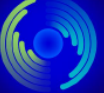
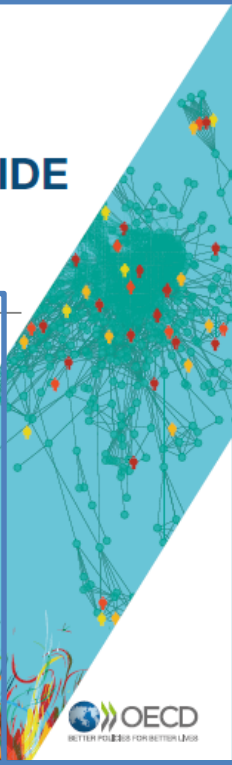
 **OECD**
TACKLING CORONAVIRUS (COVID-19)
CONTRIBUTING TO A GLOBAL EFFORT 

**Women at the core of the fight
against COVID-19 crisis**

**BRIDGING
THE DIGITAL
GENDER DIVIDE**

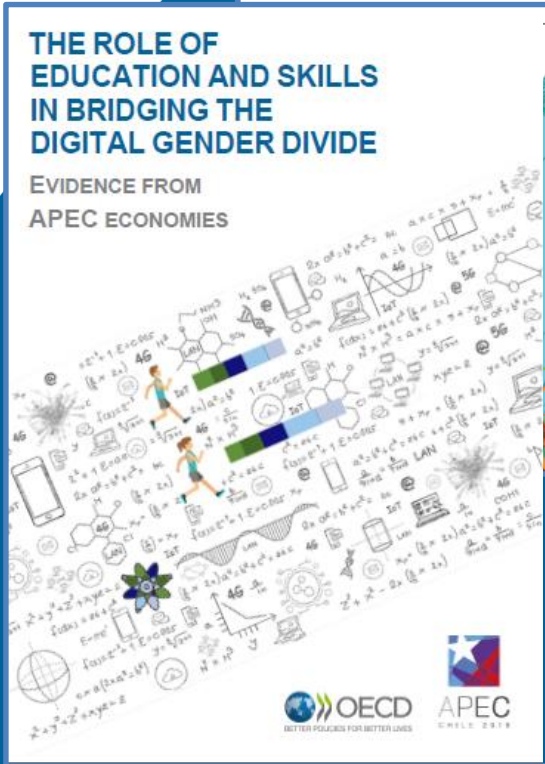
INCLUDE, UPSKILL,
INNOVATE





well-being
with
time
abilities
and
learning
men's
access to
digital
women
must

**THE ROLE OF
EDUCATION AND SKILLS
IN BRIDGING THE
DIGITAL GENDER DIVIDE**

EVIDENCE FROM
APEC ECONOMIES



 **OECD**
BETTER POLICIES FOR BETTER LIVES

 **APEC**
CHILD 2020

UNDESA/UNCTAD/ITU Expert Group Meeting on
*"Socially just transition towards sustainable development:
The role of digital technologies on social development and well-being of all"*
4 – 7 August 2020

