

# Future World of Work Bermuda

**Final report**  
**April 2021**



**Learning First**

Collaboratively Designing an Improved  
School System for Bermuda



# A rapidly changing world

## Responding to an age of uncertainty

Countries around the world are waking up to the scale of change their economies, societies and people face. Technological, societal and environmental shifts are having a long lasting impact on how we live and work, raising questions about how best to learn and relearn over a lifetime.

In response, there is a growing focus on understanding the future world of work, to better inform how education and skills systems should respond to this age of uncertainty.

# A rapidly changing Bermuda

## Understanding Bermuda's future world of work

Bermuda's geographic isolation doesn't insulate it from these shifts, which are already shaping the lives of Bermudians. Of particular note, is the impact on how they can contribute to, and shape, their economy now and in the future.

*Future World of Work Bermuda* is a rapid research process that seeks to surface headline insights on this changing world of work and provide a set of provocations for what it might mean for Bermuda's education and skills system, as well as their stakeholders.

# FWOW Bermuda: rapid-research

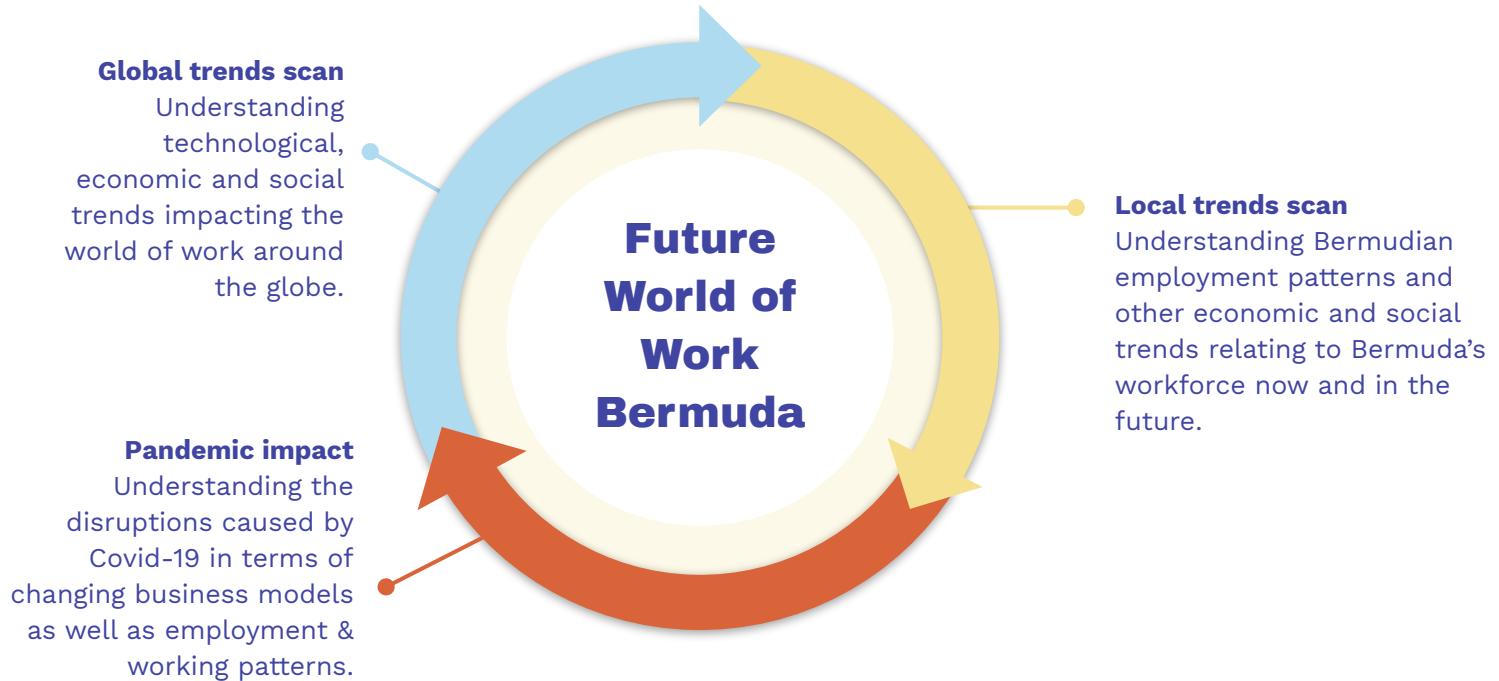
## The intent behind *Future World of Work Bermuda*

