



Supporting the Implementation of the
European Industrial Deal with Strengthened
Social Dialogue in European Metal Sector.

EU-LEVEL POLICY RECOMMENDATIONS

OR ENSURING SUSTAINABLE EMPLOYMENT IN THE
METAL SECTOR AMID DIGITAL
AND GREEN TRANSITIONS



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Executive summary

This policy paper proposes an EU-level framework for ensuring sustainable employment in the metal sector amid the green and digital transitions. Sustainable employment is understood as employment that is economically viable, socially fair, institutionally supported and future oriented. It requires competitive production, but also quality jobs, access to training and reskilling, safe and healthy working conditions, inclusive labour markets, and meaningful involvement of workers and employers' representatives in decisions shaping industrial transformation.

The paper builds on evidence from the project *SoDi – Supporting the Implementation of the European Industrial Deal with Strengthened Social Dialogue in the European Metal Sector*, which analysed social dialogue and capacity-building needs in the metal sector in *Poland, Bulgaria, Serbia, North Macedonia and France* through surveys, focus groups, interviews and desk research. The findings show that social dialogue structures formally exist in most contexts, but their practical influence on strategic decisions remains uneven. Dialogue is often reactive, fragmented or procedural, while green and digital transition issues are insufficiently integrated into bargaining, consultation and company-level planning. The project also identifies important capacity gaps among both trade unions and employers' organisations, especially in relation to EU industrial policy, decarbonisation, digitalisation, AI, skills forecasting, funding instruments and employment-impact assessment.

The proposed policy framework rests on **six principles**: sustainable industrial competitiveness; anticipation and management of change; skills, reskilling and lifelong learning; quality employment and working conditions; stronger and more strategic social dialogue; and fair funding. These principles reflect both SoDi evidence and the perspectives of European social partners. Ceemet emphasises competitiveness, investment capacity, affordable energy, regulatory predictability and employability, while IndustriAll Europe stresses quality jobs, collective bargaining, just transition, enforceable rights and social conditionality.

The recommendations call on EU institutions, Ceemet, IndustriAll Europe and national social partners to embed, where appropriate, employment objectives into greening and digitalisation policies, strengthen anticipation mechanisms, improve access to EU and national funding; and actively engage with the Skills Guarantee being developed by the European Commission and reinforce social dialogue as a governance tool for industrial transformation.

Introduction: Purpose, Scope and Policy Relevance

The European metal sector stands at the intersection of three strategic priorities of the European Union: industrial competitiveness, climate neutrality and social cohesion. Fabricated metal products, basic precious and other non-ferrous metals, machinery and related technology-based industries remain indispensable for Europe's industrial value chains, including automotive, construction, defence, energy infrastructure, renewable technologies and advanced manufacturing. At the same time, the sector is exposed to profound pressures arising from decarbonisation, energy costs, global competition, supply-chain vulnerability, digitalisation, automation, artificial intelligence and persistent skills shortages. These pressures are not merely technological or economic; they directly affect the competitiveness of Metal, Engineering and Technology industries (MET) companies, in particular SMEs, employment security, occupational profiles, working conditions, collective bargaining agendas and the capacity of enterprises and workers to adapt.

The purpose of this policy paper is to propose an EU-level policy framework for ensuring sustainable employment in the metal sector amid the green and digital transitions. Sustainable employment is understood here as employment that is economically viable, compliant with legislation and collective bargaining provisions in the social field, supportive of quality working conditions, institutionally supported and future oriented. It includes, while always taking into account the competitiveness of businesses, the preservation and creation of quality jobs, effective anticipation of restructuring, access to training and reskilling, safe and healthy working conditions, inclusive labour markets, and meaningful involvement of workers and employers' representatives in decisions shaping industrial transformation in line with national systems and legislation.

The paper draws on evidence generated by the EU funded project **SoDi – Supporting the Implementation of the European Industrial Deal with Strengthened Social Dialogue in the European Metal Sector**, including national research, surveys, focus groups, interviews and comparative analysis, as well as on European-level expertise concerning the industrial relations framework and workers' priorities in the metal sector. It also considers the positions of the EU-level social partners in the metal, engineering and technology-based industries: Ceemet and IndustriAll Europe. Both perspectives of employers' and workers' organisations – despite structural differences – converge around the need to preserve a strong European industrial base, strengthen skills, anticipate change and maintain effective social dialogue.

The policy relevance of this paper lies in its alignment with current EU objectives, including the Clean Industrial Deal, the European Steel and Metals Action Plan, Transition Pathway for the European Metals Sectors, Net-Zero Industry Act, and the EU industrial and competitiveness agenda, the Quality Jobs Roadmap, and the Council Recommendation of 12 June 2023 on strengthening social dialogue in the European Union. The central argument is that the green and digital transitions will not deliver sustainable outcomes if employment and social dialogue are treated as secondary consequences of industrial policy. Rather, they must be embedded in the governance of transformation from the outset. A competitive European metal sector requires not only investment in clean technologies and digital innovation, but also investment in people, institutions and negotiated pathways of change.