CLOSING THE DIGITAL DIVIDE

Dr. Mariagrazia Squicciarini

OECD Directorate for Science, Technology and Innovation

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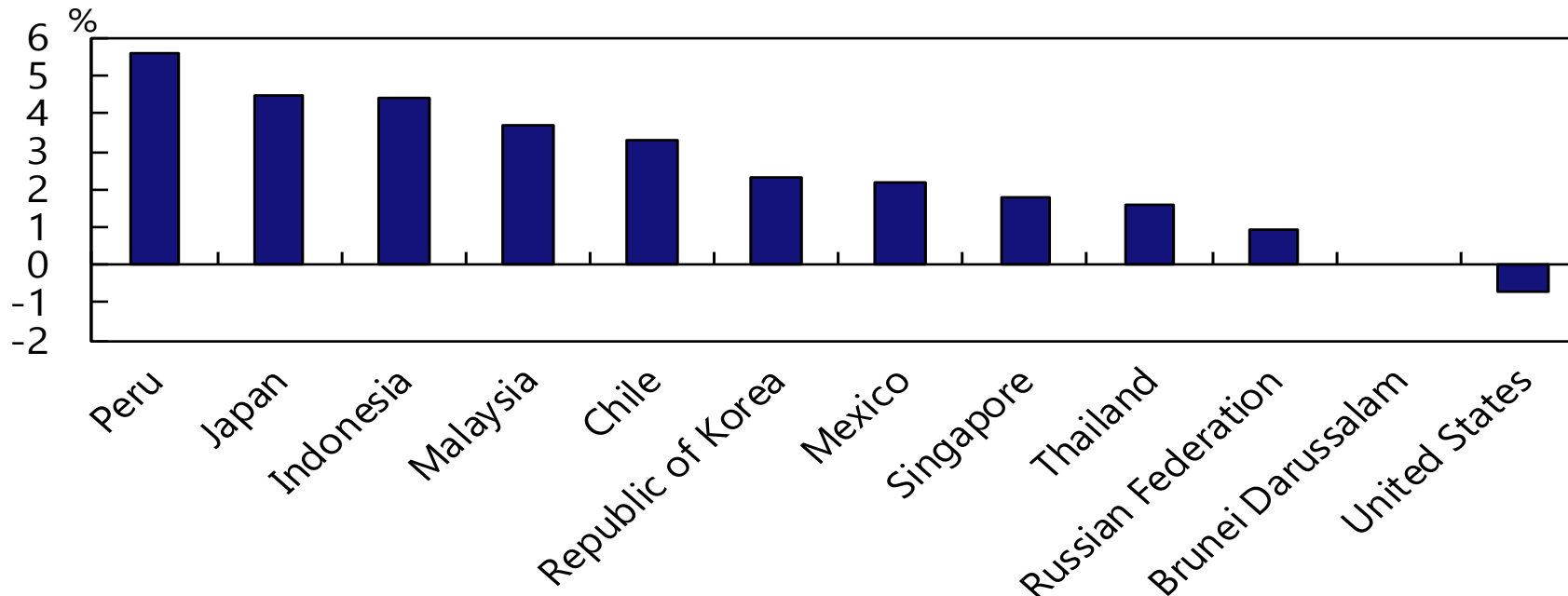
BREAK THE PILLARS OF THE DIGITAL DIVIDE -> address access, affordability and use

Women face hurdles to access; affordability issues; lack of education, skills and technological literacy; inherent gender biases and socio-cultural norms.....

Worldwide, women are 26% less likely to have smartphones (70% South Asia, 34% Africa) (OECD-G20, 2018)

In all APEC economies but US women use Internet to a lesser extent.

DIGITAL GENDER GAP IN INTERNET USAGE IN SELECTED APEC ECONOMIES, %, 2017



Men and women differ in the way they use Internet and what they do online, e.g. purchase and sell, make video calls, apply for jobs, use online banking services or use social medias to network.



EDUCATION MATTERS! ->

skills, including digital literacy, are a must



Compulsory education helps eliminate the digital gender divide.

At 15, women display greater literacy and collaborative problem solving skills than men. This gap in literacy is bridged by age 27 on average.

Men's advantage in numeracy skills increases with age.

Skills in high demand in digital intensive sectors are displayed more by men. Women need to acquire more self-organisation, management and communication, and advanced numerical skills. Greater enrolment in STEM studies, targeting gender biases in curricula and parental preferences is key.

Removing obstacles to adult education is important.

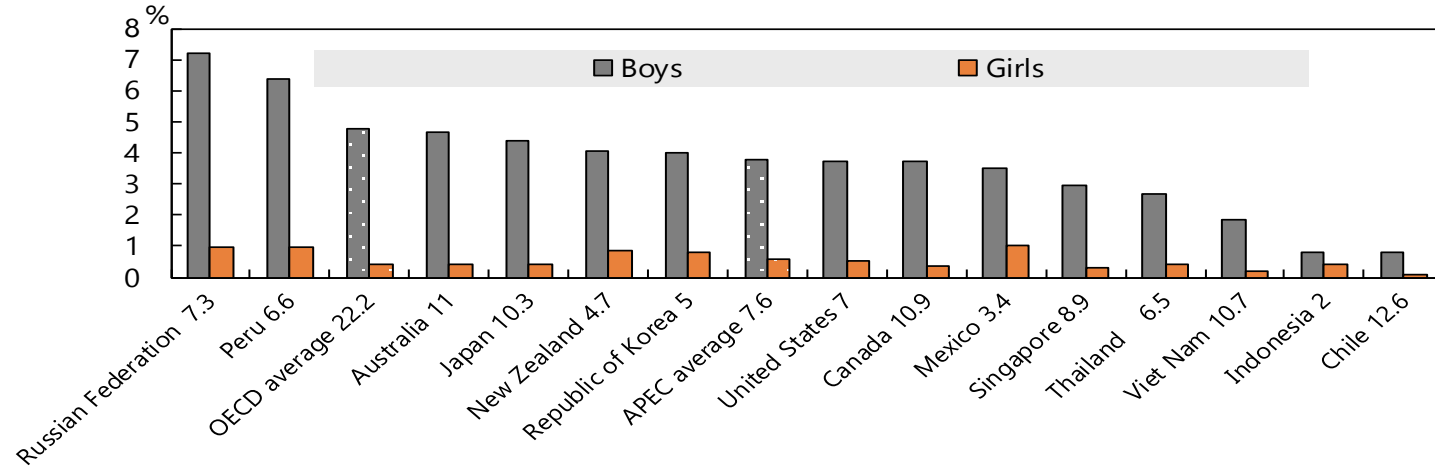
- opportunities for adults to upgrade their skills
- co-ordination across institutions & actors, including education and training institutions, employers, but also social policy institutions.





