European Commission

Just Transition Platform: Working Group on Cement

Scoping Paper

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Regional and Urban Policy

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I. Objectives of the Scoping Paper

The Scoping Paper is the first document produced by the Working Group (WG). It represents the first deliverable of the WG, laying down the foundations of the preparation of the Implementation Plan and providing the scope of the actions to be implemented by WG members in the next two years. The first part of the Scoping Paper focuses on the objectives and composition of the WG, while the second part describes the challenges and focus areas identified by the members of the first circle of the WG, including the approaches for actions and good practice examples from the local and regional level.

The Scoping Paper has been prepared in March and early April 2022 by 4 first circle members of the WG, supported by the Just Transition Platform (JTP) Secretariat. Between 06 and 22 April, it has entered into consultation with the 7 second circle members (close observers) of the WG. Following a final review and validation, the Scoping Paper was presented at the JTP event in May 2022.

II. Objectives of the Working Group

As a cornerstone of the JTP, four WGs have been established in November 2021 to ensure comprehensive stakeholder involvement throughout the activities of the JTP. Three WGs have a thematic focus on a carbon-intensive sector (chemical, steel, cement) to exchange and develop practical solutions to ensure that the decarbonisation of the respective industry happens in a fair way, leaving no one behind. The common objective (also with other WGs) is to develop problem-solving and advocacy actions within the identified focus areas, to achieve the wider goals of the JTP – supporting stakeholders in their just transition. The WGs ensure that this will be implemented through a multi-level and multi-stakeholder governance approach with a view of developing a common just transition vision across the EU.

In this sense, the main objective of the WG on Cement is to exchange and to develop practical solutions to ensure that the decarbonisation of the cement industry can be done in a more equitable way for all relevant parties. The WG will support the European Commission in developing its strategic approach to engaging different stakeholder groups in the process of implementation of the Just Transition Fund (JTF). The WG on Cement will gather a variety of stakeholders and their different experiences and challenges encountered in transition sectors and will support the establishment of stakeholder networks in the transition areas.

III. Working Group Composition

This (and the other three WGs with sectorial focus) consists of three types of members, namely core members (‘first circle’), close observers (‘second circle’) and other stakeholders (‘third circle’). Within the first circle group, several Action Leaders will be identified to spearhead selected actions (see Figure 1). Notably:

1. **Core members of the WG (first circle)** actively participate in all the phases and activities of the WG. They shape and perform the work determined through the various deliverables and actions and participate in WG meetings on at least a bi-annual basis.
2. The **second circle of close observers** takes part in some of the work of the WG on an ad hoc basis. Members are kept informed of progress made by the WG, notably through consultations on the WG’s deliverables.

3. Finally, **the third circle of other stakeholders** remains informed on the mid-term and final results of the WG activities.

WG members are organisations/authorities, represented by one person (and if needed by an alternative representative) in the activities and meetings of the WG. Within the WG on Cement, 6, 7 and 1 members (for the first, second and third circle, respectively) have been selected following a call for applications opened in September/October 2021. There is still an opportunity to apply for both the group of six members of the first circle, which includes the authors of this Scoping Paper, and for the second and third circles.

Below is a brief explanation of the five different stakeholder categories that were addressed by the call for applications, including the number of members per circle. In the first circle, geographical, sectorial and gender balance (of representatives) was of utmost importance, as well as an even distribution between stakeholder types, know-how and interest. The complete list of members can be found in Annex 1.

Stakeholder group	Description	Number of members per circle[1]		
		First	**Second**	**Third**
Member States' authorities	These are national authorities from the EU27, such as ministries or national agencies.	1		
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).	1	-	-
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.	1	3	-
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.	3	3	1
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.	-	1	-
Total		6	7	1

[1] As of 6 March 2022; number of circles are subject to change.

IV. Presentation of the challenges

The cement industry takes a decisive position in the value chain of the European construction industry and plays an important role for the industry in Europe as a whole. In 2017, approx. 159 Mt of cement were manufactured in the EU27, generating a gross value added of around EUR 5.1 billion. Compared with steel and basic chemicals, the trade intensity of cement is low. The cause of this is primarily the high transport costs relative to the product price. Accordingly, the main part of cement transport happens on the roads in a transport radius of up to 250 km, although the importance of longer transports using (inland) shipping is increasing.

