

A woman with dark hair, wearing a white lab coat over a green top, and large clear safety goggles. She is holding a glass flask containing a yellow liquid. The background is slightly blurred, showing what appears to be a laboratory setting.

# EMPOWERING WOMEN INNOVATION LEADERS IN AUSTRALIA AND SOUTHEAST ASIA

A REGIONAL BLUEPRINT

This report supports the ASEAN Women in Innovation Leadership Dialogue – an initiative of the Australian Government.

“Catalysing discussion on the imperative for women leaders in innovation across the region.”



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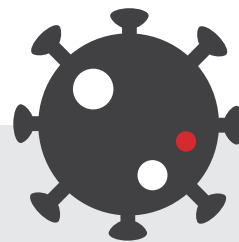
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## KEY FACTS



### Without critical government and private sector support, COVID-19 threatens to undo pivotal progress towards gender equality



Prior to the COVID-19 pandemic, the World Economic Forum predicted it would take **257 years** to reach economic parity between women and men.<sup>1</sup>



In Australia, women in STEM were already **1.5 times more likely** to be working with less job security than men prior to the pandemic.<sup>2</sup>



Women are underrepresented as authors of scientific research papers. During the first half of 2020, only **one-third** of authors of published papers on COVID-19 globally were female.<sup>3</sup>



During COVID-19, women in STEM have experienced greater job losses (**6.3% for women** and 4.8% for men)<sup>4</sup> and greater cross-sector working hour falls (**4.43 hours for women** and 3.65 hours for men)<sup>5</sup> than men in Australia.



Across the world, women have also suffered from higher rates of mental health issues and domestic violence, as well as an increased childcare and care burden. Across the Asia Pacific region 66% of women have reported mental health issues as a result of COVID-19, compared to 58% of men.<sup>6</sup>



Before COVID-19, women were doing **three times more unpaid care** and domestic work than men globally.<sup>7</sup>



Women's share of unpaid care work during the pandemic is as high as **90%** in some parts of Asia.<sup>8</sup>



Women have shouldered most of the unpaid domestic work during COVID-19 in Asia and the Pacific.<sup>9</sup> **63% of women** saw increases in their time spent on domestic work, compared to **59% of men**.



Globally, female-owned businesses are **5.9%** more likely to close during COVID-19 when compared to male-owned businesses.<sup>10</sup>

### Enhancing women's participation in innovation will be critical to fulfilling our region's human capital potential in an increasingly connected world



With a labour force of over **340 million people**, the human capital of Australia and the Southeast Asia region holds enormous potential.<sup>11</sup>

Increasing participation of women in high-productivity sectors has the potential to add **\$6 trillion** to the collective annual GDP of the Asia Pacific, or a **12% increase** in business-as-usual GDP.<sup>12</sup>



In 2020, Southeast Asia's internet economy was valued at **\$139 billion**, with high future growth expectations throughout the region increasing the demand for digitally capable and innovation-skilled workers.<sup>13</sup>

## Creating pathways for women to become leaders in entrepreneurship, start-ups, business and STEM will have positive flow-on effects both for women looking to enter and succeed in the innovation workforce and the region's innovation ecosystems



Globally, **women-founded and co-founded start-ups return 78 cents per dollar invested**, compared with 31 cents for men-founded start-ups.<sup>14</sup>



A survey of 1,700 companies globally found that **companies with above-average diversity within their management teams have innovation revenue of 45%**, whereas companies with below average leadership diversity have innovation revenue of 26%.<sup>18</sup>



Research has found that boosting the number of women entrepreneurs could contribute between **\$71-\$135 billion** to the Australian economy and up to \$7 trillion globally.<sup>15</sup>



Only, **15% of women in Southeast Asia have access to personal loans** and **12% of women own agricultural land**, making it difficult to adequately invest in entrepreneurship.<sup>19</sup>



Women entrepreneurs are **63% less likely to receive funding than men** and when they do it is, on average, **23% less** than their male counterparts.<sup>16</sup>



Rates of female entrepreneurship are high in Southeast Asia. Women comprise between **12-21% of the region's total entrepreneurs** compared to the **global average of 8%**.<sup>17</sup>



**Less than half of all women across Southeast Asia use digital financial services**, suggesting a lack of gender sensitivity in product design and of measures to ensure access and equity.<sup>20</sup>



(From left to right) Michelle Price, Angeline Acharya, Sally-Ann Williams, Lisa Harvey-Smith and Mukund Narayanamurti at the Australian Strategic Launch of the ASEAN Women in Innovation Leadership Dialogue (November 2019).

# INTRODUCTION

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Women innovation leaders bring ideas and experiences that help grow the economies of Australia and Southeast Asia. Increasing women's participation in innovation is particularly important in the context of COVID-19. The impacts of the global pandemic will exacerbate historic gender inequalities, further delaying economic parity and preventing the region from realising its full economic potential.

Regional cooperation has an important role to play in improving conditions for women. Countries can advance women's representation among innovation leaders by learning from each other's successes and working together on new initiatives.

This report builds on our initial report *Showcasing Women Innovation Leaders in Australia and Southeast Asia*, launched in November 2019 as part of the Australian Strategic Launch of the ASEAN Women in Innovation Leadership Dialogue (the Dialogue). The Dialogue, an Australian Government initiative, provides a platform to explore regional pathways and opportunities to advance women in science, technology, engineering and maths (STEM), business and entrepreneurship. This report further explores the interrelationship between entrepreneurship, start-ups, business and STEM, and the importance of female leadership across these sectors in driving innovation.

This report provides a blueprint for greater regional collaboration to empower women in innovation leadership in Australia and Southeast Asia.

The first chapter of the report examines the impacts of COVID-19 on women and how the global pandemic has emphasised the historical, social and economic challenges that women have faced accessing opportunities in the innovation workforce. It argues that increasing the number of women in innovation has social and economic benefits, but that failure to address gender inequalities during and after the pandemic will hinder economic growth and regional prosperity.

Chapter Two explores the challenges and pathways to innovation leadership for women across the region. Drawing on the perspectives and stories of seven prominent women in the STEM and innovation sectors, it examines four key challenges facing women innovation leaders in the region and details initiatives designed to empower women with knowledge and STEM skills, increase entrepreneurial participation and leadership and demonstrate the benefit of an integrated and mobile workforce.

The benefits to be gained from a complementary regional approach to addressing these challenges are outlined in Chapter Three. This chapter also highlights that a regional perspective allows for greater information sharing and matching of skills and talent, which will be critical to the region's economic growth.

The blueprint (on **page 24**) identifies 18 collaboration options for policymakers, business leaders and civil society to consider when implementing initiatives to empower women in innovation leadership. These options seek to address the key challenges and inequalities that women experience in entrepreneurship, start-ups, business and STEM.

The blueprint draws on three key sources of information that have been collated to understand where regional collaboration can best support this aim. These include:

1. A survey of seven governments in Southeast Asia to understand their perspectives on what key challenges women face and where there are opportunities for collaboration. The survey identified that improving access to finance, education, skills development, knowledge-sharing and networking opportunities were critical areas for regional collaboration.
2. Case studies of women leaders in entrepreneurship, technology and science to understand what challenges they see facing other women in attaining positions of leadership in their sectors.
3. Analysis of initiatives in the region that are empowering women in entrepreneurship, start-ups, business and STEM.

Increasing and empowering women in innovation is key to unlocking economic growth and prosperity in Australia and Southeast Asia. It is a common goal, with common challenges and a solution that will be strengthened by regional collaboration.

# ENGAGING WOMEN IN INNOVATION IS KEY TO THE GLOBAL COVID-19 RECOVERY

Increasing women's participation in high-productivity sectors, such as in technology, could add \$6 trillion to the collective annual GDP of the Asia Pacific region, which would constitute a 12 per cent increase in business-as-usual GDP.<sup>21</sup> However, COVID-19 has imposed additional barriers to realising this growth, further delaying the achievement of economic equality between men and women.<sup>22</sup>

## COVID-19 HAS EXACERBATED EXISTING GENDER INEQUALITY

Before the COVID-19 pandemic, the World Economic Forum predicted that it would take 163 years to achieve economic equality between men and women in East Asia and the Pacific.<sup>23</sup> This is compared to the 257 years it is predicted to achieve global economic parity.<sup>24</sup>

The pandemic, however, is expected to increase the number of years it will take to reach gender equality. COVID-19 worsens pre-existing inequalities that have historically seen women face greater economic and employment uncertainty and take on a greater share of the unpaid care burden (see case study on [page 6](#)).

