



**Australian Government**

**Department of Foreign Affairs and Trade**



**IMPACT AND LESSONS LEARNED**

**2019**

## MESSAGE FROM THE CHIEF SCIENTIST & CHIEF INNOVATION OFFICER

At a time of rapid geopolitical change and the accelerating impact of emerging science and technology on all areas of DFAT's activities, innovation and science remain central to delivering on our Foreign Policy White Paper and Sustainable Development Goals.

DFAT is actively engaging with this emerging sector, experimenting with new technologies, new partners and entrepreneurial approaches to intractable development challenges. As DFAT's inaugural Chief Innovation Officer and Chief Scientist, I have led the reorientation of the innovationXchange (iXc) to support capability building and experimentation across all of our work, including foreign policy, trade and corporate areas.

Our experience has produced great results, success stories, failures and lessons learned. We are not alone – donors around the world are investing resources into this activity, and we are grateful for their shared experience and partnership on key projects. Our partnerships with influential organisations such as [Google](#), [Atlassian](#) and the [Massachusetts Institute of Technology](#) have helped us leverage additional funding and world leading technical expertise for our projects. Governments in the Indo-Pacific are taking up our ideas, and they're asking for our help. This report outlines a few of our results along the journey to becoming an agile, strategic and innovative organisation. We've brought in new ideas and new partners, embedded innovative culture and practices, attracted investment and scaled ideas for greater impact.

We also share some of our success stories – it is early days for many of our projects and yet there are many causes for celebration. We have proven that the Impact First investment model can work; one of our major partners, [Global Innovation Fund \(GIF\)](#) predicts its investments will impact 83 million people by 2028. We have demonstrated that corporate engagement can work; our shared value project with [Carnival Australia](#) is predicted to inject AUD\$1.2 million into the Vanuatu economy each year by empowering local entrepreneurs to improve their service offer for cruise ship tourists.

We have also proven that behaviour change can be fun; our [Pacific Island Food Revolution \(PIFR\)](#) reality TV cooking competition – a joint initiative of the Australian and New Zealand Governments – will be aired across the Pacific, Australia and New Zealand soon. PIFR seeks to improve health and nutrition in Pacific populations to reduce the impact of lifestyles diseases such as diabetes and heart disease. We have also produced [Frontiers](#), a documentary series that follows the stories of three social entrepreneurs in the Indo-Pacific, which will be aired on a number of channels across the region this year. We have sought to address gender inequality through entrepreneurship; the Investing in Women program is working with four impact investment funds who are making investments in women owned and women led businesses across Indonesia, Vietnam and Philippines.

Finally, we have learnt a lot through our experiments – we have conducted several evaluations of our overall work as well as for individual projects and much of this has been shared publicly already. In this document we highlight the main lessons learnt but you can find out more on [our website](#).

I hope you will enjoy the examples highlighted in this report and that they inspire you to actively engage in the increasingly important world of innovation and science.



**Dr. Sarah Pearson**  
DFAT Chief Scientist & Chief Innovation Officer

## RESULTS



### SEEKING NEW IDEAS FROM OUTSIDE DFAT

Led new practice in DFAT by running **11 global competitions** seeking novel solutions to intractable aid challenges (such as how to equip disadvantaged youth for the future of work). These challenges accessed nearly **3,000 external solutions** from start-ups, corporates, NGOs and universities that addressed 15 Sustainable Development Goals in the Indo-Pacific region, especially SDG3: Good Health and Wellbeing.

*"The **Frontier Innovators** program has been instrumental in providing finance and training programs along with connecting us with a pool of diverse resources. This award has definitely boosted our confidence and inspiration to realise our vision of scaling solar irrigation systems and its impact in rural Nepal."*

- Sudeep Bir Tuladhar, Gham Power, Nepal



Sudeep Bir Tuladhar



### COLLABORATING WITH NEW PARTNERS

Brokered partnerships for DFAT with nearly **30 organisations** not traditionally involved in delivering Australia's aid program. These partners have brought new knowledge, culture, skills, science, technology and financial reach to our shared work. New partners include Google, Atlassian Foundation, GSMA and XPRIZE.

