

## ESG FOR SUSTAINABILITY COLLOQUIUM 2019

The Victoria University Business School (VUBS) and Institute for Sustainable Industries & Liveable Cities (ISILIC) hosted the 'Environmental Social and Governance for Sustainability Colloquium' on 23 October 2019. VUBS was awarded the AFAANZ 2019 competitive Conference grant for its member universities to organise this conference. Certified Management Accountants (CMA) Australia also supported the event as a co-sponsor.



**D**r Chitra de Silva from the VUBS led the colloquium with the support of the committee members Ass Prof Romana Garma and Prof Anona Armstrong. This colloquium, a gathering of academics and higher degree students from the AFANNZ member universities around Australia and New Zealand, focused on discussing solutions to the complex challenges relating to environmental, social and governance issues, and their impact on the environmental and social wellbeing.



Dr Chitra de Silva has received research funding this year from AFAANZ (\$5,000) and papers from the colloquium were published in a special edition of the Australasian Accounting Business and Finance Journal – Special Issue from Environmental Social & Governance for Sustainability Colloquium, volume 14, Issue 3 (2020) – 5/6 papers from VU Business (B ranked) - <https://ro.uow.edu.au/aabfj/>

**E**nvironmental, social and governance (ESG) issues have taken centre stage during the last decade. Investment funds around the world are moving towards investing in companies with good Environmental, Social and Governance (ESG) management policies seeking long-term returns. The global tide of climate emergency declarations, and the recent catastrophic bush fires and floods, show that there is a clear consensus that climate change poses a major risk to business. The ESG for Sustainability Colloquium is one the VU contributions to the ESG revolution occurring in the Asia Pacific region.

# ISILC NEWSLETTER

**T**wenty-three presenters from Australian and New Zealand universities presented in three concurrent sessions under three themes: - ESG Disclosure and Investor Expectations, ESG Involvement of Different Sectors including Not for Profit and Public sector, and UN sustainability Goals. Four keynote speakers who are the experts in the field also addressed the conference as follows.

**D**r **Scott Rawlings**, Head of Science and Research, Commissioner for Environmental Sustainability Victoria, discussed the major shifts in reporting of the health of Victoria's environment. He spoke of the recent release of the latest five-yearly State of the Environment (SoE) report and the 20 recommendations to Government to protect Victoria's environmental assets. He also discussed the pioneering work of the Office in implementing the UN Sustainable Development Goals as the operating framework for "state of" environment reporting in Victoria. He further highlighted how digital platforms, data analytics, citizen science and environmental economic accounting will play key roles in sustainable development going forward.

**M**anaging Director of Equilibrium, a sustainability consulting and Management Company, Mr **Nick Harford**, discussed how to align improved environmental and social expectations with organisational goals and outcomes. He further explained how the collective knowledge of ESG provides the fundamental basis for the design and delivery of the diverse solutions, and different tools

available, to advance environmental and social outcomes while enhancing organisational goals and performance.

**P**rofessor **Brendan O'Connell**, the President of the Institute of Certified Management Accountant (CMA) and Professor of Accounting at RMIT University discussed the Governance of Membership-Based Organisations, governance related issues and suggestions for further improvements.

**M**r **Wibishana Rockwood CA**, the Director of the Deloitte Risk Advisory Pty Ltd provided an overview of non-financial ESG assurance with reference to the Australian Auditing standards, namely ASAE 3000, and key assurance considerations from an auditor perspective. He further explained the GRI and SASB sustainability reporting guidelines and Integrated Reporting Council's (IR) Guidelines and their importance in assurance readiness activities.

**S**electd best papers presented at the ESG Colloquium will be published in the special issue of Australasian Accounting, Business and Finance Journal "Sustainable Development Goals and Businesses as Active Change Agents" in 2020.



# CULTURAL DIVERSITY

## A DIALOGUE BETWEEN SPOOKS AND BOFFINS

Associate Professor **Debra Smith**, **Andrew Zammit** and Associate Professor **Joseph Ilardi** are calling for contributions to a special issue of the *Journal of Policing, Intelligence and Counter Terrorism* they have been invited to edit. **Debra Smith** is a Principal Research Fellow in the Institute.

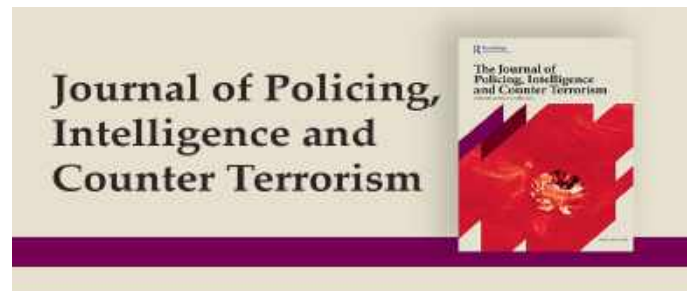
This is their call for papers:

### **Navigating the divide: Cooperation between academia and national security practitioners**

Despite several decades of collaboration between academics and national security practitioners there is no widespread agreement about the most appropriate or effective relationship between these two worlds. While there are benefits to both in building cooperative relationships, there are also practical and ethical constraints, as well as broader normative questions that sit alongside these engagements.

In this special edition of the *Journal of Policing, Intelligence and Counter Terrorism*, we welcome contributions from both academics and security practitioners. This includes academics from fields with explicit security orientations, such as security

studies, strategic studies, intelligence studies and terrorism studies, as well as the wide range of fields that are drawn on in national security practice, such as computer science, law and engineering, or other fields. This also includes practitioners from the police, intelligence and military services, the broader public service, or other sectors oriented towards national security.



Contributions can include personal experiences of research projects intended to assist national security practice, empirical studies of how academia and national security practice currently interact, or theoretical contributions of new ways for the two worlds to relate to each other. Contributions can have a contemporary focus, such as addressing current security concerns related to terrorism or foreign interference, or have an historical focus, such as addressing the role of academics in contributing to military efforts during the Second World War and the Cold War. The aim is to examine the connection between scholarly knowledge and security practices, including what we can learn from the past, what the current state of the relationship is, and where it should move towards in the future.

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Contributions can address, but are not limited to, the following themes:

- ◆ How can academics contribute to national security practice or how can national security practitioners contribute to academia?
- ◆ What are the challenges of cooperation and how can they be overcome?
- ◆ Why should, or shouldn't, academics and national security practitioners cooperate?
- ◆ Could academic efforts undermine national security, or can national security efforts undermine academia?
- ◆ What does beneficial collaboration between academia and national security practitioners look like, and what does harmful collaboration look like?
- ◆ How can cooperation between academia and national security practitioners improve in the future.

## NOTHING NEW IN THE CHINESE ATTACKS ON AUSTRALIA

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One of our recent Master of Arts graduates, **Stjepan Bosnjak**, has published online an article examining the quarter century of insults thrown at Australia by Chinese media every time there has been a rupture in Sino-Australian relations. On one occasion Australia was described as Don Quixote's obedient servant, Sancho Panza, with the US tilting at windmills, while in another instance, Australia was dismissed as a nation 'established through uncivilized means, in a process filled with the tears of the aboriginals.'