### THE GENDERED IMPACTS OF COVID-19

- As a result of the pandemic, **women have faced a greater risk of job loss**. Women are over-represented in the retail, childcare, tourism and education sectors, which are most directly affected by COVID-19-related social distancing policies.
- Globally, **women are also feeling more of the economic effects of the pandemic**, with more women-owned than men-owned businesses closing since the emergence of COVID-19.<sup>25</sup>
- **Women are over-represented on the frontlines of the COVID-19 response**. For example, women constitute 79% of the nursing workforce in Southeast Asia, exposing them to a higher risk of infection.<sup>26</sup>
- **Women will bear even more of the unpaid care burden during COVID-19**. This is an area where women are historically overrepresented, affecting women's access to economic and educational opportunities. For example, in Asia and the Pacific, 85% of women are doing more work at home (compared to 63% of men) and 67% of daughters are helping more at home (compared to 57% of sons).<sup>27</sup>
- **Working from home has had other consequences for women, with domestic violence increasing across Southeast Asia and Australia**. For example, in Australia, 8.8% of women in a cohabiting relationship have experienced domestic violence during the COVID-19 pandemic.<sup>28</sup> In Singapore domestic violence helplines have registered an increase in calls for assistance by 33%<sup>29</sup> and Malaysia has recorded a 70% increase in domestic violence help-seeking searches.<sup>30</sup>

## CASE STUDY:

### THE ASIA FOUNDATION LOTUS RAPID RESPONSE FUND

When the COVID-19 pandemic was declared, The Asia Foundation knew that it had to respond quickly. In March 2020 it launched its *COVID-19 Lotus Rapid Response Fund*, releasing funding to its country offices across Asia for programs especially intended to address the emerging gendered impacts of COVID-19. Private donors contribute to the Foundation's *Lotus Fund* to invest in programs to advance women's empowerment and gender equality.

*"We know there is a gendered impact of disasters. We know issues related to gender equality and women's rights are sidelined during times of crisis — during relief and recovery. That doesn't only have an immediate effect, it has a generational and long-lasting effect."*

The Asia Foundation has committed over half a million dollars in additional funds to 17 projects across 12 countries in Asia to support programs during COVID-19. These projects include a focus on women's economic empowerment such as the launch of the *#VentureWithHer Entrepreneur Scale-up Program* in Malaysia, supporting the *Women in TEK Network* in Cambodia and providing remote learning support for young women studying STEM in Laos and Cambodia.

#### THE COVID-19 PANDEMIC WILL IMPACT PROGRESS TOWARDS GENDER EQUALITY

One of the key challenges in addressing gender equality in the long-term will be ensuring that women's voices are heard during this current pandemic and also in the post COVID-19 recovery. Historically, women have had lower representation in legislatures across the world, and especially across Asia. While the impact of COVID-19 on gender inequality in politics might be less noticeable, its long-term influence is expected to be significant.



Jane Sloane.

*"I am concerned about women's political participation and voices during the time of COVID-19. Women's leadership and contribution to decision-making saves lives. It's not an add on."*

The Asia Foundation has earmarked funds to support women's political voice and participation at a formal level in politics as well as through grassroots advocacy.

*“Women can play a role in influencing the design and implementation of COVID-19 policies and decisions that will inform longer term interventions.”*

As a region, Southeast Asia cannot afford to lose focus on women's economic empowerment. Programs to advance women's leadership and decision-making need to be maintained during the crisis and throughout the recovery. Disengagement has the potential to undermine decades of progress in improving the place of women in society, compromising efforts to achieve gender equality across the region.

### **SOCIETY BENEFITS FROM WOMEN'S ECONOMIC EMPOWERMENT**

Supporting women in innovation leadership and entrepreneurship is vital for social stability.

*“Women's access to economic opportunities and security contribute to the wellbeing of their families, their communities and countries. Economic empowerment of women stabilises the family and, in turn, the economy and society as a whole.”*

Education plays a big role in women's economic empowerment. Globally, and in Southeast Asia specifically, there needs to be a more conscious effort to create pathways for women to access basic education, mentorship and opportunities to become entrepreneurs. Supporting female students in accessing higher-paid STEM sector jobs is important too. “Some women studying in STEM subjects need more support in terms of internships, socialisation with employers, access to women in STEM fields as mentors and to employment opportunities,” says Jane.

Mentorship is an important part of women's education and empowerment. In Vietnam, The Asia Foundation has two STEM-focused scholarship programs for secondary schools and university students. In addition to tuition and academic support, these programs' peer-to-peer mentoring is especially valuable. Through mentorship, women and girls develop important soft skills such as public speaking, adaptability and problem-solving, whilst bringing greater confidence via positive affirmation.

Improving women's access to technology can also help address gender inequality in the region. The Asia Foundation has several initiatives empowering women through technology. For example, the Foundation's annual *APEC App Challenge* event is a platform where female software developers can demonstrate innovative mobile/web apps they designed to support women entrepreneurs.<sup>31</sup>

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**Jane Sloane** is Senior Director, Women's Empowerment and Gender Equality, The Asia Foundation.

## COVID-19 WILL EXPAND THE DIGITAL GENDER DIVIDE

The COVID-19 pandemic is accelerating the shift towards a digital economy, driving further demand for digital and technology-related skills such as data analytics and coding. Rapid digitalisation will bring opportunities, but due to unequal access to education, resources and existing social biases, fewer women will be able to take up these opportunities.<sup>32</sup>

As COVID-19 has increased the number of people working from home, so too has it increased the reliance on digital tools and platforms to conduct their work. COVID-19 control measures have also led to a significant increase in demand for online delivery services, digital and contactless payment solutions, distance education, telehealth and online entertainment solutions.<sup>33</sup> For example, one in three users of online food delivery services across the region were new to the service in 2020.<sup>34</sup> The frequency of e-wallet transactions grew from an average of 18 per cent of total transactions before COVID-19 to 25 per cent by the end of 2020.<sup>35</sup> And the rise of EdTech across the region saw a tripling of installations of the top five online education apps during the pandemic.<sup>36</sup> Such increases highlight the impact that COVID-19 will have on accelerating the shift towards a digital economy.

A digital gender divide already exists,<sup>37</sup> but will likely become more pronounced with the rapid digitalisation demanded by the current COVID-19 environment. On average, women lack access to digital technology. While there has been significant progress in recent years, the gender gap remains substantial. In 2020, 390 million women in low and middle-income countries did not own a mobile phone and while smartphone ownership amongst women has grown from 44 per cent to 55 per cent since 2017, women are still 20 per cent less likely to own a smartphone than men.<sup>38</sup>

Globally, men are 21 per cent more likely to be online than women.<sup>39</sup> This means that women and girls do not have the same access to opportunities in high-productivity sectors, such as information and communications technology (ICT).<sup>40</sup> By 2030, 80 per cent of the future jobs in Southeast Asia will require basic digital literacy and applied ICT skills.<sup>41</sup> Without access to technology, women will face further challenges in a digital future.

The COVID-19 pandemic will accelerate the speed of digital transformation, making technology and digital skills more important in the future workplace. Within this context, Australia and the Southeast Asia region will need to make additional efforts to ensure rapid digitalisation is gender inclusive, and women are armed with the skills needed for the future.

