Youth perspectives on industry transition

Abdullah Khair, Helen Watts, Connor Thompson, Jackie Bastianon, Shakti Ramkumar, Oliver Johnson, Zoha Shawoo, Gökçe Mete, Felipe Sanchez, Linette Knudsen, Nabila Putri Salsabila, Paola Flores Carvajal, Tianna Phillipot

Key messages

- Young people are primed to be agents of change for the heavy industry transition, bringing new integrated solutions and pursuing careers aimed at decarbonizing the sector.
- Young people want to pursue meaningful careers that have a positive impact on our climate, but many are not aware of such opportunities in the heavy industry sector.
- Building pathways for young people to engage on heavy industry transition challenges is essential for net zero ambitions and a critical part of our global decarbonization roadmap towards 2050.
- Young people call on countries and companies to commit to a just industry transition by:
  - Building local innovation systems for industry decarbonization that engages with youth;
  - Investing in transition skills training for the current and future workforce, and;
  - Creating pathways for young people to directly engage in policy processes, decision-making and research and development on industry decarbonization solutions.

Introduction

Energy intensive heavy industries will need to make an enormous transition to achieve the aims of both the Paris Agreement and the United Nations 2030 Agenda on Sustainable Development. These industries, responsible for producing basic materials such as steel, cement, aluminium, petrochemicals, and fertilizers, are responsible for 25 to 30% of today's global greenhouse gas (GHG) emissions.

As agents for change and the future workforce, young people have an important role to play in the industry transition. It is critical to feed their insights into decision-making frameworks to ensure a resilient, inclusive, and just transition for all.

This brief presents outcomes from four dialogues on the role and perspectives of youth in the industry transition. The dialogues – focused on Southeast Asia, Europe, Canada, Latin America – were a collaborative effort between LeadIT and Student Energy, a global non-profit that supports 50,000 youth in 130 countries in building capacity to take action on energy issues. Dialogue participants were young leaders in Student Energy's networks that are keen to raise ambition from key actors to work with young people in addressing climate challenges.

Insights from the dialogues will also contribute to Student Energy's forthcoming Global Youth Energy Outlook, which provides future energy scenarios and pathways for sectors to partner with young people to achieve this future. The report is set to be formally launched at COP26 in November 2021.

Jobs and social justice

Young people play an important role as citizens and future workers in advocating for a socially just and equitable industry transition. A common issue raised across all four dialogues was the lack of broad public awareness at different societal levels of the implications of the heavy industry transition. Consequently, the following areas were identified as key to shaping a more inclusive and resilient transition that has a broad base of public support and engages informed community members advocating for specific changes to the sector:

- **Governments and companies must commit to adopting just transition principles**, such as the International Labour Organization's Guidelines for a Just Transition, acknowledging that existing industry workers, their families, communities that rely on industry, and young prospective workers will be affected by the disparate socioeconomic impacts of the industry transition. Governments and companies must commit to the eradication of poverty, reduction of inequalities, and creation of meaningful work and decent jobs through the transition.
- **Governments should adopt a carbon tax and offset mechanism** that directs revenue into funding earmarked for decarbonization and climate solutions in communities vulnerable to climate impacts. These include diverse socioeconomic, racialized, and other communities historically excluded from climate solutions and/or disproportionately impacted. Solutions eligible for funding may include community-led rewilding initiatives, decentralized energy, or building retrofits to name some examples. Communities impacted by this fund need to be part of the fund research, development, and implementation phase.
- **Redistribution of wealth from companies through needs-responsive grants and investments is a necessary measure to protect small- and medium-sized businesses, local communities, and individual workers who are affected by the industry transition more than others.** Companies should engage employees and communities in developing this mechanism to ensure that contextual impacts of climate change are mitigated, and that people are at the centre of solutions.
- **Governments and companies must commit to mainstreaming training on (1) diversity, equity, and inclusion; (2) sustainability and climate justice; (3) digital skills; and (4) "soft" skills like communications and collaboration at every employee level and in formal education systems.** Local and/or subnational governments must take a multi-stakeholder approach to setting metrics of success for the effective delivery of this training. Companies and academic institutions must ensure transparency with their employees, students, and communities on how this training is being integrated into operations, curricula, and teacher training to ensure accountability and mitigate perceived "SDG-washing".
- **Governments and companies must commit to adopting the United Nations Declaration of the Rights of Indigenous Peoples (UNDRIP)** and embedding minimum standards for the survival, dignity and well-being of Indigenous peoples while adhering to principles for free, prior and informed consent (FPIC) for all decisions-made that impact ancestral and Indigenous land and resources while acknowledging Indigenous people's rights to self-determination.