This rapid-research aims to spark an ongoing discourse that helps inform education and workforce development decisions on the island going forward.

For Learning First in particular, *Future World of Work Bermuda* will:

1. Inform Design Teams working on Learning First's six core priorities (including pedagogy, curriculum & credentialing/pathway);
2. Inform decisions around the types of Signature schools Bermuda's public school system will offer.

# FWOW Bermuda: overview



# FWOW

## Bermuda: headline insights



### **Insight #3: a truly global workforce**

Growing popularity for remote working, accelerated by the Covid pandemic, is producing a more integrated global workforce than ever before and an emphasis on labour competitiveness & opportunities across borders.



### **Insight #1: the human-machine age**

Technological advancements in robotics and artificial intelligence are automating routine tasks but also creating work that demands greater digital competencies and a fusion of human and machine functioning.



### **Insight #4: a transferable workforce**

The transitions projected across industries in the coming years demand the workforce to be capable of reskilling and retraining throughout their career and even shifting occupations over the course of their lifetime.



### **Insight #2: going beyond knowledge**

Success in today's workforce requires more than foundational and technical knowledge, placing high value on 21st century skills, particularly those unique to humans.



### **Insight #5: a purpose-driven workforce**

In the coming decade, employers will need to weave purpose into every facet of their business as millennials believe that the success of a business should be measured in terms of more than just its financial performance.

# FWOW

## Bermuda: provocations



**Provocation #1:  
technologically fluent Bermudians**  
Bermudians must be equipped to work in collaboration with smart automation and artificial intelligence, as technology's larger impact is expected to complement and augment human capabilities, rather than replace them.



**Provocation #2:  
adaptable Bermudians**  
Bermudians must be capable of combining knowledge, skills attitudes and values to shape, progress and thrive in tomorrow's economy.



**Provocation #3:  
Bermudians as local workers in a  
global workplace**  
Bermudians must be both local and global in their outlook, equipped with entrepreneurial, communication, digital and collaboration skills as well as the cultural competency required to thrive in a hyperconnected and hypermobile global economy.



**Provocation #4:  
Bermudians as lifelong learners**  
Bermudians must be equipped with transferable skills and lifelong learning mindsets ready to embrace change and adapt to new opportunities over the course of their careers.



**Insight #5:  
harnessing Bermudians' passions**  
Bermudians' passions and sense of purpose must be surfaced and understood if they are to achieve personal success but also contribute to the sustainable prosperity of their island and its communities.

Insight #1

# The human-machine age

A man and a woman are working in a control room. The man, in the foreground, is wearing a blue and white checkered shirt and is looking at a computer monitor. The woman, in the background, is wearing a light-colored top and is also looking at a monitor. The room is dimly lit, with the primary light source being the screens. There are several monitors visible, some displaying data and others showing video feeds. The overall atmosphere is professional and focused.





## Insight #1:

# the human-machine age

Technological advancements in robotics and artificial intelligence are automating routine tasks but also creating work that demands greater digital competencies and a fusion of human and machine functioning.

“...in about **60 percent** of occupations, at least **one-third** of the constituent activities could be automated, implying substantial workplace transformations and changes for all workers.”

*Source: 'Jobs Lost, Jobs Gained: workforce transition in a time of automation'; McKinsey Global Institute (2017)*

“As Bermuda emerges from the economic impacts of the Pandemic, **technology will be key** to ensure we as a country build an even more powerful economy of the future.”

