; and
- other stakeholders interested in taking part in those activities.

6. Expected impact of the action

By implementing a comprehensive social dialogue mechanism, transition regions can ensure:

- a solid base of their transition strategy on first-hand experience of social partners in transitioning sectors and regions;
- the appropriate monitoring of the implementation of the transition strategy in terms of the socio-economic developments and impacts on the labour market;
- negotiation of transition agreements for employees in sectors and regions impacted by the transition, with the objective to find adequate offers for every person (e.g. new job offers, job transfers, reskilling and upskilling, adequate redundancy packages, pre-retirement, bridge payments, etc.);
- negotiation of agreements that ensure the adequate quality of work, in terms of working conditions and living wages;
- meaningful information and consultation and anticipation of change takes place at company level (works councils); and
- a better understanding of the benefits of strong collective bargaining systems in managing the transition in the labour market, through the showcasing of best practices of collective agreements.

Involving trade unions in events organised by the JTP will help increase the understanding of other stakeholders about issues related to employment and working conditions. Dedicating sessions to the specific role of social dialogue and collective bargaining and showcasing best practices and concrete examples will also encourage regions and Member States to use those tools when designing and implementing their TJTPs.

7. WG members involved

Action Leader: ETUC; IndustriAll; Digital Communication Network Hub South East Europe, Estonian Ministry of Finance; and representatives from ECEG and Mažeikiai district municipality.

Contributors: European Federation of Building and Woodworkers; Università degli studi di Bari Aldo Moro.

8. Timeline

Below is an indicative timeline of steps to be taken to implement this action:

When	What
Starting already in October 2022, continued in events in 2023	Involvement of trade unions in the JTP Conference.
January–March 2023	Working Group members will begin other outreach to potential stakeholders and begin planning consultations and activities in order to draft the recommendations.
March/April 2023	Based on discussion with different DGs and stakeholders, a draft document will be prepared outlining the recommendations.
April–June 2023	Intermediary outputs of recommendations will be drafted by the WGs.
End of 2023	Final versions of all recommendations will be completed.

9. Links and synergies with existing initiatives and projects

Several other ongoing initiatives and processes will be accounted for in the implementation of this action, including at the European level: the European Economic and Social Committee (EESC), Consultative Commission on Industrial Change (CCMI), Negotiations and work of European Sectoral Social Dialogue Committees; [Eurofound](#) (European Foundation for the Improvement of Living and Working conditions); and the CoR. Additionally, links are expected with national/regional/sectoral social dialogue structures as appropriate and where existing, work in the Industrial Forum²²/development of Transition Pathways as part of the implementation of the EU Industrial Strategy,²³ and [IndustriAll Just Transition Campaign and Manifesto](#) and related studies.

Action 5 – Produce a concept paper on the establishment and implementation of territorial socio-economic observatories

Category: Steel, Horizontal

1. Issue to be addressed

The capacity of Public Institutions to understand the socio-economic impacts and consequences of the transition, together with the competence to gather timely knowledge for planning, managing and evaluating interventions and policies, should be enhanced as well as the ability to adopt a flexible approach to policy delivery in place.

The transition of localities/areas and their communities is a complex multidimensional and non-linear process where changes in their main industries towards sustainability are accompanied with wider paths of economic diversification and development. Additionally economic and technological transformations are deeply entangled with social and cultural dimensions as such communities have a long history of social and cultural dependence on the dominant industry with concern to the relations of production and reproduction and to cultural values and identities.

In this picture, social dialogue plays an important role in coping with crises and managing structural changes in a socially-just way. In some Member States, trade unions are a part of the democratic system and a partner in the negotiations of these just transition processes. It is, however, not always the case that public authorities and employers engage in meaningful social dialogue and collective bargaining with affected workers; accordingly, strengthening the social dialogue is needed especially in countries where there is not a well-established tradition of it.

2. Objectives of the action

This Action intends to draw attention to the importance of promoting a framework for:

- enhancing the knowledge of the socio-economic impacts and the consequences of the projects and activities related to the just transition plans in transition localities, with specific focus on the labour market dynamics;
- monitoring and qualitatively/quantitatively evaluating projects and other initiatives adopted and implemented in relation to just transition in transition localities;
- monitoring and supporting the engagement of community/civil society organisations/trade unions in data production, information, strategy-setting, decision-making and implementation processes.

The importance of systematically observing, elaborating, informing and adjusting the social and territorial dynamics linked to the implementation of TJTP in transition localities is to be valorised as it allows for:

- a) generation of value-based data and analyses, provide information;
- b) mobilisation of active participation and citizenship;
- c) support decision-making and implementation;
- d) reinforcing of social dialogue and collective bargaining.

3. *Outputs*

Develop a concept paper for Public Institutions for the establishment of a territorial Observatory providing indications on its possible concrete implementation. The Observatory is thought to be set up at the local level in each transition locality/area; subsequently, each local Observatory contributes to feed similar observatories at national and European level.

4. *Implementation*

Carry out consultations and reviews to formulate suggestions and recommendations on experiences of socio-territorial analyses and monitoring.

The scope of the Observatory in transition locality/areas is to:

- generate timely, value-based data and analyses allowing knowledge and evaluation of transition projects and activities and facilitate the exchange of information;
- study the wider socio-economic impacts and consequences of TJTP that are supposed to produce deeper social changes and lead to the economic diversification of the area (i.e. dual income families, young entrepreneurship, alternative and sustainable economic activities, inclusion of vulnerable people, possible new inequalities, etc.);
- monitor, evaluate, and promote the role of social partners and meaningful social dialogue in the implementation to TJTPs in each Member State and region;
- quantitatively and qualitatively monitor and study workplace and labour market long-term transformations with specific attention to the quality of jobs, skills and qualifications, wages, health, the participation of women and young people, the link between labour markets and educational/vocational paths, the strengthening of labour institutions and rights;
- raise awareness among citizens but also foster and value their active participation;
- enhance decision-making and implementation on the basis of the principles of democratic and collective interests.

An EU Observatory and observatories at level of Member State and regional level would complement each other – with the aim to monitor and analyse intra-country transition processes and activities – and at European level. In the latter case, the EU Observatory would act as a platform of national and sub-national indications and analyses with possible additional activities. A bottom-up and a top-down circular mechanism would ensure continuous dialogue and knowledge processes in a cooperative multilevel governance mechanism. Additionally, relevant knowledge would be available comparatively also to support cohesion dynamics and reduce territorial divides. Based on the gathered analysis, an EU Observatory could establish recommendations for specific policy/strategy actions in order to respond to potential problems or shortcomings on national or regional level.

The concrete implementation of such an action could fulfil a twofold function. Firstly, data, analyses and research would foster an in-depth knowledge of the processes of change and of impacts and consequences, which could provide useful information for the next EU programming period. Secondly, the working of the Observatory at the local level could fruitfully integrate and complement the activities of Managing Authorities, while actively engaging stakeholders in the implementation and monitoring phase of the TJTPs.

The governance of the Transition Observatory might include universities/research centres, local authorities, social partners, trade union organisations as well as experts and other interested stakeholders. Different thematic sub-groups might be created, addressing the different transition aspects. A specific sub-group on all aspects related to the transition of the labour market, social dialogue and collective bargaining might be managed in bilateral or trilateral social dialogue between employers, trade unions and public authorities.⁶

5. Stakeholders to be involved

- Universities, research centres;
- the JTP Secretariat, relevant Directorates/units of the European Commission (e.g. DG REGIO, DG EMPL, Joint Research Centre);
- public authorities, Representatives of governments and regional authorities;
- European trade union federations and their national/regional affiliates;
- third sector/civil society organisations, foundations, at the respective level, regional, national, sectoral, European
- other social partners (i.e. representatives of employers' organisations at different levels);
- experts in socio-economic analyses and monitoring;
- WG members.

6. Expected impact of the action

This action will likely have a variety of impacts. Among others, it will:

- improve the understanding of the processes of socio-economic transition in transition localities/area, especially their social and territorial impacts and consequences;
- improve the understanding of labour market transformations;
- enhance the role of social partnership and meaningful social dialogue and collective bargaining that ensure the adequate quality of work, in terms of working conditions and living wages;
- strengthen civil society participation as knowledge creator, monitor and evaluation;
- promote widespread and transparent knowledge about transition processes;
- enhance policy making by allowing evidence-based policy decisions;
- facilitate the exchange of information and knowledge at local, national and EU levels;
- assist Public Authorities in their activity to collect and report on the TJTP;
- assist European institutions for following programming and implementation activities and policy making.

7. WG members involved

Action Leaders: University of Bari, ETUC/IndustriAll

Contributors: interested stakeholders, such as representatives of national and regional authorities, industrial partners (trade unions and business organisations), third sector/civil society organisations.

8. Timeline (not updated)

- Q4 2022/Q1 2023: consultations with stakeholders, secondary source collection;
- Q2 2023: first draft of the concept paper and consultation with WG members;
- Q3 2023: publication of the Action.

⁶ In line with the ILO Just Transition Guidelines: https://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang-en/index.htm

Action 6 – Develop a checklist to measure the qualitative involvement of stakeholders in the transition and the TJTP implementation process

Category: Horizontal

1. Issue to be addressed

The JTF Regulation⁷ (Article 11, paragraph 3) foresees involvement of partners⁸ in the preparation and the implementation of the just transition plans, thus referring to Article 8 of the Common Provisions Regulation (CPR). Article 8 establishes the partnership principle for the preparation and implementation of the Partnership Agreement and the Operational Programmes for the relevant funds and indicates the relevant groups of partners that should be at least included in the process. Due to the general nature of the rules in the CPR, the European Commission has introduced a so-called Code of Conduct on Partnership (within a Delegated Regulation) during the previous funding period, which includes a set of more detailed rules for the level of involvement of partners that are also applicable to the involvement of partners under the JTF. This Code of Conduct is currently being revised by DG REGIO.

Stakeholders in the WG and broader JTF community have regularly stated that they feel that the current rules of the JTF Regulation the Code of Conduct are often too abstract, do not clearly identify the requirements and thus do not ensure comprehensive involvement in practice. They do not include any concrete indicators and therefore do not allow a measurement of actual involvement of the relevant stakeholders in the process. At the same time, Managing Authorities of Cohesion Policy programmes have mentioned they consider the rules to be too detailed and create additional burden without adding value. Therefore, stakeholders' roles in the implementation of the Just Transition Operational Programmes should be made clearer, including the rules of participation in their official programme committees.

2. Objectives of the action

The objective of this action is to develop a monitoring mechanism (checklist) that builds on existing networks and enables to European Commission to measure the qualitative involvement of stakeholder groups (amongst others trade unions and vulnerable groups) in the just transition process. The Action should also look at engagement with intermediary bodies, to efficiently provide a link between national/regional and local-level policies and those of the EU.

At the same time, the setting of concrete indicators could help both TJTP Managing Authorities and partners to identify key aspects of a successful stakeholder involvement. In order to achieve a sufficient level of transparency, Managing Authorities should be asked to report results back to the European Commission – helping them to identify challenges and gaps in stakeholder engagement in the implementation of TJTPs. At the same time, the partners should be able to provide feedback (in a recurring cycle).

⁷ Regulation (EU) 2021/1056 of the European Parliament and of the Council of 24 June 2021 establishing the Just Transition Fund. Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R1056>

⁸ These include at least: regional, local, urban and other public authorities; economic and social partners; relevant bodies representing civil society, such as environmental partners, non-governmental organisations, and bodies responsible for promoting social inclusion, fundamental rights, rights of persons with disabilities, gender equality and non-discrimination; and research organisations and universities, where appropriate.

3. Outputs

The output of this action will include a checklist with a scoring system for the qualitative involvement of stakeholders. This checklist should include qualitative procedural aspects (e.g. sufficient timeframe, possibilities to provide feedback and its impact on the TJTP) as well as those that are specific to the relevant types of stakeholders (e.g. specific indicators for vulnerable groups, social partners, universities and local government) which should take their role in the implementation of the funds sufficiently into account. The mechanism should leave a certain level of flexibility and consider various types of partners that often differ between Member States.