*"I hope they felt they were able to start halfway down the track by standing on our shoulders and learning from our mistakes."*

- A private sector partner of the innovationXchange



### STRENGTHENING INNOVATION IN THE AID PROGRAM

Facilitated greater uptake of innovation across the aid program. AQC results from 2017-18 show more than **80% of programs** over \$3 million report using innovation.



*"We were looking for innovative solutions, so we reached out to the iXc."*

- DFAT staff member

## RESULTS

### ENCOURAGING INNOVATION CULTURE AND CAPABILITY IN DFAT

Championed and backed all DFAT staff to use innovation through internal ideas challenges, held senior executive 'OpenUp!' forums, partnered with Executive Branch to bridge the gap between innovation and risk management, and brought leadership and fresh thinking to taskforces, policy and program discussions

*"I think the presence of the iXc, commitment to doing things differently, finding ways to do things more efficiently and to maximise the impact that we have is worthwhile – and it is seeping across the Department."*  
 - DFAT staff member



Dr Sarah Pearson delivers a presentation on preparing for the future of work.

### PATHWAYS TO SCALE

Assisted **96 innovative projects** with access to skills, finance, networks and mentorship, to accelerate their progress. In 2017-18, we helped **25 projects** take a substantial step towards working at **scale**.

*"Obviously we've received all-important funding to help us get off the ground and grow but more than that, iXc has provided all kinds of equally-important support. We've had networking opportunities both within DFAT and externally, with regional donors, funders and partner countries. Literally every time we're in Canberra, they arrange for us to meet people who give us advice or point us in new directions. iXc help us to navigate the complex web of relationships in the aid sector, provide references for us when bidding for other work, send us relevant grant opportunities from all over the world and at the most fundamental level, the endorsement they provide gives us credibility whenever we enter a room. Two years ago, iXc could see what we were trying to do - they've helped us improve and refine the concept a lot with technical support but they've also placed their faith in us and we couldn't even measure how important that has been."*  
 - Michael Nunan, Tupaia Project Lead



Michael Nunan

### ATTRACTING NEW INVESTMENT

Attracted investment to our region, including the Global Innovation Fund (GIF) directing **55 per cent** of its investments to the Indo-Pacific. These early stage investments have gone on to leverage USD150 million from other funding sources to help the innovations scale.



Mark Reading

*"The Atlassian Foundation has a goal of helping to educate 10 million disadvantaged youth within 10 years. We realised early on that one of the most effective ways of achieving this was in partnership with other organisations like DFAT and MIT. After a successful initial stage of funding, we were very happy with the partnership and the early results we were seeing. As a result, we have committed to investing an additional US\$1.3 million along with DFAT to support disadvantaged youth in the Indo-Pacific and globally."*  
 - Mark Reading, Head of the Atlassian Foundation

## SUCCESS STORIES

### GAME-CHANGING TECH PLATFORMS

'Tupaia' is an internet platform that aggregates, analyses and visualises health data, currently used in six Pacific countries. This transparent information helps health managers get vital medicines and equipment to those most in need. For example, since July 2017 when data from the Solomon Islands was first presented on the Tupaia platform, the availability of medicines has increased by nearly 20% - from 69% to 88% in April 2019. Tupaia recently won an APS award for innovation, with the judges stating that it was a 'game-changer' in development.



**Top left and right:** Pharmacists in the Pacific receive training on the Tupaia app. **Middle:** An example of the Tupaia dashboard display. **Bottom:** Chef Robert Oliver (3rd from left) with the Pacific Island Food Revolution co-hosts.

### WORKING WITH INFLUENCERS

The Pacific has nine of the world's top ten most obese countries, and faces major health issues such as diabetes and heart disease. Our LAUNCH Food global challenge asked innovators to develop solutions that could transform nutrition.

One winner, the Pacific Island Food Revolution (PIFR), led by dynamic celebrity chef, Rob Oliver, is transforming efforts to address nutrition by producing a reality TV show where local Pacific Islanders compete using local foods and recipes. Government of New Zealand is co-funding this program, which has the potential to create a social movement, promoting widespread changes in eating habits across the Pacific.

# SUCCESS STORIES



## GREAT IDEAS CAN COME FROM ANYWHERE

In 2015, DFAT's first ideas challenge used a web-based collaboration platform to collect creative ideas from staff across DFAT for how we could achieve more impact.