Policy Context: EU Industrial Transformation and the Metal Sector

The metal sector as a strategic sector for Europe

The European metal sector is a foundational component of the EU's industrial base. Its strategic relevance derives not only from direct employment and value added, but also from its enabling role in wider industrial ecosystems. Metals are indispensable for automotive production, construction, defence, aerospace, renewable energy infrastructure, electricity grids, hydrogen systems, railways, machinery, batteries, and advanced manufacturing. Without a competitive and resilient European metal sector, the EU's objectives in strategic autonomy, clean technology deployment, energy transition and industrial security would become substantially more dependent on external supply chains.

The sector is therefore central to the EU's ability to reconcile competitiveness, climate neutrality and social cohesion. It is also highly exposed to global market pressures, high energy costs, raw material dependency, uneven international competition and technological restructuring. These pressures affect firms and workers differently across subsectors, regions and company sizes. Large integrated metallurgical plants face major decarbonisation costs and energy constraints, while small and medium-sized enterprises in fabricated metal products and machinery often face more acute capacity, finance and skills barriers. The policy challenge is thus not only to preserve industrial capacity, but to modernise it in ways that sustain quality employment and ensure that workers and enterprises can adapt to transformation.

Green transition and decarbonisation

Achieving climate neutrality, because of the European Green Deal commitments, requires substantial reductions in emissions from energy-intensive production,

especially in steel and basic metals. This involves a shift towards low-carbon production routes, including electrification, hydrogen-based technologies, carbon capture where relevant, process innovation, energy efficiency, and a more circular use of materials. At the same time, the green transition increases demand for metals, since wind turbines, solar panels, electric vehicles, batteries, grids and hydrogen infrastructure all depend on steel, aluminium, copper, nickel and other strategic materials.

This creates a dual policy imperative. On the one hand, the EU must accelerate the decarbonisation of metal production. On the other hand, it must avoid deindustrialisation and carbon leakage by ensuring that European producers have access to affordable clean energy, investment support, raw materials, scrap, and lead markets for low-carbon products. Circularity and scrap recycling are particularly important because they can reduce emissions, strengthen resource security and support regional industrial ecosystems. However, the investment needs are substantial, and the benefits will not be socially sustainable unless accompanied by employment transition plans, reskilling, occupational safety measures and meaningful social dialogue.

Digital transition

Digital transformation is simultaneously adapting /supporting production systems, occupational profiles and work organisation in the metal sector. Automation, robotics, data-driven production, artificial intelligence, digital twins, predictive maintenance and integrated production-management systems can increase productivity, improve quality control and support energy efficiency. These technologies may also reduce physically demanding tasks and improve safety when implemented responsibly.

However, digitalisation also creates risks. It may displace routine tasks, intensify work, increase surveillance, produce new forms of skills mismatch and deepen inequalities between large companies and SMEs. Its employment effects are therefore not predetermined. They depend on investment strategies, worker involvement, collective bargaining, access to training and the institutional capacity to anticipate change. Digital transformation should consequently be addressed not only as a productivity agenda, but also as an employment, and industrial relations agenda. Sustainable digitalisation requires digital skills, transparent use of data and AI, protection of workers' rights in line with legislation, support for SMEs, and discussions on how to address the adaptation of work organisation.

Alignment with EU policy objectives

The policy framework proposed in this paper is closely aligned with the current EU agenda for industrial transformation. The **European Green Deal** and the **Fit for 55 package** define the long-term direction of climate neutrality and emissions reduction. For the metal sector, this means deep decarbonisation, energy efficiency

and adaptation to carbon pricing, while maintaining industrial competitiveness and employment.

The **Clean Industrial Deal** adds a more explicit competitiveness dimension by linking decarbonisation with affordable energy, lead markets for clean industrial products, financing, circularity, international partnerships, skills and quality jobs. It is complemented by the **European Steel and Metals Action Plan**, which focuses specifically on restoring the business case for European metals production through measures on energy costs, carbon leakage, trade defence, circularity, lead markets, investment and quality industrial jobs. The **Transition Pathway for the European Metals Sectors** further operationalises this agenda by identifying practical actions for a greener, more digital and more resilient metals ecosystem.

The **Net-Zero Industry Act** is also relevant, as it aims to strengthen EU manufacturing capacity in clean technologies and create better investment conditions, including through strategic projects, faster permitting, innovation and skills initiatives. For the metal sector, this is important both because metals are inputs for net-zero technologies and because parts of the sector must themselves become low-carbon technology users and producers.

The **EU Industrial Strategy and Competitiveness Compass** frame these measures within a broader concern for productivity, innovation, resilience, reduced dependencies and global competitiveness.

Another important point of reference - from the employment perspective is the **Quality Jobs Roadmap** to which industrial agenda shall relate.

EU funding instruments are critical for implementation. The **Just Transition Fund, ESF+, Innovation Fund and related instruments** can support industrial investment, skills development, reskilling, regional transition strategies and social partner capacity-building. However, their effectiveness depends on accessibility, coordination and the degree to which employment-quality objectives are integrated into funding governance.