For a copy of the article, go to <http://www.internationalaffairs.org.au/australianoutlook/crouching-media-hidden-agenda/> (with thanks to **Ann Marie Angebrandt** for this reference.)

# CULTURAL DIVERSITY

## DIANNE HALL ON IRISH PODCAST

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*The Irish Passport*, a popular podcast hosted by journalist Naomi O'Leary and history lecturer Tim Mc Inerney, is a lively discussion of history and culture from an Irish point of view. The fourth episode, available at <https://www.theirishpassport.com/podcast/ireland-and-australia/> includes an interview with Associate Professor Dianne Hall.

Tim Mc Inerney is a lecturer in British and Irish cultural history at the Université Paris VIII, where he researches the links between race and noble tradition. In about 2003 he travelled through Australia, taking odd jobs and living in a tent. He was amused to find himself apple-picking in the Western Australian town of Donnybrook, established in 1842 by emigrants from the suburb of Dublin after which Donnybrook is named. This also means, of course, that the Irish, who made up a quarter of the European newcomers in colonial Australia, were thoroughly implicated in the destruction of Aboriginal society. For a people who have seen themselves, correctly, as mostly on the receiving end of imperial domination, this is a sobering fact of history.

This realisation, of course is central to Dianne Hall's work in Irish-Australian history, and that is why she features on *The Irish Passport* podcast.



SOURCE: TIM MC INERNEY AND NAOMI O'LEARY



# CULTURAL DIVERSITY

## GROWING UP GREEK IN RICHMOND

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In its online magazine, *Hellenic Social*, the Hellenic Museum features **Kathy Tsaples** from Sweet Greek (a produce store in the Prahran Market), reminiscing about her joyful childhood in Richmond during the 1960s:



SOURCE: GREEK CITY TIMES

Growing up and living in Richmond part of my life, it did mean that I grew up in a beautiful community here. Everybody was out there. But Mum especially was someone who was very passionate about cuisine, food, feeding her family...

Every day it was about creating dishes that were seasonal, and we cooked a meal, sometimes two or three [dishes]; it all depended on whether we were also celebrating a festive event as well.

Food was an integral part of my upbringing here in Richmond and I was lucky enough to be in Richmond when it was a rich vibrant migrant community as well, and we learnt from everybody...

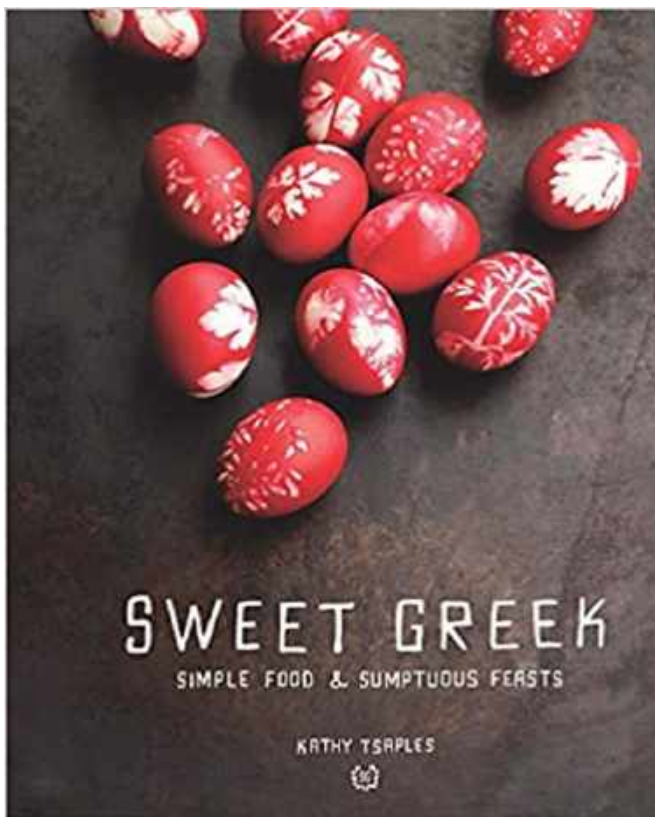
Food brings us together, and food is an expression of love.

Her first book, *Sweet Greek*, is organised around the key Greek festivals and the foods that accompanied each. She also adds some family favourites cooked the way her mother did. Her father's favourite was *Kouneli Stifatho* (rabbit casserole), described in the book as needing plenty of onions, just the way her father liked it!

[https://www.youtube.com/watch?v=pVX4jJ6LD7A&feature=youtu.be&mc\\_cid=5ccddaf7f3&mc\\_eid=59760762ad](https://www.youtube.com/watch?v=pVX4jJ6LD7A&feature=youtu.be&mc_cid=5ccddaf7f3&mc_eid=59760762ad)

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Her parents came from the Thessaly region, with only a suitcase, no money and no language skills. But they bequeathed a love of food.



**“Food brings us together, and food is an expression of love”**  
Kathy Tsaples

## THE FIRST PEOPLES OF WESTERN VICTORIA

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**J**ohn Cary, director of ISILC’s predecessor, the Institute of Sustainable Industries, introduces his new book, based on the life’s work of his great-uncle, **John James Cary**:

**I**n 1962 the historian **Manning Clark** began the first volume of his six-volume *History of Australia* with the sentence ‘Civilization did not begin in Australia until the last quarter of the eighteenth century.’ **Clark** later realised his oversight and that of most contemporary professional historians in failing to recognise a much longer existing civilisation in Australia.

**M**uch earlier, at the end of the nineteenth century and in the early twentieth century **John J. Cary**, was writing about Australia’s First Peoples.

