International Network of Women Engineers & Scientists

Consultation Webinar on Diversity and Inclusion

Aspects in the Draft Review of IEA Graduate Attribute and Professional Competency (GAPC) Framework

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INWES President, 2018-2020

International Network of Women Engineers & Scientists

INWES is a global network of organizations of women in Science, Technology, Engineering and Mathematics (STEM), with Organizational Members, University Members, Individual Members, and Corporate Partners all together representing over 250,000 women from 60 countries worldwide.

"To build a better future worldwide through full and effective participation of women and girls in all aspects of STEM"

International Network of Women Engineers & Scientists

- Through the encouragement and grant from UNESCO, INWES was established in 2002.
- In 2004, INWES was incorporated in Canada as a not-for-profit corporation.
- In 2008, INWES became an official NGO partner of the operational type with the UNESCO.
- In 2017, INWES was granted the Economic and Social Council status to the United Nations.

"As a solution to tackle the issue of gender imbalances in STEM, UNESCO aims to support and promote networks of women scientists in various scientific domains and regions, such as, among others,… the International Network of Women Engineers and Scientists."

INWES Functional Areas and Programs

- Through advocacy in many venues, provide an international voice for women in STEM careers such as at UN Women and UNESCO events and other international conferences
- Produce quarterly newsletters regarding women in STEM activities and events worldwide
- Share of research via conferences, publications and collaborations
- Establishing a web portal for information on women in STEM


Member's
Newsletter
International Network of Women Engineers and Scientists
...building a better future worldwide
Issue 26 - March 2018
INWES Events
The 17th International Conference of Women Engineers and Scientists ICWES17
The International Conference of Women Engineers and Scientists, it has been our international flagship event since 1964, last year the 17th edition (ICWES17) was held on 5-7, October 2017 in New Delhi, India hosted by WISE-India.
This year nearly 300 participants, covering a wide spectrum audience participated. These attendees included planners and policy-makers, gender issues experts, industry partners, researchers, students and supporters comming from eighteen countries, covering five continents of the world. We enjoyed of lively seminars, workshops and panel discussions.
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INWES Europe - Update on concrete actions
Managing Intercultural and Intergenerational issues with more equality?
Since the launch of the new regional network INWES-Europe much has happened and many activities have taken place.
The new network is proving to be a very effective way to engage with new people and new organizations across Europe, introducing them to INWES and inviting them to be part of our organization. We are not limiting our effort to our region, we are also keen to work with other regional networks to support cross-country growth in INWES.
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INWES Functional Areas and Programs

- Establish relationships with corporations and foundations to support travel for women in STEM to study abroad and attend workshops and present research at conferences
- Encourage the foundation of new organizations for women in STEM for professional development and recognition
- Conduct programs and share best practices for outreach to girls and their parents, encouragement for students, professional and leadership development for members

- Provide workshops for schools, universities, employers and professional associations