4. Implementation

The WG members will develop a list of all relevant aspects that should be measured in the future on the basis of existing best practice as well as bad practice examples. It is important to account for region-specific stakeholders, varying levels of activity in different parts of the EU, and knowledge/capacity of public administrations while fully accounting for different types of multilevel governance (thus ensuring a connection between the local, regional and national level). The heterogeneity of the involved stakeholders poses a certain risk that can be overcome by the collection of qualitative/quantitative data (e.g. an overview of the relevant partners and information on how/whether they have been involved in the past). A survey could be shared amongst group members who will in turn ask their members to provide feedback. Ideally, stakeholders from all Member States will reply. The data could then be compiled and used to jointly work on solutions that enhance the situation for both sides. This would include assessing what partners are considered relevant and at the same time discussing with Managing Authorities what would be feasible for them and how the situation could be enhanced without a significant increase of administrative burden. In order to empower stakeholders, a strong link with Action 3 (Communicating and raising awareness), Action 1 (Knowledge Exchange), Action 2 (Capacity Building), Action 7 (Engaging stakeholders that are hard to reach) and Action 4 (Strengthening Social Dialogue) should be established.

5. Stakeholders to be involved

At least all types of partners mentioned in Article 8 of the CPR and representatives of Managing Authorities at national and/or regional level should be involved. Managing Authorities should be involved, given that they will be responsible for the implementation. Furthermore, to achieve comprehensive participation of all relevant partners local government associations (such as CEMR), civil society associations (Bankwatch CEE), environmental associations (such as WWF), academia (such as CSD), employers (such as IndustriALL) and employees (such as ETUC) should be part of the exercise. Additionally, to address intermediate bodies, their associations should be included (such as the German County Association) as well as the [European Alliance for a Just Transition](#) as it gathers several organisations representing specific social groups in the just transition (women, disabled, minorities and others).

6. Expected impact of the action

The planned monitoring mechanism and the checklist will help Managing Authorities in the implementation of the JTF and all other relevant CPR-funds to identify aspects that are relevant to a sufficient involvement of partners and thus a sense of 'co-ownership'. At the same time, a meaningful contribution of relevant partners ensures that the funds will provide added value for everyone. While stakeholder involvement should be in no way limited to a 'box ticking exercise', the planned checklist could thus help to overcome challenges linked to the oftentimes complex procedures. Furthermore, it would help the

European Commission in their endeavour to comprehensively measure stakeholder involvement and to ensure the partnership principle is applied.

7. WG members involved

Action Leader: CEMR

Contributors: CEE Bankwatch Network, CSD, ENSIE, FEANTSA, Romanian Ministry, ETUC IndustriAll, Just Transition Institute Greece, Greek Task Force for JTF of the Management Unit SA, Coal Commission Secretariat at Eszterházy Károly Catholic University, Chemelot Circular Hub.

Inputs from second-circle members:

- The Green Tank: by participating in the survey (also representing a Monitoring Committee);
- Energy Management Institute: to participate in a consultation (e.g. meetings to discuss);
- Generation Climate Europe: by contributing to the youth engagement aspect of the checklist and through the provision of best practice examples;
- [H2020-AURORAL](#): through integration with Smart Communities investment platform emerging from H2020-AURORAL.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action.

When	What
January 2023– March 2023	Gather relevant data on stakeholder structures, explore best/bad practice examples of extensive/insufficient stakeholder involvement via a survey amongst WG members and other interested groups and associations.
April 2023– September 2023	Establish relevant indicators.
From October 2023	Explore synergies with other actions and discuss whether their challenges and goals can be integrated in the monitoring mechanism.

9. Links and synergies with existing initiatives and projects

The work could be linked to the current review of the Code of Conduct on Partnership (Regulation (EU)No 240/2014). Research should also consider the [Table on Transparency and public participation in the set-up and functioning of new monitoring committees](#) (Cohesion Policy) and the article '[Where is the transparency in the EU € 2 trillion recovery?](#)'. Furthermore, work could be integrated with the [H2020 AURORAL project](#), specifically with the [catalogue of solutions](#) and the [joint roadmap](#) of Smart Communities implementation.

Action 7 – Map methodologies on how to engage with vulnerable groups

Category: Horizontal

1. Issue to be addressed

The energy transition will only be just if it is participatory and inclusive, equally benefiting all citizens. At the moment, it poses a significant challenge as the shift towards a sustainable and climate-neutral economy will bring employment and social changes, requiring decisive investments to bring onboard all regions and societal groups in the transition. To be successful, the transition should fight inequalities and should ensure that all stakeholder groups, particularly those in vulnerable situations (and who are likely to be more exposed to adverse effects of climate change), can actively participate. The European Union and the Member States must take into account the economic and social implications of the transition and deploy all possible instruments to mitigate adverse consequences. To do so, the European Union must empower and encourage Member States to engage with particular 'hard-to-reach' and vulnerable groups (women, youth, people with disabilities, cultural minorities, unemployed, senior citizens, rural communities, remote/disconnected areas, etc.⁹), in a meaningful and decisive way.

2. Objectives of the action

The objective of the action is to provide a framework of engagement for Member States and local actors to involve meaningfully vulnerable groups that might not be otherwise taking part in the process by collecting good practices of engagement through different available methodologies (analogue and digital engagement). The idea is to mobilise all stakeholders that would be impacted, to give them a chance to engage and therefore bring their perspective to the process but also gain ownership of the policies that would impact them.

3. Outputs

The expected output of this action is the development of a document outlining the mapping of best practices in the engagement of vulnerable groups and 'hard-to-reach groups' through both analogue and digital means. This involves researching existing best practices such as community-based reach out and incentives to engage with new stakeholder groups at local level, as well as practices related to the inclusion of gender equality in just transition measures and the involvement of vulnerable groups in different actions. The mapping will list different methods and good practices that can inspire others to engage vulnerable groups in a similar way.

4. Implementation

Building on the actions developed in Action 3 (i.e. the short guide outlining the EU just transition approach, designed for municipalities and ordinary citizens/citizen groups and the background guide for national and regional authorities and the collection of good practices), the WG will dive deeper into engagement with vulnerable/hard-to-reach groups, specifically by mapping out methodologies used in and outside the EU to engage these marginal groups. Democratic processes as used by the social economy, might be an interesting source of inspiration. The WG members will include methods using both digital (online engagement) and analogue ('street engagement' – drawing from social economy/civil society methods) and use existing guidelines, learnings and information

⁹ Often also referred to as 'underrepresented' groups.

gathered (e.g. by the BOLSTER project and LRA approaches for policy engagement) for inspiration.

As deliverable of the action, the WG members working on this action will realise a guide with examples of good practices for engagement of the hard-to-reach and people living in vulnerable situations that can be applied by readers adapted to local contexts.

5. Stakeholders to be involved

The main stakeholders to be involved are organisations representing these vulnerable groups. Many organisations representing women, youth, disabled people, older people, etc. can be found at the European (European Alliance for a Just Transition), national and local level. Furthermore, WG members will need to draw in mayors/policy makers and municipalities to implement the outreach tasks.

6. Expected impact of the action

This action will provide a collection of good practices on how to engage the hard-to-reach and people living in vulnerable situations in the transition territories fostering engagement and inspiration for municipalities and local authorities to set up strategies and action to engage vulnerable groups.

7. WG members involved

Action Leader: FEANTSA, Social Platform

Contributors: Romanian Ministry, CEE Bankwatch Network, TDigital Communication Network Hub South East Europe.

Inputs from second-circle members:

- Generation Climate Europe: as one of the biggest youth networks in Europe, they have published two reports on how young people have been engaged in the consultations for the TJTPs so far. Their extensive network and our expertise put us in a good position to expand the engagement of youth in the just transition, and possibly to bring best practices for the engagement of other groups as well.
- H2020-AURORALL: inputs from H2020-AURORAL and joint investment road mapping for Smart Communities.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action.

May–June 2023	Analysis of the results
July–August 2023	Drafting of the guide
11 September– 5 October 2023	Consultation on the draft
October– November 2023	Finalisation of the document
December 2023	Final draft

9. Links and synergies with existing initiatives and projects

Strong links exist with the Horizon [BOLSTER](#) (Bridging Organisations and marginalised communities for Local Sustainability Transitions in Europe) project that aims to understand and improve the understanding of marginalised communities in the climate transition. The

[EU teens4green project](#) that promotes youth participation in just transition should also be involved. Furthermore, WG members will look into LRA approaches for policy engagement. And consider research (reports and articles such as the CAN Europe report [Maximising social benefits](#), the [article](#) on 'no home without energy', the '[Toolkit for Youth Participation in the JTF](#)' and other relevant literature.)

Action 8 – Develop a catalogue of best practice examples and key success factors of stakeholder collaboration at the sectoral and cross-sectoral level

Category: Horizontal

1. Issue to be addressed

The Scoping Paper described the issue to be addressed by this Action by 'To ensure a general adhesion to the just transition, all the sectors of activities should be involved, especially those which can have an impact on the transition process. Research, private and the social economy sector will all need to be involved in the transition.' This integrative approach across sectors shall guarantee that a region can mobilise all relevant regional actors and potentials that can contribute to the just transition. It shall also allow to identify groups and sectors that are affected by transition, which might not only be 'the obvious ones' and thus aims at maintaining or finding a new social balance between winners and losers of the transition process. Ideally, a region shall find a new identity generated involving all sectors by the transition process and strengthens the democratic self-conception of the citizens.

2. Objectives of the action

The action should point out ways on:

- how to identify actors from all sectors (research, private and social economy and social economy regional, national and international networks) as well as regional networks with a focus on impact and relevance for the overall goal of a just transition;
- to make these actors aware of their (potential/ necessary) role and their opportunities in participating, designing and organising the just transition process;
- to identify the needs of these actors and ways to enable them to develop their full potential and impact; and
- identify best practice examples of collaboration of actors across sectors to guarantee effective just transition and integration into an integrated regional landscape of transition.

These objectives shall be addressed by:

- identifying and collecting **best practice examples (BPE)** and respective characteristics of BPEs ('What are best practice examples and what characterises them?');
- developing a set of **key success factors (KSF)** from these BPE ('Why were BPE successful?') and integrate KSF into the Action 6 checklist;
- analysing the **diversity of the actors and interaction landscape in the regions** (incl. regional networks), where the best practice examples were identified ('How could BPE be translated in other regions and what would need adaptation?');

- Active interaction of Action 8 should also include the discussion with BPE stakeholders and regional networks to identify additional opportunities identified by them in an **ex post analysis** of their BPE-activity ('how could the BPE have been even better?').

3. Outputs

Concretely, this action shall deliver:

- A) Collection of BPE:
 - a. a comprehensive and extended list of sectors and actors and existing regional networks, beyond the ones covered by the sectoral JTP WGs (e.g. agriculture, textile) and systematically compare them to foster cross-sectoral collaboration;
 - b. a catalogue of BPE how these actors and sectors did or can contribute to just transition by developing further strength of a region beyond the directly affected sectors, which are covered by the sectoral JTP WG;
 - c. examples, either established or potential ones, how other sectors can generate momentum for the just transition process beyond the directly affected sectors, which are covered by the sectoral JTP WGs.
- B) A list of KSF:
 - a. analysing BPE for those sectors/sector categories and actors (beyond the directly affected sectors), who were activated successfully (e.g. agriculture, paper, textile, construction, recycling, cleaning, catering, etc.);
 - b. analysing how these sectors and actors could be motivated to participate in the just transition process;
 - c. identifying KSF for cooperation between actors, which enabled success within the regions as well as the leading stakeholders managing engagement;
 - d. identifying factors, which hampered engagement of actors and sectors in regions, where this could not be achieved;
 - e. developing possible solutions to these hampering factors;
 - f. integrating the findings into Action 6 for monitoring purposes.
- C) Mapping of the landscape of actors and interaction landscape in the regions of BPE:
 - a. identifying actor networks and means of interaction between sectors, which allowed the development of an effective regional interaction landscape
 - b. analysing transferability in two–three other exemplary regions to identify key factors of interaction.
- D) List of options for improvement in BPE:
 - a. a list of suggestions from BPE, what could have made the BPE even better (e.g. which requirements would have helped in order to provide more rapid and more relevant progress);
 - b. a list of contacts from BPE, which are willing to exchange experience and support other regions in their just transition process;

4. Implementation

To achieve the above-listed output, this action will:

- Identify BPE by an extensive analysis of JTP regions based on existing documents and studies as well as through direct interaction with stakeholders of the respective identified sectors in these regions for further analysis.
- Undertake interviews to (a) characterise and describe the BPE, (b) identify opportunities for improvement and (c) develop the commitment of actors to engage in the region and in the interaction of JT regions in Europe.