Finally, the EU social dialogue framework, including the **Sectoral Social Dialogue Committee for the Metal Industry**, provides an institutional platform for aligning industrial transformation with social dialogue. The Committee's relevance lies in its capacity to bring together Ceemet and IndustriAll Europe around shared challenges such as green and digital transition, just transition, AI at work and better regulation. Strengthening, in agreement with the MET social partners, this platform is essential if EU industrial transformation is to be not only competitive and decarbonised, but also employment sustainable.

Evidence from the SoDi Project

The **SoDi** project provides the empirical basis for this policy framework by mapping how social dialogue in the metal sector functions in different national and institutional contexts, and how it responds to the green and digital transitions. The project combined surveys, focus groups, in-depth interviews and desk research in *Poland, Bulgaria, Serbia, North Macedonia and France*. This mixed-methods approach makes it possible to identify both measurable patterns and more qualitative perceptions of workers, trade unions, employers and sectoral organisations. The central finding is that social dialogue is widely recognised as necessary for managing industrial transformation, but its practical capacity to shape decisions on employment, skills, restructuring and technological change remains uneven and often insufficient.

Impact of green and digital transitions on employment

The green and digital transitions are already affecting employment in the metal sector, although their visibility and perceived urgency differ across countries and subsectors. The green transition is most strongly associated with decarbonisation, energy costs, carbon pricing, restructuring of energy-intensive production and the need for new low-carbon technologies. The digital transition is associated with automation, robotics, data-driven production, artificial intelligence, digital monitoring, predictive maintenance and changes in work organisation.

The employment effects are ambivalent. On the one hand, transformation creates opportunities for modernisation, productivity growth, safer workplaces, higher-skilled jobs and new forms of industrial employment linked to low-carbon technologies, circularity and digital production. On the other hand, it raises concerns about job losses, displacement of routine tasks, skills mismatches, work intensification, surveillance, regional decline and insecurity in traditional industrial occupations. The SoDi evidence suggests that many workers experience the transition less as a coherent strategic project than as a source of uncertainty.

A particularly important finding is the weak integration of green and digital transition issues into social dialogue. In several national contexts, dialogue on these topics remains underdeveloped, initiated late or limited to information rather than negotiation. Many employees and representatives are not aware whether dialogue on the European Green Deal or digital transformation has been initiated in their organisation or sector. This indicates not only insufficient dialogue, but also insufficient communication about transformation strategies. The implication for EU policy is clear: the employment consequences of green and digital transformation

cannot be managed effectively if social partners are involved only after major technological, investment or restructuring decisions have already been taken.

Employment quality

The SoDi project confirms that employment quality in the metal sector is highly differentiated. Large enterprises, especially those integrated into international value chains, tend to provide more stable employment, higher wages, more formalised occupational safety and health procedures, and more developed training systems. By contrast, SMEs are more likely to face resource constraints, weaker representation structures and lower training capacity.

Countries with strong social partners and higher prevalence of collective bargaining tend to have more resilient labour markets with lower numbers of low paid workers and lower levels of unemployment. It is well proven that a well-functioning social dialogue contributes to competitiveness and quality jobs. In this regard, we highlight that collective bargaining agreements are very widespread in MET are as a result provide with working conditions that improve those ones established by legislation. Moreover, overall MET industries provide in average with higher salaries than other sectors in the economy.

Employment quality cannot be reduced to wages alone. Across the countries studied, workers increasingly emphasise job stability, occupational safety and health, work-life balance, access to skills development, predictability of change and meaningful participation. These dimensions are becoming central to the legitimacy of industrial transformation. Decarbonisation and digitalisation may improve employment quality if they reduce exposure to dangerous work, create higher-skilled occupations and support more sustainable production models. However, they may also present challenges if introduced without adequate training. The project therefore supports a broader concept of sustainable employment: employment that is productive and competitive, but also safe, adequately rewarded, skills-oriented and compatible with workers' rights and participation, in line with legislation and collective bargaining systems. This concept is directly relevant for EU-level policy because the success of industrial transformation will depend not only on investment in technology, but also on the social conditions under which technology is introduced.

Social dialogue: formal existence and uneven effectiveness

Across the countries covered by the project, formal structures of social dialogue exist, but their effectiveness differs significantly. National tripartite institutions, sectoral bodies, company-level consultation mechanisms and collective bargaining

frameworks are present to varying degrees. However, the evidence points to a recurring gap between institutional form and substantive influence. Social dialogue often functions as a procedural or consultative mechanism rather than as a strategic instrument for anticipating and governing change.

Company-level dialogue tends to be more concrete and problem-oriented than national or sectoral dialogue. This is particularly visible where trade union structures are present and where employers recognise dialogue as a practical tool for managing restructuring, training or occupational safety. At the same time, company-level dialogue is often fragmented and dependent on local management culture, union strength and company size. In smaller firms and less organised workplaces, communication is more likely to be informal, reactive and weakly institutionalised.