ADDRESS STEREOTYPES -> tackle ingrained socio-economic biases

PERCENTAGE OF BOYS AND GIRLS WHO EXPECT TO WORK AS ICT PROFESSIONALS AT AGE 30

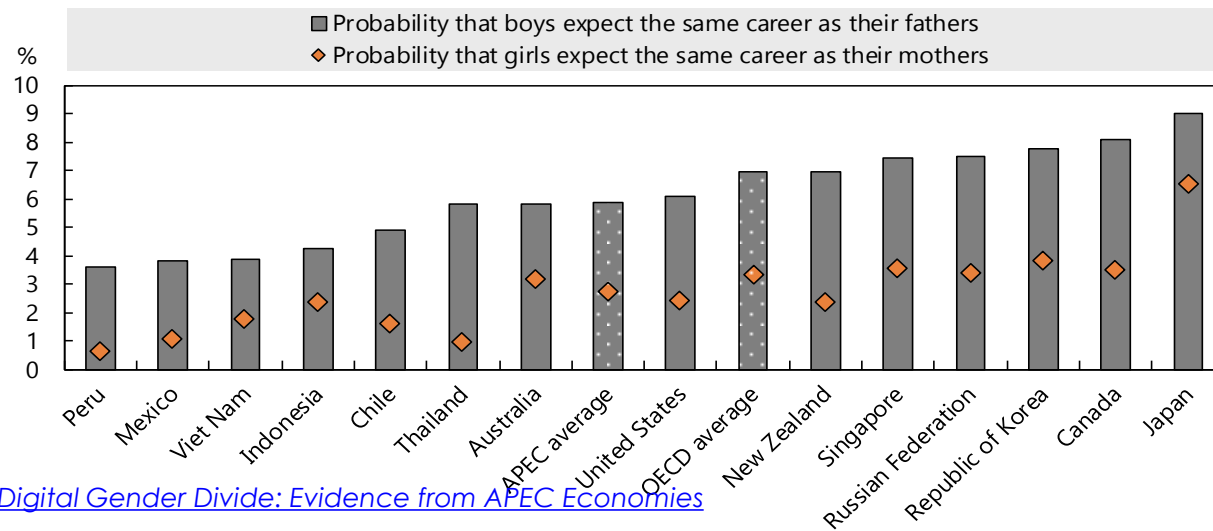


In all economies boys are more likely to expect to work as ICT professionals at age 30