*Source: Premier Burt COVID-19 Update Remarks (2020)*

“In the shorter term, sectors such as financial services could be more exposed as **algorithms outperform humans** in an ever wider range of tasks involving pure data analysis.”

*Source: 'Will robots really steal our jobs? An international analysis of the potential long term impact of automation'; PricewaterhouseCoopers (2018)*

“As technological advances increase in pace and breadth of impact, Bermuda’s emphasis on creating and sustaining a workforce pipeline with **higher order skills** will be critical for its economic vitality.”

*Source: Vision for Bermudian Economic Growth, Bermuda Chamber of Commerce (2018)*



## Provocation #1:

# technologically fluent Bermudians

Bermudians must be equipped to work in collaboration with smart automation and artificial intelligence, as technology's larger impact is expected to complement and augment human capabilities, rather than replace them.

## What if...



...**Bermuda's public school system** required graduates to demonstrate competencies in selected, higher order skills in demand on the island?



...**Bermuda's industries** worked with career advisers and educators to design learning opportunities that gave all learners the opportunity to work alongside new technologies in real-world environments?



...**each and every Bermudian** were equipped with digital as well as numerical and literacy fluencies as a core foundation of lifelong learning and success?

Insight #2

# Going beyond knowledge





## Insight #2:

# going beyond knowledge

Success in today's workforce requires more than foundational and technical knowledge, placing high value on 21st century skills, particularly those unique to humans.

“We find a strong emphasis on **interpersonal skills**, higher-order cognitive skills and systems skills in both the US and the UK. Our findings also confirm the importance of higher-order cognitive skills such as **originality, fluency of ideas and active learning**.”

**Source:** *Future of Skills: Employment in 2030*; Pearson & Nesta (2017)

“As **‘human’ skills** such as creativity, originality and initiative, critical thinking, persuasion and negotiation will **retain or increase their value**, as will attention to detail, resilience, flexibility and complex problem-solving. Emotional intelligence, leadership and social influence as well as service orientation also see an outsized increase in demand relative to their current prominence.”

**Source:** *The Future of Jobs Report*; World Economic Forum (2018)

“Hiring on the basis of validated abilities, rather than degrees, is creating **a talent marketplace with skills as its currency**, providing access to a broader range of qualified applicants, and creating a more diverse workforce.”

**Source:** *Get Credentials to Get Ahead, No College Degree Required*, Barrons (2020)

“Having technical ability will be the baseline, [and the] least of our worries... [Workers need the] ability to **pivot quickly, be flexible, fluid, creative**, look at situations from a variety of lenses and be able to foster relationships virtually/remotely without losing sight of company objectives.”

**Source:** *CEO of a Consulting Firm*, Bermuda



## Provocation #2:

# well-rounded Bermudians

Bermudians must be capable of combining knowledge, skills attitudes and values to shape, progress and thrive in tomorrow's economy.

## What if...



...**Bermuda's public school system** issued microcredentials across each student's entire learning journey - some compulsory, some passion-driven - to better equip them to participate successfully in a skills-driven marketplace?



...**Bermuda's industries** validated skills and competencies, contextualised by rich and transparent data, in addition to degrees/certifications?



...**each and every Bermudian** held a digital, self-owned record of achievements that they carry with them throughout their learning and working lives, rather than an all-or-nothing approach in which a learner either earns a diploma or leaves with empty hands?

Insight #3



# A truly global workforce



## Insight #3: a truly global workforce

Growing popularity for remote working, accelerated by the Covid pandemic, is producing a more integrated global workforce than ever before and an emphasis on labour competitiveness & opportunities across borders.

“As **collaborative technology** continues to advance, it will become even easier to connect to work from almost anywhere in the world. Employees will be much **more likely to choose a remote workstyle** over an office set up in the future, whenever possible.”