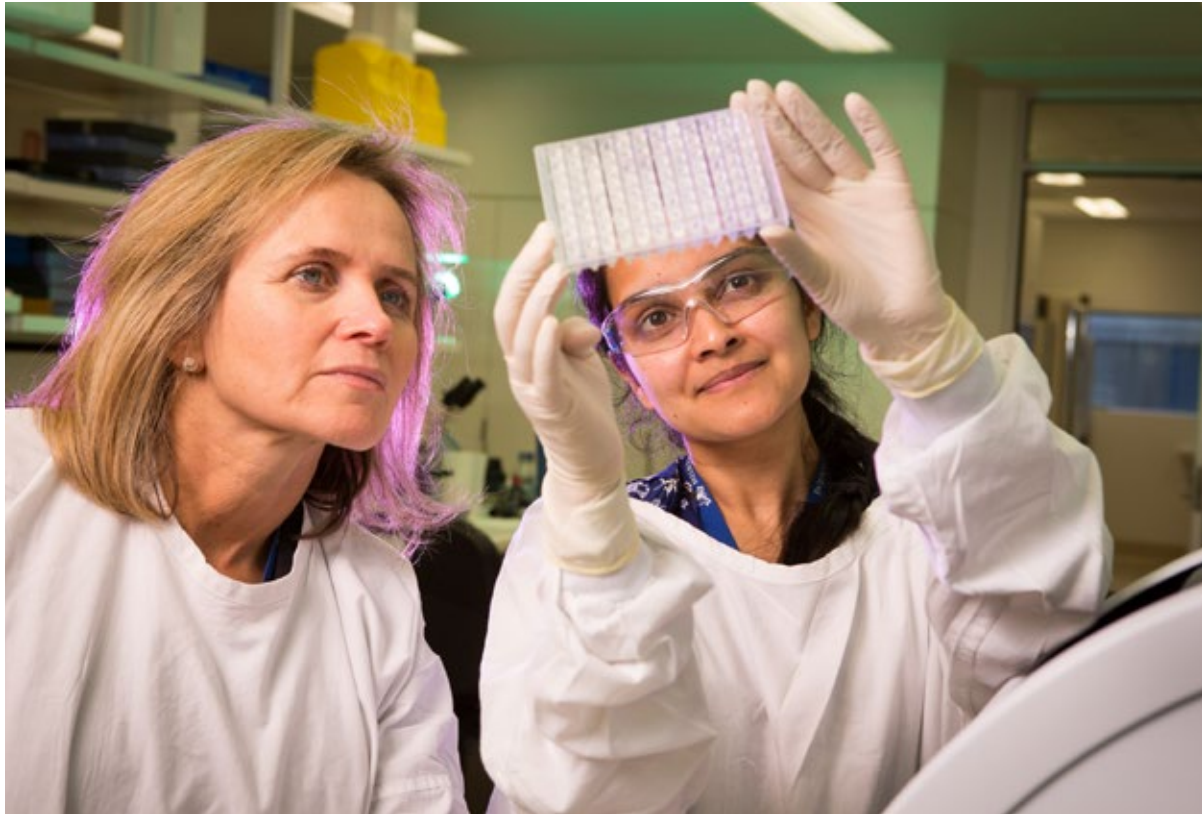
## WOMEN MUST BE AT THE HEART OF THE COVID-19 RESPONSE AND RECOVERY

Women are disproportionately affected by COVID-19, but they are also essential to our collective COVID-19 response and recovery. Women are at the frontline of the COVID-19 pandemic response, making up 70 per cent of the global health sector workforce.<sup>42</sup> Women scientists are also working behind the scenes designing clinical trials, coordinating field studies and leading data collection and analysis, but they are less visible than men in media coverage of the pandemic.<sup>43</sup> Ensuring women's voices and concerns are equally heard will be an important task for our region during this pandemic and the post COVID-19 recovery.

Professor Sharon Lewin is one such woman, leading the Doherty Institute's efforts to minimize the impact of COVID-19 (see case study on **page 9**).



## CASE STUDY: PROFESSOR SHARON LEWIN, DOHERTY INSTITUTE



Professor Sharon Lewin (left).

In the early stages of the pandemic, the Doherty Institute became known as the first laboratory outside China to grow the SARS-CoV-2 virus, driving scientific research to develop new tests, treatments and a vaccine for the virus.

Professor Lewin is a leading infectious disease physician, who ordinarily focuses her research time on finding a cure for HIV. She has authored over 260 publications and delivered over 100 major international talks on finding a cure for HIV.

### UNCONSCIOUS BIAS AND EXISTING WORK PRACTICES LIMIT OPPORTUNITIES FOR WOMEN IN SCIENCE

As a leader in her field, Professor Lewin is well aware of the challenges that women face in science, particularly around attaining positions in leadership.

*“Women are often overlooked for leadership roles. There is still unconscious bias in many parts of our society. I have had incredible opportunities throughout my career but I know my experience is not shared by many other women.”*

And there are other challenges too. Science is highly competitive and succeeding in the field requires people to devote a huge amount of time to work. For many people, the most intense periods, where success is dependent on productivity, often fall at the end of PhD studies. “The period where you need to be committing crazy hours to your work, is the same as the time you want to spend with your family, especially if you have young children”, says Professor Lewin. This places limitations on women entering the field, who still assume disproportionate responsibility for childcare in Australia.

*“We need to be proactive with keeping women in science and acknowledge that there’s a problem that must be addressed. We need to continually find ways to encourage women to take on leadership roles and support them through periods they can’t put the hours in that others can.”*

Professor Lewin points to a lack of visibility of women leaders within organisations as another key challenge.

“Within most public hospitals and university departments in Australia, only 20 per cent of department heads are women”, Professor Lewin says. Many organisations don’t pay enough attention to true gender equity. The approach can often be ‘having one or two women among twenty is probably good enough’.

There are some organisations that have been successful in embedding equal representation as core to their being. One example Professor Lewin points to is the International AIDS Society — a major professional society representing people working to combat HIV with over 14,000 members. “I haven’t experienced that same attention to equity at any

other organisation”, says Professor Lewin. “The International AIDS Society has always had an agenda of equal representation on gender, on sexual orientation and geographical representation. They have been doing it extremely well for 20 years and doing it very differently to other organisations”.

### **COVID-19 IS CHANGING THE WAY WE WORK**

COVID-19 has had a particular impact on Professor Lewin and her work, taking up over 80 per cent of her day-to-day work activities.

“COVID-19 is a virus that has affected all of us, worldwide”, Professor Lewin says. “But it has also brought us closer together”.

At the Doherty Institute, for example, researchers from diverse fields and specialisations have come together in collaboration. Scientists who have worked on different infectious diseases or different parts of the immune system have applied their knowledge and skills to the common challenge of understanding how the COVID-19 virus infects people and causes disease, how the immune system fights the virus and, ultimately, how a vaccine can be created to immunise against the virus.

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**Professor Sharon Lewin** is Director, The Peter Doherty Institute for Infection and Immunity.



*Professor Sharon Lewin.*

# ADDRESSING KEY CHALLENGES WILL EMPOWER WOMEN IN SOUTHEAST ASIA AND AUSTRALIA

Regional collaboration can help address the challenges that women face in attaining leadership positions in innovation. Women face a number of challenges across the innovation landscape that are more pronounced than the challenges faced by their male counterparts. These challenges are ingrained in historical gender inequality and social biases. While some progress has been made in achieving greater gender parity in Australia and Southeast Asia,<sup>44</sup> there is still a lot more work to be done.

This chapter explores four of the key challenges that women face in innovation. These challenges were identified through the survey of governments in Southeast Asia.

The case studies of successful initiatives and women innovation leaders showcase the nature of these challenges and highlight the work that is being done in the region to empower women to overcome them.

## EQUAL REPRESENTATION OF WOMEN IN STEM EDUCATION

The survey of governments across Southeast Asia identified a lack of education infrastructure as one of the key

barriers for women to succeed as innovation leaders in entrepreneurship, start-ups, business and STEM. Women are underrepresented across Southeast Asia in the number of university graduates in STEM. The only exception to that is in Brunei, where there are more female graduates in STEM than male (see case study on **page 12**). STEM education is key to enabling innovation and for building the pipeline of women innovation leaders, but it should be considered one of many necessary initiatives to promote more inclusive economic growth. Policymakers and business leaders will also need to actively address access to education in STEM as part of the COVID-19 recovery.



## CASE STUDY: WOMENNOVATION BRUNEI



Noorhafizah Hj Rashid (right).

In 2019, Noorhafizah Hj Rashid launched Womennovation Brunei, under the *Big BWN Project* umbrella. Womennovation is a networking initiative that supports women entrepreneurs and young women who are interested in innovative solutions and creative ideas to expand their professional networks and develop business ideas.

Womennovation Brunei's initiatives are diverse, including campfire talks for women to share and develop ideas in a safe space, exhibitions for showcasing business concepts and making connections, youth projects for building entrepreneurial skills and a business coaching course for women.

By empowering Brunei's women innovators, Noorhafizah also aims to advance women's rights and tackle Brunei's high unemployment.

### STEM EDUCATION IS RELATIVELY STRONG IN BRUNEI, BUT THE PATHWAY TO LEADERSHIP POSITIONS IS STILL CHALLENGING.

Brunei is the only country — across Australia and Southeast Asia — with a greater proportion of women university graduates in STEM than men.<sup>45</sup> But women are still underrepresented at senior levels in government and the private sector.

For example, women have not been promoted beyond the level of Deputy Minister or Permanent Secretary in government departments and these positions are overwhelmingly held by men. Women in the private sector face similar challenges. While there are many women engineers working in the oil, gas and aviation industries, their representation in senior positions is low. There is still a social stigma around women entering the STEM workforce and moving up the ranks.

"To achieve gender equality, women also need to hold leadership positions in STEM industries", says Noorhafizah.

### TECHNICAL AND ENTREPRENEURSHIP SKILLS ARE CRITICAL FOR INNOVATION.

Women entrepreneurs in Brunei face a number of challenges, including a shortage of government and private sector support. But Noorhafizah is supporting women entrepreneurs to overcome these structural hurdles through Womennovation Brunei's initiatives.

In some ways, women in Brunei face unique challenges. The country's relatively conservative social norms and absence of spaces where women can easily meet fellow entrepreneurs and share ideas pose a challenge for networking. These are in addition to the universal challenges that women entrepreneurs face in accessing resources and start-up capital.

Other than networking opportunities, Noorhafizah also highlights the need for and importance of education and skill building for women entrepreneurs in Brunei. She advocates for the teaching of technical and entrepreneurial skills to kickstart innovation across the region.