At national and sectoral level, the SoDi evidence indicates several persistent weaknesses: limited implementation of consultation outcomes, insufficient connection between dialogue and industrial policy decisions, weak sectoral coordination, limited access to data, and insufficient involvement of worker representatives at the early stages of transformation planning. In some contexts, legal frameworks are relatively developed but do not generate effective negotiation; in others – especially in the CEE and SEE regions, the main problem lies in weak enforcement, declining trade union capacity or limited employer engagement. The conclusion is that social dialogue is often insufficiently embedded in the governance of industrial transformation.

Capacity-building needs

Another major finding concerns the capacity of social partners. The SoDi evidence shows that both trade unions and employers' organisations require stronger analytical, organisational and technical capacities to participate effectively in transition-related dialogue. The most frequently identified gaps concern knowledge of EU industrial and climate policies, understanding of digitalisation and automation, negotiation skills, legal expertise, economic forecasting, data analysis, mediation and communication.

Trade unions often face limited human and financial resources, declining membership, ageing activist structures and insufficient access to expert knowledge. These constraints reduce their ability to engage in strategic bargaining on decarbonisation, digitalisation, restructuring and skills policy. Employers' organisations, in turn, may require additional analytical and coordination capacity to support their members in areas such as skills anticipation, access to EU and national funding, and interpretation of industrial and climate-policy developments.

Separately, SMEs themselves often face practical constraints related to workforce planning, administrative capacity, access to training schemes, change management and structured internal communication. These challenges should therefore be addressed through differentiated support measures for representative organisations and for companies, particularly SMEs

The project findings show strong convergence on preferred support mechanisms. Practical training workshops, exchange of experience, mentoring, joint employer–trade union training and access to targeted guidance are consistently valued more highly than purely formal or abstract tools. Digital platforms and e-learning can play a supporting role, but they cannot substitute for relational trust-building, practical exercises and direct peer learning. Capacity-building should therefore be understood not only as individual training, but also as institutional strengthening: better access to data, sectoral observatories, forecasting tools, expert support, mediation services and simplified access to EU and national funding.

Common patterns and national differences

The comparative evidence reveals both shared challenges and national specificities. Common patterns include the formal existence but uneven effectiveness of social dialogue, insufficient anticipation of change, capacity gaps among social partners, weak integration of green and digital transition into bargaining agendas, difficulties in accessing funding, skills shortages and concerns about employment security. Across countries, social dialogue is strongest when it is linked to concrete workplace problems, supported by trust, and accompanied by access to information, expertise and resources.

National differences concern the degree of institutionalisation, enforcement, bargaining coverage, union capacity, employer engagement and policy coherence. *Bulgaria* highlights the importance of institutionalising dialogue in transformation planning and improving access to public and EU funding. *Poland* demonstrates the existence of national and regional dialogue structures, but also the limits created by weak strategic coordination and insufficient expert support. *North Macedonia* and *Serbia* show the additional challenges faced by countries where social dialogue structures, enforcement mechanisms and union resources are more fragile, but where alignment with EU industrial objectives may also create opportunities for institutional upgrading.

Taken together, the SoDi evidence leads to one overarching conclusion: sustainable employment in the metal sector requires a shift from reactive consultation to strategic, anticipatory and well-resourced social dialogue. Such dialogue should be

embedded in industrial policy, skills policy, regional transition planning and company-level transformation strategies. Without this shift, the green and digital transitions risk reinforcing insecurity and fragmentation. With it, they can become a basis for industrial resilience, quality employment and socially legitimate transformation.

European Social Partners' Perspectives

European-level social dialogue in the metal sector is structured around two representative social partners: Ceemet on the employers' side and IndustriAll Europe on the workers' side. Their positions differ in emphasis, reflecting their institutional mandates and constituencies. Nevertheless, both organisations recognise that the future of the European metal sector depends on maintaining a competitive industrial base, strengthening skills, anticipating change and ensuring that the green and digital transitions are employment-manageable

Ceemet perspective: competitiveness, investment and employability

Ceemet approaches the transformation of the metal, engineering and technology-based industries primarily through the lens of industrial competitiveness, investment capacity, regulatory predictability and employability. In its public statements, Ceemet consistently underlines that European MET industries operate under severe pressure from high energy prices, global competition, regulatory complexity, raw material volatility and the risk of investment leakage. From this perspective, sustainable employment depends first on the capacity of companies to remain competitive, profitable and able to invest in Europe.

Ceemet welcomes EU initiatives that recognise the central role of industry in the green transition, including the objectives of the Clean Industrial Deal¹ and the Competitiveness Compass², but stresses that their success depends on implementation. Affordable and reliable energy, faster permitting, access to finance, technology-neutral decarbonisation pathways, reduced administrative burden and stronger lead markets for clean industrial products are seen as prerequisites for maintaining production and employment in Europe. In this view, social policy objectives cannot be detached from the economic viability of firms.

¹ See: <https://ceemet.org/economy/the-clean-industrial-deal-could-be-the-key-to-competitiveness-its-success-lies-in-implementation/>

² See: <https://ceemet.org/competitive-industry/the-competitiveness-compass-industry-welcomes-the-commission-agenda/>

On skills, Ceemet places strong emphasis on STEM education, vocational education and training, upskilling, reskilling and lifelong learning³. It argues that the MET sector faces acute shortages of engineers, technicians, welders, ICT specialists and other skilled workers. Ceemet therefore supports EU and national policies that make training systems more responsive to industrial needs, labour market driven, more attractive to young people and women, and more accessible for SMEs. It also stresses that EU funding must be user-friendly and practically accessible, especially for smaller companies with limited administrative capacity.

