

You Cannot be what you Cannot See: the International Network of Women in Cooling's Role in Workforce Equity

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EXCERPT

Globally, the refrigeration industry employs over 15 million people, yet women make up just 6% of this workforce. Most women in the industry are in sales, marketing, or managerial roles rather than technical positions. Barriers to female participation include entrenched gender perceptions, a decline in female engagement in STEM, and a lack of awareness about RACHP careers. The scarcity of female role models and prevalent hiring biases further limits women's opportunities and job satisfaction.

To tackle these issues, the International Network of Women in Cooling (INWIC), founded in 2022, aims to enhance the role of women in RACHP. INWIC, supported by thirteen global partners, focuses on increasing female participation, supporting career development, providing a platform for women to discuss their experiences, and promoting role models in the industry. It offers free membership to both individuals and organizations, striving to build a more inclusive and supportive industry.

BACKGROUND OF ISSUES IN HVAC WORKFORCE

Over 15 million people are employed in the refrigeration industry globally. Women make up only 6% of this workforce [1] despite being 39.5% of the total global paid workforce [2]. Of this 6%, very few women work in technical related positions (servicing, technical / vocational teaching, etc.) and instead work in sales and marketing or managerial positions [3].

This industry under-representation is also reflected in association membership. Some associations have launched campaigns and programmes in order to secure higher rates of women's membership. AIRAH (Australia) for example, has more than doubled their female membership from 3.1% in 2014 to 8% in 2019. Many other organizations have remained static, with average rates between 5.3% (DKV, Germany) and 20% (CAR, China) [4].

Furthermore, a lack of women's associations and sections may impede rates of female membership and decrease women's visibility and access to the RACHP sector.

Women face several hurdles to entering the RACHP sector. Perceptions of gender, which develop as we age, may impact the number of women that study and work in STEM sectors. Makarova, et al. (2016) found that the number of women and girls engaged in STEM subjects continuously declines from school to professional career [5].

The shortage of women in the RACHP sector could be partly attributed to a lack of awareness about careers in this field. This may be influenced by the scarcity of female role models, who play a crucial role in shaping realistic career aspirations [1]. Without these role models, women's visibility in the sector remains limited. Furthermore, a lack of visual representations of women working in the sector (in terms of advertising and marketing materials) can compound ideas of women's suitability to the sector.

Women's access to work can be restricted by hiring biases and perceptions about their suitability and productivity. After entering the workforce, women in predominantly male roles may face sexual harassment and have fewer opportunities for training and career advancement. This often results in lower job satisfaction and higher turnover rates. Colombo, et al. (2024) found that 41% of women had experienced gender-stereotyping in the workplace, and 10% had experienced sexual harassment. A lack of career advancement and training opportunities, and a lack of female colleagues, were also identified as challenges to women working in the RACHP sector [3].

Careers in RACHP are financially rewarding and provide job security, even during economic downturns or pandemics. INWIC serves as a pathway for women to enter the industry. By encouraging, preparing, and supporting young women to enter the RACHP sectors or pursue higher education, INWIC aims to address the global labor shortage in this industry. Women's groups play a crucial role in the recruitment and retention of women in key positions within the RACHP field, both now and in the future. The industry, as a whole, faces a significant labor shortage, which is expected to worsen over time [6] [7].

BACKGROUND ON INWIC

The International Network of Women in Cooling (INWIC) founded in 2022, was established to overcome existing gender barriers and advance the role of women entering and working in the RACHP sector. Composed of thirteen global Founding Partners (AIRAH, AREA, ASHRAE, CAR, FAIAR, IIR, IOR, ISHRAE, JSRAE, U-3ARC, UN Environment OzoneAction, Women in HVAC&R, and WRD), INWIC seeks to improve the careers of women in the sector through joint and individual activities including, information sharing, raising awareness, and educational and mentoring programmes. The primary goals of INWIC are:

- **Promoting the Role of Women:** Advocate for increased participation of women in the RACHP sector.
- **Career Advancement:** Support the professional development of women in the cooling sector.
- **Best Practices:** Promote environmental and hiring best practices within the sector.
- **Inspire Future Generations:** Encourage young women to pursue careers in RACHP.
- **Collaborative Efforts:** Work with partner organizations to deliver information sharing, awareness raising, and online educational and mentoring platforms.
- **Enhance Existing Activities:** Complement and enhance the initiatives of partner organizations without duplicating efforts.

INWIC membership is free and available for both individuals (of any gender) and organizations / businesses. Two levels of membership are available for individuals; "Member" tier applies to women working in RACHP or studying a subject relevant to the sector; "Affiliate" is open to individuals of any gender and employment / study background who would like to support the initiative. INWIC also offers organizational memberships in two categories. "Partners" are RACHP associations and societies or other NGOs / non-profits that facilitate career development in women. "Industry Supporters" applies to private sector entities or industry associations / coalitions. More information including membership benefits is available at: <https://www.inwic.org/membership>

ACTIVITIES SO FAR

Awards Recognising Women's Excellence in RACHP Sector

Awards recognising women's excellence are crucial to improving women's visibility and achievements in the RACHP sector. INWIC promotes our Founding Partners awards recognising women's achievements in the sector in order to engage our members and highlight role models and best practices.

