

# STEM WORKING GROUP

October - November 2021

## Participants

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Name	WIM Organisation	Role in WIM Organisation	Role in Working Group
Mercedes Rodríguez	WIM Argentina	Public Relations Director	Coordinator
María Celeste González	WIM Argentina		Participant
Jimena Batarce	WIM Chile		Participant
Caroline Morrisey	WIMARQ		Participant
María Isabel Aillón	WIM Ecuador	President	Participant
Nela Zambrano	WIM Ecuador	Secretary	Participant
Paola Romero	WIM Ecuador	Technical Committee	Participant
Gladys Smith	IWiM	Head of Engagement	Support
Sueli Tang	IWiM	Head of Operations	Support
Mary Thatcher	WIMARQ		Coordinator
Karina Zevallos	WIM Peru	Vice-President	Participant
Alex Atkins	IWiM	Director	Guest-Invited by Mary

## IWiM

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*Alex Atkins*, IWiM Director, was invited as a guest speaker to talk about retention of women in the mining sector from her perspective after 25 years of experience as a mining engineer. The meeting was conducted in a Q&A format.

*How can women support other women collectively and how can social media be a useful tool to achieve this aim?*

Efforts should not be about grandstanding or looking after personal interests. They should be geared towards collectively trying to do what can be done for women in mining together. The group discussed the creation of a toolkit for women's careers that would provide guidance to other women through the progression of their careers for retaining their jobs and advancing in their respective fields.

The lack of data globally has a large impact on women's ability to retain their jobs and advance internally. Retention does not just mean that physical spots are allotted for women in offices. Rather, IWIM is promoting the idea that how companies help connect women to opportunities should be seen as a mode for organizational growth, whether within the context of mining companies in the private sector or of the public sector and government positions. Organizations must pay attention to women's insights into:

- The array of opportunities that exist for them
- Requirements for them to access opportunities
- Necessary courses to prepare for work in the resources sector
- Necessary experiences to gain before entering the resources sector to ensure success
- Necessary networks to tap into to find opportunities
- The people who can help them reach their goals in respective companies and organizations
- Necessary resources to make the most of the opportunities afforded to them

Organizations should provide a path for women to access opportunities, a critical step in combatting the deficit of women in STEM generally and in mining operations more specifically. In order to do so, companies must make an effort to understand what women want and need by genuinely listening to them.

ESG is shaping the mining industry and its relation to gender equality, diversity, and inclusion, a factor that will impact frameworks in the future.

In addition, social movements are gaining traction, led by youth who now make up a large portion of the global population. Youth tend to hold strong beliefs about social justice and sustainability and are growing tired of the current patriarchal system which has never been challenged in a meaningful way before. Sexual assault in mining camps and communities coupled with the Black Lives Matter movement mark just a few examples of youth readiness to challenge the status quo. Considering the parallel between domestic violence and behavioural norms and job sites in the mining industry, it is crucial to build women's confidence to protect themselves, rather than resorting to behaviours characteristic of men in lieu of challenging existing gender norms as a form of self-preservation and protection.

Change cannot happen without an increase of women in leadership positions with the courage to challenge established norms and support other women in following suit. Within the general mining community, social norms have been established that allow women to have some form of voice, but in remote areas where there is a lack of women in leadership, women also lack voices and face the risk of punishment for being vocal. In order to encourage women everywhere to advocate for themselves, women must support each other broadly and cross-sectorally. Social media is a relevant outlet to facilitate support networks and campaigns, particularly for men to join the cause and act as strong allies.

## WIM Ecuador

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WIM Ecuador presented STEM programs to promote education and create opportunities for younger generations resulting from collaboration between the Ecuadorian government and the national education sector with the goal of spreading these best practices through the International WIM Alliance. Nela Zambrano, head of the Department of Economics at the National Controller Regulation Agency and Co-founder and Secretary of WIM Ecuador, and Paola Romero, Dean of the School of the School of Mining, Engineering, and Geology at ESPOL, one of Ecuador's most prestigious universities in Guayaquil, and a member of WIM Ecuador's technical committee, presented at the meeting as engineers with ample experience in the technical mining field.