The challenge inspired staff, and over **340 ideas** flowed in – the top ten coming from staff at all levels, from graduates through to the SES. Four years on, nearly **100 ideas** have been implemented, modernising and triggering real productivity savings in DFAT, and improving the lives of women and men, across our region. One example is the ReDESIGN program. It used design thinking to transform the way DFAT works between headquarters and posts, simplifying, modernising and bringing new approaches to our management systems, tools and structures.



Students of the Baan Dek Foundation's Digital Superheroes Academy learn about life skills such as child rights in Chiang Mai, Thailand.

## INCLUSIVE INNOVATION

The Fourth Industrial Revolution is upon us, but what does the future look like in our region, and what can we do to ensure technological change does not widen existing inequalities?

DFAT is proactively addressing this question in three ways. One partner company, Faethm, has applied a ground-breaking algorithm to anticipate how technology will affect the location and nature of jobs in India and Vietnam. Also in Vietnam, we are supporting Australia's CSIRO to partner with the Vietnamese Government to build a stronger national innovation system more responsive to the changes ahead. With MIT Solve and the Atlassian Foundation, we are backing six new ways to prepare the most disadvantaged youth in our region for the workforce of the future.

## LEVERAGING GREAT SCIENCE AND INVESTMENT

The World Mosquito Program (WMP) seeks to eradicate mosquito-borne diseases (dengue, Zika and chikungunya) by using naturally occurring Wolbachia bacteria - an innovative approach that blocks transfer of the viruses to humans.

DFAT has supported operational trials of the approach in Fiji, Vanuatu, Kiribati and Sri Lanka. Given the potential of this technology, the Bill and Melinda Gates Foundation and the Wellcome Trust invested a further USD50 million to expand the program.



Susan Ryle, Australia's Deputy High Commissioner to Vanuatu releases adult mosquitoes infected with the Wolbachia bacteria, alongside Vanuatu's Minister of Health, Jack Norris Kalmet.



## AWARD-WINNING PRIVATE SECTOR DEVELOPMENT

In 2018, the shared-value partnership between Carnival Australia, The Difference Incubator and the iXc won the *Shared Value Project's* Shared Value Award, for accelerating more than 10 tourism businesses in Vanuatu, creating jobs and investment. It is estimated that this program will help generate **more than \$1.2 million** in income annually in Vanuatu.

Our major private sector development project is Scaling Frontier Innovation, which is building the capability of entities that support entrepreneurs by connecting them to global best practice, and bridging networks between investors and investees. The program has invested in **14 social enterprises**, 3 of which originated in the Pacific.



Sehat Kahani is one of 14 social enterprises being supported under the Scaling Frontier Innovation program, and is also part of the GSMA Ecosystem Accelerator. The business connects female doctors (who are out of the workforce) to underserved patients in low and middle-income markets through videoconferencing consultations.



Cathy Wariapa took her weaving business in Papua New Guinea from local markets to international trade shows through REAL Impact, a Pacific RISE supported program.

## INNOVATION DELIVERING FOR WOMEN

Investing in Women is improving women's economic participation, building markets for women and influencing the private and public sector environment to promote women's economic empowerment in the Philippines, Vietnam, Myanmar and Indonesia.

In less than our years Investing in Women has invested \$4.4 million in its target markets of Indonesia, Philippines and Vietnam. This is more than half of the total investment in small to medium enterprises from 2007-17.

This program has demonstrated the power and potential of Gender Lens Investing, an approach also central to the PacificRISE program, that is preparing business for social impact investments and building investor confidence and deal flow that delivers outcomes for women.

## HELPING AUSTRALIANS ENGAGE WITH THE WORLD

To help Australian businesses confidently understand and benefit from our new Free Trade Agreements (FTA), DFAT designed and developed an award winning internet based information portal, collaboratively with Data61, the CSIRO's data innovation group. Similarly, technological excellence underpinned the updating of Australia's passport application and issuance systems, making it easier for the more than 2 million Australians who apply for a passport every year to travel overseas.



# LESSONS LEARNED AND INSIGHTS

To help DFAT maximise the opportunities open to Australia – to transform our economy through global connectivity, help others transform their economies and base our policies on collaboration, with innovation and science, we have learned it will be important to do the following.