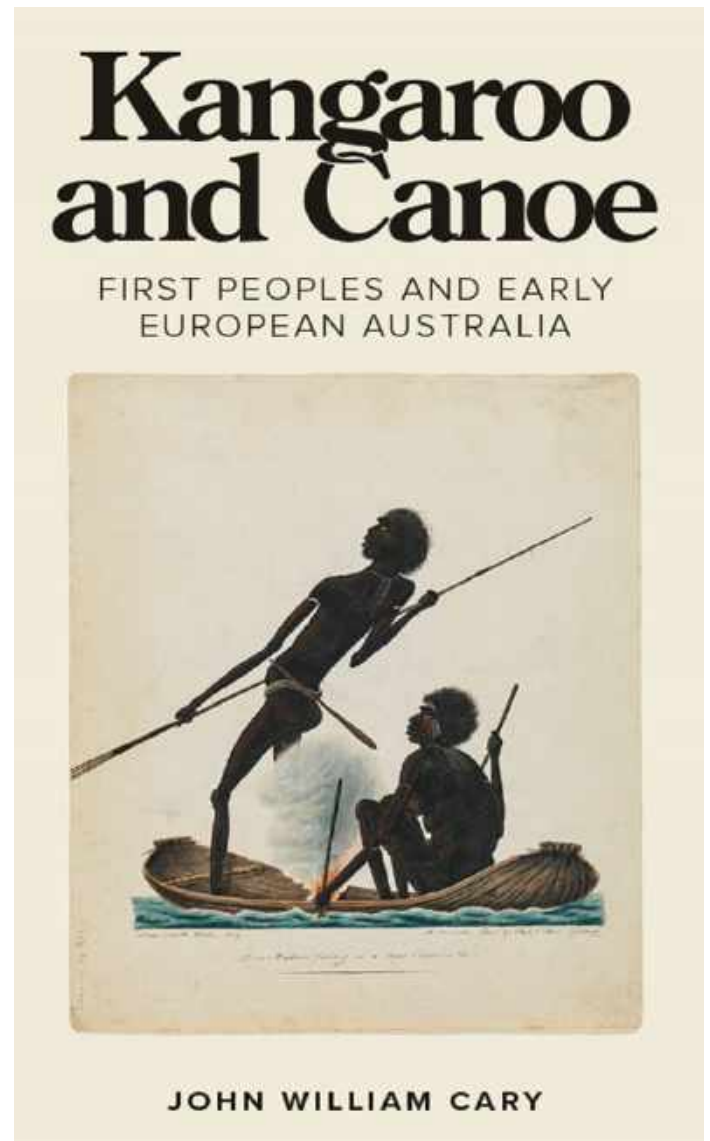
**H**e also wrote about the early history of the Port Phillip District and of Geelong.

**J**ohn James Cary was born in April 1863 and died in June 1947. Thanks to a legacy received on his twenty-first birthday, **Cary**, reputedly for most of his life, never had to work.

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**W**hile he had trained as a tailor, he never practised that profession. He did make his own suits and was a snappy dresser. He lived in England during 1893 and 1894. There, ever an autodidact, he visited museums and roamed the British Library. He was essentially self-taught, but he had the advantage of having the resources and time to indulge in a life-time of letters, scholarly correspondence and journalism. He was a frequent contributor of long-form articles to the *Geelong Advertiser*. Much of his material remained unpublished in hand-written manuscripts.

**C**oming to know and understand Aboriginal languages was a rich and challenging vein of intellectual endeavour. **Francis Tuckfield**, the Wesleyan who established the Buntingdale Mission near Colac, found the local Aboriginal languages to be rich and sophisticated with extensive vocabularies. **Henry Reynolds** records that Tuckfield never found his informants at a loss to express their thoughts or emotions, or to describe any of the qualities of matter with which they are acquainted. **Cary**, in turn, found the complexity of the local languages intriguing and worthy of his investigation. He was the first to publish **Tuckfield's** surviving linguistic records of the Wathawurrung and Gulidjan tribes.



**C**opies may be ordered from:

<https://scholarly.info/book/kangaroo-and-canoe-first-peoples-and-early-european-australia/> (paperback, \$44.00)



# CULTURAL DIVERSITY

## THE SMALL FARMERS OF PAKISTAN

Pakistan can break out of its downward economic spiral, according to a recent report produced by a team within our Victoria Institute of Strategic Economic Studies, if it adopts major reforms in smallholder agriculture. The report, running to 116 pages, offers a detailed account of what it is like to be a small farmer in Punjab and Sindh, two of Pakistan's five provinces. Unlike many policy prescriptions for the developing world, this report relies on detailed advice from local Pakistani agronomists and senior public servants, even as it elegantly links these close-grained descriptions to overarching policy themes. It also offers practical suggestions for implementing the changes that are recommended.

The team was led by Professor **Peter Sheehan**, with the in-house support of colleagues such as Professor **Bhajan Grewal** and **Jim Lang**. The Pakistani experts were coordinated by Associate Professor **Kashif Rashid**, from COMSATS University in Islamabad.

Unlike comparable states in sub-Saharan Africa, Pakistan has failed in recent decades to keep pace with the global forces making for increased prosperity, and this report, funded by the Australian Centre for International Agriculture Research (ACIAR), proposes that a key to Pakistan catching up is a suite of reforms to improve the position of its small farmers. These farmers play a critical role in the nation's economic performance, producing dairy, citrus and mango products for a limited export market.



**SINDHI WOMEN WON THE LEGAL RIGHT TO INHERITING LAND ONLY IN FEBRUARY 2020**

[SOURCE: ASIAN DEVELOPMENT BANK]

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**T**he five reforms will require a combination of district, provincial and national efforts. Only by a combination of all five reforms would significant economic benefits flow.

**1. Improved access to markets, domestic and international, and increased reliance on market processes**

The national government should undertake closer analysis of potential new markets for Pakistan's key export items and engage in diplomacy with those countries for trade deals.

**2. Greater innovation on the ground in Pakistani agriculture, particularly more demand-based extension services for smallholders and increased R&D focused on their actual needs**

Farmers need better local training in methods of farming and new technologies that are available for them.

**3. Much better access to formal credit for smallholder farmers, through institutional and technological changes that facilitate lending to smallholders**

Demand for credit among Pakistan's small farmers exceeds the supply of investment capital, despite the growth in microfinancing. In countries like India, Mongolia, Thailand and Turkey

commercial banks have teamed up with successful microfinance providers who act as their local agents, a model that would make sense also in Pakistan.

**4. More effective development of various forms of rural producer organisations, to provide a critical mass of smallholders for innovation, credit access, purchasing, access to downstream facilities such as processing plants, and access to markets**

Farmers are restricted by middlemen in their ability to participate in markets. Farmer cooperatives modelled on the kind pioneered in Europe and now a feature of Asian economies such as China and Vietnam would be one viable strategy in this reform.

**5. Real enhancement of the role of women, who already play a major role in smallholder farming, but are neither empowered nor trained sufficiently to play their roles effectively**

Measured against international standards, Pakistani girls and women are held back badly. Their literacy level, for instance, is only 44 per cent, contrasting with a rate of 69 for every 100 men. Only three per cent of Pakistani women own a bank account.

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## BILL SWANNIE FLIES INTO THE TWITTERSPHERE

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The law publishers LexisNexis have begun promoting **Bill Swannie's** research in racial vilification, published in *Torts Law Journal*, in their Black Lives Matter campaigning on social media.



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## ADOLESCENT WELL-BEING IN BURUNDI

If invested wisely, money spent in the African nation of Burundi would have a dramatic impact on that country's future. There are 12 million people living in Burundi, and almost a quarter are aged 10 to 19.



[SOURCE: UNICEF]

If foreign aid were directed at four key areas of life here, the rewards would be tangible, producing \$13 of economic value for every dollar spent.

This is the conclusion which **Bruce Rasmussen** and his colleagues at VISES have reached. They divided the work as follows: Professor Rasmussen focused on financing

and reducing child marriage rates, while **Peter Sheehan** and **John Symons** dealt with education, and **Kim Sweeny** health.