*"Many entrepreneurs wish they had learnt a lot more of these skills when they were much younger."*

—  
**Noorhafizah Hj Rashid** is founder of Womennovation Brunei.

## VISIBILITY OF WOMEN INNOVATION LEADERS

Unconscious bias reduces the visibility of women in many industries, but especially in the male-dominated business and STEM sectors. Underrepresented in leadership roles in both Australia and Southeast Asia, women account for just 35 per cent of the total proportion of senior management positions in ASEAN member countries.<sup>46</sup>

In Australia, women currently hold less than a third of board positions across the ASX 200 companies.<sup>47</sup> Women innovation leaders are also underrepresented at technology conferences, with approximately 74 per cent of women in technical roles surveyed between 2016 and 2018 stating that when they have participated on panels, they have been

the only woman.<sup>48</sup> This lack of visibility and representation makes the path for women to secure leadership positions more difficult. As men continue to dominate the executive and senior management teams in most STEM industries, social biases towards women in leadership will remain (see case study on [page 9](#)).

Research shows that women are also more likely to underplay their professional achievements than their male counterparts.<sup>49</sup> This phenomenon, as So-Young Kang, the founder and CEO of Gnowbe, observes, is more prominent in the Southeast Asia region where sociocultural norms can present an additional challenge for women accessing opportunities in start-ups and entrepreneurship (see case study below).<sup>50</sup>

### CASE STUDY: SO-YOUNG KANG, GNOWBE



So-Young Kang.

So-Young's passion for education and training led her to establish her second start-up, Gnowbe, in 2015. Gnowbe, a mobile-first micro-learning experience platform, enables adults to 'learn-by-doing' with a smartphone app. So-Young has many titles. She is a serial entrepreneur, an author, a thought leader and global speaker. She currently leads a team of 26 across the US, Asia and Europe, serving users in 45 countries.

Gnowbe has a global presence with offices in both San Francisco and Singapore. But for So-Young there are clear advantages to having a base in Southeast Asia. "The ASEAN region is a great place to be a tech entrepreneur," says So-Young. Most of Southeast Asia is mobile-first and it is a more open market than North Asia, the US and Europe. "ASEAN has a younger population who are very open-minded, willing to try new things and think forward and progressively."

#### THERE IS MORE WORK TO BE DONE TO MAKE A MORE SUPPORTIVE REGIONAL ENVIRONMENT FOR WOMEN ENTREPRENEURS

So-Young believes that there is a supportive environment for women entrepreneurs in Southeast Asia, but the region is still not without its challenges.

*"It is still not quite equal, but there are countries in Southeast Asia that are more gender neutral and inclusive than a lot of countries in other regions of the world."*

The different societal expectations placed on women and men underpin many of these challenges. “As a woman”, says So-Young, “you have to prove yourself a lot more. And there is always an expectation that you have to be smarter, faster and spend more time than your male counterparts in order to get the same amount of funding, or the same level of respect”.

*“There is massive inequality in terms of funding where female founders still obtain less than 3% of all funding despite the #MeToo movement and hype around gender bias in tech. It’s 2020. Isn’t it time to change?”*

The lack of confidence among women and women entrepreneurs is a global issue, but So-Young sees it as an even bigger issue in Asia. “If girls and women don’t feel confident, that will affect how they communicate, how they pitch themselves and how they present their ideas. And that might result in them receiving less funding,” says So-Young.

### SHOWCASING WOMEN IN INNOVATION LEADERSHIP

A shift in mindset is required to create more opportunities for women in Southeast Asia. While this may not be simple, So-Young sees great value in creating platforms for women to share their accomplishments. “Women tend to downplay their achievements compared to their male counterparts”, says So-Young. Socio-cultural expectations are one factor and are underpinned by the way the media profiles women’s achievements. “There is a strong focus on women’s personal lives and family stories rather than their professional accomplishments when profiling women in the media.” Profiling women leaders’ accomplishments in a fair way will help to inspire younger women and reduce unconscious bias, So-Young believes.

*“The biggest opportunity is storytelling and profiling and doing it in a fair way.”*

### Below are just some examples of the accomplishments that So-Young and her team are proud of:

- Top 10 Most Inspiring CEOs to Watch in 2020 by Industry Tech Outlook
- One of the 50 most innovative education technology companies across Southeast Asia and one of the top 12 in Skills and Jobs training in HolonIQ’s 2020 Southeast Asia EdTech 50
- Most Advanced Mobile Learning Technology by Brandon Hall 2020 (US)
- 30 Best Tech Companies in Asia 2019 by Silicon Review (Asia)
- Most Innovative Mobile Microlearning Platform 2019, 2020 by the Corporate Excellence Awards (US)
- Top 10 Employee Engagement Solution Providers 2019 by HR Tech Outlook (US)
- Top 5 to win Insurtech Innovation Challenge: Collab 5.0 (Korea)
- Top 6 HRTech start-up for SAP.io Accelerator (US)
- Finalist of the EdTech Cool Tools Awards under the category of e-learning, blended, or flipped solution (US)
- #1 EdApp in both Apple and Google Play
- The only micro-learning partner of SkillsFuture Singapore

### ACCESS TO KNOWLEDGE AND NETWORKS ARE CRITICAL

For So-Young, building knowledge and access to networks are two crucial keys for success. “If women have knowledge and access to networks it can really change the entire lives of women across the region and globally.” Mentorship arrangements can help women build knowledge and access networks that will support their success. So-Young believes that both men and women have a crucial role to play in collaborating, sharing stories and encouraging women entrepreneurs to succeed.

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**So-Young Kang** is Founder and CEO at Gnowbe.

## ACCESS TO BUSINESS NETWORKS

Women in Australia and Southeast Asia do not have the same access to business networks as men. Government, business and civil society all see the need for greater regional opportunities for networking.

The impact of COVID-19 also poses logistical challenges for the innovation network. Border closures and limitations on skilled migration create barriers for women looking to take up leadership positions in the region. The movement of skilled migration within Australia and Southeast Asia is critical to the development of the region's digital economy, especially in a post COVID-19 environment.<sup>51</sup> To maximise the social and economic benefits of regional migration,

Australia and Southeast Asia will need to collaborate on establishing pathways for women's mobility. Hien Tu, co-founder and CEO of Women's Initiative for Start-ups and Entrepreneurship (WISE) in Vietnam (see case study on **page 17**), highlights local networking as useful in building business connections, but that there is also space at a regional level to share experiences and to understand how other countries' governments, businesses and civil societies have managed under different conditions — and when facing different cultural and gender biases. The Cherie Blair Foundation's *HerVenture* initiative connects women globally to develop key business relationships and provide business mentoring.

## CASE STUDY: CHERIE BLAIR FOUNDATION FOR WOMEN



Established in 2008, the Cherie Blair Foundation for Women (the Foundation) aims to help women entrepreneurs in low and middle-income countries build capability, confidence and capital to grow their businesses. In the Southeast Asia region, the Foundation has supported nearly 10,000 women entrepreneurs through its digital mentoring and learning programs.

### SUPPORTING WOMEN ENTREPRENEURS

The Foundation's first footprints in Southeast Asia were in Vietnam and Indonesia. In 2018, the Foundation launched the *HerVenture* initiative, a mobile learning app that supports women entrepreneurs. From launching a business to expanding market access, users at different growth stages can use the app to build essential business skills. *HerVenture* also enables users to connect with each other to build broader networks to amplify their impact.

HerVenture's innovative and accessible approach has continued to deliver support to women entrepreneurs during the COVID-19 pandemic. But the Foundation went one step further by developing additional learning content on e-commerce for the app. This new offering was developed in response to the results of a recent survey conducted by the Foundation.

*“Our initial survey found that 97 per cent of women in our programs have either had their businesses already negatively impacted, or believe they soon will be, as a result of the COVID-19 global pandemic. And 75 per cent of them wanted extra help.”*

## COLLABORATING TO SUPPORT WOMEN IN SOUTHEAST ASIA

The Foundation never stops looking for new ways to expand its support to women in Southeast Asia. Building on its successful *Mentoring Women in Business* program, which has been delivering support across the Southeast Asia region for eight years, and the *HerVenture App*, which has helped more than 8,000 women in Vietnam, the Foundation has launched a new project in collaboration with W-GDP and USAID. The *WEAVE* program enables participants based in the ASEAN region to partner with women entrepreneurs in Vietnam and Indonesia, building business management and investment skills through an intensive six-month online learning format. It is expected that the new project will reach a further 15,000 women in Vietnam and Indonesia over the next 10 months.

“Strong networks and partnerships are key for our activities in Southeast Asia,” says Helen McEachern, CEO. The Foundation has increased the number of local partnerships over the last two years. In Vietnam, the Foundation collaborates with WISE (Women's Initiative for Start Ups and Entrepreneurship) and HAWEE (Ho Chi Minh City Association for Women Executives & Entrepreneurs) to reach more women and girls and maximise their impact in the market through collaboration with local organisations.

