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Priority theme 2 on Building digital competencies to benefit from existing and emerging technologies with a special focus on gender and youth dimensions.

Statement submitted by

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## Ms. Dalli

## National strategies to STEM the digital divide

facing women and girls

## **Introduction**

I thank Mr Mukhisa Kituyi, Secretary-General of UNCTAD for his kind invitation to participate to this important gathering, so as to be able to share my county's endeavours towards having more women and girls in Science nationally and at the global level.

The gender divide in Science, Technology, Engineering and Mathematics (STEM) knows

no borders and Malta is no different. As a small island-state with few natural resources, we are all the more aware of the fact that how we nurture our human resources will make or break our path towards inclusive sustainable development.

This is why, in December 2015, my country took the lead in facilitating the adoption of the UN General Assembly resolution 70/122 designating the 11<sup>th</sup> February as the International Day of Women and Girls in Science. We have commemorated this day every year since then, and it is with great

satisfaction that I note the growing interest from other countries, from all continents, in promoting this cause.

Here, I take the opportunity to thank Princess Dr Nisreen El Hashemite for her leadership in this sector, for her excellent outreach to governments, organisations, academics and most especially to women and girls, to whom she serves as a role model.

Such female role models in the sector are important, and we need to enhance their visibility. As a social scientist, I consider

stereotyping to be the most serious impediment to women and girls moving forward in the sciences. Career guidance is crucial in this regard. (compulsory physics)

But still, in my country, on the educational front, from a young age, boys are more than twice as likely as girls to aspire to becoming engineers, scientists or architects; more than five times more likely to become software developers or applications programmers and almost four times as likely to aspire to becoming electrical or communication engineering technicians<sup>1</sup>. Moreover, when it comes to higher education, women are underrepresented as graduates in STEM subjects, particularly in engineering (less than 20% of the total in 2017) and ICT (less than 10% of the total in 2017). When considering the total number of female graduates in 2015, a mere 2.8% were in ICT, compared to 15.4% for men.

Such segregation in education is also reflected in the labour market where women are

<sup>&</sup>lt;sup>1</sup> These results are from the Programme for International Student Assessment (PISA), which is an international comparative survey of educational achievement of 15-year-olds. https://curriculum.gov.mt/en/international\_studies/Documents/PISA\_2015\_Malta%20Report.pdf

underrepresented by a margin of 5 to1 as ICT specialists, scientists and engineers. Also, women tend to be paid around 13% less than men in ICT jobs <sup>2</sup>.

Rapid technological change will keep on changing the work environment. The more we let the gender divide in STEM areas grow, the wider will be the risk in economic disparities between women and men – all over the world, whether in developed or developing economies.

<sup>&</sup>lt;sup>2</sup> These results are from the Programme for International Student Assessment (PISA), which is an international comparative survey of educational achievement of 15-year-olds. <u>https://curriculum.gov.mt/en/international\_studies/Documents/PISA\_2015\_Malta%20Report.pdf</u>

On the contrary, we need to find ways to harness technological advances to allow more women and girls to advance in these subjects and allow them to assume positions of leadership in areas of science and technology. However, we first need to ensure that they have the basic skills to make the most of the opportunities fast technological change presents.

In Malta we launched a National Digital Strategy<sup>3</sup> which highlights the importance of investing in people to ensure the supply of

<sup>&</sup>lt;sup>3</sup> https://digitalmalta.org.mt/en/Documents/Digital%20Malta%202014%20-%202020.pdf

eSkills to meet the future needs of different sectors. Increasing female participation in the ICT sphere is one of the actions proposed, alongside further awareness-raising on eSkills education and careers aimed at minimising the gender imbalance in the technology field.

In January of this year, the eSkills Malta Foundation published its '*Guidelines to Increase and Retain Women in ICT*<sup>\*4</sup>, which are aimed at stakeholders with an interest in increasing the number of women in the ICT sector. The guidelines put forward suggestions

<sup>&</sup>lt;sup>4</sup> https://eskills.org.mt/en/womeninict/Pages/Guidelines-to-Increase-and-Retain-Women-in-ICT.aspx

to address this issue by emphasising the need for an all-encompassing approach – for instance by providing women with the necessary support structures such as free child-care services.

As policy makers, we must lead by example by striving to promote women leaders also in the STEM fields. We already had some success stories from government entities which I would like to share with you:

 For example, in the pharmaceutical sector, the Malta Medicines Authority has been turned into a national scientific

institution which provides women with opportunities to advance in their careers. Methods adopted to retain female scientists include the incorporation of family-friendly measures such as This flexitime and home-working. enables the contemporaneous doctoral study in Pharmacy tailored to their commitments as a result of collaboration with the University of Malta. In fact, we are pleased to note that now, women head the majority of units within this Authority. These efforts are also being reflected in the private sector where women now hold top positions in the pharmaceutical industry.

Another newly-formed government entity
the Energy and Water Agency – also
employs a majority of women scientists
and analysts who were attracted by its
family-friendly policies.

This was mostly possible because technology has provided women with the opportunities to work and study - even from a distance - to continue to advance in their careers.

These are concepts that can be applied to all economies, not just the developed ones, but also those that are still growing. Technology has an important role to play in reaching the UN's Sustainable Development Goal 5 (of achieving gender equality and empowering all women and girls) – but we need to provide women and girls with the necessary tools to harness the opportunities of technological change.

My government attributes great importance to this cause. While still having some way to go, especially when bringing stakeholders on board, we have already won part of the battle. We have done this by recognising the issues at

stake and determinedly putting forward mechanisms and strategies to equip women and girls with the skills to benefit from technological change. Such measures are in the interest of society as a whole, where inclusive sustainable development is of added value.

From my experience, once societal and entrenched barriers to full female participation in the academic and labour domains are tackled head on, women and girls can more naturally and fruitfully ease into the STEM world. This is why we took the initiative three years ago, on the back of our national endeavours, to promote an international day for women and girls in science and keep the issue permanently at the forefront of the global equality agenda.

I thank you for your attention.