The AREA and WRD Women in Cooling Video Award invites women in the EU to showcase best practices through videos. The task is to create a video demonstrating best practices, such as installation, repair, charging, leak checking, and recovery, while using the correct PPE and tools.

WRD and U-3ARC created the Dr Charity Kpabek Award that recognizes women in Africa's contributions to the RACHP sector. The competition requires two female participants from different countries create a video conversation about RAC tools.

Participation at Events

INWIC has actively participated in numerous global events to promote its membership services and highlight the vital role of women in the RACHP sectors. These events have spanned various locations worldwide and engaged women from diverse professional backgrounds, fostering a more inclusive and dynamic industry.

On June 8 and 9, 2023, INWIC was promoted at the 20th European RACHP Conference organized by Centro Studio Galileo in Milan. A presentation on the initiative and the role of women in the sector was given by President Colleen Keyworth. President-Elect, Ina Colombo also presented the outcome of the worldwide survey on the Women in Cooling brochure as part of special session dedicated to women.

On August 21, 2023, INWIC hosted a roundtable discussion at the International Congress of Refrigeration in Paris, France. The panel featured four accomplished women from different sub-sectors of the RACHP industry who shared their personal experiences and the challenges women face in advancing their careers within the field.

On October 13, 2023, at ESEF 2023 in Praia, Cape Verde, Ina Colombo, the IIR's CaRe (Career in Refrigeration) representative, took part in a roundtable discussion focused on the roles of women and youth in clean energy across West Africa. The session also served as an opportunity to promote INWIC and its initiatives.

At the 2023 Women in HVACR Annual Conference, held from November 6-8 in Jacksonville, USA, several INWIC board members shared their personal journeys and highlighted various initiatives. Their presentations emphasized educational opportunities and career pathways for women in the RACHP industry.

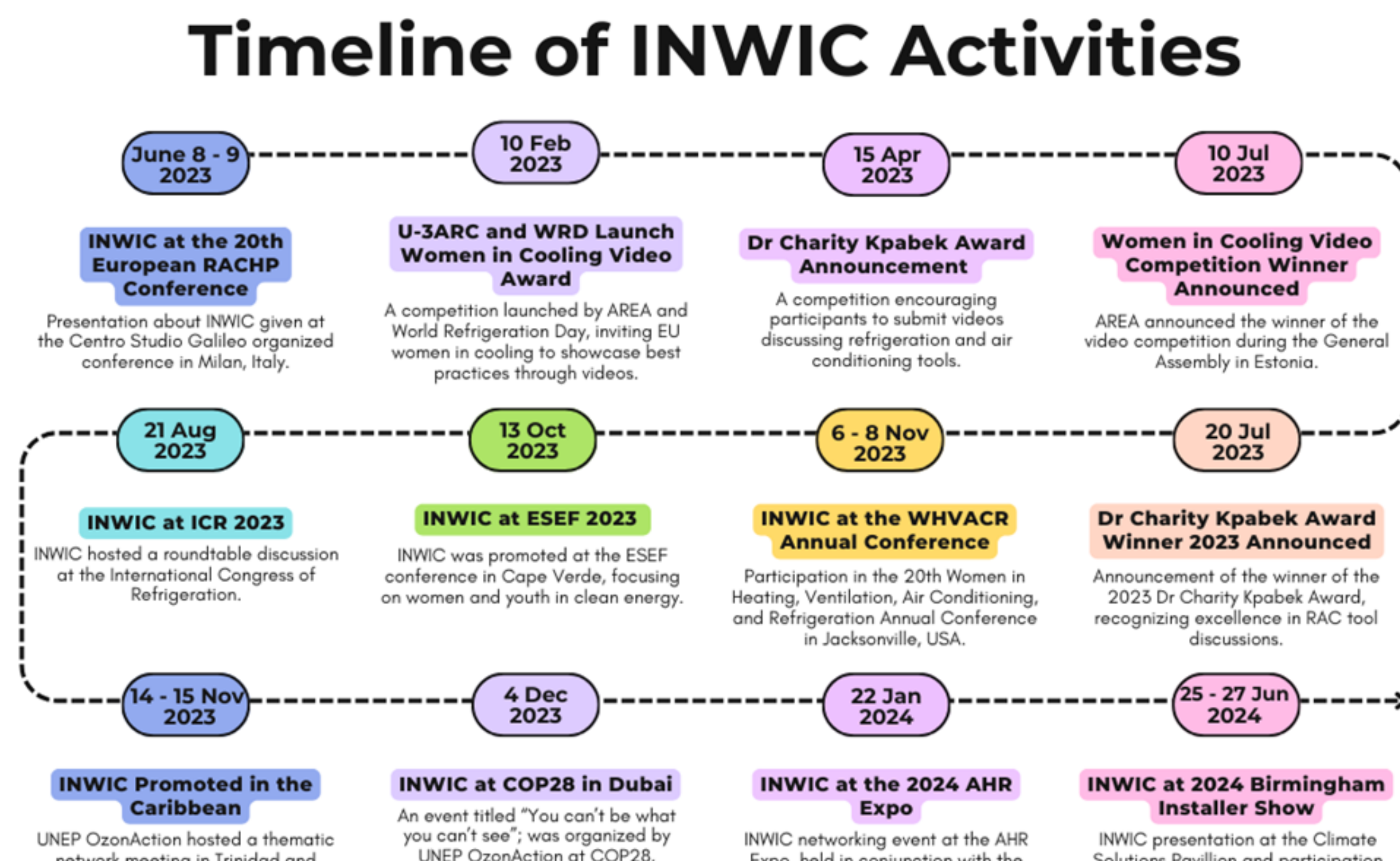
INWIC was also represented at a regional workshop in Trinidad and Tobago from November 14-15, 2023, which was attended by 24 participants, including female RAC technicians, National Ozone Officers, and representatives from international organizations. The workshop, dedicated to Women in RAC, aimed to promote gender mainstreaming, explore technological advancements in the RAC sector, and provide a platform for women to share their experiences working in the field. The event also featured a hands-on demonstration to enhance practical skills and knowledge.

