

WFEO- Women in Engineering Committee

Report on

ACTIVITIES AND PROGRAMMES

Presentation at

2022 Executive Council Meetings

By

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Introduction

Mission &

Vision



The Women in Engineering (WIE) Committee is a standing Committee of the World Federation of Engineering Organisations (WFEO) who work collaboratively to empower, inspire, encourage, and share the achievements of women in engineering and technology around the world. We believe that equality, diversity and inclusion in the engineering and aligned sectors is crucial to creating a sector which can address the challenges that exists in the world. Global gender equality and women's empowerment is integral to the success of each of the 17 Sustainable Development Goals, and we aim to inform debate, and use the power of engineering and technology to achieve equality of opportunity for all.

- **MISSION**

- To seek ways to harness the collective power of our group, using technological skills, to achieve an engineering profession which attracts, retains, promotes, and welcomes the inputs of women and other under-represented groups, in order to achieve a sustainable world, that leaves no one behind.

- **VISION**

- To promote equality, diversity and inclusivity in the engineering workforce (with focus on women).

Committee Work Themes



- **Theme 1:** Engineering Workforce Capacity building- to increase diversity and inclusivity in the future skills pipeline.
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- **Theme 2:** Engineering Workforce Capacity building- to encourage female engineering retention and leadership.
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- **Theme 3:** Collection of Engineering Strategic Indicators.
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- **Theme 4:** Working in Partnership to address the Sustainable Development Goals, with a particular emphasis on Goal 5- Gender Equality, and its relationship to the other Goals in particular SDG13 and 17.
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Committee Leadership & Theme Leads:



Chair: **Yetunde Holloway** - Nigeria

Deputy Chair: Dawn Bonfield- United Kingdom, UK

Admin. Staff: Tessy Gbayan-Nyiekaa- Nigeria

Theme Leads:

Theme 1: Engineering workforce Diversity
Lead **Wai Yie Leong (Malaysia)**

Theme 2: Female Leadership & Empowerment
I **Lead** **Enyonam Kpekpena (Ghana);**
Co-lead **Alice Cunha da Silva (Brazil)**

Theme 3: Engineering Strategic Indicators
Lead **Jeanette Southwood (Canada)**
Co-lead **Micheline Wehbe (Lebanon)**
Co-lead **Ania Lopez (Italy)**

Theme 4: Working in Partnership to address the Sustainable Development Goals, with a particular emphasis on Goal 5- Gender Equality, and its relationship with the other Goals.

Lead **Dawn Bonfield (UK)**
Co-lead **Eveline de Kokx (Netherlands)**

World Engineering Day for Sustainable Development Statement 4 March 2022



THE WOMEN IN ENGINEERING COMMITTEE STATEMENT FOR WORLD ENGINEERING DAY 4TH MARCH, 2022

Build Back Wiser -Engineering the Future

The World Federation of Engineering Organizations (WFEO) boasts of a large and diverse community of engineers from over 100 countries across the globe including Asia Pacific, Africa, America and Europe. The Women in Engineering Committee (WIE) is a Policy Implementation Committee of WFEO.

In coming years, sustainability of engineering will depend on **Diversity, Equity, and Inclusivity (DEI)** and these three guide the activities of our committee and form the basis of our strategic goals and overarching themes.

From ideation and conception, procurement, creation and production, application and use of modern engineering and technology, DEI has become a vital factor for global progression. Our committee promotes and advocates DEI within the sector and aims to ensure that more and more females join and thrive in the workforce, and that their opinions and perspectives contribute to the future of engineering and technology, across all the Sustainable Development Goals such as industry, innovation and infrastructure development, climate change, health security, access to clean water and sanitation, sustainable cities, digital technology, and gender equality.

To **Build Back Wiser**, after the Covid pandemic and various climate disasters, the engineering and technology community needs to embrace all people, rich and poor, and including the most vulnerable, with diverse and inclusive innovations that are accessible to all.