- Analyse the collected BPEs in a workshop (with help of regional and sector-specific experts; including experts from the sectoral JTP WG?) to categorise the BPEs and identify inherent characteristics of success. Based on this WG members will:
 - identify KSF for efficient activation of sectors and stakeholders across sectors and for their successful role in the just transition process of a region;
 - identify the support needed by the sectors and stakeholders to enable them to become active and efficient drivers of change in the just transition process;
 - summarise the results of the analysis process and report back to the BPEs for feedback from them and information what the JTP has done/achieved with their input (communication);
 - utilise the results in cooperation with Action 6 to support monitoring.

5. Stakeholders to be involved

Diverse stakeholders need to be identified from various specific regions, which can provide one or more BPEs. Sectors shall include those, which are not in the focus of the sectoral JTP WG, but selected sectors might well interact with the group addressed by the sectoral JTP WGs (cement, steel and chemicals). Regions and stakeholders need to show a fair bit of diversity (diversity of economic potential of a region; diversity of sectors in a region). Links to stakeholders addressed by the sectoral WG of the JTP can also be involved, since these could also provide new stakeholders/ sectors, from utilising the competence profile of the 'traditional' sector into new opportunities in the region.

6. Expected impact of the action

The impact of this action would be an extensive list of concrete examples (BPE), a catalogue of KSF, which would also allow translation into the context of other regions as well as a (initial) network of stakeholders (beyond the sectoral JTP WG sectors), which could interlink transition regions in Europe. The results of this Action will give additional input into Action 6 for the monitoring processes.

7. WG members involved

Action Leader: Forschungszentrum Jülich GmbH

Contributors: ENSIE; Valea Jiului Society, EURADA, Pernik Municipality, Greek Task Force for JTF of the Management Unit SA, Digital Communication Network Hub South East Europe, Chemelot Circular Hub.

Inputs from second-circle members:

- Generation Climate Europe: the network has been representing youth in the implementation of the JTM at the EU-level for over one year. They have a good network from which they can hear of new initiatives on the just transition from time to time. They would be happy to share them with the WG.

8. Timeline

Below is an indicative timeline of steps to be taken to implement the action.

When	What
April 2023	Identification of BPEs: three–five months
July 2023	Identification of KSF (two–four months, with expert support).
September 2023	Feedback with regions including the development of a network of actors between the regions (two–four months).

9. Links and synergies with existing initiatives and projects

Links would be required with regions in transition, which could provide BPE of stakeholder and sector engagement at all levels. Regional networks existing in the affected regions will be a major source for information on BPE. Some of these are represented in the JTP WG (horizontal stakeholder as well as sectoral WG). Beyond these, the WG members will use cooperations that exist today between different coal-phase out regions and [Bioökonomierevier](#), which provide deeper insight into regional transition concepts.

Action 9 – Develop a concept paper to advise public authorities on developing granular mapping of employment consequences

Category: Steel, Chemicals, Cement

1. Issue to be addressed

The transition to climate neutrality will come along with profound changes on the labour market, not only in terms of quantity of jobs, but also in terms of job profiles and respective skills needs. The transition of employment of energy-intensive industries, like cement, steel and chemicals, will also depend on the access to renewable energy sources at competitive prices, the necessary infrastructure and potentials for industrial symbiosis, amongst others. Companies' strategies and investments decisions will be decisive in that context.

As transition strategies and perspectives for each region and sector will differ, the employment transition will differ too. With the different potentials and capacities of regions to transition, come a lot of uncertainties of what the transition will mean for the workforce in affected sectors. Can jobs be maintained, or will there be a reduction of jobs, what will be the new job profiles in transitioning industries and how do these correspond to the existent skills base? As a just transition should target at organising the job-to-job transition for the affected workforce in the region a granular analysis of the existing workforce and skills base on the one hand, and the potential labour and skills needs on the other hand is indispensable.

The European Commission's Joint Research Centre (JRC) has published a similar analysis entitled '[Indirect jobs in activities related to coal, peat and oil shale: A RHOMOLO-IO analysis on the EU regions](#)' in November 2021. It could serve as a starting point for the methodology and to prepare an index of regional vulnerability for the transformation of the chemical, steel, and cement sectors. In addition, the dependency of regions on the coal sector was indexed in a [Polish Economic Institute analysis for Poland \(in Polish\)](#). The underlying methodology could be adopted for other regions and the chemical, steel, and cement sectors.

2. Objectives of the action

The objectives of this action are to set out the minimum requirements for a granular mapping of the impact of the transition on employment to accompany workers in the transition and to ensure training, reskilling and upskilling (what workers are affected in which way?) which should include subcontractors and a value chain perspective.

3. Outputs

The output of this action would be the creation of a concept paper for public authorities to conduct granular mapping in coordination with social partners.

4. Implementation

Public authorities at the appropriate level commission an employment market analysis to research institutes. A steering committee is formed comprising the respective public authority, social partners and research institute. The steering committee develops the terms of reference. It advises the researchers, develops research (mapping criteria) and monitors the progress of the employment mapping. Researchers collect employment data and analyse transition strategies for employment trajectories.

Social partners at the appropriate level are meaningfully involved throughout the process, i.e. they are informed, consulted and give advice on the research activities.

5. Stakeholders to be involved

Stakeholders to be involved in the process of developing this concept note include: the JTP Secretariat; relevant Directorates/units of the European Commission (e.g. DG REGIO, DG EMPL, JRC); Eurofound; public authorities, representatives of governments, representatives of regions, and regional authorities; social partners at the respective level, regional, national, sectoral, European (representative employers organisations and trade unions); European trade union federations: industriAll Europe, EFBWW and their national/regional affiliates; European employers organisations (Eurofer for steel, ECEG for the chemical sector) and their national/regional affiliates; and other stakeholders interested in taking part in those activities.

6. Expected impact of the action

By ensuring a sound knowledge base and overview of likely developments on the labour market transition, regions will be able to anticipate the changes in a systematic way providing for more accurate strategies to manage the transition on the labour market. Based on the granular mapping authorities, social partners and other relevant stakeholders will be able to develop more accurate programmes for reskilling and upskilling, lifelong learning as well as modernisation of the education programmes adapted to the new needs of the emerging labour market. Social partners will be able to negotiate collective agreements that allow for a fair transition of the current workforce. The ambition here should be to keep as many of today's workforce in the labour market as possible while ensuring a prosperous and sustainable future of younger generations.

7. WG members involved

Action Leaders: industriAll, ECEG

Contributors: IndustriAll, European Federation of Building and Woodworkers, University of Bari, UNESID, Chemelot Circular Hub.

8. Timeline

The foreseen activities have been planned in the first quarter of 2023, with the intermediary outputs expected in the second quarter of 2023, and the final output to be completed by the fourth quarter of 2023.

9. Links and synergies with existing initiatives and projects

Some existing initiatives and projects through which links and synergies could be developed include: European Sectoral Social Dialogue Committee work; European Economic and Social Committee (EESC), Consultative Commission on Industrial Change (CCMI); Eurofound; CoR; National/regional/sectoral social dialogue structures as appropriate and where existing; Industrial Forum; and the Transition Pathway for the Chemical Industry.

Action 10 – Develop a toolkit to mobilise responses to the social impact of the transition

Category: Chemicals

1. Issue to be addressed

Where social networks at national level do not work in transition-affected regions there is a high degree of risks in poverty emergence and furthermore marginalisation of communities. Art. 8 (2m) 'Social inclusion of jobseekers' is explicitly covered by the Just Transition Fund Regulation (JTFR). This phenomenon translates into:

- disorganised and poor families;
- poor social housing and community isolation;
- lack of access to public decent services – access to health, education for the children and social services;
- school abandon, delinquency and family disorganisation.

2. Objectives of the action

The objectives of this action are twofold:

- to create functional social safety net around members of communities affected by transition and their families; and
- to provide complementary resources for local and regional authorities to ensure integration, reconversion and support for the people affected directly by transition and their families.

3. Outputs

The expected outputs of this action are:

- a **matrix model of social resilience** in transition-affected regions; and
- a **toolkit for intervention and monitoring** of social measures for communities affected by transition.

4. Implementation (planned activities by the WG)

The WG members should provide input on the development of instruments (matrix and toolkit); other relevant stakeholders in the communities should provide data to fill up the matrix with specificities of the area. There is a high sensibility between the matrix and adaptation of the toolkit offers to create the social safety net. Each community has a different level of maturity from this point of view.

The WG members would provide a minimum set of social services available but depending on the level of collaboration, the members involved directly in this action would adapt the toolkit to a more specific area and therefore intervention.

There is a high risk that the relevant community stakeholders do not provide data to adapt social intervention to its specificities but even so, if the members design a minimum set of measures available at a local level and comparing them to the current situation, the WG members would ensure better chances for the members in the communities.

5. Stakeholders to be involved

Bottom-up approach with the following stakeholders invited for drafting specific instruments:

- local authorities (local social policy, social housing, public social services);
- NGOs (providers of social services, flagging social problems);
- unions and other form of labour representation (describe the specificities of job in relation to the person, preserve cultural identity);
- regional authorities (complementary funding for the social interventions);
- national authorities (social framework);
- EU (programme financing and monitoring, connect regions and good practice models).

6. Expected impact of the action

Creating these two tools that are objective and can be used by local authorities to prepare for the social impact of transition but also by the European Commission to establish if an area/region is, from a social point of view, ready to undergo the transition process.

The concept brings the possibility to understand social costs on the mid-term and long-term and therefore to adapt social measures accordingly.

This preparation and complex intervention can be at the basis of essential processes like employment and new competency gaining. Without the social security net there are limited chances for community preservation (on demographic indicators, brain drain, labour migration, etc.) yet along development.

The overall impact is to reduce mid- and long-term social costs of transition and to strengthen the credibility of its inevitable need.

7. WG members involved

Action leader: Associatia Umanitara Kandila, Instrat Foundation

Contributor: Chemelot Circular Hub

8. Timeline

The timeline proposed for this action would comprise of two stages:

- January – August 2023:
 - Review available legislation and difference between social systems at European level (analysis);
 - Carry out stakeholder consultations in areas that deal with or will face transition and what are the social costs of it (stakeholder mapping, synergies local-regional-national, possibility of study visits, etc.); and
- September – December 2023:
 - Build on the analysis and consultations to develop a matrix model of social resilience in transition affected regions and a toolkit for intervention and monitoring of social measures for communities affected by transition.

9. Links and synergies with existing initiatives and projects

Professor Vera Trappmann (Leeds University Business School) carries out the similar research project 'Just Transition: action, concepts, debates and strategies – an international comparison across 11 countries' from May 2022 to April 2025. Béla Galgóczi (Senior Researcher at European Trade Union Institute) manages the project 'Decarbonising energy-intensive industries: what are the risks and opportunities for jobs?'. Second-circle member Aleksander Szpor (Instrat Foundation) participates in both projects and can share results for this action.

Action 11 – Develop a good practice model of a Transformation Council

Category: Chemicals

1. Issue to be addressed

The transformation of industrial key sectors is a huge and complex task – with high risks at stake if it is not done properly. Even if there are many activities on regional, communal or company level, there must be a high-level body on state level responsible for the transition plan and aim that can provide advice and act as advisory board. Otherwise, resources may be spoiled ineffectively.

Even if there may be a dedicated 'Transformation Ministry' in state government, this cannot act alone. There will be at least three or more ministries involved. The prime minister and the state chancellery must take the lead actively, otherwise there will be no purposeful steering actions having in view the overall picture for all branches, sectors, and institutions of the state. Experience shows that the normal coordination between the ministries of the government will not be able to do that. Plus, there must be other key players involved, without making the high-level body so big that it cannot act effectively. Essential are social partners and few key authorities. This is the case in the so-called 'Transformationsrat' (transformation council) in Rhineland-Palatinate (Germany)¹⁰. To include broader views such as from academia or local clusters the high-level body may be supplemented by a separate network of different actors. This is the idea of the 'Transformationsnetzwerk', that is currently 'under construction' in Rhineland-Palatinate.

The present action does not operate under the JTFR, and it is not meant to limit or expand the scope of actions under the JTFR. However, it could be utilised and supported under Art. 8 (2n) 'technical assistance' JTFR.