Ceemet values social dialogue as a means of supporting competitive companies, employability and adaptation to change, but does not support additional binding social conditionalities, which it considers potentially burdensome, particularly for SMEs.

In Ceemet's views, the existing social rules are sufficient to ensure compliance with good working conditions. In fact, compliance with the EU social acquis, the national legislation in the social policy field and generally applicable collective agreements, already ensure in the first instance the establishment of good working conditions and fair wages. Hence, instead of using social conditionality to provide an additional layer of regulation or reporting, the EU should simplify procedures and improve implementation and enforcement of existing social acquis.

Its preferred approach gives priority to enabling frameworks, cooperation between social partners, skills development and better regulation, while preserving sufficient flexibility for companies to respond to market and technological change.

IndustriAll Europe perspective: quality jobs, rights and just transition

IndustriAll Europe approaches the same transformation from the perspective of workers' rights, quality employment, collective bargaining and just transition. It recognises the need for industrial renewal and decarbonisation, but stresses that transformation cannot be considered successful if it leads to insecurity, precarious work, unilateral restructuring or regional decline⁴. For IndustriAll Europe, sustainable employment requires strong worker involvement before decisions are taken, not only after restructuring has already begun.

³ See above

⁴ See: https://news.industriall-europe.eu/documents/upload/2021/12/637740437345254856_Adopted%20-%20The%20Fit-for-55%20Package%20-%20Position%20of%20IndustriAll%20Europe%20-%20EN.pdf

In its position on the Quality Jobs Roadmap and related EU initiatives⁵, IndustriAll Europe calls for a stronger, rights-based framework. Its priorities include a legally backed Quality Jobs Roadmap, a Just Transition Directive, mandatory social conditionality attached to public funding, stronger labour inspection, wider collective bargaining coverage, paid and cost-free training rights, and a fair sharing of productivity gains through social dialogue. The trade union perspective therefore places more weight on enforceable guarantees than on voluntary coordination alone.

For IndustriAll Europe, the green transition must stimulate investment, preserve and develop industrial value chains in Europe, create quality jobs and protect workers in affected regions and sectors. It emphasises that public support for industrial transformation should be linked to employment, training, collective bargaining and social commitments. Decarbonisation should not become a mechanism for downsizing, outsourcing or social dumping. Similarly, digitalisation and AI should be subject to information, consultation and negotiation, with attention to surveillance, algorithmic management, data protection, occupational health and safety, work intensification and skills.

IndustriAll Europe also views European sectoral social dialogue as a political and industrial instrument. It is not merely a forum for exchange, but a platform through which trade unions can shape EU industrial policy, employment standards and transition governance. From this perspective, the Sectoral Social Dialogue Committee for the Metal Industry should be used more strategically to anticipate restructuring, develop joint tools, influence EU funding priorities and strengthen collective bargaining capacity across countries.

The Sectoral Social Dialogue Committee for the Metal Industry

The Sectoral Social Dialogue Committee for the Metal Industry provides the formal EU-level institutional framework in which Ceemet and IndustriAll Europe can address shared challenges. Its current agenda covers the green and digital transition, just transition in MET industries, artificial intelligence at work, skills policies, better regulation and follow-up to joint EU-level initiatives.

The Committee has already produced or supported joint work on skills, vocational education and training, apprenticeships, STEM, digitalisation and AI⁶. These joint initiatives demonstrate that despite differences between employers and trade unions, common positions can be built around concrete issues: skills intelligence, access to

⁵ See: <https://news.industriall-europe.eu/Article/1323>

⁶ See the SSDC for the Metal Industry documents here: <https://news.industriall-europe.eu/p/sd-met-documents> or here: <https://ceemet.org/policy-priority/social-dialogue/>

training, cooperation with education providers, support for SMEs, quality apprenticeships, and the need to anticipate the effects of technological and environmental change. Such outputs should be treated as a foundation for a broader joint framework on sustainable employment in the MET industries.

The common ground between Ceemet and IndustriAll Europe might be considered significant. Both recognise the strategic importance of the metal sector for Europe; both oppose deindustrialisation; both stress the need for skills, training and anticipation; both see social dialogue as relevant to managing transformation; and both support stronger links between industrial policy, education and employment. This shared agenda can support EU-level policy recommendations focused on investment, skills, competitiveness, just transition and social dialogue.

At the same time, their differences should not be obscured. A balanced EU-level policy framework should therefore not artificially merge these perspectives. Instead, it should identify the principles on which both sides can cooperate while leaving space for negotiated disagreement on instruments. The role of EU policy should be to create an enabling framework in which competitiveness and quality employment are not treated as opposing objectives, but as mutually dependent conditions for a sustainable European metal sector.