Four main thematic goals, form the basis of our work and are shown below:



Strategic Theme Three: Collection of disaggregated strategic indicators -will be an area of major emphasis for the Committee in 2022.

The simple **GENDER SCORECARD**, (shown below) was initiated by **Engineers Canada**, and adopted by the Women Engineering Committee, for collection of gender disaggregated data. The scorecard can be used by countries to establish engineering data baselines for 2022, and to create targets and track and benchmark progress achieved in subsequent years. The scorecard allows for additional information depending on the country and engineering culture, categorization, registration, progression procedures etc.



Commitment to the Generation Equality Action Coalition on Technology and Innovation for Gender Equality

Gender Equality Scorecard for the Measurement of Gender Disaggregated Data For Professionally Registered Engineers

The Gender Equality Scorecard is a gender disaggregated data measurement tool which has been developed by Engineers Canada to track the progress in numbers of women in the engineering sector who are members of Professional Institutions on their journey to professional registration. The ambition is for engineering regulators globally to adopt a standardized method of measuring data, helping them to set appropriate goals to increase numbers of women in the engineering sector within their own country, and simultaneously promulgating a global benchmark through which longitudinal data can be collected and tracked. The Professional Institutions and Engineering Regulators are requested to report annually against a proposed matrix of eight or more measures, depending on applicability, starting with the next reporting cycle in 2022.

The gender disaggregated metrics listed on the scorecard are:

- Total percentage and number of licensed (professionally registered) engineers.
- Percentage and number of newly licensed engineers for that particular year.
- Percentage and number of Engineers in Training (ETTs).
- Percentage and number of newly registered Engineers in Training (ETTs).
- Student members.
- Percentage and number of mentorship program participants (where an officially recognized institute scheme exists).
- Percentage and number of scholarship recipients (where an officially recognized institute scheme exists).
- Regulator council members.
- Any other regulator-specific metrics.

Regulators can use the scorecard to set their own yearly targets for each of these categories. If Regulators have other metrics they would like to track as part of the scorecard they can add their own Regulator-specific metrics, or replace some of the metrics above which are not applicable with their own metrics.

The purpose of this scorecard is to provide a tool for Regulators and professional engineering institutions to set and measure aspirational yearly targets, and for the data to be collected and used globally by the World Federation of Engineering Organizations-Women in Engineering Committee to monitor, track and report progress on a global level.

For further details, and to be involved in joining this initiative, please contact Tessy Gbayan on wfeo-wie@wfeo.net or Dawn Bonfield on dawnbonfield@btinternet.com

This progress towards global adoption of this Scorecard is part of the Commitment made by the World Federation of Engineering Organizations- Women in Engineering Committee to apply engineering to address the Sustainable Development Goals. The Commitment is made to the UN Women Generation Equality Action Coalition on Technology and Innovation for Gender Equality.

In conclusion, measurement of engineering disaggregated data is expected to raise awareness on the insufficiency (or otherwise) of diversity and inclusivity in engineering, particularly as it affects women and is further expected to hold engineering communities and organizations accountable on the female perspectives reflected in their work. Studies indicate that a more diverse workforce of females and other disadvantaged groups, which reflects a wider variety of experiences and views, can greatly benefit the profession and humanity as a whole.

WIE invite(s) our colleagues in the **World Federation of Engineering Organizations** and beyond, to join our call for the measuring and reporting of gender disaggregated statistics, and the adoption of the **Gender Equality Scorecard**, and to unite with us in creating a **global benchmark**, which will accelerate progress towards a more diverse and inclusive engineering sector worldwide.

Let's celebrate an inclusive World Engineering Day!