Professor **Rasmussen** recommends that spending should be focused on reducing fertility rates; improving young people's participation in education, enhancing skills and training; lifting agricultural productivity; and expanding the services and manufacturing sectors.

The UNICEF emphasis on young people in their teens is predicated on a key assumption: 'Adolescence is a period of life during which everything is possible. It is the time when individuals acquire the physical, cognitive, emotional, social and economic resources that will accompany them throughout their adult lives.



Previous Story:  
The Future of  
Burundi is in its  
Adolescents  
(March 2019)

The 168-page report is available at

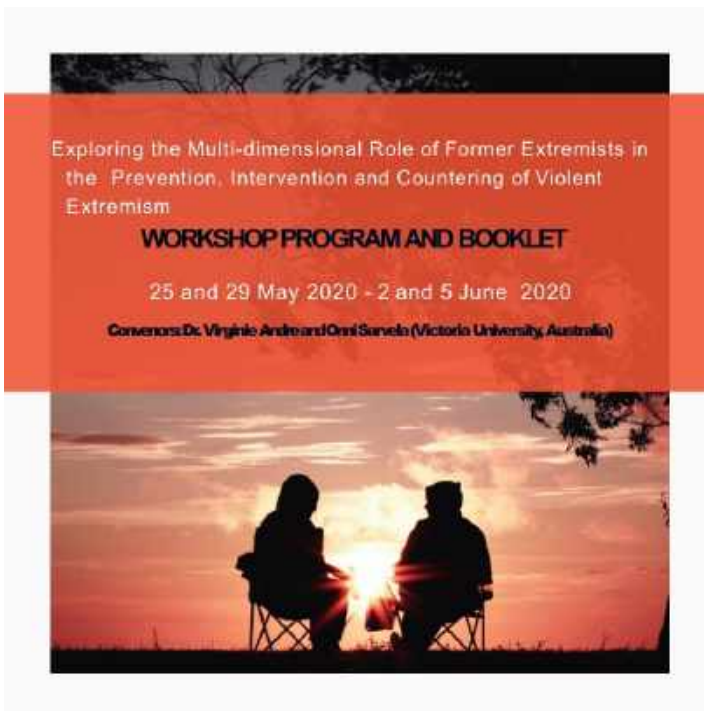
<https://www.unicef.org/burundi/sites/unicef.org.burundi/files/2020-05/AIC-report-2020.pdf>



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## ONCE AN EXTREMIST, ALWAYS AN EXTREMIST?

The first series of international online workshops on the 'Multi-dimensional Role of Former Extremists in Prevention, Intervention and Countering of Violent Extremism' was launched on 25 and 29 May, and 2 and 5 June.



The workshop brought together 21 front-line practitioners (including exit and law enforcement practitioners), policy-makers and academics from Finland, Norway, Sweden, Germany, Belgium, the Netherlands, the United Kingdom, Northern Ireland, Canada, Australia and Lebanon.

In the current context of returning foreign terrorist fighters (and their families) and the release in some European countries of convicted violent extremists who have reached or are nearing the end of their prison sentence, the question of better understanding the current (and potential) role that former extremists can play in the prevention, intervention and countering of violent extremism has become a critical one.

Workshop convenors, Dr **Virginie Andre** and **Onni Sarvela** (former Exit Finland mentor) explain that 'this is even more significant in the present context of an increasing global polarised political and xenophobic environment, which is enabling a dangerously fertile milieu for violent extremist groups recruitment'. In addition, the coronavirus pandemic has also created opportunities for extremists to spread fake news, strengthened their narratives and further polarised communities and young individuals. The risk of reciprocal radicalisation is real and the propensity for it to move from marginal groups to society is equally tangible and dangerous.

Hence the role of former extremists in the prevention, intervention and countering of violent extremism is not to be underestimated, particularly as potential agents of counter-polarization and community bridge-building.

The workshop addressed several key questions:

- ◆ Based on former extremists' experiences, how can the process of disengagement be understood?



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- ◆ How should former extremists be engaged in the prevention, intervention and countering of violent extremism?
- ◆ What benefits and challenges can be expected from working with former extremists?

Canadian practitioners **Tony McAleer** and **Brad Galloway** offered a perspective of two generations of violent far right on the leaving and combatting of violent extremism. Their personal journeys in and out of violent far right extremism highlighted some of the deciding factors that contributed to their disengagement. As **McAleer** explained: 'It was all bullshit. The reality didn't match the great fantasy that was offered to draw me in.' The disillusionment towards the extremist group can be a first step towards disengagement. Furthermore, **Galloway** described how 'the violence started to become exhausting', and how 'the lifestyle was uncertain'. Physical and emotional exhaustion from taking part in the dysfunctional, unhealthy and often violent extremist environments can further contribute to leaving extremist groups. **McAleer** and **Galloway's** experiences also showed how social relationships and positive encounters could be significant factors in the disengagement process.

**“PREVIOUS STORIES ON THE WORK OF DR VIRGINIE ANDRE: “CHANGE OF STORY: SHARE YOUR STORY”, MARCH 2019; “MEDIA REPORTS OF TERRORISM”, APRIL 2020**

The workshop also gave the participants the opportunity to experience firsthand the Canadian Hexagon model of introspection into self-assessment of individual disengagement

process from violent extremism. **Margaux Bennardi** and **Roxane Martel-Peron** of the Quebec Centre for the Prevention of Radicalisation Leading to Violence (CPRLV) provided participants with a case study of disengagement from violent extremism, which they had to examine and assess with the support of the Hexagon model. A small number of practitioner participants are already using this model in their front-line work and others are now exploring how this new tool might be added to their toolbox and research in countering violent extremism.



**IMAGE: SCREENSHOT OF HEXAGON TOOL PRESENTATION BY CPRLV, AND PARTICIPANTS FABIAN WICHMANN (EXIT GERMANY), DR VIRGINIE ANDRE (VICTORIA UNIVERSITY), ROXANE MARTEL\_PERON (CPRLV), MARGAUX BENNARDI (CRLV), AND DR JULIE NORMAN (UNIVERSITY COLLEGE LONDON). [SOURCE: DR VIRGINIE ANDRE]**

The workshop offered the opportunity for policy-makers and law enforcement officers to share the difficulties and challenges they meet in wanting to involve, or actually involving formers in their intervention work preventing and combatting violent extremism. Some of the challenges revolved around how to correctly identify suitable former extremists to engage in

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this sensitive area of work; how storylines of individuals involved overseas can be verified (false or fabricated stories); and, lastly, how to have a sensible process that takes into consideration and properly address the needs of former extremists engaging in this work and the needs of government and security agencies. In some countries, as pointed out by several participants, the decision by certain agencies and governments, whether to involve or not former extremists, is highly politicised, and often reactive. Moreover, an emphasis was made by all participants around the importance of the notion of duty of care towards involving former extremists in this field.