**Source:** Entrepreneur Next powered by Assemble

“Bermuda is well-positioned for future growth with **a globally significant presence** and an attractive environment for international business and tourists. However, the relative growth of these primary economic drivers has stagnated in the past 10 years while **Island employment declines** have exceeded the pace of productivity declines.”

**Source:** Vision for Bermudian Economic Growth, Bermuda Chamber of Commerce (2018)

“We must put in place a revived, recalibrated, and repurposed education system having a foundation that can bear the tests of time for future generations. That is,...all students no matter how they learn, they are educated to lead personally and professionally, **compete locally and contribute globally.**”

**Source:** Ministerial Statement - Hon. Diallo V.S. Rabain JP MP (Dec 20)

“We have to consider how to separate the need to grow income streams while positioning our students to take some of those jobs i.e. develop **remote learning and business skill sets.**”

**Source:** Ministerial Statement - Hon. Jason Hayward JP MP (July 17)



## Provocation #3:

# Bermudians as local workers in a global workforce

Bermudians need to be both local and global in their outlook, equipped with entrepreneurial, communication, digital and collaboration skills as well as the cultural competency required to thrive in a hyperconnected and hypermobile global economy.

## What if...



...**Bermuda's public school system** delivered a curriculum designed to be grounded in the island's historical culture while also relevant and recognised internationally?



...**Bermuda's industries** provided 'externships' for teachers in Bermuda's public school system, providing them the opportunity to better understand how to design learning experiences that are authentic and relevant to the local and global economy?



...**each and every Bermudian** benefited from career pathways that connected both local and global learning opportunities to meaningful and fulfilling work?



# A truly transferable workforce



## Insight #4:

# a truly transferable workforce

The transitions projected across industries in the coming years demand the workforce to be capable of reskilling and retraining throughout their career and even shift occupations over the course of their lifetime.

“By 2022 the skills required to perform most jobs will have shifted significantly...our respondents expect average skills stability—the proportion of core skills required to perform a job that will remain the same—to be about 58%, meaning an **average shift of 42% in required workforce skills** over the 2018–2022 period.”

*Source: 'The Future of Jobs Report', World Economic Forum (2018)*

“Individuals need to be more **entrepreneurial**, taking responsibility for their **lifelong learning** and seeking to generate their own intellectual property and start new businesses. Much of the automation of the future may be driven by these new businesses replacing or challenging established companies that find it harder to change.”

*Source: 'The Future of Jobs Report', World Economic Forum (2018)*

“Students exiting the BPSS in the 21st Century with **Automation, Enterprise, and Innovation skills** sets will be equipped to transfer them across multiple industries.”

*Source: National Workforce Development Plan / Plan 2022*

“If we are to remain relevant in a technology-fueled global economy, adaptability and agility is going to be a premium skillset. The skillsets going forward are going to be about how well can you deal with ambiguity, how well can you deal with change. Teaching a **mindset that embraces change** will go a long way to ensuring our workforce of the future not only keeps pace, but is able to adapt rapidly.”

*Source: Patrick Tannock, Chair, Association of Bermuda International Companies, and AXA XL Partner, CEO, Insurance Operations, XL Bermuda Ltd.*



## Provocation #4:

# Bermudians as adaptive, lifelong learners

Bermudians need to be equipped with transferable skills and lifelong learning mindsets ready to embrace change and adapt to new opportunities over the course of their careers.

## What if...



...**Bermuda's public school system** deployed pedagogical approaches that helped students learn how to learn, equipping them with the mindsets and skills to be self-directed, lifelong learners?



...**Bermuda's industries** invested time and resource to the development of a 'best-in-class' reskilling and retraining system that served generations young and old?



...**each and every Bermudian** had a love of learning that drove their willingness to seek out new opportunities for reskilling and retraining?

# A purpose-driven workforce



## Insight #5:

# a purpose-driven workforce

In the coming decade, employees will need to weave purpose into every facet of their business as millennials believe that the success of a business should be measured in terms of more than just its financial performance.