## CUSTOMISING THEIR APPROACH

Technology and online platforms have enabled the Foundation to deliver support to thousands of Southeast Asian women from outside the region. However, the Foundation recognises the significant benefits of providing direct in-person support and is therefore designing programs with a face-to-face

element in preparation for the post COVID-recovery.

*“Customising your approach and providing support locally is so important.”*

The Foundation looks to customise its approach to the specific needs of new markets. “We conduct research and market assessments when preparing to work in a new country. This helps us to understand the needs of women entrepreneurs and gaps in the ecosystem, so we can address these through our programs,” says Helen. Given the cultural and linguistic diversity across Southeast Asia, the Foundation has leveraged local partnerships to make sure its programs are delivered in local languages and reflect local cultural norms.

## WOMEN IN INNOVATION LEADERSHIP

Helen sees huge benefits in increasing the number of women owning and leading businesses. “More diversity in leadership means more sustainability for an organisation. And a greater gender balance in leadership teams will lead to longer-term profits,” says Helen. However, there are a number of key barriers for women business owners, including access to finance, knowledge and networks that prevent women from scaling their enterprises.

Helen believes that gender norms and stereotypes of women's roles underpin the barriers that women entrepreneurs face both in Southeast Asia and globally. These stereotypes can have a particularly strong impact in STEM and innovation fields and can prevent women from pursuing the education type and level they need to enter and succeed in the innovation workforce. Challenging these norms and stereotypes and creating opportunities to help build confidence in women is crucial.

*“Building confidence is perhaps more crucial than building skills when it comes to empowering women in the region.”*

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**Helen McEachern** is CEO, The Cherie Blair Foundation for Women.

## ACCESS TO FINANCE

Insufficient financial resources can prevent women from pursuing education opportunities and impede women entrepreneurs from achieving their business goals. Women entrepreneurs face more difficulty accessing funding and start-up capital due to bias. For example, only three per cent of venture capital flows into women-led start-ups in

Vietnam (case study on [page 17](#)). In Singapore, it takes female entrepreneurs an average of 9.1 months to receive funding compared to 8.1 months for men.<sup>52</sup> The survey of governments across Southeast Asia also identified a lack of finance as a constraint on the advancement of women in innovation leadership in the region..

## CASE STUDY: WOMEN'S INITIATIVE FOR START-UPS AND ENTREPRENEURSHIP (WISE)



Hien Tu founded WISE in 2017 with the aim of creating a network of women-owned and led start-ups in Vietnam. Although the start-up ecosystem in Vietnam was not the 'Silicon Valley of Asia' it is understood to be today, Hien Tu recognised the importance of a well-developed and equitable private sector as crucial to the country's longer-term development trajectory.

### WOMEN FOUNDERS ARE NOT ON AN EQUAL FOOTING IN VIETNAM

Like many start-up ecosystems in both developing and developed economies around the world, it was clear to Hien Tu that women did not have an equal footing in Vietnam's start-up sector. Women founders in Vietnam lacked the support of organisations that exist

in countries like the US, Canada and Australia, which specifically support equal opportunities for women in the sector.

Recognising this gap, Hien Tu founded WISE to build programs that target support to women working in the start-up space. Today, WISE delivers capacity building, mentorship, incubation, finance and community building initiatives to support women who are establishing or keen to grow their start-up.

## CONNECTING WOMEN TO INVESTORS IS KEY TO INCREASING ACCESS TO FINANCE

Hien Tu points to a number of specific challenges that women face in Vietnam's start-up sector. One of the major challenges is access to finance: only three per cent of total venture capital is provided to women-led start-ups. Unconscious bias plays a big role in how women-led start-ups are perceived by investors. WISE looks to address this bias by running women-only accelerator programs which directly connect women with investors.

*“Investors tend to look less favourably at women founders. They don't feel like women founders can lead a start-up to grow. Women need to work harder to convince investors to invest in them.”*

## INFORMATION SHARING HELPS PEOPLE RESPOND TO SHARED CHALLENGES

The impact of COVID-19 has made the challenges women face in Vietnam's start-up sector even clearer. Hien Tu has observed that investors have been even more cautious than in the past, and that some emerging women-led start-ups have had to stop operating before they have had a chance to grow. WISE has focused efforts on bringing together start-up founders to discuss how they are navigating the pandemic, as well as providing training and mentorship sessions.

Despite the challenges of the pandemic, Hien Tu remains optimistic about the prospects for Vietnam's broader start-up ecosystem. In recent years the government has implemented policies to support start-ups and Vietnam has been recognised as an attractive destination for international investment. Vietnam's economy has weathered the pandemic relatively well to-date, and small and medium-sized enterprises have demonstrated their flexibility in responding effectively to the changing circumstances.

## NETWORKING OPPORTUNITIES ARE CRITICAL AT A NATIONAL, REGIONAL AND GLOBAL LEVEL

Although WISE is currently focused on building a community of women founders in Vietnam, Hien Tu recognises that there are a range of opportunities to collaborate across the region and internationally. WISE already works closely with the Australian Embassy in Hanoi on a range of projects and has begun to build links with other initiatives such as SHE Investments in Cambodia. Currently, however, collaboration across the region is ad hoc. To add more value in the long term, WISE is keen to build a network across Southeast Asia to link activities supporting women-led start-ups.

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**Hien Tu** is CEO, WISE.



# REGIONAL INITIATIVES: PATHWAYS TO EQUITY

This chapter explores the key actions that government, business and civil society can take to empower women across the region. The collaboration options presented in this report highlight existing initiatives in Australia and Southeast Asia that can be leveraged to further support and increase women in innovation leadership. The actions are linked to address the challenges identified in the previous section and are mapped out in the blueprint on **page 24**.

## WORK TOGETHER TO INSTITUTE BEST-PRACTICE PROGRAMS THAT PROVIDE WOMEN WITH STEM SKILLS

Knowledge and hard skills are critical for women looking to enter STEM-related sectors. Recognising this need, organisations such as WISE are providing skills-based training and capability development programs for female students. International non-government organisations such as The Asia Foundation and the World Bank support female students in STEM with scholarship opportunities and peer-to-peer mentoring programs.

### Collaboration options to consider:

- **Plan and implement regional engagement workshops of government, business and civil society representatives** to share lessons and best-practice examples of supporting women in STEM.
- **Encourage active and regular sharing of STEM teaching experience and methods amongst schools and universities across the region.** *The Education Forum for Asia*, an international platform, brings government, business and civil society together to explore and provide solutions to key issues facing the education sector. There are opportunities for the region to focus on STEM education for women via such international and/or regional platforms.

- **Encourage cooperation between education providers, the corporate sector and government to build on regional internship and professional exchange programs.** These programs will promote skills mobility and improve the visibility of regional employment pathways. *Australian Internships' STEM Internship Program* offers international students in STEM subjects professional work experience with Australian host companies and government departments.
- **Support female STEM students in developing countries by supplying equipment and resources needed for education success.** The Asia Foundation, through its *Lotus Rapid Response Fund for COVID-19*, has provided remote learning support for female STEM students in Laos and Cambodia, including computers, internet, phone credits and online mentoring to ensure their study is not interrupted by the impact of COVID-19.
- **Design a regional platform for women in STEM to learn and share knowledge and experiences with leaders across the region.** *Singapore Women in Science*, for instance, is a national platform that enables Singaporean women working and studying in science, technology and academia to continuously learn new industry insights, develop collaboration and participate in networking opportunities.

## PROMOTE WOMEN'S ACHIEVEMENTS TO SHOWCASE AND BUILD AN INCLUSIVE INNOVATION SPACE

Highlighting women's achievements in STEM and innovation sectors can inspire women to talk confidently about their accomplishments and encourage more women to seek leadership positions. More importantly, it helps build a more gender equal innovation sector, where women's voices and contributions are equally valued.

### Collaboration options to consider:

- **Showcase women's achievements in innovation leadership at regional awards.** For example:
  - The annual *ASEAN-U.S. Science Prize for Women* recognises Southeast Asian women's academic and professional achievement in science.
  - In partnership with Google, the *Women Leading Tech Awards* celebrates and recognises leading female technologists in Australia and New Zealand.
- **Profile women in innovation leadership in the media.** For example:
  - The *Forbes Asia's Power Businesswomen* series features a list of female business leaders since 2012, recognising their contribution in transforming Asia's business landscape.
  - The *Superstars of STEM*, a program run by Science & Technology Australia, aims to increase the public visibility of women in STEM and create role models for young women and girls.
- **Promote databases of women experts and leaders in innovation.** For example, the CSIRO and IC Global's *Expert FindHer* initiative provides a publicly searchable database to make female researchers more easily discoverable.