2. Objectives of the action

This action aims at providing guidance to JTF regions concerning the set-up of transformation councils, which will be able to work as advisory board and influence the decision-making process, but will not be decision-making bodies as such. Such councils at regional level can have the following objectives:

- requesting and drawing an overall plan/picture of the transformation in the state, including overall figures on the actual and future energy demand (electricity, H₂), the local/regional production capacity, the required energy-imports and energy infrastructure;
- initiating and coordinating impactful actions of the state, regions, and the industry;
- requesting and formulating the necessary legal and political framework on national and EU-level outside the JTFR.

¹⁰ State Government of Rhineland Palatinate (September 2020). Transformationsrat beschließt erstes Maßnahmenpaket - Rheinland-Pfalz soll Gewinner der Transformation werden. Retrieved from <https://www.rlp.de/de/pressemitteilungen/einzelansicht/news/News/detail/transformationsrat-beschliesst-erstes-massnahmenpaket-rheinland-pfalz-soll-gewinner-der-transformati/> (last accessed on February 15, 2023). It should be pointed out that the council is not part of a TJTP.

Formulating position papers of the actors in the transformation council to provide advice and consultation. As part of this action, WG members could explore the possibility of performing a review of regulatory frameworks to foster (just) transition.

3. Outputs

The concrete output of this action is a factsheet with an example or 'good practice' of a transformation council.

4. Implementation (planned activities by the WG)

To implement the action the Action Leaders will formulate an example of a transformation council that can be of guidance to regions. They will collect and analyse information on transformation councils, particularly on the one in Rhineland-Palatinate, through desk research, exchanges and meetings. At the end, they will summarise findings from the empirical work in a factsheet and disseminate it through the Just Transition Platform website with the help of the JTP Secretariat.

5. Stakeholders to be involved

Regional/local governments that are relevant to transformation issues, social partners (such as labour unions, labour agencies), selected key regional actors (such as chamber of commerce) can be surveyed to compile the factsheet.

Beyond the transformation council, a 'transformation network' may incorporate more actors, such as representative from academia, local clusters, civil society organisations etc. The composition of the transformation council remains the key challenge for their actual commitment to decarbonisation instead of protecting the status quo. Civil society organisations should have the possibility to participate and surveyed accordingly to elaborate the good practice of a transformation council in the factsheet.

6. Expected impact of the action

It is expected that the factsheet will raise awareness among just transition policymakers. It will contribute to better resource use (e.g. by avoiding uncoordinated and expensive single measures) and more general to the chemical industry's just transition due to the involvement of high-level policymakers.

7. WG members involved

Action Leaders: Arbeitgeberverband Chemie Rheinland-Pfalz e. V., European Chemical Regions Network)

Contributor: Chemelot Circular Hub

8. Timeline

- **By the end of September 2023:** collection and analysis of information on transformation councils, particularly on the one in Rhineland-Palatinate, through desk research, exchanges and meetings.
- **By the end of December 2023:** summary of findings from the empirical work in a factsheet and its dissemination through the JTP website.

9. Links and synergies with existing initiatives and projects

The proposed action is strongly linked to the Transformation Council in Rhineland-Palatinate¹¹ (Germany) which served as a blueprint for the development of this action.

¹¹ See <https://www.igmetall-bezirk-mitte.de/transformation/transformationrats-rheinland-pfalz> (last accessed on February 15, 2023).

Action 12 – Compile a compendium on good practices on energy transition governance in cross-border/interregional cooperation

Category: Chemicals

1. Issue to be addressed

The chemical industry and its transformation into climate neutrality is a core priority. This thematic area concerns the energy transition and a reduction of the CO₂ footprint that the chemical industry faces to correspond to global challenges, as well as the opportunities it can provide to drive innovation in many other sectors where chemicals are used. Europe's energy transition needs a systemic redesign to achieve such goals and climate neutrality by 2050. Energy systems will have to become smart, flexible, robust and renewable, prioritising energy produced locally and complementing it with longer-distance energy transport. Investments should be driven to low-carbon infrastructure, energy efficiency, and lead markets to boost demand for the climate-neutral industry. This is even more important in the current context where the war in Ukraine may have long-term consequences on many regions in transition, particularly in central and eastern Europe.

Such a systematic change cannot be achieved without the coordinated involvement of all relevant stakeholders and cross-border and interregional cooperation to speed up and scale up the energy transition of the European regions and the European chemical industry. The huge benefits of sharing good practices and replicating existing solutions are undisputable. This approach reduces the time and costs of implementing innovative solutions.

The TJTPs should involve all levels of energy governance.¹² The TJTPs are usually perceived as a regional/local strategy while there are numerous measures which need to be implemented in close cooperation with the state level and the neighbour regions' authorities, the cross-border regions included. Such 'cross-border' regions could be adjacent JTF areas such as Nord-Pas-de-Calais in France and Arr. Tournai/Arr. Mons in Belgium.¹³ To reach the energy transition goals, it is necessary to ensure such cooperation goes beyond the local focus of the TJTPs. The local and regional context is core for the just transition.

This action is focused to aspects mainly of the JTFR, in particular Art. 8 (2e) 'investments in renewable energy' and Art. 8 (2n) 'technical assistance'.

2. Objectives of the action

The objectives of the action are to:

- collect examples from JTF regions on energy transition governance for a compendium of good practices;
- draw on specific project examples from JTF regions (in 2023) to show how energy supply problems in regions with a strong chemical sector were addressed.

The compendium will help raise awareness and share good practices to speed up the process of just transition. In the CEE region, dialogue focuses currently mainly on coal despite the risks of carbon leakage in energy-intensive industries including the chemical

¹² Under JTFR renewable energy investments are addressed in Art. 8 (2c).

¹³ See the JTF map for other examples: https://ec.europa.eu/regional_policy/funding/just-transition-fund/just-transition-platform_en (last accessed on March 30, 2023).

sector. Particularly the CEE region can thus learn from regions already focused on chemicals as the main source of CO₂ emissions.

3. Outputs

The output of the action will be a compendium of examples in a visually appealing format to raise awareness among JTF regions on the governance of the interregional and cross-border energy transition projects. The compendium can support the share of knowledge between partners and stakeholders on cross-border governance of energy transition.

One of the tools to efficiently govern energy transition cross-border projects might be the introduction of special interregional WG. In this case, these WG could be included in the compendium. These WG would be attended by the representatives of the decision-making bodies, regional and local governments, companies, social partners, academia, institutions, and the civil society organisations. The WG would aim mainly at sharing information about newly introduced measures (depending on what is needed), their effectiveness, and their social acceptance. The focus would be on inspiring each other, for example in creating subsidy programmes and introducing new solutions or technologies. Moreover, the interregional WG could implement the following activities:

- They could be responsible for the assessment of the regional energy transition requirements, collecting data and creation of the open-source digital databases. The use of the digital solutions could help to harmonise and simplify administrative procedures, make the exchange of good practices more efficient and give the access to the information for all relevant stakeholders. Creating a database for identification of regions with strong chemical sector could use the existing sources like the Joint Research Centre 'Integrated Database of the European Energy System' (JRC-IDEES), the European Pollutant Release and Transfer Register (E-PRTR) or the platforms combining these sources with new ones also in regional dimension like from [Instrat Foundation](#). Dialogue on potential pathways for decarbonisations can be conducted with the use of [Pathways Explorer](#) tool (based on x-calx model), containing a component devoted to the industrial sector.
- The interregional WG could set up well-prepared contact points that can assist and provide information and technical assistance for the regional stakeholders. This could speed up the exchange of information.

4. Implementation (planned activities by the WG)

The Action Leaders will collect and analyse information on good practices on energy transition governance in cross-border/interregional cooperation in just transition regions through desk research, meetings, and exchanges. They will submit a compendium, including the example of an interregional Working Group proposed above, for publication on the JTP website.

5. Stakeholders to be involved

Regional and local governments, (energy) companies, academia, institutions, and civil society organisations.

6. Expected impact of the action

The compendium will have the following impact:

- increase of the public awareness about the energy transition;
- increase of the social acceptance of the undertaken actions;

- involvement of small and peripheral stakeholders;
- increase of access to information and exchange of good practices;
- intensification of the interregional and cross-border cooperation;
- sharing of innovation in the chemical industry and on energy governance;
- monitoring Progress with regard to energy transition.

7. WG members involved

Action leader: European Chemical Regions Network, Instrat Foundation

Contributor: Chemelot Circular Hub

8. Timeline

The compendium will be elaborated in the course of 2023.

- **By the end of September 2023:** collection and analysis of information on good practices on energy transition governance in cross-border/interregional cooperation in just transition regions through desk research, meetings and exchanges.
- **By the end of October 2023:** submission of draft compendium, including the example of an interregional Working Group.
- **By the end of December 2023:** submission of the final compendium in a visually appealing format.

9. Links and synergies with existing initiatives and projects

Links with this action can be sought with the:

- [IN4climate.NRW](#) and [SCI4climate.NRW](#) (Germany) on the development of innovative strategies for a climate-neutral industry in a collaborative manner;
- [REV3](#) (France) to make Hauts-de-France one of the most advanced European regions in the field of energy transition and digital technologies; and
- [Transformation strategy](#) in [Konin](#) (Wielkopolska region (Poland)) TJTP, where the objective is to transform the regional economy in line with the climate-neutral objectives.

Action Leaders are encouraged to work together with the European Chemical Regions Network, industriAll and CoR to gather new information for the compendium on cross-border/interregional cooperation on energy transition. It is also recommended that they gain insights for the compendium from DG REGIO's work on the planned Handbook on Cross-Border Energy Communities.¹⁴

¹⁴ The handbook will serve as a tool for citizens, citizens' organisations and local actors – such as local authorities and NGOs – that wish to exploit the benefits of cross-border cooperation in (renewable) energy generation, supply, storage, aggregation, distribution, and consumption by establishing cross-border energy communities across the European territory. The handbook will provide a step-by-step methodology on how to set-up cross-border energy communities and develop their activities. The handbook will also provide recommendations on how to overcome legal, administrative, governance and management obstacles that may arise given the specific cross-border context and disseminate good practices. See also <https://etendering.ted.europa.eu/cft/cft-documents.html?cftId=13203> (last accessed on February 16, 2023).

Action 13 – Develop a recommendation paper on CCU in just transition regions

Category: Chemicals

1. Issues to be addressed

The chemical industry can contribute to climate change mitigation not only through shifting from fossil-C to C-free energy sources for powering the processes, but also using raw materials alternative to fossil-C that today represents the source of >95 % of the chemicals produced (in addition to >82 % of the energy). A key target for the chemical industry is, thus, reducing the overall use of fossil-C for both powering the processes that often require temperatures in the range 300–800+ °C and as feed of processes so to become C-neutral by 2050. The chemical industry even crosses the path of the energy sector through the production of synthetic fuels non-fossil-C-based (today called: e-Fuels, Renewable Fuels of Non-Bio Origin (RFNBO), synthetic fuels, etc.). Neither hydrogen nor electrification can solve all problems in the transport sector especially when the aviation-sector, the maritime and heavy land-transport are concerned. So, C-based fuels (of bio or non-bio-origin) will continue to stay on the market, extending the use of existing infrastructures with much economic benefit and cost saving.

It is worth to emphasise that if the energy can be in part decarbonised it is not possible to decarbonise the chemical production of daily used products, food, cloths, furniture, etc.

Nevertheless, the whole 'raw materials treatment-goods production-product use-waste management' chain in the production of chemicals and materials (polymers) can be made fossil-C-free and in general less carbon intensive through a series of specific actions. This is a complex process that may produce more positive results if extended to networks of industrial processes, more than if it is focused on a single process.

The reduction of fossil-C in powering the processes can be achieved using alternative energy sources. Most likely, electrification of power units will offer a sustainable solution. The increase of the efficiency of conversion processes is another aspect of fundamental importance, as it would allow a better use of the primary source of energy either based on carbon or on alternative primary energy sources, avoiding the emission of waste-heat into the atmosphere with its direct perturbation and heating.

The change of raw materials encompasses both the use of solid and liquid waste as secondary raw materials (plastics, effluents rich in organics, waste biomass, etc.), and the capture and utilisation of carbon dioxide (CCU) to implement the Carbon Cyclic Economy (CCE). Such approach has less value if implemented at a single site, while it may reach a high value if clustering of industries is deployed for better use of materials and waste re-use, avoiding long-distance road transport or building of heavy infrastructures such as pipelines for gas or liquid transfer. The identification of value chains that can merge processes for the optimal use of recycled carbon can be a useful tool to clustering.