The European cement industry includes a mix of medium-sized and large companies with a total of around 47 000 employees. In 2017 cement clinker was produced at roughly 190 different sites across the EU27. Locally available raw materials (limestone, clay) and low-cost transport options to reach demand markets are central factors for cement plant locations. Since 1990, emission reductions of about 15 % have been achieved in the cement sector (according to the CEMBUREAU 2030 Roadmap). Increased EU climate targets will create additional pressure for rapid emission reductions within the cement sector.

The key challenges and potential solutions that provide the background for the process of the cement working group are:

- The challenge in the cement sector are **process-related CO_2 emissions**, which, from today's perspective, can only be avoided through industrial **Carbon Capture and Storage (CCS)** and **Carbon Capture and Usage (CCU)**. Various Carbon Capture technologies can be brought to market maturity for use in the cement sector by 2030. Post-combustion CCS technology is the most advanced and ready for implementation (Brevik). Oxyfuel Carbon Capture is energy efficient and enables capture of both process and energy-related CO_2. Full-scale availability is expected between 2025-30. The LEILAC project in Hanover (Germany), for example, aims to capture process emissions very efficiently in a pure CO_2 stream from 2025.
- In an ambitious scenario, between 10 and 20 (mostly coastal) cement plants could be connected to CO_2 storage sites by 2030. This would allow a **CO_2 reduction of 9 to 17 million tonnes CO_2/year.** By 2030, these cement plants could already produce negative emissions through the use of BECCS technologies.
- There is a significant need for **infrastructure for CCUS** (this also concerns infrastructure for recycling materials), as many cement plants are located in rural areas. By 2030, several well-located cement plants in Northern and Southern Europe could be connected to offshore **CO_2 storage sites**. A prerequisite for this is to speed up the European standardisation procedures for the realisation and application of a CCUS infrastructure, which so far can take up to 10 years. In addition, several offshore CO_2 storage sites are under development. Most storage sites are in the North Sea (Norway, UK, Netherlands), but there are also new plans to develop a storage site in the Mediterranean Sea (Italy). However, in order to build the necessary infrastructure, there needs to be (greater) recognition of the role of CCS in decarbonising the cement industry, both in Member States and in EU climate strategies. This recognition must be accompanied by an allocation of financial resources for the development of CO_2 infrastructure in particular, as well as for CCS in general. On a practical level, this also requires (greater) involvement of public authorities in the process of planning and building the

necessary infrastructure. This opens up the possibility of early deployment of CCS in the cement industry in both Northern and Southern Europe.

- National governments need to ensure the **legal framework** for the transition of the cement industry. In Germany, for example, there is no legal framework for the development of industrial CCU and Carbon Capture facilities, irrespective of the previously mentioned need for a CO_2 infrastructure. The EU can advise on the establishment of the legal framework in the Member States. However, the legal framework at EU level also needs to be further developed, for example through a certification scheme of CCS and CCU technologies. Furthermore, the European Emissions Trading Scheme (ETS) so far only adequately addresses CO2 transport via pipeline. There is still a lack of regulations on other transport options, such as transport by ship, train and truck. For cross-border transport, the amendment to Art. 6 of the London Protocol must be ratified. The Member States concerned must be prepared to declare provisional application of this supplement. In addition, bilateral agreements should be concluded promptly with states in which the storage sites are located. However, bilateral agreements between individual states entail the risk of regions in the EU being disadvantaged.