*Nela Zambrano* outlined various projects within the purview of WIM Ecuador's work which aim to promote and/or maintain the participation of women in the mining industry, including:

- A scholarship sponsored by Solaris Resources to promote university enrolment, including three categories of scholarship allocations for 60 students annually.
- A project in partnership with EITI and other allied companies to obtain statistics about the participation of women in the mining industry and address the lack of gender disaggregated industry data by collecting relevant 2021 survey data to inform the formation and implementation of a cross-organizational action plan.
- A student chapter released in unison with ESPOL and other Ecuadorian universities which hosts popular technical webinars featuring keynote speakers such as Ecuador's Vice Minister of Mining and other technical specialists.
- WIM Ecuador created a webinar series in alliance with WIM Central America and private sector partners to teach children about geology, minerals, and other related subjects to inspire children to study in preparation for careers in STEM.

In coordination with IWIM, WIM Ecuador will continue working alongside universities and companies nationally and abroad to further these projects and new ones in the future.

*Paola Romero* described the collaboration between WIM Ecuador, the Association of Mining Engineers of Ecuador, the International Organization of Atomic Energy, the United Nations Development



Programme, various universities within Ecuador and abroad, mining companies such as Lundin, and other public and private sector linkages. These collaborations have resulted in an event for elderly people as part of a mining program during which participants requested an increase in technical training opportunities.

Additional opportunities have been designed for students as well, one of which constitutes the first program to include women with a focus on four technical areas: mining engineering, geology, civil aspects of mining operations, and oil and gas. The program is designed to build capacity towards university admittance, continuing education, and matriculation, ensuring that students are receiving the level of education required by top mining companies by tailoring curricula to specific industry requirements. Students may even apply for scholarships to study abroad, and the small number of students allows for a targeted effort to prioritize women. A large amount of headway made in promoting educational opportunities for women began after Cecilia Paredes was appointed as the first female university Director, initiating the ongoing process of increasing the number of women in leadership positions within the Faculty of Earth Sciences.

*María Isabel Aillón* spoke about powerful programs inspired by universities such as ESPOL and organizations like WIM Ecuador to inspire women to enter the STEM field. ESPOL, one of Ecuador's major universities, is one of the first to feature a Department of Mining Engineering and has developed a focus on increasing gender inclusivity in STEM careers. As part of the mining engineering program, students develop both the hard (technical) and soft skills needed to apply for jobs in mining and energy companies.

Alliances such as the one between WIM Ecuador and ESPOL are crucial for women's empowerment in the extractives industry in order to build upon existing programs and capitalize on previously developed knowledge to approach the challenge of empowering women to work in STEM. Working with companies and authorities in Ecuador to promote gender equality, diversity, and inclusion has proven to be easier than reaching young women themselves because they tend to have about entering STEM fields doubts fuelled by cultural norms and stereotypes.

In order to combat these disruptive preconceived notions, both Nela and Paola are involved in The Power Project, an initiative sponsored by the U.S. Embassy in Ecuador to help women develop soft skills for STEM careers. The U.S. Embassy fully finances this project for 50 students annually and invites international voices to participate in seminars and workshops for women studying STEM-related subjects to help them overcome challenges beyond the content of their course work.

## Women in Mining and Resources Queensland (WIMARQ)

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*Caroline Morrissey* spoke about WIMARQ's collaboration with the Queensland Resources Council (QRC) where she works full time and leads the Diversity and Inclusion program. WIMARQ and QRC intersect on matters related to diversity and inclusion in policy and build mentorship programs for



women, matching both male and female mentors with women entering the mining workforce. In 2021, 75 mentees including traders, operators, engineers, scientists, and others participated in the program with the goal of retaining women with STEM skills in the mining industry. Many women who participate in this program go on to become mentors themselves after they graduate.

The Queensland Minerals and Energy Academy is a virtual institution that works with 90 different schools throughout Queensland to contextualize syllabi in relation to energy and resource sector requirements. The academy holds workshops to encourage high school-aged girls to pursue STEM careers, particularly those related to the science, geology, and engineering. Girls can also become ambassadors to the resource sector and are eligible to win the annual Women Resources Award through a mentorship program connecting them to experts in the field. All of the aforementioned programs are sponsored by companies to help kickstart women's careers in STEM. In the future, the Queensland Minerals and Energy Academy would like to develop partnerships with universities.

AusIMM Resources provides materials about STEM and the resources sector to teachers for use in classrooms, creating a hub for students to learn and research independently. They work closely with the Australian government to develop strategies to empower women with the broader goal of influencing policy-making decisions on a national scale, including the creation of an award for women working in innovation and technology. These various initiatives aim to keep women engaged in the resources sector and reach women to bolster participation, facilitated by social media campaigns and direct marketing tactics through the WIMARQ newsletter and QRC's membership database and social media accounts.