## PROVIDE MORE ROLE MODELS FOR WOMEN IN INNOVATION

Collaboration provides access to a far broader pool of labour, skills, knowledge and expertise. For aspiring women innovation leaders, coming together as a region also provides access to a greater diversity of experiences and more role models. As a practical example, Elisabeth Yunarko co-founded Spokle to match speech pathology expertise in Australia to a need for greater services in Indonesia (see case study on [page 21](#)).

Role models play a large part in inspiring more women to enter STEM sectors, contributing to the region's economic growth in the post COVID-19 recovery.

### Collaboration options to consider:

- **A shared commitment to equal gender representation at conferences and on corporate boards.** The *Panel Pledge* promotes gender equality and greater diversity on panels, at conferences and other events. This Australian initiative is run by Chief Executive Women, Women's Leadership Institute Australia and Male Champions of Change.
- **Encourage equal representation of female teachers in STEM at all levels of education across the region.** Female teachers in STEM subjects are key role models in shaping young female students' career choices.<sup>53</sup>
- **Increase mentorship programs that enhance regional information-sharing and exchange.** The *Mentoring Women in Business Program*, implemented by the Cherie Blair Foundation for Women, has connected over 200 mentor-mentee pairs online to support businesswomen in Malaysia (see case study on [page 15](#)).



## CASE STUDY: ELISABETH YUNARKO, CO-FOUNDER, SPOKLE



When Elisabeth Yunarko realised families in Indonesia have challenges accessing professional speech therapists for their children, she saw an opportunity.

Spokle, an Australia-based health start-up, helps Indonesian children with speech impediments to develop their communication skills through an accessible and affordable phone app. Since 2017, Spokle has supported more than 900 families across Southeast Asia and Australia.

### IT MAKES SENSE FOR SKILLS AND NEEDS-MATCHING TO BE DONE AT A REGIONAL LEVEL.

Being able to leverage Australian know-how to solve the complexities of the Indonesian market has made Spokle a success.

*“There is a huge gap in terms of skill-set that is available in Indonesia.”*

Indonesia is a country with 270 million people but only about 1,000 speech therapists. Most of them are qualified at diploma level and mainly based in the densely populated areas of Jakarta and central Java. For a country with more than 17,000 islands, accessing regular treatment is tough and costly for many families.

In comparison, Australia, with a population one-tenth of Indonesia's, has about eight times more professional speech therapists than its northern neighbour. “Australia is one of the best in the world in speech and hearing science, with quality audiologists, speech pathologists with specialisations in pediatrics”, says Elisabeth.

*“We can use the skills of Australia and transfer it to Indonesia where there are market forces like mobile connectivity.”*

Indonesia is one of the most mobile-first countries in the world, with a mobile penetration rate above 100 per cent.<sup>54</sup> Delivering speech therapy services via a mobile app therefore became the perfect solution for Indonesian families with children who need speech and language therapy.

Australia's quality medical brands and professionals are highly respected in the Southeast Asia region. Elisabeth believes that there is much more that Australian professionals in the medical and science fields can bring to the region.

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**Elisabeth Yunarko** is Co-Founder, Spokle.

## COMPLEMENT EXISTING INITIATIVES WITH REGIONAL NETWORKING OPPORTUNITIES

Networking platforms empower women to make professional connections, generate and exchange ideas and build knowledge and skills. Noorhafizah Hj Rashid, the founder of Womennovation Brunei, observes that socio-cultural norms and gender bias were key barriers to women accessing business networking opportunities.

Digital platforms have played an increasingly important role during the COVID-19 pandemic. The World Economic Forum, for example, has developed a range of online platforms that bring together networks of business, government and civil society to tackle key challenges. These include a *COVID-19 Action Platform* and a *Shaping the Future of the New Economy and Society* platform that seeks to address women's labour force participation and inclusive economic growth.<sup>55</sup>

Regional networking initiatives should complement existing programs available in the region. For example, organisations such as Womennovation Brunei (see case study on [page 12](#)) and Cambodia Women's Entrepreneurship Association are providing networking opportunities for women in start-up and innovation sectors to grow and succeed in their fields.

### Collaboration options to consider:

- **Increase regional networking events for female entrepreneurs.** For example, the *Singapore Women in Leadership Asia Summit* is a multi-day conference designed for professionals, entrepreneurs and emerging leaders to gain information and insights from women in leadership roles across the region, participate in networking opportunities and build entrepreneurship skills.
- **Support online and/or social media platforms that enable female entrepreneurs who have low mobility to network while at home.** For example, the *HerVenture* mobile learning app developed by the Cherie Blair Foundation for Women empowers female entrepreneurs in Vietnam and Indonesia to network online.
- **Design regional initiatives that raise public awareness of gender equality in STEM and innovation sectors.** For example:
  - The Asia Pacific Economic Co-operation (APEC) has invited the private sector, academia and civil society to voluntarily adopt the *Women in STEM Principles and Actions*. This initiative aims to support the advancement of women in STEM fields and to build momentum for individual and institutional change.

- *ASEAN Women Entrepreneurs Network*, is a network for businesswomen across ASEAN member countries to enhance gender equality and empower female entrepreneurs. These examples could be leveraged to address awareness on gender representation in STEM and start-ups.

## ADDRESS ACCESS TO FINANCE TO INCREASE OPPORTUNITIES FOR WOMEN IN ENTREPRENEURSHIP AND START-UPS

A collaborative approach between government, business and civil society is key to ensuring women in entrepreneurship and start-ups can access the finance required for success.

### Collaboration options to consider:

- **Increase regional grants that support female entrepreneurs and start-ups to grow and scale their businesses.** The *Boosting Female Founders Initiative*, run by the Australian Government Department of Industry, Science, Energy and Resources, provides grants between \$25,000 and \$480,000 to support Australian female start-up founders to scale-up and expand into domestic and international markets.
- **Connect female entrepreneurs with investors via regional initiatives.** For example, Europe-based organisations such as *Global Invest Her* and *Impulse4women* support female entrepreneurs with funding via their online and offline venues.
- **Develop female entrepreneurs and start-ups' soft skills (e.g. pitching, business case and financial model preparation) needed for securing investment.** For example:
  - The *InvestHer Academy*, developed by Global Invest Her, provides online training courses and resources for female entrepreneurs.
  - The Singapore-based *CRIB* runs a *Pitch Perfect* program that not only matches female entrepreneurs with investors, but also provides pitch training sessions to help female entrepreneurs optimise their potential.
- **Provide female entrepreneurs and start-ups with access to markets.** The *She Trades Initiative*, launched by the International Trade Centre, helps women-owned businesses across the world increase access to investors through its online and mobile applications.

# A BLUEPRINT FOR COLLABORATION

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Australia and Southeast Asian countries share a common goal of increasing women in innovation leadership. A regional approach will be key to unlocking our 340 million-strong labour force to drive productivity, economic growth, efficiency and innovation.

The COVID-19 pandemic highlights the urgent need to address gender inequality through policy measures that empower women in innovation. But it also poses practical limitations on the kind of collaboration and mobility essential to discussing and addressing those issues. Providing online platforms and mechanisms to overcome these limitations will be critical in ensuring that we, as a region, do not fall behind in supporting women in innovation. It is therefore essential that we have the initiatives in place to drive innovation as economies and borders begin to re-open post COVID-19.

Within this context, this report has identified five key action areas and 18 options for regional collaboration. This blueprint for collaboration is designed to support dialogue between governments, business and civil society in order to promote meaningful and impactful interventions that empower women in innovation leadership (see blueprint on **page 24**).



# EMPOWERING WOMEN INNOVATION LEADERS IN AUSTRALIA AND SOUTHEAST ASIA



## CHALLENGE



## ACTION

### EQUAL REPRESENTATION OF WOMEN IN STEM EDUCATION



#### Work together to institute best-practice programs that provide women with STEM skills

- Plan and implement regional workshops that share lessons and best-practice examples of supporting women in STEM
- Share STEM teaching experience and methods amongst schools and universities across the region
- Encourage regional internship opportunities and professional exchange programs
- Supply equipment and resources needed for education success for female STEM students in developing countries in the region
- Design a regional platform for women in STEM to learn and share knowledge and experiences with leaders across the region

### VISIBILITY OF WOMEN LEADERS IN INNOVATION



#### Promote women's achievements to showcase and build an inclusive innovation space

- Showcase women's achievements in innovation leadership at regional awards
- Profile women in innovation leadership in the media
- Promote databases of women experts and leaders in innovation

#### Provide more role models for women in innovation

- Promote equal gender representation on corporate boards and at conferences
- Encourage equal representation of female teachers in STEM at all levels of education across the region
- Increase mentorship programs that enhance regional information-sharing and exchange

### ACCESS TO BUSINESS NETWORKS



#### Complement existing initiatives with regional networking opportunities

- Increase regional networking events for female entrepreneurs
- Support online platforms that enable female entrepreneurs who have low mobility to network while at home
- Design regional initiatives that raise public awareness on gender equality in innovation

### ACCESS TO FINANCE



#### Address access to finance to increase opportunities for women in entrepreneurship and start-ups

- Increase regional grants that support female entrepreneurs to grow and scale their businesses
- Connect female entrepreneurs with investors via regional events and/or platforms
- Develop female entrepreneurs and start-ups' soft skills needed for pitching to investors
- Provide female entrepreneurs and start-ups with access to markets

# REFERENCES

Note: All figures in this report are in or converted to Australian dollars, unless otherwise stated.