- The sector's share of emissions resulting from **energy use** in production processes (approx. 35 %) can theoretically be avoided by **electrification or the use of hydrogen** or other climate-neutral fuels. However, this requires sufficient availability of electricity and renewable fuels. Ultimately, the transformation to climate neutrality is more than CCUS. Climate-neutral processes, circular economy and clinker replacement must also be considered alongside CCUS.
- A shift to new production processes will require **new skills**. Energy intensive industries face a mismatch and gap in skills. Regions will have to anticipate and map the needs of industry for a skilled work force in order to prevent shortages and mismatches at regional and national level.
- Creating job opportunities will require upskilling and retraining of the workforce. **Effective partnerships** between vocational education and training, business, social partners, sectoral stakeholders, academia and civil society will be needed at regional level to address the issue of upskilling/reskilling of the workforce.
- Increasing **public acceptance** of the necessary transition-related activities such as large infrastructure projects are implemented (e.g. construction of new windmills, high-voltage lines, hydrogen pipelines or CO_2 storage sites often faces a negative reaction from local communities). However, it is not only social acceptance that is crucial, but also political acceptance and political support for the required technologies.
- Dealing with **distributional consequences** will also have to be taken into account in order to avoid that people with low income are disproportionally affected through higher electricity/heating bills.

The consideration and integration of these activities plays a central role in the implementation of the working group. Through this, important impulses can be given from the Transition Platform to the aforementioned institutions. Strengthening this promoting role is very important for the success of the platform and the working groups affiliated to it.

However, it is obvious that the following focus areas do not cover all the topics that have been mentioned here in the section on the key challenges of the cement sector. The extent to which this

can be sufficiently supplemented or addressed in the course of the upcoming process remains to be seen. A thematic expansion could, for example, relate to the creation of regional attractiveness and identity (socio-economic and infrastructural influences on the region), as the discussions in the working group among the first circle members made clear.

V. Focus areas of the Working Group

Focus area 1 – Regional labour market

Assessment of the impact of the transition on the workforce

Problem description

The Paris Agreement preamble reflects the close links between climate action, sustainable development, and a just transition, with Parties to the *Agreement "taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities".* The International Labour Organization's (ILO) 2015 Guidelines for a Just Transition, negotiated between governments, employers and their organisations, as well as workers and their Trade Unions, established a global understanding for the term 'just transition' and describes it as a process 'towards an environmentally sustainable economy, which needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty.'

The European Green Deal ('the Green Deal') launched a new strategy to transform the European Union into a sustainable, fair and prosperous society, with a modern, circular and competitive economy and zero net emissions of greenhouse gases by 2050. It underlines the Commission's commitment to tackle climate change and environmental degradation and to deliver on the objectives adopted under the United Nations Framework Convention on Climate Change (the 'Paris Agreement') to keep the global temperature increase well below 2 °C and pursue efforts to keep it to 1.5 °C. The cost of non-action on climate and environmental policy would be immense for people, in particular those in vulnerable situations, in terms of living standards, health and wellbeing. With a view to the path to net zero emissions, the need for a fair transition is an integral part of the Green Deal which underlined that no person and no place should be left behind. Fairness and solidarity are defining principles of the European Green Deal.

Under this pressure, countries are scrambling to reduce their dependence on fossil fuels and with the Green Deal as its flagship policy, the EU is stepping up to this challenge, aiming to reduce its overall emissions by 55 % by 2030 and to net zero by 2050.

This transition will change not only how energy is produced, but also implies changing the technology used. The transition will thus inevitably have a major impact on workers and their communities, and although it will generate many opportunities and benefits in general, it can also have negative impacts in specific areas. For example, the abandonment of polluting energies for other renewable energies can have impacts on localised activities in areas and regions where such activities represent quality jobs with a significant pull effect and may have a negative demographic impact.

Therefore, the design of policies and measures that set ecological objectives must achieve their socio-economic impacts, optimising the beneficial effects and mitigating the negative ones.

It is estimated that around 25 million manufacturing workers in Europe are currently facing a perfect storm of economic change resulting from the green transition and globalisation. The risk of large-scale

restructuring and job losses is immense. Possible further negative impacts, as well as the range of necessary countermeasures in these areas affected by the transition towards climate neutrality, are well perceived by regional actors from Europe's regions. Unless the EU increases its ambitions for a strong social dimension able to support the implementation of the 2030 targets of the European Pillar of Social Rights, workers will face changes without adequate protection and support. The current transition is broader and deeper, and that is why it needs to be fair and inclusive for workers, their communities and society as a whole, more than ever before.

