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MAKING INNOVATION AND TECHNOLOGY WORK FOR WOMEN



THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT IS ANYTHING BUT BUSINESS AS USUAL. WE NEED NOT INCREMENTAL CHANGE, BUT BOLD CHANGE. WE NEED AN EARTHQUAKE THAT WILL TILT THE SYSTEM ALTOGETHER, BECAUSE LITTLE AND INCREMENTAL STEPS WILL NOT GIVE US THE WORLD THAT WE WANT.

- Phumzile Mlambo-Ngcuka

Executive Director, UN Women

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UN WOMEN'S WORK IN INNOVATION
AND TECHNOLOGY

UN WOMEN

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OVERVIEW

World leaders from 193 nations adopted by consensus the 2030 Agenda for Sustainable Development, along with a set of 17 Sustainable Development Goals (SDGs) at the United Nations General Assembly in September 2015. The 2030 Agenda is extremely ambitious. Contrary to the Millennium Development Goals that aimed to address the fundamental needs of those at the bottom of the pyramid in developing countries, the 2030 agenda is universal. It has the ambition to apply to developed countries as much as to developing countries. It also has the ambition to reconcile the four dimensions of sustainable development: social, environmental, economic and political. Furthermore, it has the ambition to leave no one behind, irrespective of their socio-economic conditions, location, religious, ethnic or political affiliation.

The achievement of the ambitious SDGs, notably gender equality and women's empowerment, requires transformative shifts, integrated approaches, and new solutions. Based on current trajectories, existing interventions will not suffice to achieve a Planet 50-50 by 2030. For example, it will be 95 years before there is parity in girls' lower secondary education for the poorest 20%¹; it will be 50 years before there is gender parity in politics at the parliamentary levels²; and it will be 170 years before women worldwide will earn as much as men.³

Innovative approaches are central to delivering the SDGs for all. Innovations in policies, management, finance, science and technology that disrupt "business as usual" are increasingly being recognized as a precondition to accelerate the achievement of SDGs for all. From mobile banking ventures that facilitate women's entrepreneurship to e-learning platforms that take classrooms to individuals, social innovations have the potential to serve as a powerful tool to break trends and increase the awareness, access and availability of opportunities for marginalized groups.

However, history shows that innovation is not a certainty and does not automatically benefit all alike. Notably innovation does not benefit women and men equally. For example, medical research has long been blind to biological sex differences, treating women like men even though a range of factors such as body size, proportion of fat to muscle, and hormones, means that women's tolerance, side effects and benefits from drugs and treatments differ significantly from men.⁴

¹ Education For All Report, 2014

² World Economic Forum Global Gender Gap Report, 2015

³ World Economic Forum Global Gender Gap Report, 2016

⁴ Scientific American (September, 2017) It's not a women's issue.

Gender blind innovations will fail to reach 100% of its target customer base and could result in trillion of dollars lost to the global economy.

UN Women has identified a number of barriers that contribute towards creating and sustaining the gender gap in innovation and technology:

1. Limited market awareness & investment in innovations that meet the needs of women.

- Research bias
- Lack of gender-disaggregated data
- Constrained market demand
- Lack of affordable finance

2. Gender-blind approach to innovation.

- Lack of dedicated methodologies and tools
- Limited sharing of knowledge and practices

3. Under-representation of women as innovators and entrepreneurs.

- Gender-science stereotypes
- Biases in recruiting, promoting and evaluation processes
- Lack of access to flexible schedules and work-life policies
- Lack of role models for female innovators and entrepreneurs

4. Perceived high risk, low reward profile of investing in innovations for women and girls, particularly from marginalized groups.

Efforts by individual entities to address each barrier separately are unlikely to achieve transformative change. In order to address these barriers in an integrated manner and build coalitions for change, UN Women - the United Nations lead entity and global champion for gender equality - has prioritized innovation technology as one of the “drivers of change” within its new [Strategic Plan, 2018 – 2021](#) and established an Innovation Unit. Through a partnership approach and as articulated within its [Innovation Strategy](#), UN Women’s Innovation Unit focuses on:

1. Developing the market for innovations that advance gender equality and women’s empowerment;
2. Promoting a gender-responsive approach to the innovation cycle;
3. Promoting innovations created by women, for women; and
4. De-risking high impact innovations that benefit marginalized women.

This paper further details each of the barriers mentioned above and outlines the concrete action that UN Women and its partners take to address them.