**B**elgian MP and former Vilvoorde city deradicalisation officer **Jessika Soors** explained how a former returnee who expressed interest in engaging in exit work approached her. Her first question to him was ‘How would this impact on your new life?’ (need of the ‘former’). Secondly, ‘How would this influence your relationship with security agencies?’ (need of security agencies). Additionally, MP **Soors** pointed out that there currently are no structures or exit programs in place to do this type of work in Belgium. Finally, she questioned how the public should be informed of such programs.

**“COMMUNITIES ARE OFTEN RELUCTANT TO WELCOME BACK FORMER EXTREMISTS”**

**T**his denotes a clear need to balance the needs of ‘formers’, governments and other stakeholders when involving formers in prevention and countering of violent extremism and counter terrorism efforts.

**I**n addition to the issue of rehabilitation of former extremists in society, the visibility of former extremists work in the public space brings an important aspect of discussion around managing and understanding the perception of communities of former extremists. While there exists a positive (but very fragile) public perception of formers (which carries the idea that change is possible), community perception of former extremists is predominantly (if not solely) built on media portrayals of these individuals. Participants warned against the danger of problematic media archetypes of formers.

**C**ommunities are also often reluctant to welcome back former extremists. Hence the work of former extremists in the public space can help showing the process of transformation of former extremists, which can then assist with reducing the social stigma and social validation of the extremist label and help the former in his/her reintegration. Community preparedness and readiness of accepting former extremists reintegrating into their communities/society is an important factor in the successful and sustainable disengagement of former extremists.

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**W**hile it was agreed that only a small number of former extremists may be suitable to work in the field of prevention, intervention and countering of violent extremism in different capacities and under certain conditions, the benefits of working with former extremists were many. To only name a few, the work of former extremists in this field can offer insights into extremist environments and narratives; inform the intervention methodology of exit programs; or be positive role models for individuals who want to disengage from violent extremism.

**P**articipants commended the workshop for its timely relevance, content, quality of the participants, interactivity and holistic approach to the issue. A participant noted: 'The topic is very relevant to my own field of work and provided me with a great input and possibilities to reflect and possibly re-asses my own work'.

**D**r **Virginie Andre** will be convening a second and a third series of workshops respectively in September and December 2020 which will specifically address the work of former extremists in this field in relation to security agencies and communities. An international working group under the stewardship of Dr Andre is also in the process of being set up to further address this particular field of practice and research.



IMAGE: SCREENSHOT OF BELGIAN MP JESSIKA SOORS SPEAKING ABOUT FORMER EXTREMIST INVOLVEMENT IN EXIT WORK, AND PARTICIPANTS DR VIRGINIE ANDRE (VICTORIA UNIVERSITY), FABIAN WICHMANN (EXIT GERMANY), TONY MCALEER (CO-FOUNDER LIFE AFTER HATE), ROXANE MARTEL-PERON (CPRLV), MARGAUX BENNARDI (CRLV), PHILIPPE MASSAY (CAPREV, BELGIUM) [SOURCE: DR VIRGINIE ANDRE]

# INFRASTRUCTURE

## KEEPING GLASS, PLASTIC AND TYRES OUT OF LANDFILL

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Recycled washed glass, discarded tyres and excess plastic that would otherwise go to landfill can be used for the virgin aggregates needed to hold sewer pipelines in place.

This is the tantalising prospect offered by ISILC researchers Dr **Ehsan Yaghoubi** and Professor **Sam Fragomeni** in their latest government grant.

Sustainability Victoria's \$37 million Recycling Industry Strategic Plan will fund the latest phase of their work. Their collaborators are the geotechnical team of the University of Melbourne and industry partners City West Water and Ground Science.

City West Water will give the researchers access to two sites where tests can be carried out.

The key to the materials that will be used is that they are self-compacting.

**PREVIOUS STORY:  
SUSTAINABLE APPROACH IN THE  
FUTURE HIGHWAY/GEOTECHNICAL  
DESIGN & CONSTRUCTION WORKS  
(DECEMBER 2019)**

Clay is the traditional material used in sewerage systems, but it is expansive and often needs to be sourced from very long distances.

As in his previous work on highways, Dr **Yaghoubi** is concerned with the effects of extreme weather events – flooding and drought – on the compacted materials. He uses micro sensors buried inside the material to measure these effects.

He explains: 'Construction projects, generally civil engineering projects, require a lot of materials to be used. The volume of the material is normally significant, whether it is a road or backfilling kilometres and kilometres of trenches'.

This work is timely, given the impending restrictions on the export of its waste that Australia is now facing from countries such as China.



IMAGE: A LANDFILL IN PERTH [SOURCE: ASHLEY FELTON]

# INFRASTRUCTURE

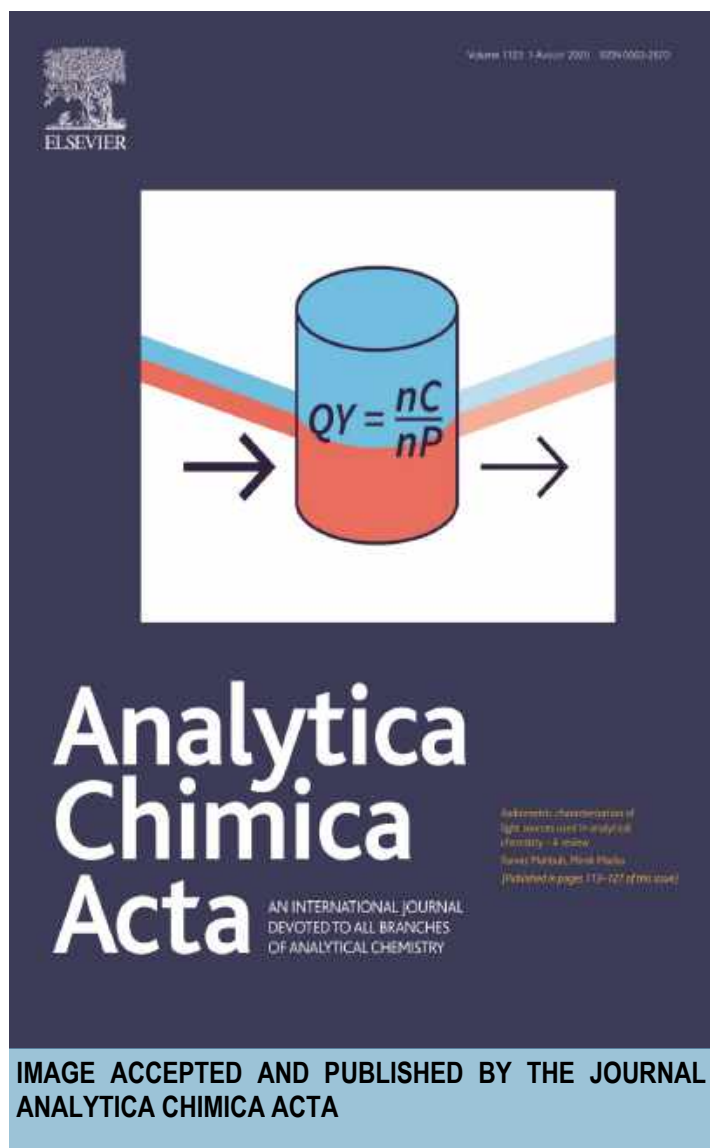
## IMAGE ACCEPTED AND PUBLISHED BY THE JOURNAL *ANALYTICA CHIMICA ACTA*

The cover image created by Victoria University's media and communications department for my critical review "Radiometric characterisation of light sources used in analytical chemistry- a review" in the journal *Analytica Chimica Acta* has been accepted by the editor and has been published. Attached herewith the published copy. Good news for VU!