“Deloitte asked nearly 10,000 CEOs what they considered the most important measure of success, the top answer was **“impact on society”**. At 34%, it received double the votes of more traditional markers, such as customer satisfaction (18%), employee satisfaction and retention (17%), and financial performance (17%).”

*Source: Global Human Capital Trends report, Deloitte (2019)*

“Students in the 21st Century will recognize the importance of not just being productive, but also wanting to make **a meaningful contribution through their work**. We knew racial injustice was something we needed to talk about because we’re not going to accept it.”

*Source: Hans Vestberg, Chairman & CEO, Verizon Communications*

“Climate Change is reflected in the recent increase in the frequency and ferocity of hurricanes and storms, which reminds us that we must maintain a state of preparedness...The ongoing erosion of our coral reef is another factor that we need to heed. **Bermuda has the talents** of BIOS and weather experts at several of the Class 4 Re-insurers at our disposal.”

*Source: Future State Report, Bermuda First (2019)*

“We help our **employees connect with their values and purpose**; empowering them to grow, perform, and bring their authentic selves to work everyday.”

*BACARDI International (2020)*



## Provocation #5:

# Harnessing Bermudian passions

Bermudians' passions and sense of purpose must be surfaced and understood if they are to achieve personal success but also contribute to the sustainable prosperity of their island and its communities.

## What if...



...**Bermuda's public school system** delivered a real-world curriculum aligned to the economic, societal and environmental issues the island faces now and in the future?



...**Bermuda's industries** worked with the public school system to develop real-world, purpose-driven, socially conscious projects for students to learn from and contribute to throughout their school years?



...**each and every Bermudian** could pursue a career and life trajectory that revolved around what they were passionate about?

# Pandemic Impact: a snapshot

## Perspectives from industries

We know the Covid-19 pandemic - alongside more fundamental disruptions - is having a short term impact on Bermuda's economy and broader world of work, but what's temporary and what's permanent? *FWOW Bermuda spoke to* industry leaders from across the economy to gather a range of perspectives on the Pandemic and broader trends shaping Bermuda. They included:

- **Michael Branco**, Chief Executive Officer, Fireminds (digital transformation and cloud software solutions);
- **Michael Neff**, Managing Director of Bermuda and International Wealth, Butterfield Group;
- **Andy Burrows**, Chief Executive Officer, Bermuda Business Development Agency;
- **Dr. Duranda Greene**, President, Bermuda College;
- **Patrick Tannock**, Chairman, Association of Bermuda International Companies, and AXA XL Partner, CEO, Insurance, XL Bermuda Ltd;
- **Erica Smith**, Executive Director and her team at the Bermuda Economic Development Corporation.

While not making any predictions, leaders shared observations and insights to help inform our sense of what we might expect going forward.



## Pandemic impact: Industry perspectives

Insights point towards adapted business models across key sectors such as Hospitality, with an increased reliance on technology across the board. New patterns of work were noted, including flexible employment as well as the more predictable remote working/virtual business solutions. There were three recurring themes that seem particularly prevalent to the post-pandemic workplace and the future world of work in Bermuda:

The pandemic has reiterated the need for an **adaptive & agile** workforce that is comfortable with rapid change.

*“Nimbleness and agility have become very important to the workplace. What Covid’s taught us is that on any given day anything can happen”.*

Michael Neff,  
Director of Bermuda and  
International Wealth,  
Butterfield Group.

The pandemic has accelerated technological change and placed greater emphasis on **the combination of high-order skills and ‘human’ skills**.

*“Highly skilled people are going to be what we need, but at the same time we’ve also got to make sure we focus on the value of soft skill sets that can’t be replicated by technology and are going to become even more critical.”*

Patrick Tannock,  
Chair, Association of Bermuda  
International Companies, and AXA XL  
Partner, CEO, Insurance Operations, XL  
Bermuda Ltd.