CCU should not be used against decarbonisation policies, that is using CCU for minor share of emissions in processes in order to prolong fossil-based activities or in processes where other technologies should apply to replace fossil-based carbon.

Investments for circular economy are covered by Art. 8 (2j) JTFR.

2. Objectives of the Action

The paper aims to provide recommendations on scenarios for defossilisation of the energy and chemical industry sectors by 2050. Which processes may benefit by C-recycling will be listed and the potential of C-recycling will be defined. The paper will also provide orientation on the role that CCE may have in hydrogen utilisation for fuels production in the short term, while in the medium-to-long-term a different approach based on CO₂-water coprocessing should take the lead.

3. Outputs

The central output of the action will be a paper with recommendations on CCU in JTF regions. The paper will outline the development of models and scenarios for CCE to implement the 2050 vision of net zero carbon emission in the atmosphere. A specific aspect in the paper can be the contribution that CCE can give to the production of non-fossil-C-based jet fuels.

4. Implementation (planned activities by the WG)

The Action Leaders will collect relevant input for the paper through desk research, meetings and exchanges with CCU experts on the following topics:

- assessing the potential of CCU within the regions (and EU as a whole);
- time-framing actions for carbon-recycling according to the end use of CO₂ as building block for materials (polymers) or chemicals and as source of carbon for fuels and assessment of the avoided CO₂ and fossil-C;
- defining the crossing-area of CCU and H₂-utilisation as the production of green-H₂ increases its volume;
- building scenarios and models for CCU from now to 2050;
- facilitating the transition from fossil-C to C-recycling with identification of specific activities and job market for JTF Regions where coal-mines or energy-intensive operations will be closed, creating innovation hubs that will promote profession conversion, orienting workers to innovative technologies and circular economy that will generate new knowledge and new jobs on site, avoiding migration.

5. Stakeholders to be involved

The Action Leaders will consult the following stakeholders:

- Industrialists (associations);
- National Organisations (NTO-NL and similar);
- International Research Organisations that target carbon-recycling at all levels;
- EU Associations (CO₂ Value Europe and similar);
- Other interested stakeholders such as civil society and public authorities

6. Expected impact of the action

The action will raise awareness and ultimately, if recommendations are implemented by decision-makers, lead to the identification of the trend of fossil-C reduction/elimination along a timescale to 2050 per specific chemistry industry (chemicals, materials and fuels C-based, of bio and non-bio-origin). The paper will recommend focusing on the vision 'zero fossil-C extraction at 2050'. Most likely the fossil-C extraction may be reduced to 20 % of the actual rate, which will be a great success. The rate of CCE implementation will depend on how the actual situation will change. A rate-determining factor is the availability of hydrogen in the short term for making synthetic fuels and bulk-chemicals from recycled

carbon. In the future, decoupling of C-recycling from H₂-availability may become a reality if substantial investment in innovation is planned and implemented. Furthermore, the following impact can be expected if recommendations from the paper are implemented:

- new competence built, new skill in alternative raw materials utilisation, new job market;
- crossing of solid-liquid-gas waste utilisation;
- new industrial poles development based on clustering of industrial processes;
- waste utilisation on site, avoiding transport of dangerous materials;
- valorisation of what is now considered spent-carbon, and conversion into working-carbon;
- development of a man-made carbon-cycle that may complement the natural C-Cycle;
- development of a solar-chemistry;
- long-term decoupling of CO₂ conversion from hydrogen production.

7. WG Members involved

Action Leaders: Interuniversity Consortium on Chemical Reactivity and Catalysis

Contributor: Chemelot Circular Hub.

8. Timeline

The paper will be elaborated in the course of 2023.

- **By the end of September 2023:** collection and analysis of information on CCU in just transition regions through desk research, meetings and exchanges.
- **By the end of October 2023:** submission of a draft paper targeted at policymakers in JTF regions.
- **By the end of December 2023:** submission of the final paper with very concrete and actionable recommendations for just transition regions, written in non-scientific language.

9. Links and synergies with existing initiatives and projects

A link with CO₂ Value Europe, the European Association representing the CCU community, which is building an EU Roadmap for CCU (Michele Aresta and Angela Dibenedetto are members), would be of great help for identifying tools, timescale and targets. In addition, a link to EU-funded projects, like SUNER-C that target CO₂ recycling and waste valorisation will allow to reach target results.

Action 14 – Develop a strategy paper for the governance of a CO₂ infrastructure in the context of a just transition of the cement sector

Category: Cement

1. Issue to be addressed

Carbon Capture and Usage or Storage (CCU/CCS) represents a promising and potentially cost-effective pathway for the transition of the cement industry and for other CO₂ emitters like municipal solid waste incineration plants. Current assessments emphasise that the feasibility of CCU/CCS relies on a cost-efficient, open-access, cross-border and multimodal CO₂ transport and storage infrastructure.

One possible vision is a transport network of CO₂ pipelines supplemented by other modes of transportation that would connect multiple emitters from various sectors with geological onshore CO₂ storage sites, shipping terminals for offshore CO₂ storage sites and Power-To-X facilities or other use facilities. Open-access CO₂ transport and storage networks could very well one day be part of public supply family of infrastructures next to electricity, gas and water.

Solving the problem for the cement industry could lay the foundation for the green transition of the energy sector with renewable solutions such as wind turbines and solar PVs largely requiring cement for their construction. At the same time, reducing the emissions of the cement industry offers vulnerable regions and industries an opportunity to lead the transition, while also encouraging the return of industries from abroad.

From the ongoing developments across Europe of local CCU/CCS clusters, it is indicated that existing gas transmission operators – like Eridania (Denmark), Nordion (Sweden), Fluxys (Belgium) and OpenGridEurope (Germany), FGSZ (Hungary), GAZ-SYSTEM (Poland), Transgaz (Romania), and Eustream (Slovakia) – shipping companies and railway operators are able and interested in developing open-access CO₂ transport infrastructures to support current market developments for storage and use.

However, maps of projects in the field of Carbon Capture, Transportation, Storage and Utilisation (i.e. Zero Emissions Platform, NRW.Energy4Climate) show that projects and planned actions take place mainly in highly industrialised, economically strong countries and regions, in particular in northwest Europe. This development is reasonable because of the opportunity of investment on the one hand and the close connection to industrial clusters, big ports and storage opportunities. However, focusing on these maritime regions to the neglect of landlocked regions is contrary to the spirit of the European Union and a just transition.

Additionally, current provisions regarding crediting opportunities in the revised EU ETS of CO₂ utilisation suggest that only permanently chemically bound CO₂ from cement plants could be eligible. At this point it is not clear to which extent CCU in the cement sector can count as CO₂ emission reduction under the EU ETS and other pertinent EU regulations. This could limit the CCU options from an economical perspective. This strengthens the necessity of connecting landlocked regions to CO₂ storage facilities and to provide a level playing field and equal opportunities. However, it is currently unclear who may own and operate CO₂ transport grids locally and nationally and what models and regulatory frameworks should apply to CO₂ infrastructure networks. CO₂ pipelines are currently treated differently from power and gas in national legislation, for example with respect to legislation enabling expropriation of land for pipelines. How may national and EU legislation and policy strategies best facilitate these developments?

To avoid sub-optimal infrastructure investments, a dedicated governance and systems approach is warranted that incentivises public-private partnerships and collaborations in developing open-access CO₂ transport and storage networks. This point is for example discussed in the EU CCUS Forum.

Regarding a just transition, the EU Commission should support a governance approach, which ensures that all regions in the EU with industrial activities get connected to a CO₂-transport infrastructure with connections to utilisation and storage options. Otherwise, the poorest regions of the EU will be hit the hardest. Cement plants in these regions may end up having to pay a lot for CO₂ allowances and cannot become economically climate neutral without CCU/CCS. The lack of available open-access CO₂ infrastructure may lead to several

cement facilities ceasing operation due to the high cost of ETS allowances leading to reduced economic competitiveness with no viable option to decarbonise production processes. This threatens the economies of regions that rely heavily on these industries for welfare carrying jobs.

Because of the higher costs of transporting CO₂ from landlocked plants to storage facilities, the governance approach must include finance support to ensure a level playing field for regions further away from storage opportunities.

2. Objectives of the action

- a. Facilitate dialogue among governance and cement industry stakeholders across just transition regions.
- b. Observe and evaluate their state of knowledge of carbon management and obstacles for a just transition.
- c. Identify governance options to support a progressive policy strategy that aims at bringing back industrial production from abroad enabled by CCUS.
- d. Develop a narrative on the status and future of cement production in the EU considering the outcome of the dialogue, the identified options and scientific research (e.g. on societal acceptance). The narrative should furthermore identify potential needs for research across the affected regions.

3. Outputs

1. A dialogue platform for regional governments and cement industries in the EU, especially in just transition regions, including at least two international roundtables bringing together local governance and cement industry stakeholders from at least two just transition regions in each meeting.
2. A co-created (WG specialists, stakeholders) strategic communication report on 'requirements for public-private partnerships on developing a carbon infrastructure in the context of a just transition of the cement sector', which contains guidelines relating to:
 - a. networks, actor constellations and coordination;
 - b. regional awareness and cohesion;
 - c. suggestions to create a level playing field regarding just transition;
 - d. public interests;
 - e. social acceptance issues.

4. Implementation

1. Contact local/regional authorities and the cement industry in selected JTF regions to inquire about their interest in participating in the dialogue and collaboration.
2. Organise, prepare and implement at least two online roundtables (a two–four hour duration, around 10–15 participants) that bring together local/regional governance and cement industry stakeholders as well as key industry representatives (CEMBUREAU, industriAll).
3. Write-up of communication and synthesis from these investigations, early meetings and roundtables.

5. Stakeholders to be involved

1. Governance and industry stakeholders: selected pairs of municipal government and local cement industry representatives from two just transition regions together with regional stakeholders involved in the JTP WG on Cement will be invited to participate in the suggested round-table format. If the interest in

dialogue is not confirmed, other pairs of such public-private stakeholders will be engaged.

2. Specialists from the WG and the WG Secretariat that will be responsible for the preparation and implementation of the roundtable meetings and communication, including these activities:
 - a. early engagement with governance and industry stakeholders, identifying round-table participants;
 - b. preparation of roundtables, including brief presentations/handouts covering carbon management perspectives;
 - c. preparation of interview/dialogue guidelines with explorative questions intended to engage and facilitate stakeholder positions and evaluate requirements for their participation in the carbon economy.
3. Other interested stakeholders such as civil society and public authorities.

6. Expected impact of the action

The suggested action:

- a. directly facilitates local public-private partnerships and collaboration, thus potentially enabling real steps and pathways towards green growth solutions for hard-to-abate industries in JTF regions;
- b. generates and communicates new, original knowledge about actual perception and experience towards the CO₂ economy among targeted stakeholders;
- c. provides EU-wide inspiration for public-private partnerships in hard-to-abate industry sectors;
- d. provides a policy basis for the EU Commission, which is proposed to prepare guidelines on pathways enabling the CO₂-Economy. The JTF regions can use these guidelines for the dialogue with industry and civil society to create better solutions founded on wide social support for establishing a climate-neutral/negative infrastructure.

7. WG members involved

Action leader: Danish Ministry of Climate, Energy and Utilities
Contributors: NRW.Energy4Climate, CEMBUREAU, Bellona Europe, OFICEMEN, Holcim.

8. Timeline

Q1/Q2 early and explorative dialogue with local/regional governance and cement industry stakeholders in JTF regions.

Q2/Q3 roundtables with selected 'twins' across JTF regions (public-private partners).

Q3/Q4 write-up of strategic communication report.

9. Links and synergies with existing initiatives and projects

- EU CCUS Forum and EU-COM's 'strategic vision' for CCUS under development in 2023;
- multiple national CCUS policy strategies;
- multiple local/regional CCUS public-private cluster network cooperation (e.g. NRW.Energy4Climate);
- multiple cement industry CCUS pilot and demonstration projects (e.g. mapped here: <https://energy-industry-geolab.jrc.ec.europa.eu/> or through EU Innovation Fund activities);
- some cement industry association CCUS strategy papers.

Action 15 – Draft a recommendation paper on strategies for increasing material efficiency and the utilisation of secondary steel

Category: Steel

1. Issue to be addressed

Issues:

- The EU steelmaking sector is at a turning point; 71.4 % of steel installations would be reaching the end of their lifetime by this decade and will require major investments. This decade will be key to define the policies that should bring the EU towards a climate-neutral, zero-pollution continent in a socially fair way.
- The present Russian invasion of Ukraine is exposing how dependent the EU is on external suppliers able to menace its own basic interests and standard of living. The steel sector makes no exception, fossil gas making up 32 % of its energy use.