Many thanks to the team who helped me with preparation of this cover page!! I hope you will again help me next time.

The explanation of symbols:

- ◆ **QY** = quantum yield of a photochemical reaction involving light
- ◆ **nC** = number of mole (a chemical term equivalent to number of particles in 1 Litre solution) of product reacted in the chemical reaction
- ◆ **nP** = number of mole of photons (i.e., light) absorbed in the reaction
- ◆ The thick arrow on the left = intensity of incident light on the media the thin arrow on the right = intensity of transmitted light from the media



- ◆ The colours in the image were artists' impression of light coming into the media and going out from the media.

Regards  
**Parvez Mahbub**  
Senior Research Fellow  
Institute for Sustainable Industries and Liveable Cities (ISILC)



# SUSTAINABLE INDUSTRIES

## 2020 PLACED-BASED PLANETARY HEALTH RESEARCH GRANT PROGRAM SUCCESSFUL PROJECTS

### Cities and Regions



Building the resilience of tourism destinations to disasters—the 2020 Victorian bushfires and COVID 19 pandemic.	Joanne Pyke, Terry De Lacy and Ancy Gamage
Experimental development and characterization of eco-bricks and panels made from take-away coffee cups and plastics	Zora Vrcelj, Yanni Bouras, Malindu Sandanayake, Rudi vanStaden and Paul Joseph
Forming agricultural waste material into functional protective packaging elements	Matthew Lamb, Vincent Rouillard, Marlene Cran, Stephen Bigger and Catherine Sullivan
Fire Resilient Durable and Sustainable Geopolymer Concrete made with Recycled Materials for Concrete Tunnel Construction and 3D Concrete Printing.	Maurice Guerrieri
Sustainable Infrastructure - Engineering & Science, Health and Business Innovation	Melissa Chan, Romana Morda, Catherine Lou and Zora Vrcelj

### Community: Health and Wellbeing



Investigating youth voice and action amidst the COVID-19 pandemic	Alison Baker, Amy Quayle and Julie White
Identifying the key factors for supporting international students positive wellbeing	Catherine Lou and Tim Corney

# SUSTAINABLE INDUSTRIES



## Changing environments

Development and testing of a prototype integrated phytoplankton analyser for Water Health in the Werribee River	<b>Peter Sanciola and Stephen Gray</b>
Using eDNA to measure biodiversity change	<b>Christine Connelly, Joshua Johnson and Thomas Yaeger</b>
Understanding experiences and recovery capabilities of diverse communities in Gippsland post 2019/20 bushfires	<b>Celeste Young and Roger Jones</b>
Saving the Planet with Plant Based Food: bridging a knowledge gap regarding functionality of plant proteins in dry state	<b>Todor Vasiljevic and Fotios Sidiroglou</b>
Developing VU into a green, sustainable and climate-smart campus	<b>Nitin Muttli, Anne Ng and Hing-Wah Chau</b>
Investigation of methods to decontaminate soil and water containing PFAS and development of functionalised optical fibres for PFAS detection	<b>Fotios Sidiroglou, Shobha Muthukumaran, Jianhua Zhang and Marlene Cran</b>
Destroying the world to save it: Why security studies needs to engage with the planetary health agenda	<b>Debra Smith, Muhammad Iqbal and Andrew Zammit</b>

**T**hank you, everyone, for your participation in the inaugural Victoria University Place Based Planetary Health Internal Research Funding program (Application Reference No.PH114).

**I**t was inspiring to see our research community's enthusiasm for the Planetary Health initiative and the contributions that are already being made by so many researchers

# SUSTAINABLE INDUSTRIES

across the University to contribute to developing solutions to the complex challenges impacting our planet and the health of country, environment, communities and people.

**A** total of 116 applications were received requesting funding of \$5.4 million. With this level of demand, it was just not possible for us to be able to fund all the high-quality applications. We will be exploring other funding opportunities for researchers that presented highly competitive applications but which were not recommended for funding, and we will be in contact with these researchers to pursue this further.

**W**hile we are constrained in our capacity to provide individual feedback on each unsuccessful application, what we can provide you with is an insight into the common characteristics of successful applications so that you consider this and gain an insight into where your application may have required further development. Overall, the most successful projects demonstrated a breadth and depth of value for the University across the objectives of the program with the following notable, common characteristics:

- ◆ Embodied a strong Planetary Health rationale with a clear case for contribution beyond our own region either at a national or global level.
- ◆ It was clear that the research proposed would build capacity within VU, across disciplines and with partners outside of Victoria University.

- ◆ There was significant and compelling evidence that the project would develop longer term with external funding beyond 2020.
- ◆ The research supported the development of early career researchers and higher degree research students in planetary health related fields.
- ◆ There was evidence that the research team had a strong track record of collaboration with project partners (academic, community or other partners).
- ◆ The project's research methodology was clear and well justified.
- ◆ The research was unlikely to be significantly impacted by the research restrictions brought about due to COVID19.

**I** know that if the news was that your project was unsuccessful it will be disappointing but I would strongly encourage you to continue to work on developing the research idea and explore other opportunities that are available to you to undertake the research you proposed.

**C**ongratulations to all our colleagues, successful or not, and wishing them well with their research.

# SUSTAINABLE INDUSTRIES

## RENEWABLES ON RISE

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An interesting talk given by **Philip Adams** (Centre of Policy Studies) on 8 July dealt with 'Modelling the Economic Impacts of COVID-19 Containment'.

The economic data are coming out slowly and are incomplete. The Centre of Policy Studies is looking at macro and micro economic developments, the fiscal position of various jurisdictions, labour force skill and occupational requirements, and distributional issues across household types. The Centre uses the Victoria University Regional Model (VURM) as the framework for its modelling. With the second quarter of 2017 as its baseline, some dramatic changes are already evident in the figures, some of which add to the complexity of an economy that could be seen as simply trending downwards. One is the effect of Australian students not travelling abroad, which of course adds to the national bottom line. Another is the amount of capital that is sitting idle. A third change, which is very relevant to ISILC researchers, is the take-up of renewable industry opportunities, such as the installation of solar panels.