## LEADERSHIP



### SET AN INCLUSIVE VISION AND RESOURCE ITS ACHIEVEMENT

The vision in DFAT's Innovation Strategy 2018-21 is for:

*'DFAT to be known as an exemplar in foreign affairs, trade and development impact and influence through embedded innovation practices.'*

The strategy sees the iXc's focus expand from supporting innovation in aid, to fostering change across the Department.

### CLARIFY EXPECTATIONS WITH A DEFINITION

A definition of innovation provides clarity for staff about expectations - DFAT's definition is the application of a new approach that creates a positive impact that is significantly greater than can be realised through current practice.

### SPACE FOR ASKING QUESTIONS

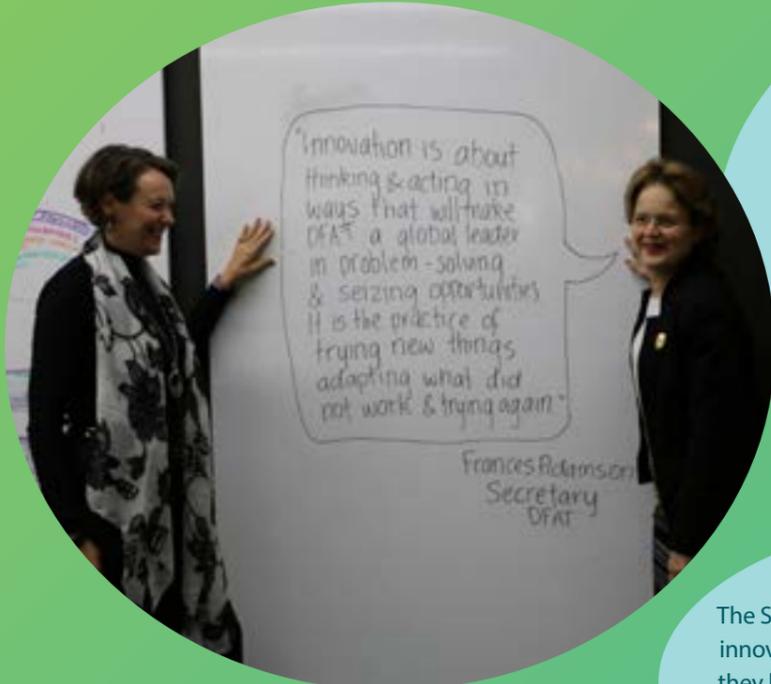
iXc plays a valuable role by creating a space where staff from across the department, the public sector and external organisations can come together to ask questions and identify opportunities.

### DEMYSTIFYING THE WORD 'INNOVATION'

Innovation includes improvements to products, technologies, distribution methods, work practices, structures, financing models, program design; anything that achieves greater impact at lower cost than current approaches. Innovation is attainable by all - it does not need sophisticated digital skills and does not have to be radical or groundbreaking. It can include building upon and improving solutions that already exist - and introducing ideas successful elsewhere, adapted for context and practice.

### NORMALISE FAILURE

The Secretary has clearly stated she expects staff to innovate and will back them to do so. This means if they have experimented after carefully considering all risks, and there is an unintended outcome, the organisation will take responsibility and learn. The individual will not be disadvantaged.



DFAT Secretary Frances Adamson (right) with Chief Scientist and Chief Innovation Officer Dr. Sarah Pearson.



# CULTURE AND CAPABILITY



### EMPOWER, MENTOR AND TRAIN STAFF

Backing, mentoring and empowering staff to innovate within DFAT is key. Moving away from a compliance culture, by understanding and addressing our risk culture and management practices to enable more experimentation is necessary. For scale DFAT needs to empower and skill our staff to work differently, for example on how to work with private sector finance, science and technology and new, more agile and adaptive ways to design and evaluate programs. Multidisciplinary teams are good for innovation.

### CULTURE IS CRUCIAL

Senior management support emboldens change. The Secretary launched DFAT's innovation strategy in July 2018 to scale innovation across all DFAT activity, and in October created the role of DFAT Chief Scientist in order to complement our engagement with innovation, with connectivity to the science base.

### INNOVATIONXCHANGE IS A CRITICAL CONNECTOR

The iXc is a critical connector between strategy and delivery across DFAT. iXc is most valuable when it is connecting staff to leadership, ideas, fellow change-makers, internal and external partners with expertise, and acting as a champion for ideas ready for wider adoption.