Policy and the economy

Young people observe a lack of transparency between heavy industry and government in particular as a barrier to setting robust environmental standards that will contribute to reaching net-zero. It is up to governments to ensure cohesion and unanimity across the heavy industry value chain in their plan to decarbonize. This approach is key not just throughout the design of appropriate policies but also in their execution. Governments should commit to:

- **A multi-stakeholder approach to policymaking** that includes industries, investors, communities, and research institutions in creating emissions targets, fiscal incentives and timelines for reaching these targets.
- **Enabling a healthy investment ecosystem for low-carbon and renewable technologies**. Shifting to low or zero-carbon energy sources and carriers, new industrial processes, CCUS, and energy efficiency technologies have high upfront capital costs and financing mechanisms must be made available in order for industries to make a business case to their financial teams, board of directors and shareholders, where they may not see economic returns for several years. This can be done through fiscal policy tools such as taxes, charges, subsidies, incentives, and budget allocations, whilst also ensuring that they are designed to address inequalities and not adversely affect vulnerable communities.
- **Supporting youth movements to gain traction and credibility with their influence on decision-making**. Governments have a responsibility to consult directly with the youth through programs like advisory boards and roundtables and make an active effort to compensate youth for their time contributions and invite representation from youth to participate.
- **Education, spreading awareness, and informing the public on the scale of emissions from both production and consumption** of industrial products are crucial to changing behaviour in how people choose to spend their money and engage their communities, how they vote for political platforms, and how they advocate within industries for change as employees. Governments must be transparent and hold themselves accountable to the public on how they are reinvesting environmental tax returns into integrated solutions that support decarbonization, social welfare, and economic activity.

Technology and innovation

As young people are beginning to enter the workforce, they are not attached to specific technological solutions, methods, or conventional sectoral thinking. Therefore, this makes young people more receptive to a transition to new and transformative technologies, innovation and changes to business-as-usual. The opportunity of technological innovation and disruption in the heavy industry is perceived as an opportunity for young people to contribute their ideas and efforts. Governments should:

- **Invest more in business incubation platforms and offer a more inclusive range of financial support for young people accessing these programs**. This will support young entrepreneurs and intrapreneurs working on integrated solutions and new technologies while also ensuring that they become viable at industry scale. Examples of these platforms include national-level incubator programs which focus on strengthening the entrepreneurial capacity of early-stage green ventures led by youth. Youth Innovation Hubs could be established, where young entrepreneurs and intrapreneurs can actively explore new technologies that address complex decarbonization challenges, by collaborating with each other and with organizations. Providing such platforms will further encourage the mobilization of expertise and familiarization of the industry landscape on a national level, and thus support the scalability of new innovations.
- **Identify feasible technological solutions that clearly address risks and encourage circularity.** While the options for low-carbon technologies are still scarce today relative to the urgency of the transition, participants saw that there are other available opportunities which can support the sector's shift to a closed-loop model. This includes investing in and supporting research around technologies such as waste-heat recovery systems, using residual industrial heat to feed into combined heat and power plants, circular use of waste heat for the production of hydrogen and CCUS.
- **Address concerns over implementation of CCUS and the transferability of technologies.** During our dialogues we discovered that implementation of CCUS technologies can be a divisive issue. While its use to address current challenges is understood, many questions were raised on finding an end source

for using carbon and the continued use of fossil fuel feedstock in processes. A participant in Southeast Asia expressed that their region is currently investing too much in importing this technology from overseas. Governments and companies need to be co-creating solutions with their local communities to address emissions from heavy industry that are applicable to their region's unique challenges.

- **Ensure youth have access to education and training that enables them to think critically and develop relevant capabilities** and apply their motivation and knowledge to practical solutions is essential if the innovative predisposition of youth is to be harnessed. If young people are not supported to be competitive in a changing future of work, many sectors will continue to struggle to find and employ talent that can sustain this transition in the heavy industry. This risk of talent and knowledge gap presents a significant risk to timely decarbonization.

Conclusions and recommendations

Youth believe that decarbonizing the heavy industry is an urgent task and that progress on the transition of these sectors has not been satisfactory in their regions. There is a need for stakeholders to work together and build coalitions with young people who are able to contribute to the solutions needed to accelerate the transition. The transition is viewed by youth as not only an effort to reduce the GHG emissions but to also address other social development issues that will ensure a resilient future.

Despite the need for a more collaborative effort, the challenges in this sector are very unique to each respective region. It is important that solutions from other geographical and socio-economic contexts are adapted by local stakeholders – including youth – to meet their needs and specific context.

LeadIT country members should facilitate knowledge sharing, as well as local adaptation, and build local innovation system for industry decarbonization that engages with youth. A well-supported innovation landscape can ensure an equipped and engaged workforce, the creation of jobs and economic activity, and more adaptable sectors to changing environments and future disruptions.

LeadIT company members should recognize and name their commitment to building strategies and launching programs to work with young people on these challenges. Direct consultation between government, young people, industry and the research community supports an integrated, innovative and resilient approach to the heavy industry transition.