Challenges:

- Greening the production of primary steel via the electrification of processes and use of renewable hydrogen is only one side of the matter.
- Other deployable solutions such as an increased circularity of the sector to make the most of scrap, a better efficiency when it comes to how steel is used to produce a certain output, and the extension of the use of the steel already embedded in products should be implemented at larger scale.
- Such solutions will have an impact on the number, type, and location of current jobs in the steel sector and will require upskilling or reskilling of the current workforce as well as finding solutions for other impacted steel workers to ensure a just transition. Furthermore, it will also require dedicated resources, and additional research to increase the quality of scraps.

1. Objectives of the action

The aim of the action is to show to policy makers, national and regional authorities through a recommendation paper the available options and related needs able to implement circular economy and material efficiency practices to tackle environmental, social and resiliency issues at once.

2. Outputs

Developing a recommendation paper listing and describing the available options concerning:

- **Circular economy:** increase the quality of scraps (e.g. improved sorting, avoiding mixing different streams during collection with a focus on copper contamination, product disassembly), use secondary steel for more applications, policy improvements (e.g. steel exports, product design).
- **Material efficiency:** notions of material efficiency and smart design (use less steel for the same output) and product design (to facilitate disassembly and avoid mixing), prolonging the life of the steel already embedded in products, links with other sectors (e.g. automotive and construction).
- **Managing the social impact:** managing the industrial transition in a socially responsible way by ensuring a job-to-job transition for any impacted workers as well as providing adequate upskilling and reskilling to meet the potential new job opportunities linked to the implementation of such approaches, noting that newly created jobs must be 'quality' jobs.

3. Implementation

- data collection;
- consultation of stakeholders including social partners, academia, civil society organisations and regional authorities active in the above-mentioned fields;
- mapping of existing good practices and gathering of information on 'lessons learnt';
- employment mapping of the impact on the number and type of jobs in relation to the proposed approach, including a skills analysis on future skills gaps and upskilling and re-training needs.

4. Stakeholders to be involved

- WG members;
- social partners: employers and trade union;
- regional representatives noting the potential impact on the supply chain, indirect/associated jobs and the wider region;
- secondary steel businesses;
- academia and researchers;
- smart designers, representatives of other sectors (e.g. construction, automotive);
- circular economy experts.

5. Expected impact of the action

The expected impacts of this action are to:

- Improve the visibility of techniques and processes aimed at making the most of secondary steel, as well as demonstrating possible new research paths.
- Show the advantages linked to an efficient use of steel in terms of environmental, public health and climate protection, while ensuring that it is managed in a socially responsible way with regards to impacted workers and the local community.
- Outline the research and training needs required to enable such an approach to take place in a successful and socially acceptable manner.
- Stimulate cross-sectoral collaborations (e.g. steel and cement).
- Feed into national and regional authorities to assist them when drafting Just Transition Plans. To ensure that such opportunities are considered, and all relevant stakeholders are involved.
- Inform regional, national and European decision-makers about such positive and practical approaches when shaping relevant legislation.

6. WG members involved

Action leader: EEB

Contributors:

- IndustriAll Europe (with national affiliates) to identify the impact on workers and to set out requirements to ensure a just transition for workers including via a skills analysis to provide information on upskilling/reskilling needs linked to the proposed approach.
- Industry partners (mapping good practices, reskilling needs, better sorting of scrap, using secondary steel more widely).
- Think tanks and academia: mapping good practices and new technologies to increase the quality of scrap, providing data on material efficiency and circular economy topics.

7. Timeline

- April 2023: planning of activities and preliminary discussions with stakeholders;
- June 2023: first version of the Action;

- December 2023: final version of the Action.

8. Links and synergies with existing initiatives and projects

- European Sectoral Social Dialogue Committee work;
- European Economic and Social Committee (EESC), Consultative Commission on Industrial Change (CCMI);
- Eurofound;
- CoR;
- National/regional/sectoral social dialogue structures as appropriate and where existing.

Action 16 – Develop a strategy paper with recommendations on interregional research partnerships among JTF regions for green hydrogen for the chemical industry

Category: Chemicals

1. Issue to be addressed

The chemical industry is a key sector in developing innovative solutions to move towards a sustainable and circular economy in the spirit of the European Green Deal concept. In the context of the political crisis caused by Russia's aggression against Ukraine, a complete shift away from the use of fossil fuels (natural gas, oil, coal) in the chemical industry is of exceptional importance. Most of the fossil fuels in the chemicals are used for energy production (electricity, heat, steam) and can be replaced by green electricity and hydrogen. The smaller part of fossil fuels is used as raw materials for chemical products and can be replaced by production based on green hydrogen (GH₂), additionally using a CO₂ as carbon source. This can come from waste processing (municipal, plastics, medical, RDF) as well as CO₂ emitted by certain industries (coal-fired and gas-fired power plants, metallurgy, steelmaking, cement plants). In principle the processes are known, in industrial practice electrification as well as replacement of fossil raw material needs intensive research and development. It is therefore essential to build national and European scientific and technological partnerships to increase knowledge and competence on green chemistry based on hydrogen and CO₂. A good example of this is the global organisation Methanol Institute (<https://www.methanol.org/>). Furthermore, it is essential to guarantee the supply of the European industry with the needed huge amounts of GH₂ and CO₂ as well.

The energy transition and a zero-emission, circular economy is leading to the building of new, widespread applications of GH₂ in the chemical industry. By 2050, the market for hydrogen will exceed 100 million tonnes, resulting in it becoming the important energy carrier, in particular for storage and generation of electricity. It is estimated that the demand for hydrogen will grow in various industries linked to the chemical industry: metallurgy (heat, steam, reductant in the steel industry), sustainable fuels for transport (mainly shipping, long-distance road transport and aviation) and sustainable chemical feedstocks (methanol, ammonia, fertilisers, biodegradable plastics etc.).

The green chemical industry, which is being created with huge effort, is supported by initiatives from policy makers at European and national level. The increasing number of

hydrogen projects initiated or starting soon in the chemical industry is a good indicator of the interest in hydrogen and underlines the need for immediate action, especially in view of the crisis related to Russia's aggression in Ukraine. This trend is reinforced by initiatives from countries outside the EU, e.g. hydrogen demand in China is estimated at 60 million tonnes per year by 2050. Considering the considerable variation between EU countries in the development of the chemical industry as well as in renewable energy resources, it is reasonable to assume that the pace of development of the green chemistry branch, particularly in the initial phase, will vary considerably. This will be a result of the different energy and hydrogen strategies of individual countries, which should be reviewed and updated with the results of new technological and economic analyses based on the experience of countries such as the Netherlands, Denmark or Germany.

European chemical companies, particularly those operating, or being established, in post-coal areas may use the opportunities of the emerging hydrogen economy and create a competitive advantage. They can leverage their strong global assets, existing supply chains, sales and distribution, hands-on engineering expertise, etc. to start building a leading role in the global hydrogen and green chemistry economy.

This can only be done if European and national politics make sure that the supply with the needed huge amounts of GH₂ and CO₂ is available at low and internationally competitive prices. Local GH₂ production and prices may be sufficient for small-scale chemical production, but not enough for large-scale plants competing in global markets.

Potential leaders in the EU should be strengthened by treating chemical industry locations in post-coal-areas as places where good practices are created and creating a European innovation ecosystem for the hydrogen economy and green chemistry. At a more general level, an EU-wide acceptable system of public subsidies for chemical sector leaders willing to take on the risks of implementing new technologies to replace oil and gas in key chemical sectors should be rethought.

2. Objectives of the action

Interregional research partnerships among JTF regions for green hydrogen have the aim to:

- Support bottom-up regional and national initiatives in post mining and chemicals-heavy regions to create hydrogen hubs and valleys, bringing together partners in a limited geographical area to build a complete hydrogen chemistry supply chain: production of green energy, GH₂, e-chemicals, e-fuels, biodegradable plastics, intermediates and products. The regional approach to green hydrogen projects is very much needed. The bottom-up approach (hydrogen valleys and hubs) should help to tackle the issue of a potential hydrogen bubble which in the planning at central level seems to be out of touch. Green hydrogen should remain the priority as many projects on blue hydrogen in the chemical sector are already supported.
- Support hydrogen partnerships between hydrogen producers inside and outside the EU (e.g. Southern Europe, North Africa, etc.). Having in mind the huge need in hydrogen, it cannot be covered nationally. There have to be heavy imports of hydrogen.
- Support pipeline building between hydrogen-export and -import countries.
- Identify and strengthen links within the EU between scientific, technological, business partners, as well as between local governments, with the aim of exchanging good

practice, scientists, professionals and capital to build a new chemical and hydrogen industry and local/interregional value chains.

- Support transnational R&D projects between areas moving away from coal and fossil raw materials to jointly develop new green chemical technologies.
- Create transnational investment funds and technology incubators to support the creation of start-up companies and the implementation of new green chemistry technologies in European post mining and chemical regions.

JTF investments around these objectives are covered by Art. 8 (2c) 'R&D', Art. 8 (2b) 'New firms' and Art. 8 (2d) 'Systems and infrastructure' JTFR.

The conditions for the effective building of national and European research partnerships for the transformation of the chemical industry will be based on three pillars: (i) regulations and geopolitical conditions, (ii) technical and technological capabilities and (iii) economics, requiring specific solutions to support transformation processes:

Regulation and geopolitics:

- EU regulators will need to be bold and use strong arguments to justify significant public subsidies for green energy and chemistry;
- the regulations must be based on up-to-date market and technological analyses taking into account the need for the European chemical industry to remain globally competitive;
- new trade and market mechanisms may encourage the choice of more expensive market alternatives (e.g. due to changing consumer preferences);
- Russia's aggression against Ukraine and political and economic sanctions against Russia have a strong impact on the supply of conventional (fossil) raw materials.

Technical viability:

- transport and fuel alternatives are becoming more feasible, e.g. an airline committing to a greater share of sustainable aviation fuels;
- gas networks can to some extent be adapted and expanded to use hydrogen (case of North Netherland);
- technological advances minimise energy losses, e.g. in large-scale fuel cells.

Economic viability:

- economic preferences to market GH2 will be targeted (e.g. August 2022 decisions on GH2 subsidies in the USA);
- alternative production processes are becoming more efficient;
- the viability of GH2 is not only driven by the private sector, but also by the world responding to the energy, political and climate crisis. Hence, WG members expect this trend to accelerate.

The Action Leaders will analyse this context in the strategy paper, backed up by new empirical evidence, to raise awareness among JTF regions and provide them with policy recommendations for action.

3. Outputs

The concrete output of the action will be a strategy paper with recommendations on interregional research partnerships among JTF regions for green hydrogen for the chemical industry.

4. Implementation (planned activities by the WG)

The Action Leaders will collect and analyse information on research partnerships for green hydrogen for the chemical industry through desk research, meetings and exchanges. Upon request by the Action Leaders and to support the information collection exercise in case of striking information gaps, the JTF Secretariat can launch a survey among JTF regions on their plans for green hydrogen (research) projects. The final paper will include very concrete and actionable recommendations for just transition regions, written in non-scientific language. The recommendations should also communicate to JTF regions which steps they can take to benefit and be involved in the existing hydrogen initiatives mentioned under '5. Stakeholders to be involved'.

5. Stakeholders to be involved

Regional and local governments, companies, academia, institutions, social partners, public authorities and civil society. Synergies will be sought with existing initiatives such as the IPCEI Hy2Tech, IPCEI Hy2Use, Regions Hub of Clean Hydrogen Partnership, H2REGIONS.EU, Grande Region Hydrogen, Clean Energy Ministerial (CEM) Hydrogen Initiative (International Energy Agency), European Hydrogen Backbone (EHB) initiative, etc.