The post-pandemic Australia will be a different place in so many ways that are not always possible to foretell.

## ELECTRIC BLUES

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For years now you've been putting off buying an electric vehicle because of 'range anxiety'.

As the spectre of climate change becomes more threatening and the cost of an electric vehicle comes down, more and more Australians are investing in electric cars. An EV promises to lighten both carbon footprint and the cost of fuel. But on our vast continent, linked by long strips of highway, one significant question remains: can an EV comfortably drive the kinds of distances that separate our major cities?

Between the Victorian lockdowns we put our new electric Hyundai Kona to the ultimate road test – to drive from Melbourne via Canberra to Sydney and back, a journey of 1800 km in a car that promises a range of slightly more than 400 km.

Since the advertised 440 km range in the Kona EV depends on no sudden braking, no dramatic acceleration (always tempting in an electric car!), and not much air conditioning, it is wise to use 400 km as the Kona's benchmark.

# SUSTAINABLE INDUSTRIES

There is also the additional problem that the last 20 per cent of refilling seems to take as long as the first 80. It's a bit like how a picture theatre fills – there is a rush at first, and then the latecomers straggle in to hunt for those empty seats.

**An American company has recently announced a quicker charging station, but it might take a while to reach our highways.**

The Kona interior is exemplary, with a sophisticated dashboard of information, warning lights and sounds when other cars or bicycles are in your blind spots, and a mini-luggage compartment under the console for all that stuff you need close to hand when driving.

Electricity is delivered through a charger that is plugged into the front passenger side of your car. You can lock the car while it is charging and grab a coffee at the local café while you wait for it to get back to 80 per cent, which takes about 45 minutes.

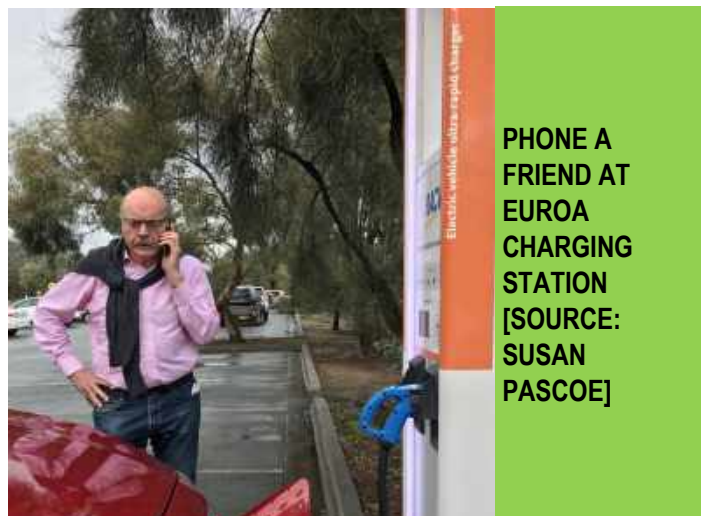
The main provider of power is Chargefox, a friendly and efficient firm based in Melbourne who answer their 1800 number within a minute or two, an important fact to which we will return shortly. Sign up through their website. Put their app on your phone.

But also ask them for an RFID, which stands for Radio Frequency Identification. It's a credit card with superhero powers that can activate the EV charging station when the Internet fails. And fail it will, in corners of rural Australia. Our mobile phone networks are just not that robust.

We left Melbourne without an RFID, just the Chargefox app on our phones. (Allow a week for the RFID to arrive at your house by mail.) They will bill you remotely.

Here's our travel log.

**EUROA** - 169 km from Melbourne. Here the station lurks behind the petrol station, buzzed by cars on the freeway. There is no Internet, so we call Chargefox. Rebecca starts the device remotely, and later turns it off. Each station has its own 4-digit code and two ports, A and B – although we soon discover that the A and the B are not always on the left and the right sides. The model of charger is easy to pick. The food mall is excellent – we can recommend the shawarma and the café with home-baked local food.



PHONE A FRIEND AT EUROA CHARGING STATION [SOURCE: SUSAN PASCOE]



# SUSTAINABLE INDUSTRIES

**O**n we go. Each time we stop other motorists watch us with an inquisitive gaze that rare creatures must feel. But the other electric-car drivers – grey nomads it would seem – exchange knowing looks.

**BARNAWARTHA NORTH** - 146 km from Euroa, just before Wodonga. The stations are on the edge of the service carpark, fired up by a battery of solar panels. Again, no Internet, but Becky, sitting somewhere in her suburban home, helps us out.

**A**s we cross into New South Wales, the weather chills and the road gets slippery. We count at least eight cars that have slid off the highway, ending up ingloriously in ditches. Our Kona EV has such a heavy battery in its bowels that it sticks firmly to the wet bitumen.

**GUNDAGAI** - 213 km from Barnawartha North. Hidden behind Ollie's Café, near the eponymous dog-on-tuckerbox, just a single station, alongside an embarrassment of Tesla chargers. No Internet, and our phone-a-friend at Chargefox confesses that his connection with the charger is poor. Our hearts race, as we are down to 28 per cent. Finally, after several minutes, Luke announces, triumphantly, 'We're cooking with gas!' I suggest that the fossil-fuel metaphor is inappropriate, and he laughs nervously.



**ONLY ONE CHARGING STATION AT GUNDAGAI CHARGING STATION [SOURCE: SUSAN PASCOE]**

**FYSHWICK** — 174 km from Gundagai. Very artfully hidden, in an industrial estate near a vegan café called 'As Nature Intended'. Painfully slow, but free of charge (for reasons that are not clear).

**GOULBURN** - 174 km from Fyshwick. The gold standard charging station, easy to find, an Internet connection that works, and a clock on the machine that records the flow of electricity. When you switch off the machine it thanks you for your business and enjoins you to 'have a nice day'.

**PARRAMATTA** - 291 km from Goulburn. The local Hyundai dealership has a friendly welcome and free electricity (again, for no apparent reason – so we bequeath them a bottle of wine for their troubles).

# SUSTAINABLE INDUSTRIES

And a week later, we head straight back to Melbourne, skipping Canberra. Now that we are veterans, we can do it in 12 hours, including about three hours of sipping coffee and relaxing at each of our stations.

These stations are now like old friends whose manners we know so well, and the Chargefox folks can hear less desperation in our voices.

Our bill from Chargefox is \$85.07 for what would have cost about \$340 in fossil fuels.

And our 'range anxiety' has quieted somewhat.

## Recommendation Number 1:

Don't rely on the app. Always have the RFID card with you. Luckily Chargefox have a 24/7 helpline with staff able to turn on and off the charging remotely. But you wouldn't want to be reliant on this. Most Chargefox stations have four units, so we never had to wait. However, when we drove into Gundagai to discover only one charging unit -- which was malfunctioning! -- and nearby there were six Tesla charging units at the same location!