Policy Framework for Sustainable Employment in the Metal Sector

A policy framework for sustainable employment in the European metal sector must reconcile four objectives that are too often treated separately: industrial competitiveness, decarbonisation, digital innovation and quality employment. The SoDi evidence shows that the green and digital transitions will not be socially sustainable if employment consequences are addressed only after investment, restructuring or technological decisions have been taken. The framework proposed here therefore rests on six mutually reinforcing **principles**.

Sustainable industrial competitiveness

Sustainable employment presupposes a viable industrial base. The EU should therefore support the modernisation of metal production through investment in low-carbon technologies, circular production models, resource efficiency, electrification, hydrogen-based processes where feasible, advanced recycling and digitalised production systems. Industrial competitiveness depends on the ability to ensure

sustainable profit margins, which is essential for maintaining high-value-added production, technological leadership, resilient value chains, and quality jobs in Europe.

This requires access to affordable and predictable clean energy, stable investment conditions, protection against carbon leakage and unfair competition, and the creation of lead markets for low-carbon European metals. The creation of such markets should also be supported by the strategic use of public procurement, including through appropriate environmental and social criteria.

Anticipation and management of change

The green and digital transitions require earlier and more systematic anticipation of employment effects. Rather than creating new mandatory sectoral early-warning systems, EU and national policies should make better use of existing data sources, sectoral observatories, skills intelligence tools and social-dialogue structures to support evidence-based anticipation of change. Where appropriate and agreed by the relevant social partners, such tools may help identify risks and opportunities linked to restructuring, technological change, automation, decarbonisation costs, energy prices, skills shortages and regional exposure. Their use should support informed discussion between employers' organisations, trade unions and public authorities, while respecting the autonomy of social partners and avoiding additional administrative burdens.

Major transformation projects in the metal sector should include employment impact assessments, skills impact assessments and occupational safety and health assessments. Such assessments should not be purely administrative exercises; they should also be taken into account as possible, for negotiation and transition planning where applicable. Information and consultation, in line with EU, national and collective bargaining provisions, should take place before irreversible decisions are taken on closures, automation, relocation, technological conversion or major work reorganisation. This principle is essential to move from reactive crisis management to planned industrial adaptation.

Skills, reskilling and lifelong learning

Skills policy is central to sustainable employment. The metal sector faces simultaneous shortages of traditional technical skills, advanced engineering competences, digital skills and green-transition expertise. The EU should therefore support sectoral skills partnerships that connect employers, trade unions, vocational education providers, universities, regional authorities and EU-level social partners.

Training systems must be more anticipatory, accessible and employment oriented. Priority should be given to digital skills, automation, AI literacy, data-based production, low-carbon technologies, circularity, maintenance of advanced equipment, occupational safety and health, and transition management. Reskilling and upskilling should be available not only to high-skilled workers but also to workers in routine, ageing or emission-intensive occupations who are most exposed to restructuring. Paid training leave can be an effective tool to boost training, quality employment and higher rates of job-to-job transition when negotiated by social partners and aligned with the organisational needs of companies.

Quality employment and working conditions

Sustainable employment must be understood qualitatively. It is not sufficient to preserve jobs if they become insecure, poorly paid, unsafe or deprived of representation. Therefore, the EU's industrial policy should consider, as possible, the importance of sustaining quality jobs in its transformation strategies, financing instruments, and sectoral monitoring. In this regard, we point out that without competitive companies, the MET industries cannot provide quality jobs that deliver employment stability, adequate wages, occupational safety and health, access to training, predictable working time, work-life balance, non-discrimination and meaningful worker participation in line with EU and national regulations and collective bargaining provisions.

Quality employment criteria should cover not only workers directly employed by the enterprises carrying out the industrial transformation, but also workers of subcontractors, suppliers, temporary employment agencies and other economic operators involved in the relevant production and supply chains.

The introduction of new technologies should improve, not deteriorate, working conditions. Automation and digital tools can reduce physical strain and improve safety, but they may also intensify work, expand surveillance or introduce algorithmic management without adequate safeguards. Green production processes may reduce environmental risks but can also create new occupational hazards. For this reason, occupational safety should be assessed continuously, with social partners involved in the design and monitoring of workplace change. At the European sectoral level, this assessment should be supported by joint guidelines from the social partners for the identification and management of emerging risks to occupational safety and health.

Stronger and more strategic social dialogue

We should take into account that EU and national social partners are autonomous social partners. They decide for themselves on their work programmes, the topics to

be discussed, potential negotiations, and any agreements they may seek to reach if any etc. Policy makers should therefore be careful not to interfere with the autonomy of social partners.

At EU level, Ceemet and IndustriAll Europe should be systematically involved in discussions on the implementation of the Clean Industrial Deal, the Steel and Metals Action Plan. They already are involved in the Transition Pathway for the European Metals Sectors and have been consulted on the Quality Jobs Roadmap.

At national and company level, social partners should be involved in transition planning, restructuring processes, training strategies and technological change. Recommendations could be developed, as possible, on just transition, skills anticipation, employment impact assessment and worker participation in decarbonisation projects. Peer learning between countries, regions and companies should be supported, especially where social dialogue is weak or fragmented. Stronger social dialogue is not only a social objective; it is also a condition for legitimacy, trust and effective implementation of industrial transformation.