PERCENTAGE OF STUDENTS WHO EXPECT THE SAME CAREER AS THEIR PARENTS, BY GENDER

BUT

Girls are less willing to follow in the footsteps of their mothers





MAKE THE ENVIRONMENT WOMEN-FRIENDLY ->

provide information and advice

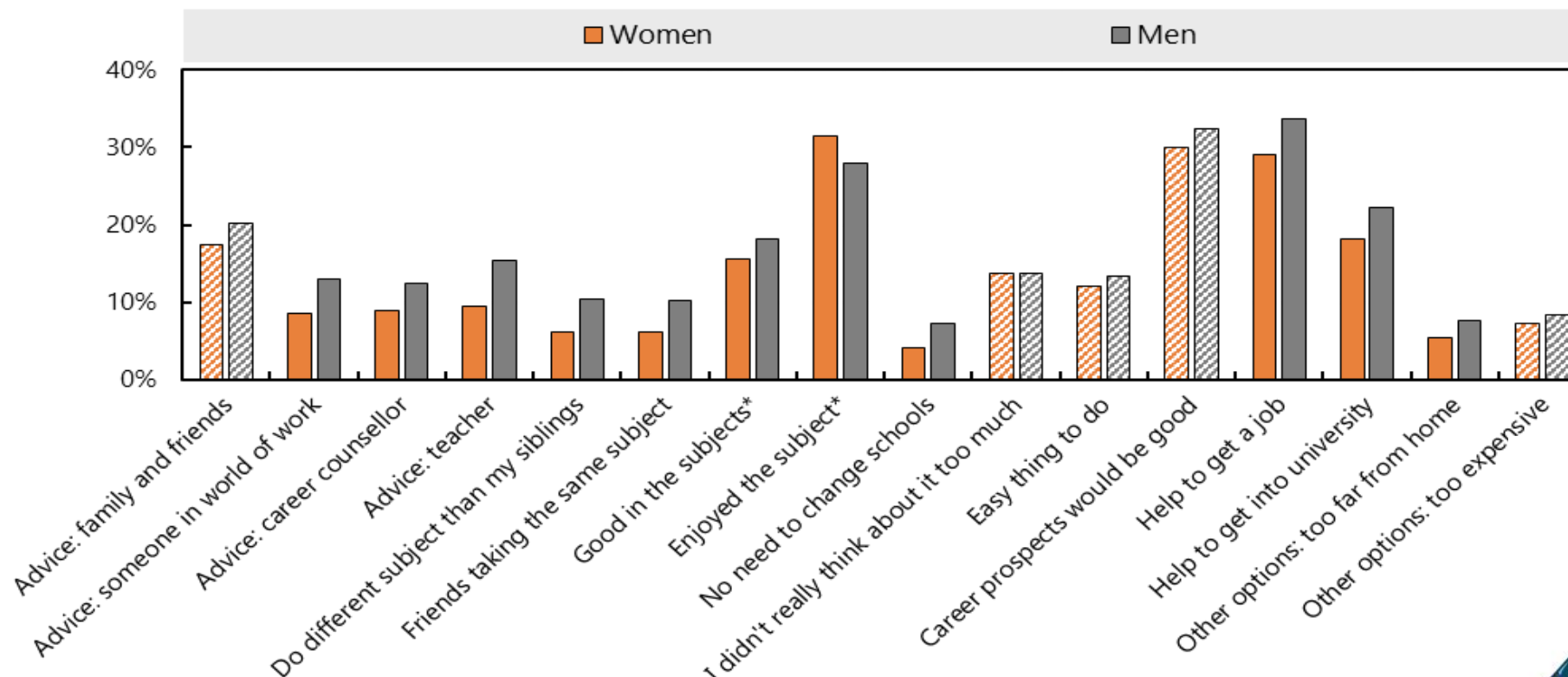
The environment, i.e. family and friends, shape young people's decisions about future education and training.

Boys benefit more than girls from advice from someone from the world of work, career guidance or teachers on what to do in their future career.

REASONS TO CHOOSE A CERTAIN EDUCATION OR TRAINING, AVERAGE OF 9 APEC ECONOMIES, BY GENDER, 2019

Girls tend to study what they enjoy.

Boys tend to make choices related to future job opportunities and based on advice.