### FRICTIONLESS REPLICATION

Sharing from the few staff engaged in testing an innovation to the many who might use it needs to be frictionless. iXc should model innovative work practices that DFAT staff know can be replicated in the Department without special measures or facilities. Every small change is important.

### COMMUNICATION AND SHARING

iXc can achieve more by sharing our learning and expertise to provoke new thinking and inspire others to take action. Stories show the impact of our work on the aid program. They demonstrate how we are injecting new partners, approaches, methods, and funding to help find new approaches that can fill the gap between the current global trajectory and achievement of the SDGs.



Frontier Incubators from across the Indo-Pacific collaborating at the introductory workshop in Singapore.

# SCALING



A local woman views the Wolbachia bacteria through a microscope in Kiribati as part of the World Mosquito Program trial.

**FOCUS ON SCALE FOR IMPACT**  
Scaling innovation delivers more impact and is key to proving our value. Scaling is about expanding, adapting, and sustaining successful pilot approaches, projects, programs, or policies over time for greater development impact. New approaches are more likely to be scalable if preparations for scale begin at an early stage.

**PARTNERING WITH EXTERNAL EXPERTISE**  
External expertise enables projects to deliver extraordinary outcomes by leveraging skills, knowledge and networks. Partners value DFAT's thought leadership and global networks.

**PARTNERSHIPS ACROSS DFAT**  
Working on significant projects in partnership with other DFAT divisions and posts is key to building capability to innovate and deliver sustainable and scalable outcomes.

**EMPOWERING ENTREPRENEURS THROUGH INNOVATION ECOSYSTEMS**  
Empowering individual entrepreneurs to build solutions leverages passion, energy and resources. Systems impact can come when we grow the support infrastructure – the innovation infrastructure and ecosystem that empowers multiple entrepreneurs.

**FOCUS ON NOVELTY FOR EFFECTIVENESS**  
Early stage innovation is about generating, piloting, rigorously testing and refining new approaches to assess what works and has the potential to be used at greater scale. Effective innovations need to demonstrate they are better than any existing solutions that address the same problem.

**RISK MITIGATION**  
Risk mitigation can be achieved through experimenting at small scale before making larger investments. iXc has taken on newer risks linked to experimentation with science and technology where existing practice has made this harder elsewhere. iXc trials and tests new partnerships and approaches so that DFAT can leverage off those that prove effective.



Health staff receive training on the Tupaia platform in Kiribati. DFAT is supporting this initiative to scale across the Pacific.

# EVALUATION AND LEARNING



**FINDING IDEAS THROUGH CHALLENGES**  
Challenge questions that solicit a broad range of ideas, build knowledge about innovations and identify opportunities for follow-up action. Challenges with more narrowly framed questions build cohorts that can support each other through acceleration and build momentum for broader collective change.

**WHOLE OF GOVERNMENT**  
Working across the portfolio and with other departments will increase our influence and provide an opportunity to contribute new ideas and talent to achieve Australia's objectives.



Public sector agencies promote their innovative activities at the 2018 Public Sector Innovation Showcase.

**RISK MITIGATION**  
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**BALANCED PORTFOLIOS**  
The best innovation portfolios include a balance of programs that are both improving current practice and scoping the future to inform the organisation's preparedness for and response to new science, technology and innovation.



Frontier Incubators from across the Indo-Pacific collaborating at the introductory workshop in Singapore.

**AGILE MONITORING AND EVALUATION**  
Innovation requires us to rethink traditional approaches to after-the-event evaluation. DFAT needs and is trialling new methods for adaptive learning and evaluation that provide lessons and allow staff to improve their practice as they deliver an outcome.

**INNOVATION NETWORKS ARE IMPORTANT**  
Innovation networks, inside DFAT, across the public sector, and internationally provide communities, and peer support and keep us abreast of international developments. They provide opportunities to learn from others, advocate for change, acknowledge achievements, benchmark our progress and identify and scale ideas. They can help prevent people working on the same problems without knowing what works and what doesn't.

**DESIGN AND PROCUREMENT**  
Program design using open innovation can improve value for money by identifying and testing a wide range of ideas at an early stage before investing in the best.

# OUR PARTNERS

## Collaborative Partners



## Knowledge and Research Partners



## Implementing Partners



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