Fair funding

EU and national funding instruments should be mobilised to support sustainable employment in the metal sector. The Just Transition Fund, ESF+, Innovation Fund, InvestEU and related instruments can finance industrial investment, training, reskilling, regional adaptation, social partner capacity-building and innovation. However, access to funding should be simplified, especially for SMEs and social partner organisations with limited administrative resources.

It should be highlighted that green and digital investments are undertaken by employers, who are therefore the key actors responsible for investment decisions, the implementation of new technologies, and the provision of relevant training to ensure that workers acquire the skills necessary to operate the technologies introduced.

Taken together, these six principles define sustainable employment as a core dimension of European industrial transformation. The objective is not to impose a uniform model on all Member States or companies, but to provide with some recommendations that foster a competitive industry, anticipated change, skilled workers, adequate working conditions, strategic social dialogue and fair funding. Such recommendations can help ensure that the metal sector remains not only

economically resilient and technologically advanced, but also socially legitimate and employment sustainable.

Recommendations

The implementation of sustainable employment in the European metal sector requires coordinated action at three levels: EU institutions and EU-level policies; European sectoral social partners; and national and sectoral organisations of employers and workers. The recommendations below translate the policy framework into operational priorities while respecting the diversity of national industrial relations systems and the distinct mandates of employers' and workers' organisations.

Recommendations for EU institutions and EU policies on greening and digitalisation

EU institutions should ensure that the green and digital transformation of the metal sector is governed as an integrated industrial, employment and social dialogue agenda. Decarbonisation, digitalisation and competitiveness policies should consider as possible employment-related challenges, skills provisions and mechanisms for worker and employer involvement. This requires stronger coordination between industrial policy, climate policy, digital policy, employment policy, regional development and vocational education.

First, **EU initiatives** such as the Clean Industrial Deal, the European Steel and Metals Action Plan, the Transition Pathway for the European Metals Sectors, the Net-Zero Industry Act and the Quality Jobs Roadmap **should be implemented in a mutually coherent and coordinated way**. Their common objective should be to preserve and modernise European industrial capacity while ensuring that transformation produces quality employment rather than insecurity, fragmentation or regional decline. Employment impact assessments should become a regular component of major EU initiatives affecting energy-intensive and technology-intensive industries.

Second, EU policies should support better anticipation of employment, skills and working-condition challenges linked to the green and digital transitions, while respecting the division of competences between EU institutions, national authorities and social partners. Rather than assigning a sector-specific monitoring role to the European Commission, the EU should make better use of existing evidence produced by bodies such as Eurofound, Cedefop and EU-OSHA, as well as relevant national data, sectoral observatories and skills intelligence tools. Issues such as decarbonisation pathways, automation, AI use at work, occupational transitions,

training needs, skills shortages and occupational safety and health risks should primarily be addressed through the competent national authorities, including labour inspectorates where enforcement of legislation is concerned, and through established social dialogue structures. Where relevant and agreed by the social partners, available evidence may inform discussions in the Sectoral Social Dialogue Committee for the Metal Industry, collective bargaining, sectoral planning and company-level consultation, without creating additional reporting obligations or interfering with the autonomy of social partners.

Third, the **EU should ensure that decarbonisation support is tied to industrial and employment resilience**. Instruments aimed at reducing energy costs, supporting hydrogen, electrification, circularity, carbon-neutral production and clean-technology deployment should be accompanied by transition plans covering skills, workforce adaptation and social dialogue. Public support should not only reduce investment risk for companies; it should also contribute to the preservation and upgrading of employment in Europe.

Specifically, a defined proportion of the revenues generated under the ETS and ETS2 systems should be earmarked at national level for decarbonisation policies, including employment-related measures, rather than allocated to general state budgets. Full information on the use of these funds should also be provided to the relevant social partners at national and sectoral levels, including social partners in the metal sector.

Fourth, **EU funding should be made more accessible and employment oriented**. The Just Transition Fund, ESF+, Innovation Fund, InvestEU and related instruments should be better coordinated so that technological investment, regional transition, reskilling and social partner capacity-building can be combined in one strategic framework. Dedicated funding windows should support sectoral skills partnerships, transition training funds, joint employer–trade union projects, SME advisory services and regional industrial-transition platforms. Administrative procedures should be simplified, especially for SMEs and social partner organisations, while maintaining transparency and accountability in the use of public resources.

Fifth, **EU policies should build on the Skills Guarantee being developed by the European Commission**. Workers affected by decarbonisation, automation, digitalisation or restructuring should have access to high-quality labour market driven training leading to real employment pathways. This guarantee should prioritise workers in emission-intensive, routine, physically demanding or vulnerable occupations, as well as older workers, women, migrants and workers in SMEs that should receive support in order to deploy right skilling initiatives.

At the same time, skills initiatives should respond to employers' needs for technicians, engineers, maintenance specialists, AI and data specialists, welders, electricians and workers qualified in low-carbon production, circularity and advanced manufacturing. The metal sector social partners and relevant national actors should be encouraged to engage with this initiative and with the outcomes of related EU-funded projects, including those focused on specific industrial sectors. This would help ensure that future skills measures are relevant for the MET industries and reflect both workers' employability needs and companies' demand for qualified labour.