This change in the production model designed by the European Union through the European Green Deal poses challenges in terms of employment, adjustment and training strategies, with energy-intensive industries like cement production being particularly affected. Therefore, employment in the sector could be affected as a result of strategies for adapting to a low-carbon economy and therefore it is necessary to assume co-responsibility for not leaving anyone behind in this process. This implies that solidarity mechanisms are in place to ensure that all workers can benefit and that nobody is directly or indirectly victimised by the European ambitions. All the relevant stakeholders should be actively involved in this process.

The cement production process is associated with high CO_2 emissions, which will require actions throughout the entire cement and concrete value chain to achieve a transition towards a carbon neutral model. In this context, the European cement industry needs to reduce its CO_2 intensity to reach carbon neutrality along the entire value chain by 2050.

The European cement industry has set out its ambition to reduce CO_2 emissions by 30 % in 2030 (40 % down the cement and concrete value chain) and to reach carbon neutrality by 2050. It is committed to invest and provide our society with the low-carbon cements we need to decarbonise the construction, transport and energy sectors successfully. To get this, it will be necessary to create a level playing field between EU and non-EU cement suppliers. The European cement industry is exposed to carbon leakage both at the EU's land borders and ports. Clinker produced in non-ETS countries will become increasingly competitive, if these countries do not incur the same level of CO_2 costs. In this context, producing locally in the EU (and paying the CO_2 related cost) will be less competitive than importing from non-ETS offshore locations (with the additional cost of transporting the product to the EU). The impact will be felt across Europe. It will be particularly strong in regions, which are more exposed to clinker and cement trade, due to their location at the EU's land borders.

EU cement imports from non-EU countries have increased by 160 % over the past five years (2016-2020), and by 25 % in 2020 alone – with significant spikes in the countries which are exposed to international trade routes. This shows that carbon leakage in the cement industry will be exacerbated over the coming years. It is witnessing the emergence of alternative business models in which clinker, the most CO_2-intensive part of cement, is produced outside the European Union and imported for milling in Europe with the consequent loss of jobs. An exacerbation of these trends would only lead to a significant increase in CO_2 emissions globally, in addition to the closure of factories or transformation (into grinding stations) in Europe, which is already happening today. In this context, it is also important to develop new ways of replacing clinker and to ensure the transport of the material. In sum, it is therefore indispensable that the existing carbon leakage measures are strengthened to ensure that EU and non-EU suppliers compete on the same CO_2 cost basis.

To this end, it is important to ensure that the sector makes the necessary investments in innovation and research, as the development of new technologies and low-carbon energy sources represents the future of the sector in Europe. Therefore, the necessary financing mechanisms need to be made available to the sector to ensure the transition, including the European Green Deal Investment Plan and the Just Transition Mechanism.

Approaches for action and first ideas for the implementation phase

The challenges of the decarbonisation transition must therefore be sufficiently addressed. Otherwise, there is a risk of increasing inequalities and leading to massive restructuring, unemployment and de-industrialisation of territories and countries. To avoid such situations, a detailed mapping and analysis of the impact of the transition on employment and skills in the countries and regions where the sector is present, including subcontractors and value chains, should be carried out. In this way, it would be possible to take the necessary measures to accompany workers in the transition and to ensure training, re-skilling and upskilling.

Because the transition towards economies and societies that are free of greenhouse gas emissions must therefore be a socially just transition that takes on board the rights of affected workers and their communities.

In order that the transition is deep and fair enough, we are clear that the most needed element to get us there is social dialogue that can facilitate planning processes based on the right to bargain collectively, reaching negotiated agreements and granting genuine partnership. It is also very important to strengthen the social dialogue and collective bargaining structures in multinational companies at supranational level. In order to address Just Transition issues within multinational companies and their supply chains, coordinated social partner work, in the framework of the consolidated dialogue structures of the company, is essential. In this sense, the constitution, enhancement and consolidation of European Works Councils are particularly crucial to anticipate to change and include the new necessary skills and requalification plans within the companies.

The double transition can only succeed in the EU if it has the skilled workforce it needs to remain competitive. Promoting employment and skills, a smooth transition and a dynamic social dialogue are, therefore, the keys to addressing the sector's transition to decarbonisation, because there will be no transition if it is not a fair transition.