6. Expected impact of the action

In the long term, the successful implementation of the recommendations from the paper will result in the following benefits for JTF regions:

- EU countries and regions moving away from fossil fuel-based industries can benefit from the new industrialisation pathways that a transition to GH₂ production would create, generating new jobs in green technologies and additional welfare gains.
- The gradual start-up of chemical production based on GH₂ seems most appropriate for industrial commodities such as ammonia, methanol and hydrocarbons. The EU should therefore support this kind of investment in the EU's post mining and chemical regions, without affecting existing commodity productions in other EU regions. This will enable an industrial transformation in these regions towards new, green technologies instead of leading to the closure of traditional industries. Otherwise, there is a serious risk that existing commodity production will cease to be competitive and will be relocated to countries outside the EU. Therefore, the action secures jobs and growth opportunities in existing industries of JTF regions (including internationalisation of local innovative companies related to green industries.)
- The necessary transformation will largely depend on the labour costs and increased skills of the local workforce, the cost of transporting finished or semi-finished products in comparison and the availability and cost of local sources of green energy. Given the expected uneven development of renewable energy and green chemistry in Europe, the opportunity is to create new business and economic partnerships between areas of Europe, demonstrating synergies to optimise costs in green industries.
- Because the benefits of the necessary transformation will only emerge in the long term, there is an economically risky transition phase, where huge 'green' investments have to be done without immediate compensation. For example, in pipeline planning building long time spans are needed. Investments in high volume hydrogen technology begins

only to pay off from the moment huge amounts of hydrogen are available but then they attract new investment. Therefore, coordination of these projects on national and EU-level is crucial and can result in the development of underdeveloped post-mining subregions in the EU.

7. WG members involved

Action leaders: Town Hall in Wałbrzych, Arbeitgeberverband Chemie Rheinland-Pfalz e. V.

8. Timeline

The paper will be elaborated in the course of 2023.

- **By the end of August 2023:** collection and analysis of information on research partnerships for green hydrogen for the chemical industry through desk research, meetings and exchanges.
- **September 2023:** upon request by the Action Leaders and to support the information collection exercise in case of striking information gaps, launch of a survey among JTF regions on their plans for green hydrogen (research) projects.
- **By the end of October 2023:** submission a draft paper targeted at policymakers in JTF regions.
- **By the end of December 2023:** submission of the final paper.

9. Links and synergies with existing initiatives and projects

Links and synergies with the following existing initiatives and projects can be sought:

- The Northern Netherlands Hydrogen Valley (<https://www.newenergycoalition.org/en/hydrogen-valley/>);
- EnergiePark Bad Lauchstadt (<https://energiepark-bad-lauchstaedt.de/>);
- Green Lab Skive (<https://www.greenlab.dk/>);
- Methanol Institute (<https://www.methanol.org/>);
- EU Hydrogen Strategy (https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf);
- Dutch Government Strategy on Hydrogen (<https://www.government.nl/documents/publications/2020/04/06/government-strategy-on-hydrogen>);
- Center for Strategic & International Studies analysis on Germany's Hydrogen Industrial Strategy (<https://www.csis.org/analysis/germanys-hydrogen-industrial-strategy>).

Action 17 – Develop a proposal for a JTM coordination platform on building of hydrogen infrastructure across JTF regions

Category: Chemicals

1. Issue to be addressed

In the hydrogen economy, hydrogen is used for different industrial purposes: electro energy, industrial heat, materials such as steel and biodegradable plastics, chemical products such as hydrocarbons, fertilisers, space heating and transport fuels. Thus, access to as cheap as possible hydrogen or green hydrogen (GH₂)-based intermediates (e-methanol, e-ammonia, e-hydrocarbons) will be key to developing local 'green economies'. Steps should therefore be taken to integrate post-mining and chemical areas into the

green hydrogen distribution network. This can be done by supporting the construction of dedicated hydrogen infrastructure and supporting the emergence of hydrogen markets in these areas.

The EU Hydrogen Strategy¹⁵ sets a target of producing 10 million tonnes of GH2 per year and 2×40 GW of electrolyser capacity by 2030. This amount of hydrogen will certainly be insufficient for the entire EU chemical industry, estimated to cover only a fraction of the total demand. It will therefore be necessary, on the one hand, to import GH2 and, on the other, to develop research into alternative sources (waste gasification, catalytic and photocatalytic water decomposition, etc.). The plan recognises the importance of producing GH2 in places with good solar and wind resources. Only in such places with good renewable resources can cheap GH2 be produced to compete with current fossil fuel hydrogen. Thus, the EU must take into account the need to import large quantities of GH2 from places where it will be produced on more favourable terms than in Europe (e.g. North Africa). The EHB initiative¹⁶ is a proposal for a dedicated hydrogen pipeline network infrastructure, largely based on the re-use of existing natural gas pipelines. By 2030, the EHB would consist of 11 600 km of pipelines, connecting emerging green economy hubs and hydrogen valleys. Thereafter, the entire hydrogen infrastructure would gradually grow to become a pan-European network, reaching a total length of 39 700 km by 2040.

Integrating post-mining and chemical areas into the EHB network will be key to transforming these areas into the new European green economy. Regions developing chemical industries that are not part of the EHB should develop autonomous hydrogen hubs based on their own production or massive storage of green hydrogen (e.g. in underground caverns). Alternative options for access to GH2 sources for all regions of the chemical industry should be thoroughly investigated in advance.

The regional actions must be in line with the overall infrastructure plan in Europe and to Europe from non-EU countries. A key question to many regions with strong chemical sector considering green hydrogen is the access to extra capacity in renewable energy sources both in physical and legal terms. Green hydrogen is expected to play a bigger role in the chemical sector before it becomes a market commodity. It is therefore also important to focus on infrastructural projects within particular companies producing green hydrogen for their own use which is more probable and a shorter vision of use of hydrogen in the economy than building pipelines.

EU-level support is needed to provide the funding frameworks which impact regions. The EU should continue to work with regional actors, including authorities and consultancies to translate its legislation into regionally – and stakeholder-specific terms and contexts.

2. Objectives of the action

The action aims to develop a paper with a proposal for a JTM coordination platform on building of hydrogen infrastructure across JTF regions. The action will help raise awareness among decision-makers at national and EU-level on the need to coordinate:

¹⁵ European Commission (July 2020). A hydrogen strategy for a climate-neutral Europe. COM(2020) 301 final. retrieved from https://energy.ec.europa.eu/topics/energy-systems-integration/hydrogen/key-actions-eu-hydrogen-strategy_en (last accessed on February 17, 2023).

¹⁶ <https://ehb.eu/> (last accessed on February 17, 2023).

- building GH2-Infrastructure for the important European industrial areas, including post mining areas;
- building GH2-Infrastructure into the EU from non-EU-countries;
- building infrastructure for local GH2 production (high-power electrolyser installations) in post-mining areas with favourable conditions for low-cost renewable energy production (e.g. brownfield sites, post-mining spoil heaps that offer beneficial terms for sun/wind energy production);
- creating pipeline connections (new, or based on the modernisation of the natural gas network) between hydrogen hubs and valleys in post-mining areas and the European EHB network;
- building a local hydrogen distribution network to increase hydrogen availability for business customers, e.g. truck refuelling stations, metallurgical plants, e-chemical manufacturers, e-fertilisers, etc.;
- developing infrastructure and services for the efficient use of hydrogen in technological processes, e.g. hydrogen recovery from waste gases in the chemical industry, purification of hydrogen to the appropriate purity, etc.;
- cooperation of hydrogen hubs and valleys with the research community and local entrepreneurs to create hydrogen laboratories in the Living Labs and Reallabor formula; incubating new technologies and start-up companies and building a hydrogen and green chemistry culture locally.

Generally, such actions could be covered under Art. 8 (2d) 'systems and infrastructure' and Art. 8 (2e) 'renewable energy' JTFR.

3. Outputs

The concrete output of the action will be proposal paper. It will include a set of recommendations that, if put into practice, will lead to:

- internationalisation of local innovative companies related to green industries;
- inclusion of local companies and technology hubs in international projects;
- ensuring and securing a steady supply of green hydrogen and hydrogen-based products at competitive prices and quality for the European industry;
- building a 'hydrogen culture' in the EU post-mining and chemicals regions;
- upgrading of local gas transmission networks for the transport of hydrogen and other gaseous and liquid intermediates of Green Chemistry (methanol, ammonia).

4. Implementation (planned activities by the WG)

Action leaders will conduct desk research, exchanges and meetings with stakeholders from the European hydrogen community to collect input for the paper.

When drafting the paper with recommendations targeted at DG REGIO, DG ENER and (regional) public authorities involved in the design of TJTPs several issues need to be kept in mind that may hinder the feasibility of the proposed activities or are related to wrong conceptions about hydrogen. General issues are:

- The safety risks associated with hydrogen are greater than with natural gas due to the large explosivity range in air, the low amount of energy required for ignition and the invisibility of the flame.
- While hydrogen has only a third of the volumetric energy density of natural gas, the hydrogen flow rate in the pipeline can be much higher than for natural gas/methane.

Therefore, hydrogen can be transported in the same pipeline at ~ 88 % of the energy that natural gas/methane can carry.

- Transporting hydrogen via pipelines is a relatively low-cost distribution option (<1 C\$/kgH₂; <7 \$/GJ) if done on a large scale.
- Pipelines require significant capital investment. Therefore, government support may be needed during the initial transition period when hydrogen demand is not sufficient to attract private investment.
- Pipelines through many EU-and-Non-EU-Countries require intensive and time-consuming planning. The political implementations will be delicate as well. Therefore, the EU has to start immediately much more concrete and broader coordination of the needed pipeline network, including the building of long huge backbones.

Concerning the concrete implementation of the recommendations from the paper, the following milestones should be considered:

- assess, extend and accelerate the European EHB, including new figures for H₂-Needs, concrete pipeline pathways and treaties with non-EU H₂-Producers;
- establish companies to manage the construction of local infrastructure for the hydrogen economy in post-mining and chemical subregions;
- create a project to connect the local hydrogen hub with a regional structure (e.g. Hydrogen Valley) and the European EHB;
- create a Hydrogen Living Lab concept creating regulations and new ideas for building a green economy based on hydrogen and waste management – conducting a broad public consultation (on social acceptance);
- create an IT platform for the exchange of experience between green economy hubs created in post-mining green transition areas in the EU;
- organise of a 'Flying University' (i.e. mobile university with few high-level experts/scientists across EU) for the education of green technology specialists and engineers in the partner post-mining subregions.

5. Stakeholders to be involved

The European hydrogen community (particularly regional and local governments, companies, academia, education institutions, social partners). Other interested stakeholders such as civil society and public authorities will also be consulted/involved.

6. Expected impact of the action

In the long run, the implementation of the recommendations from the paper will result in:

- supply of sufficient green H₂ at competitive prices for the industry in the EU;
- innovation of the chemical industry and application of the new technologies;
- intensification of cross-border cooperation in the Green Deal area;
- building the 'green' and 'hydrogen' economy locally;
- development of underdeveloped post-mining subregions in EU.

The stability and effectiveness of the planned changes for the chemical sector and the JTF regions will depend to a large extent on the compatibility with the solutions already in place, as well as the timeline and the resources available for their implementation.

7. WG members involved

Action leaders: Town Hall in Wałbrzych, Arbeitgeberverband Chemie Rheinland-Pfalz e. V.

Contributor: Chemelot Circular Hub

8. Timeline

- **By end of August 2023:** desk research, exchanges and meetings with stakeholders from the European hydrogen community to collect information for the paper.
- **By end of October 2023:** draft paper on coordinating the building of a hydrogen infrastructure and culture in JTF regions. The paper should be targeted at DG REGIO, DG ENER and (regional) public authorities involved in the design of TJTPs and include concrete recommendations on coordination the building of hydrogen infrastructure and promoting a hydrogen culture in JTF regions through future JTF funding.
- **By the end of December 2023:** submission of the final paper to DG REGIO and DG ENER.

9. Links and synergies with existing initiatives and projects

Links and synergies of this action with other existing initiatives and projects include: Fit for the Future, [Ready for Hydrogen](#); [The Foundation for the Development of New Hydrogen Technologies in Aragon](#); [The European Backbone](#); [Heavenn](#): H2 Energy Applications in Valley Environments for Northern Netherlands; and the [Key Actions of the EU Hydrogen Strategy](#).