- 1 World Economic Forum, 'COVID-19 is the biggest setback to gender equality in a decade', 2020, 1 (accessed on 19/02/2021), <<https://www.weforum.org/agenda/2020/07/gender-equality-women-employment-covid19/>>.
- 2 Australian Academy of Science, 'Pandemic risks wiping out hard-won gains by women in STEM', 2020 (accessed on 22/02/2021), <<https://www.science.org.au/news-and-events/news-and-media-releases/pandemic-risks-wiping-out-hard-won-gains-women-stem>>.
- 3 Pinho-Gomes A, Peters S, Thompson K, et al, 'Where are the women? Gender inequalities in COVID-19 research authorship', *BMJ Global Health*, 2020, Vol. 5, No. 7, 5 <<https://gh.bmj.com/content/5/7/e002922>>.
- 4 Australian Academy of Science, *The impact of COVID-19 on women in the STEM workforce*, 2020, 2 (accessed on 22/02/2021), <<https://www.science.org.au/sites/default/files/rriif-covid19-women-stem-workforce.pdf>>.
- 5 Biddle N, Edwards B, Gray M, & Sollis K, 'Hardship, distress, and resilience: The initial impacts of COVID-19 in Australia', 2020, ANU Centre for Social Research and Methods <[https://csrcm.cass.anu.edu.au/sites/default/files/docs/2020/5/The\\_initial\\_impacts\\_of\\_COVID-19\\_in\\_Australia\\_2020\\_3.pdf](https://csrcm.cass.anu.edu.au/sites/default/files/docs/2020/5/The_initial_impacts_of_COVID-19_in_Australia_2020_3.pdf)>.
- 6 Almeida M, Shrestha A, Stojanac, D, et al, 'The impact of the COVID-19 pandemic on women's mental health', *Archives of Women's Mental Health* 2020, Vol. 23, No. 6, <<https://link.springer.com/article/10.1007/s00737-020-01092-2>>; see also: United Nations, *Addressing the Impact of the COVID-19 Pandemic on Violence Against Women and Girls*, 2020 (accessed on 19/02/2021), <<https://www.un.org/en/addressing-impact-covid-19-pandemic-violence-against-women-and-girls>>; and: UN Women, *From insights to action: Gender equality in the wake of COVID-19*, 2020 (accessed on 19/02/2021), <<https://data.unwomen.org/publications/insights-action-gender-equality-wake-covid-19>>.
- 7 UN Women, *From insights to action: Gender equality in the wake of COVID-19*, 2020 (accessed on 19/02/2021), <<https://data.unwomen.org/publications/insights-action-gender-equality-wake-covid-19>>; see also: United Nations, *Unlocking the Lockdown: The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Asia Pacific*, 2020, (accessed on 23/02/2021), <[https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking\\_the\\_lockdown\\_UNWomen\\_2020.pdf](https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking_the_lockdown_UNWomen_2020.pdf)>.
- 8 McKinsey Global Institute, 'COVID-19 and gender equality: Countering the regressive effects,' 2020 (accessed on 19/02/2021), <<https://www.mckinsey.com/featured-insights/future-of-work/covid-19-and-gender-equality-countering-the-regressive-effects>>; United Nations, *Lockdown: The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Asia Pacific*, 2020 <[https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking\\_the\\_lockdown\\_UNWomen\\_2020.pdf](https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking_the_lockdown_UNWomen_2020.pdf)>.
- 9 United Nations, *Unlocking the Lockdown The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Asia Pacific*, 2020, 2 (accessed on 23/02/2021), <[https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking\\_the\\_lockdown\\_UNWomen\\_2020.pdf](https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking_the_lockdown_UNWomen_2020.pdf)>.
- 10 World Bank Gender Innovation Lab, 'Facebook Future of Business COVID-19 Survey', 2020 (accessed on 19/02/2021), <[https://we-fi.org/wp-content/uploads/2020/07/WeFi\\_WETalksWebinar\\_SreelakshmiPapineni\\_06292020.pdf](https://we-fi.org/wp-content/uploads/2020/07/WeFi_WETalksWebinar_SreelakshmiPapineni_06292020.pdf)>.

- 11 The World Bank Group, 'Labor Force, Total' for Australia plus ASEAN, 2020 (accessed on 19/02/2021), <<https://data.worldbank.org/indicator/SL.TLF.TOTL.IN>>.
- 12 McKinsey Global Institute, 'The Power of Parity: Advancing Women's Equality in Asia Pacific', 2018 (accessed on 19/02/2021), <<https://www.mckinsey.com/featured-insights/gender-equality/the-power-of-parity-advancing-womens-equality-in-asia-pacific>>.
- 13 Google–Temasek, *e-Conomy SEA 2020*, 2020 (accessed on 19/02/2021), <[https://www.blog.google/documents/47/SEA\\_Internet\\_Economy\\_Report\\_2019.pdf](https://www.blog.google/documents/47/SEA_Internet_Economy_Report_2019.pdf)>.
- 14 Boston Consulting Group, 'BCG's Gender Diversity Research: By the Numbers', 2020, 1 (accessed on 19/02/2021), <<https://www.bcg.com/publications/2018/why-women-owned-startups-are-better-bet>>.
- 15 The Sydney Morning Herald, 'It's the silent minority: Australia's \$135 billion female entrepreneur gap', 2019 (accessed on 22/02/2021), <<https://www.smh.com.au/business/small-business/it-s-the-silent-minority-australia-s-135-billion-female-entrepreneur-gap-20190905-p52ohf.html>>; Boston Consulting Group, 'Want to Boost the Global Economy by \$5 Trillion? Support Women as Entrepreneurs', 2019, (accessed on 19/02/2021), <<https://www.bcg.com/publications/2019/boost-global-economy-5-trillion-dollar-support-women-entrepreneurs>>.
- 16 Doris A and Kacperczyk C, 'Why female entrepreneurs are missing out on funding', London Business School, 2019 (accessed on 19/02/2021), <<https://www.london.edu/think/iie-why-female-entrepreneurs-are-missing-out-on-funding>>; OECD, *Bridging the digital gender divide*, 2018 (accessed on 19/02/2021), <[www.oecd.org/internet/bridging-the-digital-gender-divide.pdf](http://www.oecd.org/internet/bridging-the-digital-gender-divide.pdf)>.
- 17 The Sasakawa Peace Foundation, 'Growing Women's Entrepreneurship through ICT in Southeast Asia', 2018 (accessed on 19/02/2021), <[https://www.spf.org/awif/wp-content/uploads/2018/05/Womens-Entrepreneurship-and-ICT-SE-Asia\\_2017\\_en-2.pdf](https://www.spf.org/awif/wp-content/uploads/2018/05/Womens-Entrepreneurship-and-ICT-SE-Asia_2017_en-2.pdf)>.
- 18 Boston Consulting Group, 'How Diverse Leadership Teams Boost Innovation', 2018 (accessed on 19/02/2021), <<https://www.bcg.com/publications/2018/how-diverse-leadership-teams-boost-innovation>>. Note: Innovation revenue refers to the share of revenue made from new products and services.
- 19 Sasakawa Peace Foundation, 'A Gender-Inclusive Southeast Asia through Entrepreneurship', 2019, 23 (accessed on 19/02/2021), <<https://www.spf.org/global-data/user53/G50report1.pdf>>.
- 20 Ibid, 25.
- 21 McKinsey Global Institute, 'The Power of Parity: Advancing Women's Equality in Asia Pacific', 2018, 1 (accessed on 17/07/2020), <<https://www.mckinsey.com/featured-insights/gender-equality/the-power-of-parity-advancing-womens-equality-in-asia-pacific>>.
- 22 See: United Nations, *Unlocking the Lockdown: The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Asia Pacific*, 2020 (accessed on 23/02/2021), <[https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking\\_the\\_lockdown\\_UNWomen\\_2020.pdf](https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking_the_lockdown_UNWomen_2020.pdf)>.
- 23 World Economic Forum, *Global Gender Gap Report 2020*, 2020, 6 (accessed on 19/02/2021), <[http://www3.weforum.org/docs/WEF\\_GGGR\\_2020.pdf](http://www3.weforum.org/docs/WEF_GGGR_2020.pdf)>.
- 24 Ibid.
- 25 US Chamber of Commerce, 'Special Report on Women-owned Small Businesses During COVID-19', 2020 (accessed on 19/02/2021), <<https://www.uschamber.com/report/special-report-women-owned-small-businesses-during-covid-19>>.
- 26 World Health Organisation, 'Gender equity in the health workforce: Analysis of 104 countries', 2019 (accessed on 19/02/2021), <<https://apps.who.int/iris/bitstream/handle/10665/311314/WHO-HIS-HWF-Gender-WP1-2019.1-eng.pdf?sequence=1&isAllowed=y>>.