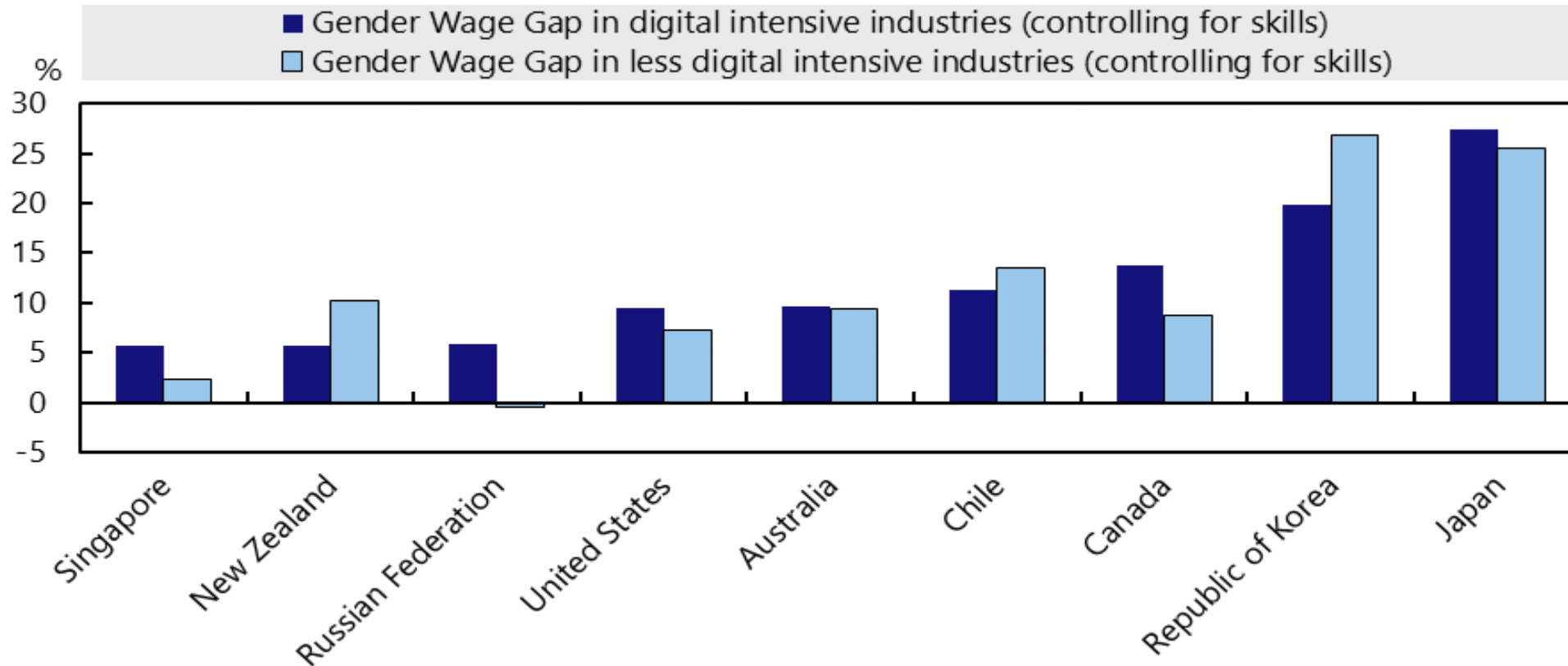
CLOSE THE GENDER WAGE GAP ->

in both digital-intensive and less digital-intensive industries

Women and men are rewarded differently for the same skills: This has to stop!

The gender wage gap is generally more pronounced in digital intensive industries.

GENDER WAGE GAP IN APEC ECONOMIES, DIGITAL AND LESS DIGITAL INTENSIVE INDUSTRIES



Source: Based on Squicciarini et al. in Sey and Hafkin (Eds) (2019).