INNOVATION MARKET FOR WOMEN

Innovation, technology and entrepreneurship are engines for advancing gender equality and women's empowerment by increasing women's access to education and socio-economic opportunities. In turn, empowered women also have the potential to benefit these sectors by providing needed skills and talent, as well as new markets, which could unleash huge economic potential (Figure 1).⁵ For instance, according to GSMA (2015), closing the gender gap in mobile phone ownership and usage could unlock an estimated \$170 billion in market opportunities for the mobile industry by 2020.⁶ However, this potential is constrained by a number of barriers.

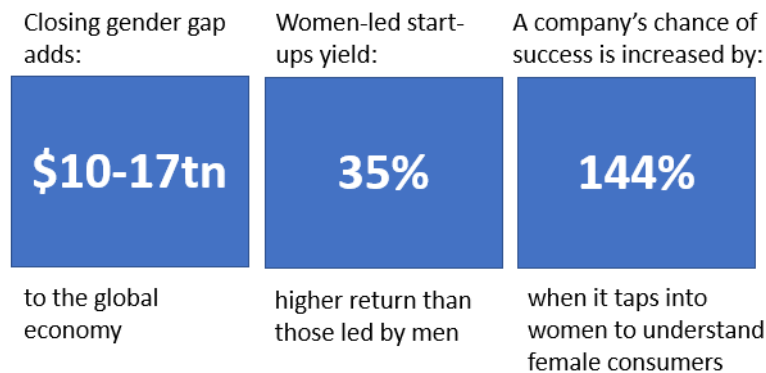


Figure 1 – The Business Case for Closing the Gender Gap⁷

Barriers to a gender-responsive innovation market

- **Lack of understanding about the unique needs of women – the research bias:** Innovation-based research and practices have not focused on gender differences.⁸ This is particularly the case in the medical and engineering design fields where men are taken as the norm. Women are grossly under-represented in human clinical trials and medical studies often do not break out statistics for women if they are included.⁹ This gender-bias in medical research results in incorrect diagnoses and poor treatment. For example, research in heart disease has relied on reference models that treat men as the norm, despite the fact that ischemic heart disease is the number one killer of U.S and European women. As a result, women are often mis- and under-

⁵ <https://solve.mit.edu/challenges/women-and-technology>

⁶ GSMA (2015) Connected women: Bridging the gender gap: Mobile access and usage in low and middle-income countries.

⁷ Source of Figure 1:

<https://solve.mit.edu/challenges/women-and-technology/solutions/1400>;

http://www.huffingtonpost.com/entry/move-over-shark-tank-these-10-women-led-startups_us_58dc1071e4b04ba4a5e2502a;

<https://hbr.org/2013/08/how-women-drive-innovation-and>

⁸ <http://www.emeraldinsight.com/doi/pdfplus/10.1108/MD-07-2012-0533>

⁹ Scientific American (September, 2017) It's not a women's issue.

diagnosed.¹⁰ Similarly, in the engineering field, women are seen as a deviation from the norm, which results in retrospective adaptation of many devices to women.¹¹ One example is the seatbelt for pregnant women. Initially, pregnant women were encouraged to use seatbelts, but little laboratory research in seatbelt design for pregnant women had been conducted. The traditional 3-point seatbelts turned out to be hazardous to the fetus on certain occasions even when mothers were not injured. This resulted in manufacturers realizing that this group had different needs and starting pregnant crash test dummies and computer simulations. These realizations and tests played a key role in increasing seatbelt safety for pregnant women.¹²

- **Lack of gender-disaggregated data:** Data on women's access and usage of innovation and technology is not widely available or tracked in many low- and middle-income countries. This data gap occurs at three levels: individual company databases, national government statistics, and international institutional data and statistics.¹³ Gender-disaggregated data may be difficult to obtain in some contexts due to existing economic and social discriminations against women - for example, gender-disaggregated data on mobile phone ownership can be especially difficult to track in markets where men commonly register for their wives and daughters. However, the collection of only aggregated data tends to mask gender differences and makes it difficult to conduct gender differentiated market research and gender impact analysis. This contributes to gender-blind industry wide practices and national policies.
- **Constrained market demand for gender-responsive innovations:** In addition to the lack of gender disaggregated data, another reason for the under-appreciation of the size of the market for gender-responsive innovations is constrained demand. Today, most innovations are underlined by digital technologies and accessed through the internet by mobile devices. However, internet penetration rates are higher for men than women in all regions of the world today. The ITU's most recent estimate indicates that the global internet user gender gap has grown from 11% in 2013 to 12% in 2016. Over 1.7 billion women

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