Women in STEM

Access to STEM is one of the greatest challenges facing society

POLITICAL & DECISION MAKING

SOCIAL PROGRESS IN OVERCOMING CULTURAL NORMS

TECHNOLOGY

ECONOMICAL NECESSITY

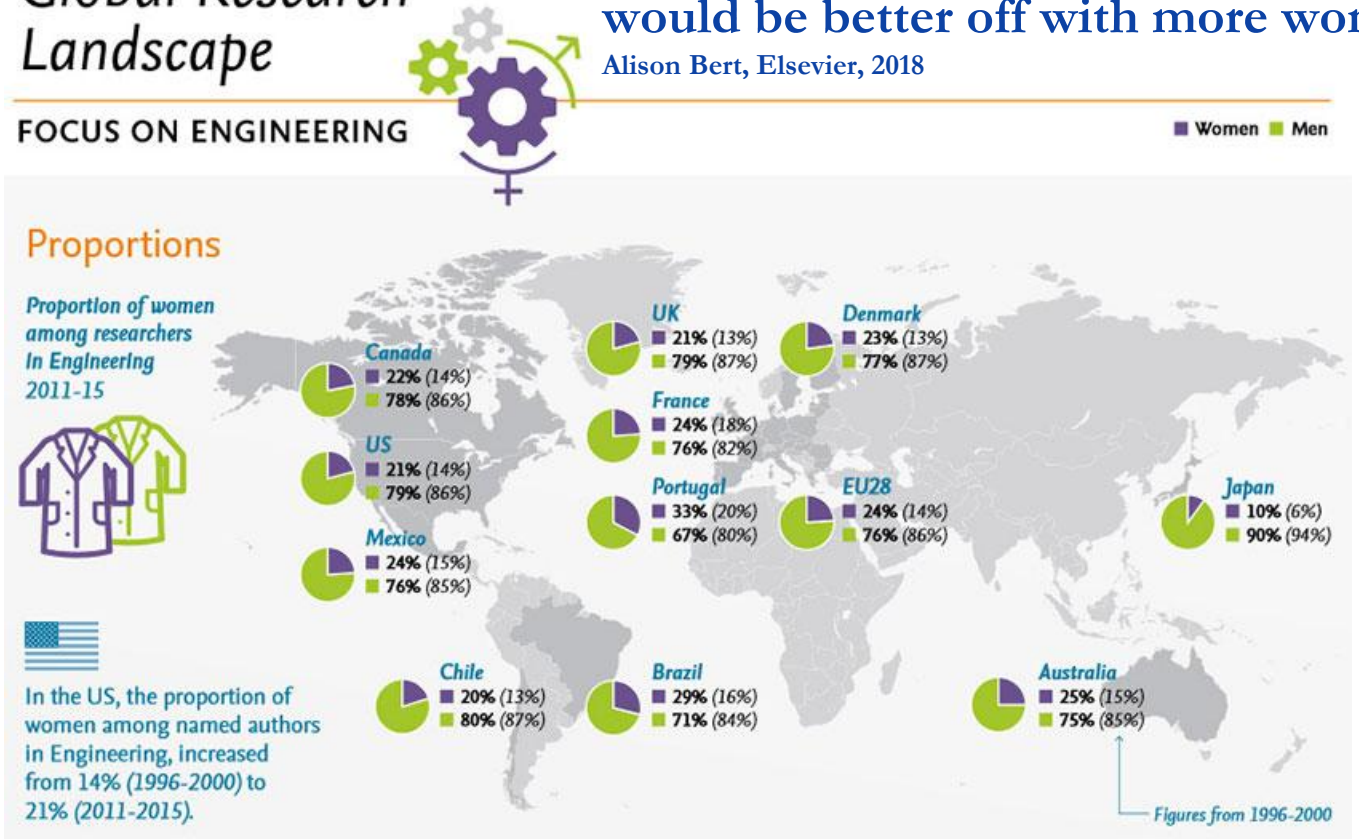
Women in STEM

- If we can't see representatives of 50% of the population in universities and the workplace, then how can we expect to understand what they want and/or meet their needs?
- Women are essential now in new product development and addressing societal challenges, including the UN SDGs
- Gender diversity is not just a "nice-to-have".
- Innovation is vital for companies because they must adapt to a changing environment more and more… and faster!
- We need to get more women into the STEM pipeline to participate in innovation.

Women in Engineering Research and Innovation

"the need for more women in science goes beyond issues fairness and ethics: our world would be better off with more women in the labs"

Alison Bert, Elsevier, 2018



INWES and the proposed changes to the GAPC framework

- **INWES welcomes the six areas of change identified by the IEA and WFEO surveys, particularly:**

  5. Diversity and Inclusion – include these considerations within ways of working in teams, communication, compliance, environment, legal etc. systems.

- **INWES agrees with embedding D&I in the framework**
- **The expected impact of increased diversity and a culture of inclusion will impact on:**
  - **Achieving sustainable solutions and the UN SDGs (area of change 4.)**
  - **Increasing innovation (area of change 6.)**

Innovation and Gender Diversity

"Diverse teams outperform smart individuals when the problem is hard to solve."

Scott Page, Professor of Complex Systems and Economics, University of Michigan

Boston Consulting Group surveys 2016 & 2018:

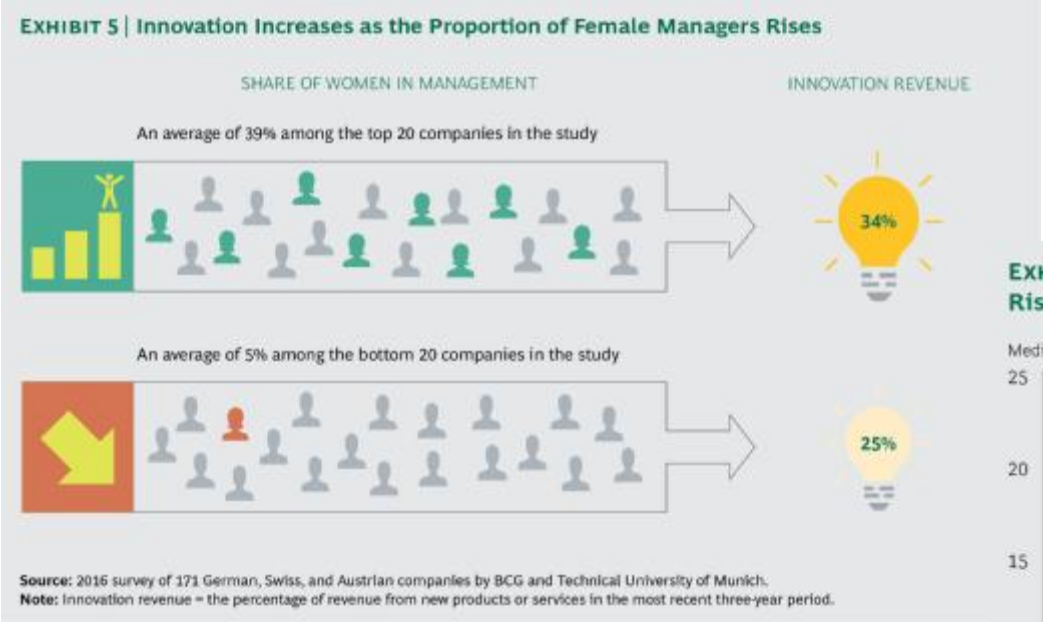
- "No ifs, no buts" – diverse companies are more innovative, innovative companies are more diverse
- But gender diversity has to go beyond "tokenism": inclusion is "crucial"
- Survey of 1700 companies in 8 countries, confirmed innovation revenues rise with diversity (in 6 areas)

Harvard Business School study to 2019:

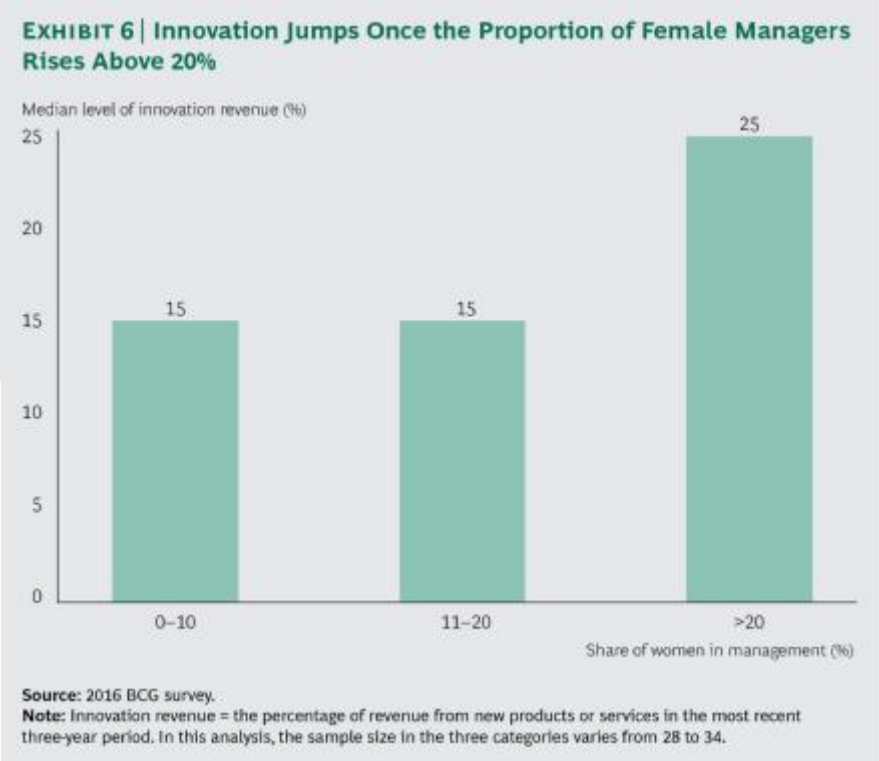
- Where gender diversity is accepted (inclusion), productivity (including innovation) increases

Innovation and Gender Diversity

"Innovation performance only increased significantly when the workforce included a nontrivial % of women (more than 20%) in management positions. "



" The more high-tech a company, the more innovations matters to its business performance."



Gender Diversity and the GAPC

INWES supports the proposed changes in the GAPC on Diversity and Inclusion to ensure:

- More women feel included in engineering education and so "Fix the number of women in engineering"
- Future engineers (both men and women in training) value gender equality so "Fix the institutions"
- Inclusive design so that engineering solutions address gender issues; this is "Fix the knowledge"

Innovation is the outcome of Diversity:

- As complex and technical organisations, engineering institutions are most likely to benefit from diversity.
- The complex problems of climate crisis, pandemics, are best solved by diverse and inclusive teams.