AIM TO SHAPE THE FUTURE ->

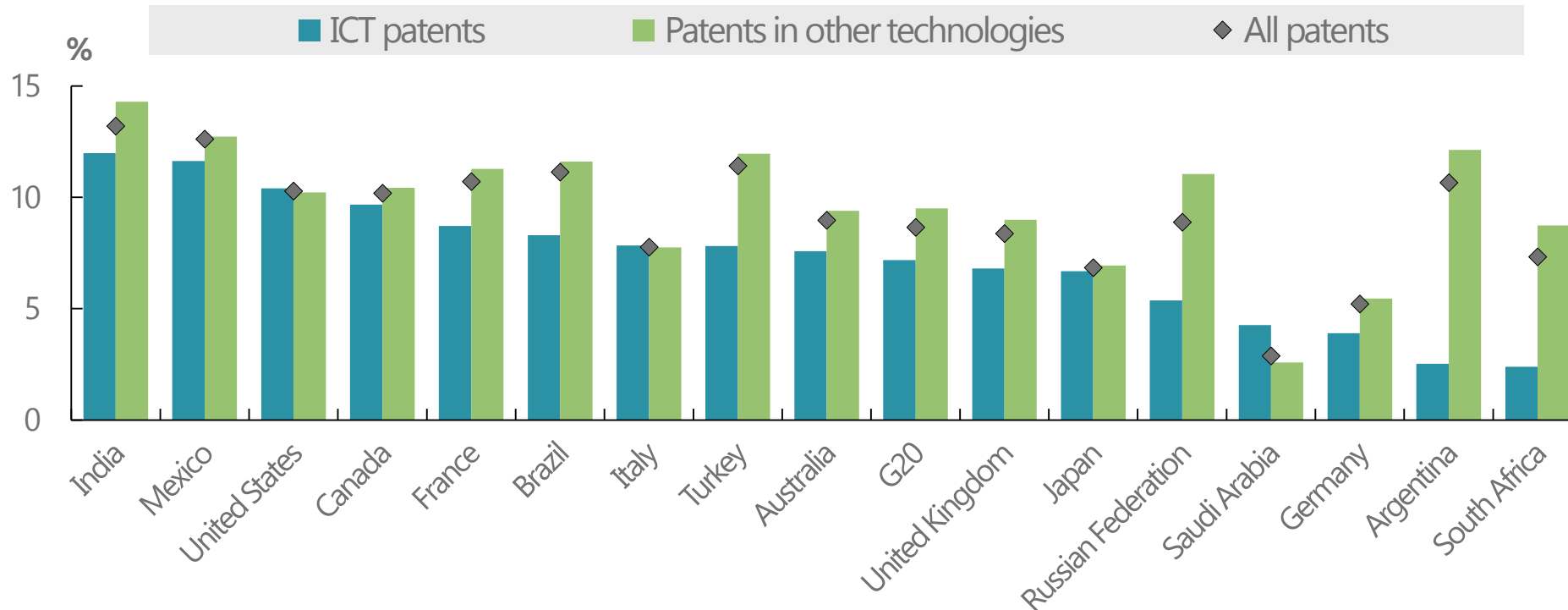
The pace of change in innovation activities is too slow

Women's participation in inventive activities is increasing, but the pace is slow.

Female participation in patenting activities increased over the period 2004-15 – in ICTs more than in other technological domains. However, at the current pace, it will be 2080 before women are involved in ½ of patented inventions.