Good examples from other regional or thematic contexts

The Cement and Environment Labour Foundation (CEMA) is a good practice example at the national level in this area. It is a non-profit-making labour foundation constituted in 2005 by the Spanish Cement Association (Oficemen) and the two main trade unions in Spain, CCOO del Hábitat and UGT-FICA. The foundation represents the sector's clear commitment to sustainability through the implementation of an inclusive model. Hence, the CEMA Foundation has involved all cement companies, workers and stakeholders operating in Spain in projects, technical studies and training programmes that address circular economy, health and safety, corporate social responsibility and sustainability.

Focus area 2 – Governance and networks: public-private cooperation

Governance and networks: need and challenges for public-private cooperation for a just transition in the cement industry

Problem description

As already indicated under Section IV, a key opportunity for reducing emissions from cement production involves the development of an entirely new technological infrastructure for CCUS. A CCUS infrastructure is relevant not just to the cement industry and other energy intensive industries with no or exceedingly costly alternatives, but also to waste incineration, biomass combustion in electricity

and heating generation, and biomethane production. A CCUS infrastructure will enable these sectors to provide significant reductions and negative emissions and is likely to be critical for meeting EU's 2050 net zero emission targets cost-effectively (Elkerbout et al, 2019). This is supported by research findings showing that multiple techno-economic modelling techniques points to a CCS infrastructure being essential for meeting mid-century climate targets at lowest cost (Goldthorpe et al, 2021).

In addressing such vision, what would be an effective policy approach to explore the challenge of creating an entirely new system-wide 'gas-like' type of infrastructure?

Suggested scoping strategy and approaches for action

Past studies into the relationship between investment barriers and EU funding and support schemes strongly suggests that a system business model is required (Goldthorpe et al, 2021). 'Systems thinking' leverages sector- or project-specific business models and investment challenges to focus on:

a. system-level strategic rationale and objectives
b. cross-sectoral synergies and sector coupling
c. enduring system governance until markets are self-sustaining
d. public-private risk sharing
e. public-private collaboration and capacity building
f. societal acceptance

A scoping strategy may very well attempt to address these elements in their interrelated totality, thereby addressing the need for systems thinking in this respect. The fundamental idea is that a system thinking approach will provide insights into business models that are otherwise not transparent or obvious. Hence, a new system business model is required, that should focus on synergies and sector coupling, public-private risk sharing, public-private collaboration and capacity building as well as societal acceptance. A European system of clusters infrastructures for CO_2 management should be included, for example, in TEN policies in order to avoid putting the most affected areas at risk.

Good examples: learning from historical infrastructure developments

A first idea could be that the development of a CCUS infrastructure, whether national or cross-border, should first attempt to benefit from the experience gained from related, historical infrastructure developments, for example by considering the development of the public electricity grid, the national gas grid and/or district heating networks. A CCUS infrastructure would enter into this 'family' of essential public infrastructures.

What may be learned from the public-private governance mechanisms that successfully matured value-chains for the electricity, gas and district-heating infrastructures? Could the development paths of these well-established infrastructures convey a paradigm for the development of this new national and cross-border CCUS infrastructure?

In 1915, the Danish electricity system consisted of many small power plants, some of which supplied DC, others AC to consumers in the immediate vicinity. Some larger AC grids were developing around Copenhagen, Aarhus and a few other cities. However, it took more than 40 years before Denmark had a national AC power grid (around 1960). The turning point in this transition was the realisation that core infrastructure elements required public institutionalisation and ownership, mainly the transmission grid. Today, the electricity transmission system as well as cross-border interconnectors is owned and operated by Energinet, which is an independent public enterprise owned by the Danish

Ministry of Climate, Energy and Utilities, similar for Evida, which owns and operates the gas distribution infrastructure.

In Denmark, the Aalborg Portland A/S cement factory (Cementir Holding) is more likely to opt-in for CCUS the less it will impact their core business model and market priorities. Aalborg Portland is already connected to the public electricity grid and the local district heating grid, and is a producer of both electricity and district heating, which is delivered to these grids (and distributed to consumers). Aalborg Portland does not own any parts of the electricity grid or district heating grids, but simply delivers electricity and district heating at market-based unit prices and capacities. The connecting infrastructure that established the complete value-chain is someone else's business.