The disruptions caused by the pandemic emphasise the **value of lifelong learning** and being equipped to relearn and learn anew in response to change.

*“I think it’s important that young people understand the importance of lifelong learning. With this past year, we’ve seen so much open up to us as professionals. There’s no excuse for us not to continuously grow, and that’s what employers are going to be looking for ”.*

Dr. Duranda Greene,  
President, Bermuda College.



# Future employment opportunities for Bermuda

Despite the Covid-19 Pandemic and in the face of economic, social and technological trends, both existing and emerging sectors offer Bermudians promising employment opportunities for the future.

## Building Construction & Maintenance

There will be a continuing need to maintain, redevelop and refurbish the buildings and physical infrastructure on the island.

‘The growth in the level of GDP in real terms of 0.5% was mainly driven by increases of \$53.0 million in the output of the construction and quarrying sector.’

National Economic Report of Bermuda 2020, The Ministry of Finance.

## Financial and Insurance Services

Insurance, reinsurance and financial services continue to be thriving and important sectors of the economy in Bermuda.

‘The Government’s desire is to strengthen the local economy through targeted investment strategies diversification. This will be accomplished not only through enhancing existing industries but also by continuing to develop new sectors such as FinTech.’

National Economic Report of Bermuda, 2020, Ministry of Finance.

## Hospitality & Tourism

Hospitality and tourism is, and will continue to be, a major and key sector of the Bermuda economy.

‘Direct Tourism Jobs have increased steadily since 2015, accounting for 9.5% of filled jobs in the labour market in 2019.’

Tourism Satellite Account Reports, Department of Statistics.

## Education Services

All forecasts point to the continuing need, indeed increasing importance of education and learning – not just at school age but throughout life, ‘from cradle to grave’.

“About 50% of our middle school and high school teachers are guest workers, but the Signature school concept gives Bermudians in other industries the opportunity to transfer over and use their skills in an education and training environment.”

Dr Duranda Greene, President, Bermuda College.

## STEAM: Science, Technology, Engineering, Agriculture & Math

STEAM is forecast to be one of the biggest growth sectors of the global economy, and STEAM skills will underpin many, and, to a considerable extent, all future employment.

‘The positive movement in GDP of 3.9% at current market prices was largely driven by a 6.4% increase in the output of the international business sector, growth of 17.0% in the professional, scientific and technical sector..’

National Economic Report of Bermuda 2020, The Ministry of Finance.

## Climate, Environment & Resources

Over the coming decades, there will continue to be global stresses on the climate, environment and resources. Scientists and forecasters see island nations as particularly susceptible.

“Bermuda’s first Integrated Resource Plan (IRP) will ensure 85% of Bermuda’s electricity comes from renewable sources by 2035, creating new opportunity for training, jobs and investment.”

Regulatory Authority of Bermuda.

## Health & Social Care

There will be a continuing need for high quality health and social services, and less reliance on overseas recruitment.

‘Education, Health & Social Work sectors combined to add 108 jobs in the labour market in 2019, and have consistently contributed 11% of all filled jobs in the last 4 years.’

Employment Brief 2020, Department of Statistics

# Preparing for and shaping Bermuda's future

## Bermuda's Public School System

Learning First offers an opportunity to (re)orientate education on the island - from pedagogy to curriculum to credentialing/pathways - towards the world of work young Bermudians will likely inhabit. In particular, the introduction of Signature Schools can help students better navigate their progression towards it.

Signatures must respond to the trends shaping Bermuda's economy, aligning to industries that show growth potential rather than ongoing disruption and decline, such as: Financial and Insurance Services; Construction & Maintenance; Hospitality & Tourism; Education Services; Health & Social Care; Climate, Environment & Resources; and Science, Technology, Engineering, Agriculture & Maths (STEAM), as outlined above. But as this research has shown, they will also need to reflect 'Competency Clusters' - high value knowledge, skills, attitudes and values that are most transferable in a dynamic and shifting global economy; digital fluencies, 'human' skills, Enterprise and Innovation skills. For inspiration, see the New Work Order in the appendices.