PATENTS INVENTED BY WOMEN, G20 COUNTRIES, 2010-15

As % of IP5 patent families invented in countries, ICT and other technologies

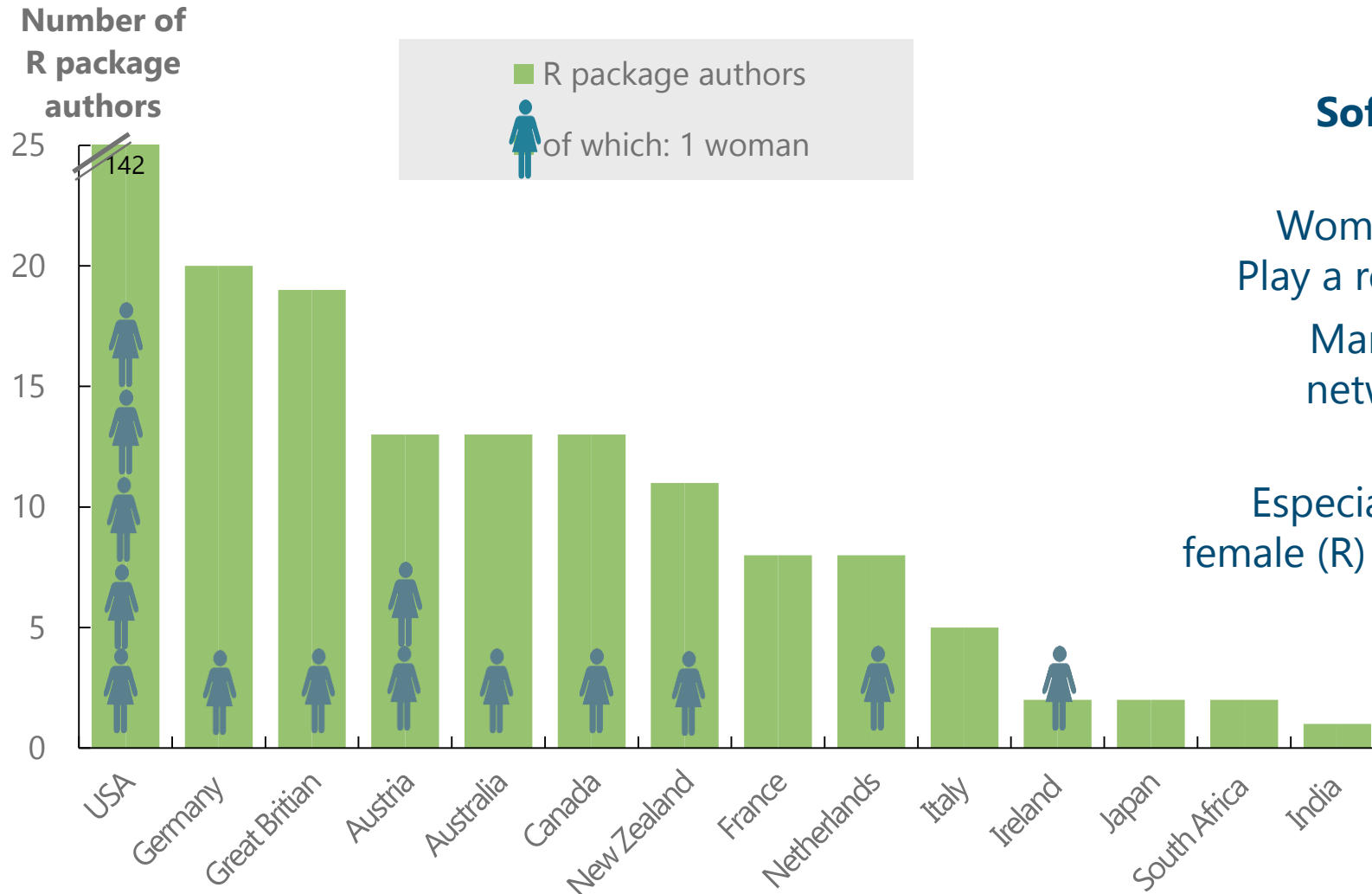




MAKE THE DIGITAL WORLD MORE FEMALE-LIKE ->

Software is still about (male) geeks...

R PACKAGE AUTHORS BY COUNTRY FOR 300 OF THE TOP PACKAGE AUTHORS



Software is male-dominated, especially in companies.

Women are few and far between. Play a relatively less important role.

Many are less connected to the network of software developers than male colleagues.

Especially in companies, few (15%) female (R) software authors are found.



SKILLS FOR JOBS IN THE DIGITAL ERA -> upskill and facilitate workers' occupational mobility

TASK-BASED SKILL TRAINING NEEDS, ACCEPTABLE TRANSITIONS, TRAINING UP TO 1 YEAR, BY GENDER

- ICT
- Advanced Numeracy
- Accountancy and Selling
- Managing and Comm.
- Self-organisation



To move across occupations, **women generally need to bridge larger skill gaps**, both cognitive and socio-emotional skills



TYPIFYING KEY POLICY ACTIONS IN EDUCATION->

Implementation time and cost for governments

Cost for government	Time frame from design to implementation		
	SHORT	MEDIUM	LONG
Low	Make teachers aware of gender biases and being role models for students		
	Make educational material and approaches gender neutral		
	Stop online violence		
	Get girls to code: bring girls and software closer		
	Address self-censorship and make girls aware of real abilities		
	School to engage with parents to shape expectations about future		
	Fix the leaky (STEM) pipeline		
	Close the gender wage gap and address age-based discrimination		
LOW TO MEDIUM		Key role of school leadership	
		Break the (vicious) circle of lack of self-confidence and of information	
		Bundle cognitive and socio-emotional skills in curriculum design	
		Endow girls and women with the skills needed for the future of work	
		Plan to align expectations with reality and engage stakeholders throughout	
MEDIUM TO HIGH	Use ICT at school (with moderation) to optimise learning		
	Get women to work side by side with machines		
	Teachers as active agents for change		
	Make girls future-ready: digital literacy and global competence		Design and shape lifelong learning opportunities, also for occupational transitions
HIGH	Address time poverty and provide childcare and family support		