As a point of departure, it may be hypothesised that Aalborg Portland and other major emitters, i.e. all potential participants that delivers into the CCUS infrastructure, would opt-in to a solution through which they 'simply' deliver CO_2 to a public network, similar to how they are delivering electricity and district heating. Exploring such hypothesis, a wide-ranging focus on cross-sectoral synergies and sector coupling, models for public-private risk sharing, public-private collaboration and capacity building, and pathways for societal acceptance must be investigated and tested.

Good examples: learning from cross-sectoral activities or ongoing processes in other sectors

Another idea is to extend existing **EU funding mechanisms** such as TEN-T to other modalities of CO_2 transport, as proposed by Bellona.

The European Commission published its proposal for the ongoing revision of the Trans-European Transport network (TEN-T) on 16 December 2021. The TEN-T proposal clearly identifies the need to take into account possible synergies with other networks, such as the TEN-E Regulation, in its Article 5 point (f). However, the extension of existing EU funding mechanisms such as TEN-T to modalities of CO_2 transport is not yet foreseen.

This example presents a **circular economy business model** that will be an important milestone on the way to decarbonising the building materials sector. LafargeHolcim, together with Carbon Clean and Sistemas de Calor, have created $ECCO_2$, a joint venture for the development of an advanced technology CO_2 capture plant and large-scale carbon utilisation at the Carboneras cement plant (Almeria). The captured carbon will be used in the region's greenhouses, where it will improve crop productivity through a process known as carbon fertilisation, which mimics and enhances natural photosynthesis, increasing the eco-efficiency of crops by reducing the proportion of water and soil per kg of vegetable production. This circular carbon economy project will reduce CO_2 emissions and offer a sustainable future. The creation of this joint venture will contribute to improving competitiveness and efficiency of the cement plant, but also of the local agricultural production in front of the greenhouses of high technology that already use this technique in other European countries.

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VI. Workplan

The following section includes an overview of deliverables, milestones and WG meetings both completed and outstanding along a timeline.

Deliverables, milestones and timing

The following table gives an overview of the achieved/outstanding milestones and deliverables (to be) reached by the WG throughout the next two years. The timing of milestones and deliverables after mid-2022 is indicative, hence in *italic*.

	Time	**Milestone (M) / Deliverable (D)**
a	September/October 2021	M: Call for applications for JTP WGs (M)
a	15 November 2021	M: Formal establishment of WGs – at public JTP event, session 'Launch of JTP Working Groups on carbon-intensive regions'
a	February 2022	M: Two needs assessment interviews held with first circle WG members
	08 April 2022	D: Draft Scoping Paper
	08 March – 22 April 2022	M: Scoping Paper Consultation with the second circle
	10 May	D: Scoping Paper + presentation at public JTP event, session 'Updates from JTP Working Groups on Steel, Cement, Chemicals and Stakeholders engagement'
	October 2022	*D: Draft Implementation Plan*
	January 2023	*D: Final Implementation Plan*
	From January 2023	*M: Implementation of actions*
	December 2023	*M: Finalisation of all activities*

Meetings

Below is a table of WG meetings both held so far and to be held in the future. Again, the timing of meetings after May 2022 is indicative, hence in *italic*. The last column indicates the format of the meetings.

	Time	Meeting	Format
a	18 November 2021	First WG meeting	Virtual
a	23 February 2022	Second WG meeting	Virtual
	2 June 2022	Third WG meeting	Virtual
	November 2022	Fourth WG meeting	*Physical (tbd)*
	May 2023	Fifth WG meeting	*Virtual (tbd)*
	November 2023	Sixth WG meeting	*Physical (tbd)*

Annex

List of members of the first circle of the WG

Organisation
Members of the first circle
Akmene District Municipality
Cementa AB
EFBWW
Danish Ministry of Climate, Energy and Utilities
Faculty of Economics and Business Administration (FEBA) - University of Sofia
industriAll European Trade Union (cement)
JTP Secretariat
JTP Secretariat (working group leader)
JTP Secretariat (deputy working group leader)