## Bermuda's Workforce Development

Workforce development goes beyond Bermudian schools and the young. As this research has shown, lifelong learning grows ever more crucial to the success of an economy. Colleges, universities, training organisations, unions and industries themselves all have crucial roles to play as part of Bermuda's workforce development ecosystem.

Just with the public school system, the ecosystem's contribution needs to adapt to the future world of work. Closer collaboration between learning providers and industry leaders can help educators become more aware of current and future workforce demands and contextualise their curriculums accordingly. It can also enable high quality, accessible exposure to real-world learning opportunities. But perhaps the most potential lies in the ability to design multiple career pathways that are accessible to all Bermudians throughout their lives. For inspiration, see SkillsFuture in the appendices.

# Appendices

## References

*'Jobs Lost, Jobs Gained: workforce transition in a time of automation', McKinsey Global Institute (2017)*

*'Will robots really steal our jobs? An international analysis of the potential long term impact of automation', PricewaterhouseCoopers (2018)*

*'Future of Skills: Employment in 2030', Pearson & Nesta (2017)*

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*Ministerial Statement - Hon. Jason Hayward JP MP (July 17)*

*National Workforce Development Plan / Plan 2022*

*Future State Report, Bermuda First (2019)*

*BACARDI International (2020)*

*Ministerial Statement - Hon. Diallo V.S. Rabain JP MP (Dec 20)*

## Inspiration #1

# Foundation for Young Australians: New Work Order



### What is the New Work Order?

The New Work Order - groundbreaking research from the Foundation of Young Australians - shows that more issues are ahead for young people as the most significant disruption in the world of work since the industrial revolution begins to have an impact in the next decade.

It calls for a new national enterprise skills strategy for Australia, in response to the economic changes transforming work through automation, globalisation and more flexible work. Enterprising skills are transferable across different jobs and are a more powerful predictor of long-term job success and performance than technical knowledge. They include communication, project management, financial literacy, digital literacy, the ability to critically assess and analyse information, and be creative and innovate.

THREE GLOBAL FORCES, AUTOMATION, GLOBALISATION AND COLLABORATION, ARE REVOLUTIONISING THE WAY WE WORK

#### AUTOMATION:

40%

of Australian jobs are at high risk of automation in the next 10-15 years

#### SMILEY GAINED IN THE PAST 25 YEARS:



700,000  
professionals



400,000  
health & security  
workers

#### SADFACE LOST IN THE PAST 25 YEARS:



500,000  
secretaries



400,000  
labourers



250,000  
tradies



100,000  
machinery workers

#### SADFACE LOST IN THE PAST 25 YEARS:



33%+  
manufacturing exports  
down in past 20 years

#### GLOBALISATION:

11%

of our service jobs could be provided remotely from abroad

#### SMILEY GAINED IN THE PAST 25 YEARS:



SERVICES FROM  
ABROAD  
finance, IT, technical  
& professional



#### COLLABORATION:

30%

of Australians workers are already participating in flexible working arrangements, involving multiple jobs / employers

## Inspiration #2

# Singaporean Future Economy Council: SkillsFuture

### What is SkillsFuture?

SkillsFuture is a national movement to provide Singaporeans with the opportunities to develop their fullest potential throughout life, regardless of their starting points. Through this movement, the skills, passion and contributions of every individual will drive Singapore's next phase of development towards an advanced economy and inclusive society.

SkillsFuture provides a variety of resources to Singaporeans people attain mastery of skills. Skills mastery is more than having the right paper qualifications and being good at what employees do currently; it is a mindset of continually striving towards greater excellence through knowledge, application and experience. With the help of the Future Economy Council, education and training providers, employers, unions – Singaporeans can pursue a better future with skills mastery and lifelong learning.



# Research team

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