Sixth, **EU digital policy should address the workplace dimension of automation, AI and data-driven production.** Digitalisation should be promoted as a means of improving productivity, quality, energy efficiency and safety, but it should not lead to opaque algorithmic management, excessive surveillance, work intensification or exclusion of workers from technological decision-making.

Seventh, **the EU should strengthen circularity and resource resilience as employment policies.** Scrap recycling, secondary raw materials, repair, remanufacturing and circular production models can reduce emissions and raw-material dependencies while creating regional industrial jobs. EU circular-economy policy should therefore support not only environmental targets, but also skills, occupational safety, collective bargaining and regional employment strategies in recycling and low-carbon metal production value chains.

Finally, **EU institutions should reinforce the role of the Sectoral Social Dialogue Committee for the Metal Industry always respecting the autonomy of social partners.** Ceemet and IndustriAll Europe should be consulted on EU initiatives affecting the workplace in our sector. .

Joint recommendations for Ceemet and IndustriAll Europe

The following recommendations are proposed as possible areas for joint reflection and cooperation between Ceemet and IndustriAll Europe, fully respecting their autonomy as European social partners and their right to determine, in consultation with their members, their work programmes, priorities, topics for discussion and any agreements they may decide to pursue.

Ceemet and IndustriAll Europe should use their common institutional space to discuss on how to create and sustain quality employment in the metal, engineering and technology-based industries identifying shared principles such as preserving industrial capacity in Europe, avoiding deindustrialisation, strengthening skills, anticipating change, supporting quality employment, improving occupational safety and health,

and ensuring meaningful social dialogue as well as the competitiveness of MET companies

A joint priority should be **capacity-building**. Ceemet and IndustriAll Europe should jointly promote training modules for national social partners on EU industrial policy, decarbonisation, digitalisation, AI at work, funding instruments, skills anticipation. Particular attention should be paid to countries and sectors where social dialogue structures are weaker, as well as to SMEs, where institutional capacity is often limited.

Also, joint priority should be **peer learning**. The social partners should collect and disseminate examples of effective company and sectoral practices, including negotiated restructuring, training funds, joint skills mapping, OSH measures linked to new technologies, and cooperation with vocational education providers. These examples should be presented as adaptable models, not as uniform solutions.

Ceemet and IndustriAll Europe should continue to provide coordinated input to EU debates such as on, n, the Transition Pathway for the mobility ecosystem. Where common ground exists, joint positions should be used to increase the influence of sectoral social dialogue on EU policy-making.

A further possible area of substantive cooperation could be the regular exchange, within the Sectoral Social Dialogue Committee and subject to the autonomous work programmes of Ceemet and IndustriAll Europe, on how green and digital transformation is affecting work organisation, skills need, occupational safety and health, and employment adaptation in the MET industries. Such exchanges could focus on practical questions arising in companies and sectors, including the anticipation of skills needs, access to training, responsible introduction of digital and AI-based tools, adaptation to low-carbon production processes, and the management of restructuring where relevant. The objective would not be to establish a new monitoring mechanism or to prescribe uniform transition models, but to identify shared challenges, collect practical experience from members, and, where common ground exists, translate this into joint messages, non-binding reference points or inputs to EU policy debates.

Recommendations for workers' and employers' organisations at national and sectoral levels

National and sectoral trade unions and employers' organisations should translate EU-level priorities into concrete industrial-relations practice.

The first priority is to **move from reactive consultation to anticipatory dialogue**. Social partners, in line with national regulations and collective bargaining provisions, should seek, as possible, regular access to information on investment plans, restructuring risks, energy and decarbonisation strategies, digitalisation projects, skills needs and employment impacts.

Second, **national and sectoral organisations should strengthen their analytical capacity**. Trade unions require stronger expertise in industrial policy, climate regulation, digital technologies, company finance, employment forecasting and occupational safety. Employers' organisations, especially those representing SMEs, require support in workforce planning, training strategies, access to public funding, communication with workers and responsible digitalisation. Joint expert support, sectoral databases and shared diagnostic tools could reduce information asymmetry and improve the quality of dialogue.

Third, **social partners should prioritise skills**. Skills policies should be linked to real employment pathways, not limited to general awareness-raising.

Fourth, **national and sectoral organisations should take into account the importance of creating and sustaining quality employment in the framework of the transformation processes**. This is particularly important where new technologies alter work organisation or where decarbonisation creates pressure for restructuring.

Finally, **national and sectoral social partners should use EU-level platforms more actively**. Participation in the Sectoral Social Dialogue Committee, European projects, peer-learning networks and EU-funded capacity-building initiatives can help transfer knowledge between countries and strengthen weaker systems of dialogue. Sustainable employment in the metal sector will ultimately depend on whether European priorities are translated into national institutions, sectoral agreements and workplace-level practices.



Supporting the Implementation of the
European Industrial Deal with Strengthened
Social Dialogue in European Metal Sector.



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