

# Challenges and opportunities for enhancing Diversity at ESA

OECD Policy Forum on "Strength Through Diversity" Paris, 6 June 2019

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# The European Space Agency

esa

- 22 Member States
- Slovenia as Associate Member
- Canada takes part in some projects under a cooperation agreement
- Cooperation Agreements with Bulgaria, Croatia, Cyprus, Latvia, Lithuania, Malta, and Slovakia



#### **ESA's locations**





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# **EU Platform of Diversity Charters**





















CHARTER DE LA DIVERSIDAD ESPAÑA











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# Diversity @ESA comes in many forms...











**G**ENDER



DIFFERENT ABILITIES





SEXUAL
ORIENTATION,
GENDER
IDENTITY &
EXPRESSION

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# **ESA Commitment to Diversity and Inclusiveness**





**DG Policy Statement**September 2017

"creating a modern, inclusive working environment where people value diversity in teams, take others' perspectives into account and feel comfortable being themselves"



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# D&I @ESA: Engaging with partners



Ad-hoc EIROforum WG on D&I



- MS D&I Network
- Collaboration with OECD > ESA/OECD Joint event on Gender and Stereotypes (March 2018)
- Partners with **√** UNOOSA/Space4Women **√** Women's Forum for the Economy & Society ✓ IAU
- Dialogue with space industry
- Partnerships Industry/Universities/Organisations



# ESA promoting women and girls in science





**EIROforum.org** @EIROforum · Feb 11

#InternationalDayofWomenandGirlsinScience Joint Statement by the #EIROforum DG's commitment to ensuring that Women & Girls get equal opportunities in STEM fields.@CERN, @embl, @ESO, @esa, @FusionInCloseUp, @ILLGrenoble, @EuropeanXFEL, @esrfsynchrotron

11th February 2019 International Day of Women and Girls in Science

**First Joint Statement** signed by EIROforum **Director Generals** 



Joint Statement for International Day of Women and Girls in Science |... EIROforum Director Generals release a joint statement expressing their commitment to ensuring that Women and Girls are afforded equal oppor... eiroforum.org

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# **ESA supporting LGBT people in STEM**



ESA Diversity Retweeted

**©**esa

ESA 🔮 @esa · Jun 26

ESA is proud to support #diversity in science and diversity in the workplace, and we look forward to celebrating the first international day of LGBTQ+ people in STEM on 5 July 2018 #LGBTSTEMDay @ESADiversity prideinstem.org/lgbtstemday



5<sup>th</sup> July 2018

ESA Diversity @ESADiversity · Jan 14

Great interest and participation today at #ESTEC for the first Workshop on "Exploring #diversity in #STEM" organised by #ESA with the support of @PrideinSTEM — Thanks to @DrCarpineti @Davidatwp @DrAshleyNova @SaturnSheila @ellietheelement



14th January 2019

Ersilia Vaudo Scarpetta | 06/06/2019 | Slide 9

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# The challenges ahead





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# **Boundary conditions on diversity**



- Geography
- Geography vs establishments
- Programmes vs corporate
- Experience





- The major challenge for the 10 years ahead is to enhance the Agency's attractiveness towards a diverse pool of talents
  - > Need to leverage on synergies and common actions with MS

The challenge is however larger...



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# The Global Gender Gap Index 2018



rank	AVG	score
1. Iceland		0.878
2. Norway		0.830
3. Finland		0.823
4. Rwanda		0.822
5. Sweden		0.816
6. Nicaragua		0.814
7. Slovenia		0.805
8. Ireland		0.794
9. New Zealand		0.791
10. Philippines		0.790

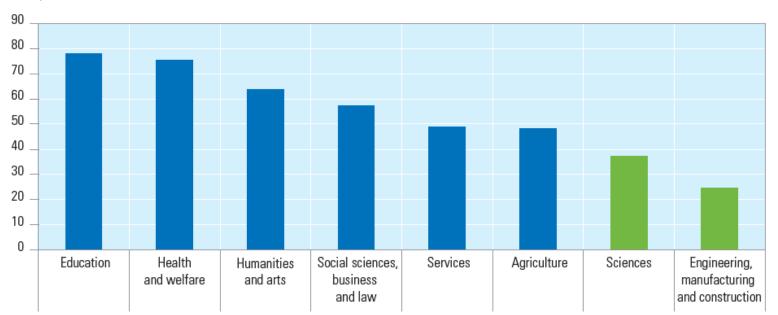


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# **Doctors are from Venus, Engineers from Mars**



Proportion (%) of new entrants into tertiary education that are female



Source: OECD































#### **LEGO** celebrates the Women of NASA!





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# **Space sector fighting stereotypes**











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# **ESA** and Mattel's "Dream Gap" Project





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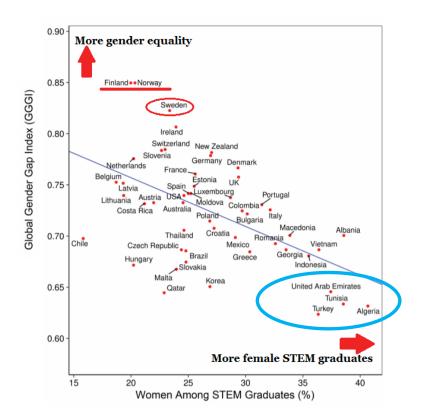






# The Gender Equality Paradox in STEM education





# The more gender equality, the fewer women in STEM?



Source: Psychological Science

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# The Gender Equality Paradox in STEM education



Norway

**Finland** 

Sweden

High gender equality

Low % women in STEM

**UAE** 

Turkey

Algeria

Tunisia

Low gender equality

High % women in STEM

The more gender equality, the fewer women in STEM?



Source: Psychological Science

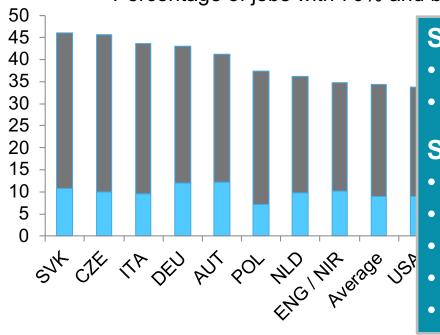
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#### The Future of Work



#### Jobs with high and medium potential for automation

Percentage of jobs with 70% and between 50% and 70% of suitable tasks



#### Skills at lower demand –

- Technical/Hard skills
- Routine skills

#### Skills at higher demand:

- Emotional intelligence
- Creativity
- Interpersonal and social skills
- Persuasion
- **Big Picture**

■ Significant change in tasks

Automatable Ersilia Vaudo Scarpetta | 06/06/2019 | Slide 21



Hmmm...Are we suggesting that it will be easier for a robot to replace men' skills at work? ©









# Preparing for the Future of Work in the space sector CSC



- implement effective measures to attract a talented and diverse human capital
- anticipate the set of skills and competences that the space sector will be needing in the future - reflection with Industry and Member States
- initiate a reflection with Academy? With OECD? on how the teaching of STEM subjects should evolve to prepare for the future of work in aerospace

# **Future of Work: Quid of future of STEM? Towards** more inclusiveness?





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