Yetunde Holloway
Chair, WFEO-Women in Engineering Committee
yholloway@gmail.com

To sign-up, please contact: **Dawn Bonfield**
Deputy Chair
dawnbonfield@btinternet.com

Tessy Gbayan
Secretariat
yfea-wie@wfeo.net

Theme 3: Female Strategic Indicators




1. GENDER EQUALITY SCORECARD FOR THE MEASUREMENT OF GENDER DISAGGREGATED DATA

The Women in Engineering Committee, as part of their 'Strategic Indicators' Action Theme have developed, in collaboration with Engineers Canada, a Gender Equality Scorecard to encourage Professional Engineering Institutions (PEIs) and engineering regulators to collect and report on metrics related to professionally registered women engineers in their institutions or licensed by their engineering regulators.

Theme 1: Engineering Workforce Diversity and Capacity Building



Action	Expected Outcome
 <p>THE EGALITE CHARTER COMMITMENT The EGALITE charter has been developed by the Women in Engineering Committee as part of their commitment to greater diversity, equity and inclusion in the engineering sector To create a more diverse, equitable and inclusive engineering industry.</p>	<p>Action Coalitions are global, innovative, multi-stakeholder partnerships that mobilize international organizations to catalyze collective action, spark global and local conversations, drive investment, and deliver concrete and game changing results for women and girls.</p>

UN Action Coalition on Technology & Innovation for Gender Equality



Action Coalitions are multi-stakeholder programmes coordinated by UN Women under the Generation Equality campaign to focus on delivering progress on six critical areas underpinning equality. There are six themes:

1. Gender-Based Violence
2. Economic justice and rights
3. Bodily autonomy and sexual and reproductive health and rights (SRHR)
4. Feminist action for climate justice
5. Technology and Innovation for Gender Equality
6. Feminist movements and leadership.

WFEO Women in Engineering Committee proposal involvement in theme 5.

The EGALITE Charter



World Federation of Engineering Organisations – A Charter for Equity, Diversity & Inclusion



A Commitment to Equity, Diversity & Inclusion

The members of the World Federation of Engineering Organisations pledge to commit to the following aims and actions to create a more diverse, equitable and inclusive engineering industry. Organisations that sign up to this pledge are committing to driving equity, diversity & inclusion within their sector and providing fair treatment of and opportunities for women and under-represented groups to succeed at the highest levels, and to ensure diversity at all levels across the industry.

The EGALITE Charter:

- **Equity.** We commit to ensuring that all members of our profession have equitable experiences and opportunities to succeed, are treated fairly and with respect, feel safe, and are free from harassment and discrimination.
- **Growth.** We commit to growing our diversity to ensure that we have representation in line with our regional population in all areas and at all levels, including in our governance, on committees, panels, and recruitment boards, and to create an inclusive culture where all employees are able to thrive and progress equally.
- **Accountability.** We will be accountable for progress, create a plan of action including measurable targets, and will publish our results.
- **Leadership.** We will visibly support these commitments at senior level, leading by example, and reflect these commitments in our actions, communications, publications, and reporting.
- **Indicators.** We will measure disaggregated data, comply with industry-wide initiatives to compile global data, and use this data to inform action.
- **Training.** We will put relevant training in place for our members and employees to reflect our commitment to Equity, Diversity and Inclusion.
- **Everywhere.** We will ensure that our EDI commitments are reflected in all parts of our organisation, and at every level, including in the engineering products, services and outputs that we produce.

This charter is part of the Commitment made by the World Federation of Engineering Organisations Women in Engineering Committee to apply engineering to address the Sustainable Development Goals. The Commitment is made to the UN Women Generation Equality Action Coalition on Technology and Innovation for Gender Equality. <https://commitments.generationequality.org/en/action-coalitions>

Theme 2: Female retention and leadership in engineering



In celebrating the International Women in Engineering Day 2022, the WIE Committee of the WFEO hosted winners of the 2019 and 2020 WFEO-GREE Awards in a webinar themed “Leadership for Innovation in Engineering” in line with the INWED 2022 theme: INVENTORS & INNOVATORS. The programme which held virtually on 22nd July, 2022 was a huge success with about 100 participants.

The webinar was organized as one of the activities towards the achievement of the WFEO-WIE strategic theme 2- FEMALE RETENTION AND LEADERSHIP IN ENGINEERING

The WFEO GREE Women in Engineering Award is awarded every year. Nominations are invited for outstanding women engineers who have made a significant contribution .