- 27 United Nations, *Unlocking the Lockdown The Gendered Effects of COVID-19 on Achieving the SDGs in Asia and the Asia Pacific*, 2020, 11 (accessed on 23/02/2021), <[https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking\\_the\\_lockdown\\_UNWomen\\_2020.pdf](https://data.unwomen.org/sites/default/files/documents/COVID19/Unlocking_the_lockdown_UNWomen_2020.pdf)>.
- 28 Boxall H, Morgan A & Brown R. 'The prevalence of domestic violence among women during the COVID-19 pandemic', 2020, *Statistical Bulletin*, no. 28. Canberra: Australian Institute of Criminology <<https://www.aic.gov.au/publications/sb/sb28>>.
- 29 UN Women, 'COVID-19 and Ending Violence against Women and Girls', 2020 (accessed on 22/02/2021), <<https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/issue-brief-covid-19-and-ending-violence-against-women-and-girls-en.pdf?la=en&vs=5006>>.
- 30 UN Women, *Standing Up to the Challenge: Response to the COVID-19 Pandemic in Asia and The Pacific*, 2020, 8 (accessed on 19/02/2021), <[https://asiapacific.unwomen.org/-/media/field%20office%20eseasia/docs/publications/2021/02/covid19%20response%20report%205%20feb%2021\\_final.pdf?la=en&vs=1225](https://asiapacific.unwomen.org/-/media/field%20office%20eseasia/docs/publications/2021/02/covid19%20response%20report%205%20feb%2021_final.pdf?la=en&vs=1225)>.
- 31 The Asia Foundation, APEC App Challenge program (accessed on 23/02/2021), <<https://asiafoundation.github.io/apecapp/>>.
- 32 OECD, 'Bridging the Digital Gender Divide: Include, upskill, innovate', 2018 (accessed on 20/02/2021), <[www.oecd.org/internet/bridging-the-digital-gender-divide.pdf](http://www.oecd.org/internet/bridging-the-digital-gender-divide.pdf)>.
- 33 World Economic Forum, '10 technology trends to watch in the COVID-19 pandemic', 2020 33 (accessed on 21/02/2021), <<https://www.weforum.org/agenda/2020/04/10-technology-trends-coronavirus-covid19-pandemic-robotics-telehealth/>>.
- 34 Google-Temasek, *e-Conomy SEA 2020*, 2020, 42 (accessed on 20/02/2021), <<https://economysea.withgoogle.com>>.
- 35 Ibid, 56.
- 36 Ibid, 78.
- 37 OECD, *Bridging the Digital Gender Divide: Include, upskill, innovate*, 2018 (accessed on 21/02/2021), <[www.oecd.org/internet/bridging-the-digital-gender-divide.pdf](http://www.oecd.org/internet/bridging-the-digital-gender-divide.pdf)>.
- 38 GSM Association, *Connected Women - The Mobile Gender Gap Report 2020*, 14-20 (accessed on 21/02/2021), <<https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/02/GSMA-The-Mobile-Gender-Gap-Report-2019.pdf>>.
- 39 World Wide Web Foundation, *Women's Rights Online: Closing the digital gender gap for a more equal world*, 2020 (accessed on 21/02/2021), <<http://webfoundation.org/docs/2020/10/Womens-Rights-Online-Report-1.pdf>>.
- 40 OECD, *Bridging the Digital Gender Divide: Include, upskill, innovate*, 2018 (accessed on 21/02/2021), <[www.oecd.org/internet/bridging-the-digital-gender-divide.pdf](http://www.oecd.org/internet/bridging-the-digital-gender-divide.pdf)>.
- 41 The Sasakawa Peace Foundation, *ICT Skills for Girls and Women in Southeast Asia*, 2017 (accessed on 21/02/2021), <<https://www.spf.org/awif/wp-content/uploads/2018/05/ICT-SKILLS-FOR-GIRLS-AND-WOMEN.pdf>>.
- 42 OECD, 'Women at the core of the fight against COVID-19 crisis', 2020 (accessed on 21/02/2021), <<http://www.oecd.org/coronavirus/policy-responses/women-at-the-core-of-the-fight-against-covid-19-crisis-553a8269/>>.
- 43 The World University Rankings, 'Women in science are battling both COVID-19 and the patriarchy', 2020 (accessed on 21/02/2021), <<https://www.timeshighereducation.com/blog/women-science-are-battling-both-covid-19-and-patriarchy#>>.
- 44 United Nations Department of Economic and Social Affairs, 'The World's Women 2020: Trends and Statistics', 2020 (accessed on 21/02/2021), <<https://worlds-women-2020-data-undesahub.arcgis.com/>>.

- 45 The World Bank Group, *The Little Data Book on Gender*: 19, 2019, 44 (accessed on 21/02/2021), <<https://openknowledge.worldbank.org/bitstream/handle/10986/31689/LDB-Gender-2019.pdf?sequence=2&isAllowed=y>>.
- 46 Grant Thornton, *Women in Business 2020: Putting the Blueprint into Action*, 5 (accessed on 21/02/2021), <[https://www.grantthornton.global/globalassets/1.-member-firms/global/insights/women-in-business/2020/women-in-business-2020\\_report.pdf](https://www.grantthornton.global/globalassets/1.-member-firms/global/insights/women-in-business/2020/women-in-business-2020_report.pdf)>.
- 47 Australian Institute of Company Directors, 'Board Diversity Statistics', 2021 (accessed on 21/02/2021), <<https://aicd.companydirectors.com.au/advocacy/board-diversity/statistics>>.
- 48 Ensono, *Speak up: Bring more women's voices to tech conferences*, 2019 (accessed on 21/02/2021), <<https://www.ensono.com/resources/speak-bringing-more-womens-voices-tech-conferences>>.
- 49 Lerchenmueller M, Sorenson O, Jena A, 'Gender differences in how scientists present the importance of their research: observational study', 2019, *British Medical Journal*, Vol. 367, pp. 1-8 (accessed on 22/02/2021), <<https://www.bmj.com/content/367/bmj.l6573.full.pdf>>.
- 50 See also, for example: Government of Australia, *Boosting Female Founders Initiative: Consultation Outcomes*, Department of Industry, Innovation and Science, 2019 (accessed on 21/02/2021), <<https://consult.industry.gov.au/science-commercialisation/bff-design/results/boosting-female-founders-consultation-outcomes-report-2019.pdf>>.
- 51 See, for example: International Labour Organization, *Skills Shortages and Labour Migration in the Field of ICT in India, Indonesia and Thailand*, 2019 (accessed on 21/02/2021), <[https://www.ilo.org/wcmsp5/groups/public/---ed\\_dialogue/---sector/documents/publication/wcms\\_710031.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_710031.pdf)>; See also: United Nations Development Programme, *Human Mobility, Shared Opportunities*, 2020 (accessed on 21/02/2021), <<https://www.undp.org/content/dam/undp/library/km-qap/UNDP-IOM-Human-Mobility-Shared-Opportunities.pdf>>.
- 52 HSBC Private Banking, *She's the Business: Supporting entrepreneurial spirit*, 2019, 13 (accessed on 22/02/2021), <<https://www.privatebanking.hsbc.com/content/dam/privatebanking/gpb/discover/women-and-wealth/allbright/2019/AllBright%20partnership%20-%20September%202019%20-%20Shes%20the%20business%20report.pdf>>.
- 53 UNICEF and ITU, *Towards an equal future: Reimagining girls' education through STEM*, 2020 (accessed on 22/02/2021), <<https://www.unicef.org/media/84046/file/Reimagining-girls-education-through-stem-2020.pdf>>.
- 54 Datareportal, 'Digital 2021: Indonesia', 2021 (accessed on 22/02/2021), <<https://datareportal.com/reports/digital-2021-indonesia>>. Note: The mobile penetration rate reflects that a large number of Indonesians have multiple SIM cards (the number of registered SIM cards is higher than Indonesia's total population).
- 55 World Economic Forum, *Covid Action Platform* (accessed on 22/02/2021), <<https://www.weforum.org/platforms/covid-action-platform>>; World Economic Forum, *Shaping the Future of the New Economy and Society* (accessed on 22/02/2021), <<https://www.weforum.org/platforms/shaping-the-future-of-the-new-economy-and-society>>.





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