Organized by UNEP OzoneAction, the "You Can't Be What You Can't See" event at COP28 in Dubai on December 4, 2023, highlighted the importance of gender inclusion in the RACHP sector. The event focused on the contributions of INWIC and the Montreal Protocol in promoting and advancing the role of women within the industry.

INWIC was further showcased at a side event during the 2024 AHR Expo on January 22. The event not only provided a valuable networking opportunity for women in the RACHP sector but also presented preliminary findings from a North American survey of "Women in HVACR." This survey, part of a global series, examines the backgrounds, motivations, and challenges faced by women working in the RACHP industry. The event also featured a panel discussion, where participants shared their experiences and insights based on the survey results.

To celebrate Women in Engineering Day 2024 (June 24), INWIC participated in the IOR Women in RACHP event at Carter Thermal Industries in Birmingham, UK. The event featured training on the design of cold stores and cabinets, along with a guided tour of the factory's facilities. INWIC also took part in a presentation at the Birmingham Installer Show on June 24 focused on empowering women in the RACHP sector. This presentation highlighted the findings of the IIR survey on women in cooling and addressed the challenges faced by women in the industry, and the benefits of creating and participating in women's organizations in the industry.

Timeline of INWIC Activities



FUTURE GOALS OF INWIC

INWIC is one of many organizations in the RACHP sphere that is dedicated to increasing the visibility and role of women in cooling. The organization will continue to bolster collaborations by supporting organizations, sections, and groups through information sharing, networking, event promotion, and building stronger partnerships with stakeholders and male allies.

To further its mission, INWIC plans to increase its visibility by aligning more closely with the industry and partner organizations. This will involve raising awareness about its services and the vital role of women in RACHP through participation and promotion of partner events and workshops.

INWIC's member services will include:

- Education and Mentorship: Finalizing and launching new programs aimed at guiding and supporting women in their careers.
- Professional Development: Offering resources and career advancement opportunities specifically for women.
- Environmental Best Practices: Promoting sustainable practices within the industry.

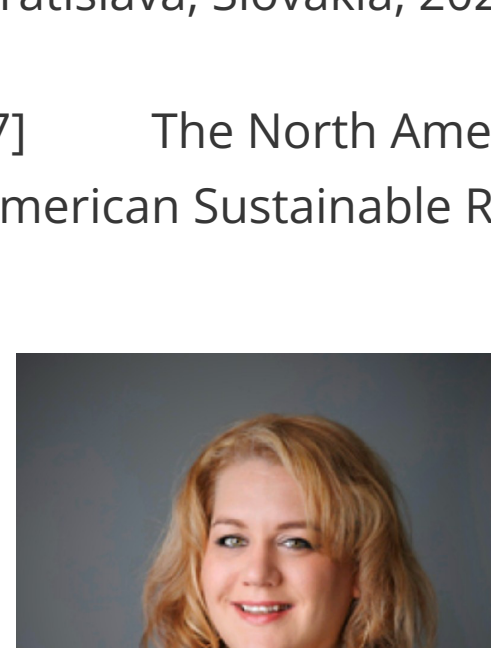
Additionally, INWIC will introduce a corporate pledge to encourage companies to feature more images of women in RACHP roles within their development. An online library of freely available images is currently being developed.

Ultimately, INWIC aims to boost female participation in the RACHP sector globally by inspiring young women to pursue careers in cooling through targeted initiatives and outreach programs.

The International Network for Women in Cooling (INWIC) was announced at Chillventa 2022 in Nuremberg, Germany. Since then, the organization has seen significant growth, and as a testament to its progress, INWIC will have its own stand at this year's conference. You can find us at Stand 9-125 in Hall 9 at Chillventa, from October 8 to 10. We will be providing more information about INWIC, our mentoring program, and our role in supporting women in the cooling industry. We look forward to seeing you there!

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Colleen Keyworth

- + Bio
- + Papers