III. Annexes

Annex 1 – Suggested guidelines/criteria for the selection of transition and green economy projects

Pillar 1 decarbonisation/sustainability criteria

The decarbonisation objectives are already embedded in the main JTF Regulation. It sets as main objective the promotion of investments in the deployment of technology and infrastructure for affordable clean energy, in greenhouse gas emissions reduction, energy efficiency, and renewable energy, as well as support for circular economy activities. In addition, the TJTP has to contain a transition timeline that has to be consistent with the latest version of the National Energy and Climate Plans (NECP). The TJTP also has to establish synergies with other relevant EU programmes and pillars of the JTM to enhance the coherence of policy actions and cover the identified regional needs. The first set of decarbonisation/sustainability criteria evaluate the decarbonisation ambition of the projects against the long-term EU carbon neutrality goal, the new targets in the 'Fit-for-55 package':

- **Criterion 1: Decarbonisation ambition and comprehensiveness** based on 1) GHG emissions; 2) Energy savings; 3) RES integration; 4) Waste reduction; and 5) Transport efficiency.

Horizontal Criterion/solution: the project ensures **cross-sectoral contributions to GHG emission reductions**

- **Criterion 2:** the projects include at least one or two of the following **performance indicators**.
 - storage (either for total capacity installed or as a share of RES capacity);
 - RES-based heating (either for total capacity installed or as a share of total heating capacity in the region);
 - sustainable transport (for the deployment of EV infrastructure, or other sustainable transport modes such as railway connections, bike lanes, etc.);
 - fuel mix replacement in industrial processes (for the deployment of sustainable fuels in industry, such as the increased use of synthetic or biofuels, or electrification);
 - energy system decentralisation and prosumerism (such as for the development of energy communities, with installation of small-scale PV systems).

Quantitative indicators:

- **Comprehensiveness** of the performance indicators measured as the coverage of the five aspects described above. Assessed based on desk research.
- **Ambition of the performance indicators** – measured as the level of ambition of the underlying targets of the individual performance indicators (as identified by desk research) vs national and EU-level targets. Assessed based on an expert survey.

- **Criterion 3: Compatibility** of the projects/initiatives with national level and European decarbonisation strategies. This will be measured against **the fulfilment of the following Sustainability Criteria:**
 - **Sub-criterion 1:** exclusion list of significantly harmful activities or such that would lead to unsustainable use of natural resources, harm the local ecosystems or have a negative impact on biodiversity in the region;
 - **Sub-criterion 2:** fulfilling the average lifecycle emissions' intensity threshold of 100g CO₂e / kWh, leading to a reduction of the threshold every five years and declining to 0g CO₂e / kWh by 2050;
 - **Sub-criterion 3:** inclusion of performance indicators with regard to 1) GHG emissions; 2) Energy savings; 3) RES integration; 4) Waste reduction; 5) Transport efficiency; 6) Reducing air pollution; 7) Circular economy efficiency;
 - **Sub-criterion 4:** The inclusion of green procurement in public tenders/public contracts;
 - **Sub-criterion 5:** environmental impact assessment, including but not limited to the impact of the supported technologies on water resources, air pollution, green space, the local ecosystems and biodiversity.

Pillar 2: Green Transformation Potential

This pillar includes specific indicators to measure the coverage, ambition, and potential impact of the TJTPs in meeting these broad objectives based on previous methodological guidelines developed by CSD. These are further tailored here to the designing the selection criteria for the individual just transition projects. The Green Transformation Potential pillar includes the following five criteria:

- **Criterion 1. Socio-economic aspects**
 - **Sub-criterion 1:** covering vulnerable sectors; the project offers reskilling and job replacement potential in the most vulnerable sectors to the transition process and has a positive impact on investments/jobs/tax revenues;
 - **Sub-criterion 2:** addressing the needs and challenges of different vulnerable and marginalised social groups (example from Poland – St Albert's homeless shelter with lowered costs thanks to EE and RES – Poland, Słupsk);
 - **Sub-criterion 3:** addressing the needs and challenges faced by women and/or the inclusion of a targeted programme for promoting initiatives of female entrepreneurs and reskilling programmes for this target group;
 - **Sub-criterion 4:** addressing the needs and challenges faced by youths;
 - **Sub-criterion 4:** addressing the needs and challenges faced by older people;
 - **Sub-criterion 6:** the project contributes to value added job creation in economic areas with high potential, including existing and emerging economic sectors.
- **Criterion 2: Contribution to smart specialisation**
 - **Sub-criterion 1:** contribution to the transformation of production processes;
 - **Sub-criterion 2:** the potential for energy and carbon intensity reduction;
 - **Sub-criterion 3:** development of technological added-value chains as part of global ones;

- **Sub-criterion 4:** contribution to forming clusters and other networks and collaborative platforms aiming to foster green innovation (e.g. clean tech clusters);
- **Sub-criterion 5:** offering digitalisation and process integration solutions;
- **Sub-criterion 6:** composite supportiveness of smart specialisation measures.
- **Criterion 3: Contribution to SME development**

Measured as the existence of specific targets and to what extent there is a focus on key SME support categories

 - **Sub-criterion 1:** composite supportiveness of smart SME development support measures;
 - **Sub-criterion 2:** inclusion of the following sustainability criteria in its SME development;
 - **Sub-criterion 3:** inclusion of the polluter pays principle;
 - **Sub-criterion 4:** inclusion of Environmental Impact Assessments, biodiversity and non-energy effect assessments;
 - **Sub-criterion 5:** identification of funding sources for projects.
- **Criterion 4: Potential for Innovation Creation**
 - promoting innovative and environmentally-oriented SMEs and start-ups;
 - inclusion of measures enabling technology transfer from universities and research institutes;
 - support for the creation of regional innovation centres.
- **Criteria 5: Community-led and/or small-scale public-private sustainable projects**
 - Promoting solutions developed by local formal and informal groups of citizens that are innovative and environmentally oriented;
 - Support for projects that improve the quality of life of communities in just transition regions, for example, see the Midlands START paper on community-led projects;
 - A threshold of community-led or small-scale SMEs projects that pro (e.g. 30 %).

Pillar 3: Stakeholder engagement

- **Criterion 1: Inclusivity of different stakeholder groups**
Measured as the coverage of the identified stakeholders of different economic sectors, professional categories and sectors of society impacted by the transition (as set out in the TJTPs)

Measures to ensure equality of opportunity and treatment (e.g. measures to promote equal opportunities and treatment; newly created jobs occupied by persons who fall into the risk categories of exclusion from the labour market).

- **Criterion 2: The availability and comprehensiveness of an engagement strategy**

Measured as the coverage of the following criteria:

- the TJTP includes a stakeholder engagement strategy;
- the engagement strategy is comprehensive (if so, the level of comprehensiveness could be evaluated);

- the strategy includes specific communication tools;
 - the level of potential depth of the engagement methods in the communication strategies (Measured as the coverage of communication tools pre-defined as appropriate for each level of depth);
 - the development of KPIs for good governance and deliberative participation during the project implementation;
 - transparency of the project implementation process (e.g. measuring the level of public access to relevant material and decision-making processes).
- **Criterion 3: The project aims to develop local and regional capacity to ensure a more inclusive process**
- Measured quantitatively and qualitatively, taking into account the following indicators:
- the scope of various stakeholders involved in the capacity-building measures, including representatives from public authorities, NGOs, academic institutions, labour unions, enterprises, financial and credit institutions, as well as the general citizens;
 - the amounts of stakeholders reached;
 - the quality of the content presented and its adherence to other criteria included here;
 - the impact of the measures on building knowledge and awareness of the process.
- **Criterion 4: The development of KPIs for the monitoring of project success and stakeholder engagement during project implementation**

A Cross-cutting Pillar 4: Deliverability criteria¹⁷

- **Feasibility of project:** in terms of the project timetable, legal and administrative requirements (e.g. planning permission), financial requirements and ongoing viability.
- **Project maturity:** assessment of feasibility will incorporate the degree of maturity of project conceptualisation and preparation, including, for example: clarity regarding inputs, activities, outputs and outcomes, feasibility and options assessment, planning, risk assessment.
- **Capacity to deliver the project,** for example in terms of available/access to technical, legal, financial, administrative and project management capacity.
- **Technical feasibility of the project,** for example in terms of the adequacy and appropriateness of technical solutions to achieve the project objectives/outcomes.
- **Consensus and consultation:** for example, in terms of consensus among the community on the importance of project objectives and community input to project development and realisation.

¹⁷ Based on the assessment criteria of the Midlands START paper on community-led projects that could be applied to all types of projects: https://energy.ec.europa.eu/system/files/2020-06/midlands_engagement_process_document_-_start_0.pdf

Risk exposure and management: exposure and proposed responses to (main) project risks (e.g. in terms of demand, design, financing, procurement, execution, operation, legal and regulatory).

Annex 2 – List of members of the Horizontal WG

Organisation
Member States' authorities
Romanian Ministry of European Investments and Projects
Greek Task Force for JTF of the Management Unit SA (MOU SA)
Estonian Ministry of Finance
Local and regional authorities
Midlands Regional Transition Team – Local Authorities
Pernik Municipality
Associations representing regional, local, urban and other public authorities
Council of European Municipalities and Regions (CEMR)
Forschungszentrum Jülich GmbH
Trakia University
European Association of Development Agencies (EURADA)
Organisations representing economic and social partners
European Network of Social Integration Enterprises
European Trade Union Confederation
industriAll European Trade Union
Bodies representing civil society, such as non-governmental organisations
CEE Bankwatch Network
Center for the Study of Democracy
European Federation of National Organisations Working with the Homeless (FEANTSA)
Just Transition Institute Greece
Social Platform
Valea Jiului Development Society Project
WWF
Coal Commission Secretariat at Eszterházy Károly Catholic University
Digital Communication Network Hub South East Europe

Annex 3 – List of members of the Steel WG

Organisation
Member states authorities
Agency for territorial cohesion
Local and regional authorities
Region Norbotten
Ministry of European and Federal Affairs and Regional Development Lower Saxony
Associations representing regional, local, urban and other public authorities
Università degli studi di Bari Aldo Moro
Luleå University of Technology (steel)
Region Västerbotten
USB Taranto
IN4climate.NRW (steel)
Organisations representing economic and social partners
industriAll European Trade Union (steel)
Polish Steel Association
BeePartner a.s.
UNESID (Spanish Steelmaking and transforming association)
Liberty Steel Group / Liberty Galati
Bulgarian Association of the Metallurgical Industry
Jernkontoret
Bulgarian Industrial Association (steel)
Wirtschaftsvereinigung Stahl
European Steel Association (EUROFER)
Austrian Mining and Steel Association & Austrian Non-Ferrous Metals Federation
Bodies representing civil society, such as non-governmental organisations
Bomiasto
European Environmental Bureau (steel)
Bellona Europa (steel)
Climate Action Network Europe
E3G - Third Generation Environmentalism GmbH (steel)
Liberiamo Taranto APS

Annex 4 – List of members of the Chemicals WG

Organisation
Local and regional authorities
Mažeikiai district municipality
Town Hall in Wałbrzych
Associations representing regional, local, urban and other public authorities
Chemelot Circular Hub
Forschungszentrum Jülich GmbH
European Chemical Regions Network
University of Bari Aldo Moro
Interuniversity Consortium on Chemical Reactivity and Catalysis (CIRCC)
IN4climate.NRW (chemicals)
Organisations representing economic and social partners
Bulgarian Chamber of Chemical Industry
industriAll European Trade Union (chemicals)
European Chemical Employers Group (ECEG)
European Cluster Alliance
Arbeitgeberverband Chemie Rheinland-Pfalz e. V.
Bulgarian Industrial Association (chemicals)
Austrian Mining and Steel Association & Austrian Non-Ferrous Metals Federation
Bodies representing civil society, such as non-governmental organisations
European Environmental Bureau (chemicals)
Associatia Umanitara Kandila
Branch Association Polymers
Instrat Foundation
Province of Groningen
SC Achema
Lithuanian Confederation of Industrialists
Polish Chamber of Chemical Industry
Chamber of Commerce and Industry of Slovenia – Association of Chemical Industries of Slovenia (CCIS-ACIS)

Annex 5 – List of members of the Cement WG

Organisation
Member states authorities
Danish Ministry of climate, energy and utilities
Local and regional authorities
Akmene District Municipality
Associations representing regional, local, urban and other public authorities
Faculty of Economics and Business Administration (FEBA) - University of Sofia
Network of Cities with Lakes (cement)
IN4climate.NRW (cement)
Organisations representing economic and social partners
industriAll European Trade Union (cement)
Holcim
European Federation of Building and Woodworkers
CEMBUREAU
Spanish Cement Manufacturers Associations (OFICEMEN)
Heidelberg Cement AG
Bulgarian Association of the Cement Industry (BACI)
Bodies representing civil society, such as non-governmental organisations
Bellona Europa (cement)