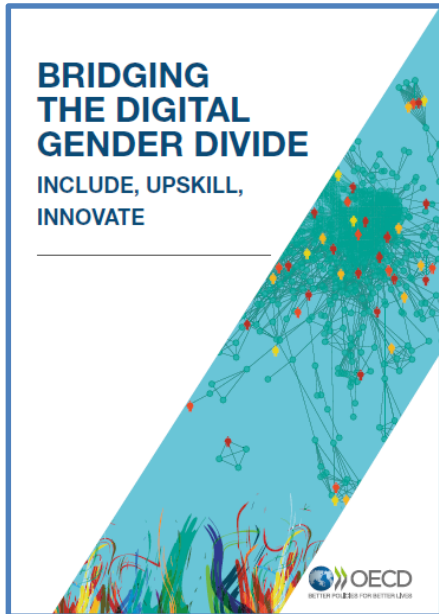
TYPIFYING KEY POLICY ACTIONS ->

Implementation time and cost for governments

Cost for government	Time frame from design to implementation		
	SHORT	MEDIUM	LONG
	Make teachers aware of gender biases and being role models for students		
Low	<p><i>Fix the leaky (STEM) pipeline!</i> i.e. the low study persistence and overall low graduation rates of women in STEM.</p> <p>Women find it hard to enrol and remain in STEM studies and exhibit higher drop-out rates or likelihood to switch majors than their male colleagues. Such patterns are unrelated to poor academic performance.</p> <p>A number of concerted actions can help fix the leaky pipeline, included:</p> <ul style="list-style-type: none"> • greater presence of female role models; • education helping girls feeling more at ease with competition and peer-pressure; • addressing self-censorship; • teachers and professors ensuring gender-neutral approaches throughout STEM careers; • and making students aware of STEM-related stereotypes in parental expectations 		
LOW TO MEDIUM			
MEDIUM TO HIGH	<p>Education curricula and teacher training should note existing gender differences in STEM and the economic impact that they may have in the context of the Fourth Industrial Revolution; and how this may affect women's labour force participation and their employment opportunities and career prospects.</p>		
			Design and shape lifelong learning opportunities, also for occupational transitions
HIGH	Address time poverty and provide childcare and family support		

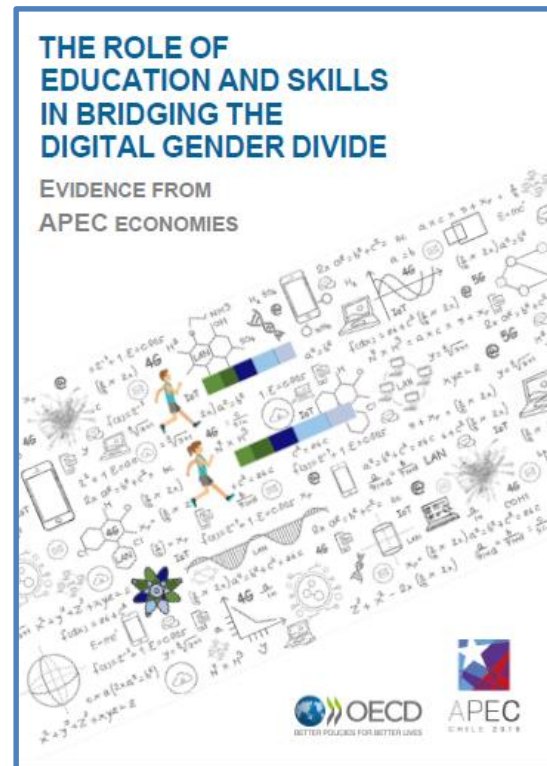


THANKS



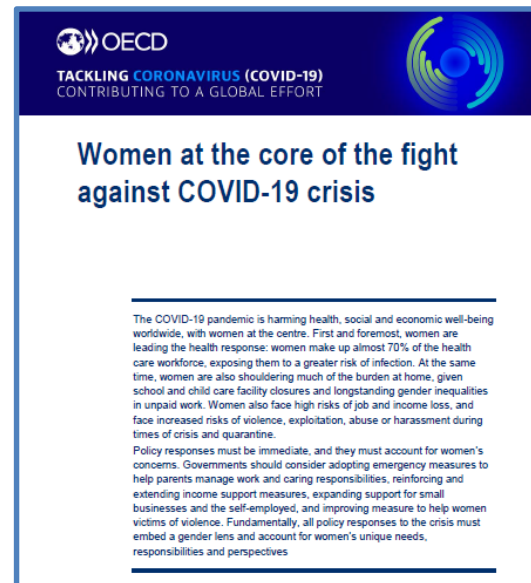
[Bridging the digital gender divide - full report](#)

[Bridging the digital gender divide - key messages](#)



[The Role of Education and Skills in Bridging the Digital Gender Divide:](#)

[Evidence from APEC Economies](#)



[Women at the core of the fight against COVID-19 crisis](#)

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