The Speakers were:

IR. Prof. Dr. Leong Wai Yie (Malaysia)

Professor Rosalind Archer (Australia)

Magali Anderson (France)

Ing Harriet Amissah-Arthur (Ghana)

Sabah Mohamed Mashaly (Egypt)

World Federation of Engineering Organizations **WIE** The Committee on Women in Engineering

"The Committee of Women in Engineering (WIEO-WIE) presents an INWED 2022 event under its theme 2: Female Retention and Leadership in Engineering. The Committee is hosting winners of the WFEO-GREE AWARDS to a leadership session themed"

Leadership for Innovation in Engineering

The Event Will Be Held On:

- Date:** Friday, 22nd July 2022
- Time:** 11am GMT
- Venue:** Virtual

Speakers

- IR Prof. Dr. LEONG Wai Yie**
The International Network of Women Engineers & Scientists (INWES)
Theme Lead WFEO-WIE, Malaysia
- Prof. Rosalind Archer**
Head of the School of Engineering and Built Environment at Griffith University, Australia
- Magali Anderson**
Chief Sustainability and Innovation Officer of Holcim, France
- Ing. Dr. Enyonam Kpekpena**
Theme Lead WFEO-WIE, Ghana
Moderator
- Ing. Harriet Amissah-Arthur**
Co-Founder and Executive Partner of Arthur Energy Advisors (AEA), Ghana
- Sabah Mohamed Mashaly**
CEO of EETC (Egyptian Electricity transmission Company), Egypt

Link: <https://bit.ly/3yKWv8m>
Meeting ID: 882 1878 7064
Password: 657030

> JOIN NOW

Podcast on IWD



International Day of Women and Girls in Science To celebrate the 2022 International Day of Women and Girls in Science, the committee has prepared a recorded interview between some committee members and female students in STEM to be published as a PODCAST on the WFEO website. The recording showcases three university students having a conversation in STEM with one WIE WFEO theme lead in Ghana. The committee kindly requests that that these recordings are combined into one recording and featured as PODCAST.

Featured a podcast with 3 university students from Ghana and a primary school student from Brazil

https://drive.google.com/file/d/1mIdoABjoPrYlWLK_Szh6EZZ4DU12ceg8/view?usp=sharing



Theme 4:
Partnership across
the goals

Commission for
the status of
Women
CSW66- UN Event



The Committee hosted a virtual event speaking to the theme of CSW66 Side Event on 21st March 2022

Creating Gender Inclusive Engineering & Technology to Address Climate Change-

Participants included Dawn, Jeanette, Naila, Yvette, Alice, Alba

Had two webinars last year Intersectionality of Gender, Climate Change and Engineering in anticipation in of COP26 in Glasgow November 2021

Communications



- **NEWSLETTER PUBLICATION**
- The Women in Engineering Committee has published 1 newsletter so far for this year. The first was published in June and the second will be published in November, 2022. The newsletters have interesting contents from members which also show diversity of the Committee. View newsletters on <https://www.wfeo.org/committee-women-in-engineering/>
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- **MEETINGS**
- The theme leads of Committee held virtual meetings to discuss programmes and activities that will take the committee forward as well as work towards the achievements of the Committee's goals.
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- **What's App Platform**
- The Committee has a vibrant What's app platform which reflects our diversity. It is a live and lively informal chat, where we plan some of our events and share events from our countries and regions.

Going Forward 2022 and beyond



Members of the Women in Engineering committee are encouraged to have a joint and multiplying roles at WFEO by :

- ❖ Participating in other standing committees, to optimise visibility, ,facilitate partnerships as well as inclusion and diversity in WFEO
- ❖ Aspiring for leadership roles in other committees

The Committee for Women in Engineering (CWIE) looks forward to more collaborations towards achievements of planned out programs/goals for the last half of the year 2022 and beyond.