It would seem logical -- given the network coverage issues we faced, and the extent to which their business model is dependent on the mobile app as its main interface -- for Chargefox to have wifi hotspots at each of the charging stations.

## Recommendation Number 2:

Advocate for all charging stations to have a minimum of four charging units. It would also make sense for all the chargers to be compatible. At the moment it is Tesla versus the Rest.

## Recommendation Number 3:

Be prepared for 45-minute charging sessions on the journey. It is advisable to plan your stops around rest and meal times, or take a good book with you.

**Robert Pascoe is an associate of the Institute for Sustainable Industries and Liveable Cities (ISILC) at Victoria University, Melbourne**

# SCHOOL FOR THE VISITOR ECONOMY

## WHAT WILL BE THE “NEW NORMAL” FOR TOURISM IN AUSTRALIA?

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Its Director, Dr Joanne Pyke, gives an update on the work of the School for the Visitor Economy

The School for the Visitor Economy (SVE) is one of three cross-university initiatives designed to work with industry and build the supply of industry skills, labour and knowledge to meet challenges of the future. The SVE was launched in early 2019 with industry growing at more than 4 per cent per year and facing serious projected skills shortage. This scenario has abruptly changed due first to bushfire, and then to industry closure due to COVID-19 restrictions. Given the very serious impacts of these events, we have been working with industry to respond to the crisis, establish what this means for VU as a provider of visitor economy training, education and research and to work with industry on recovery efforts.

Most importantly, we have been closely involved in working with industry on recovery planning with our strategic partner, the [Victorian Tourism Industry Council \(VTIC\)](#). I have been very pleased to be part of an

industry recovery task force that is assessing the damage and finding ways to move forward. While things have moved on since we wrote this short piece on industry recovery, you can find a quick summary [here](#) of the response of industry to COVID-19 restrictions.

Our education and training colleagues in VU Business School and VU Poly have of course been part of the Herculean task of making the transition from face-to-face course delivery to digital remote delivery in the space of weeks. This has been particularly challenging for our VU Poly colleagues who deliver culinary and hospitality programs that rely on face-to-face contact.

Within ISILC, our researchers have also been working hard to progress research and we are pleased to report successful new projects that are currently being implemented.

### Project Jigsaw: an integrated data platform to inform tourism decision making.

One of our project teams including Khandakar Ahmed, Alexandra Law, Terry DeLacy and myself are working with nem Australasia P/L on ‘Project Jigsaw’. The aim of the project is to develop an integrated data platform as a means of unlocking, integrating and leveraging tourism data to inform the

# SCHOOL FOR THE VISITOR ECONOMY

decision making of tourism investors, planners and policy makers. This project is funded by the Department of Industry, Innovation and Science (DIIS) and aims to address a long-term problem faced by the industry. Existing data sources on tourism lack granularity and depth, particularly in the context of the growth of the sharing economy and other innovations that make existing data sources. The aim of Project Jigsaw is to address the problem with a new method of unlocking, integrating and leveraging tourism data.



Hot springs is a growing industry in Australia [SOURCE: THE TREND SPOTTER]

## Industry funded scholarship: the impact of the hot springs industry on regional development.

We are also delighted to enter an agreement with the Australian Geothermal Association to sponsor an industry PhD scholarship. This PhD project will explore the impacts of the burgeoning hot springs industry on regional

development and to develop a set of indicators by which to measure the impacts of the industry into the long term. We are particularly pleased that one of our first graduates from the Master of Tourism and Destination Management, **Gaelle Joson**, was successful in being offered the scholarship and she is now working towards candidature.

## Building the resilience of tourism destinations to disasters—the 2020 Victorian bushfires and COVID 19 pandemic

An SVE research team including **Ancy Gamage** (VUBS), **Terry DeLacy** (SVE) and myself, was also a successful applicant to VU's Planetary Health research program. Working with the Victorian Tourism Industry Council, the project aims to document the impacts of bushfire and the COVID-19 pandemic on the visitor economy, investigate the strategies that support industry recovery, and undertake a vulnerability/resilience analysis to develop a roadmap for recovery.

## Webpage update

SVE is also in the process of updating our [webpage](#) and incorporating a research capacity section. Researchers from other disciplines across VU are welcomed to be part of listing if they have an interest in applying their expertise to visitor economy research problems and topics. If you would like your research interests to be featured on our site, please contact **Tania Milani** at [tania.milani@vu.edu.au](mailto:tania.milani@vu.edu.au) to be included.

# SCHOOL FOR THE VISITOR ECONOMY

## We will holiday again...

The visitor economy, until this year, has been the fastest growing industry in Australia. While that growth has been abruptly turned around, a phased recovery has begun with the gradual easing of travel restrictions. There is also the likely prospect of Australia and New Zealand forming its own 'travel bubble'. The signs of recovery have begun, and with it, the return of job opportunities for our students. The research I've been privy to shows that most Australians, like me, are hanging out for their next holiday and to make some travel plans. The School for the Visitor Economy aims to play a role with industry in shaping what the 'new normal' will look like.



# FROM THE DESK OF THE DIRECTOR

## ISILC MID-YEAR REVIEW, 10 JULY 2020

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**T**hank you to all those who helped organise this year's virtual meeting of everyone in the Institute. We got to hear from each of the group leaders, reporting from their private homes, on developments so far, and we received great attendance.

**T**he Colleges and Research disciplines ran individual events in the morning and research planning and planetary health were themes running through many of these sessions. The ISILC event focused on multidisciplinary programs that are being established to align with opportunities arising from COVID – along industry opportunities or government policy. The schools are discussed later but I also mentioned Family Violence, waste, defence, food and distributed energy as other areas seemingly presenting opportunities despite COVID – [see attached slides](#).

**B**ill Petrevski gave a very detailed account of the new School for Transport Systems and Civic Infrastructure, where digital, infrastructure and energy were identified as key research themes. Established in February 2109, the School for the Visitor Economy, led by **Joanne Pyke**, is gearing up for life after the pandemic. The School is rebuilding areas of research, such as events

management, that were historically strong features of the University, up to a decade ago.

**B**oth schools have very strong industry support for their programs.

### Reports from the Colleges/ Research Disciplines on their Planetary Health discussions

**E**hsan Yaghoubi presented an outline of the research undertaken in the College of Engineering and Science. He showed how the work of his colleagues is interwoven around planetary health, with an admirable degree of cross-fertilisation and collaboration across what might appear on the surface to be quite discrete specialisations.

**N**atalie Kon-yu used the example of the compulsory quarantine of residents in Flemington and North Melbourne public housing blocks to show that there are always social and cultural repercussions in events as seemingly neutral as the current pandemic. Her new research group, dealing with Social and Cultural Transformations, discussed the banner under which its researchers would work ('What will we become known for?'), opportunities for networking and per collaboration across the plethora of disciplines in the group, mentoring and skill development, and potential sources of financial support.

# FROM THE DESK OF THE DIRECTOR

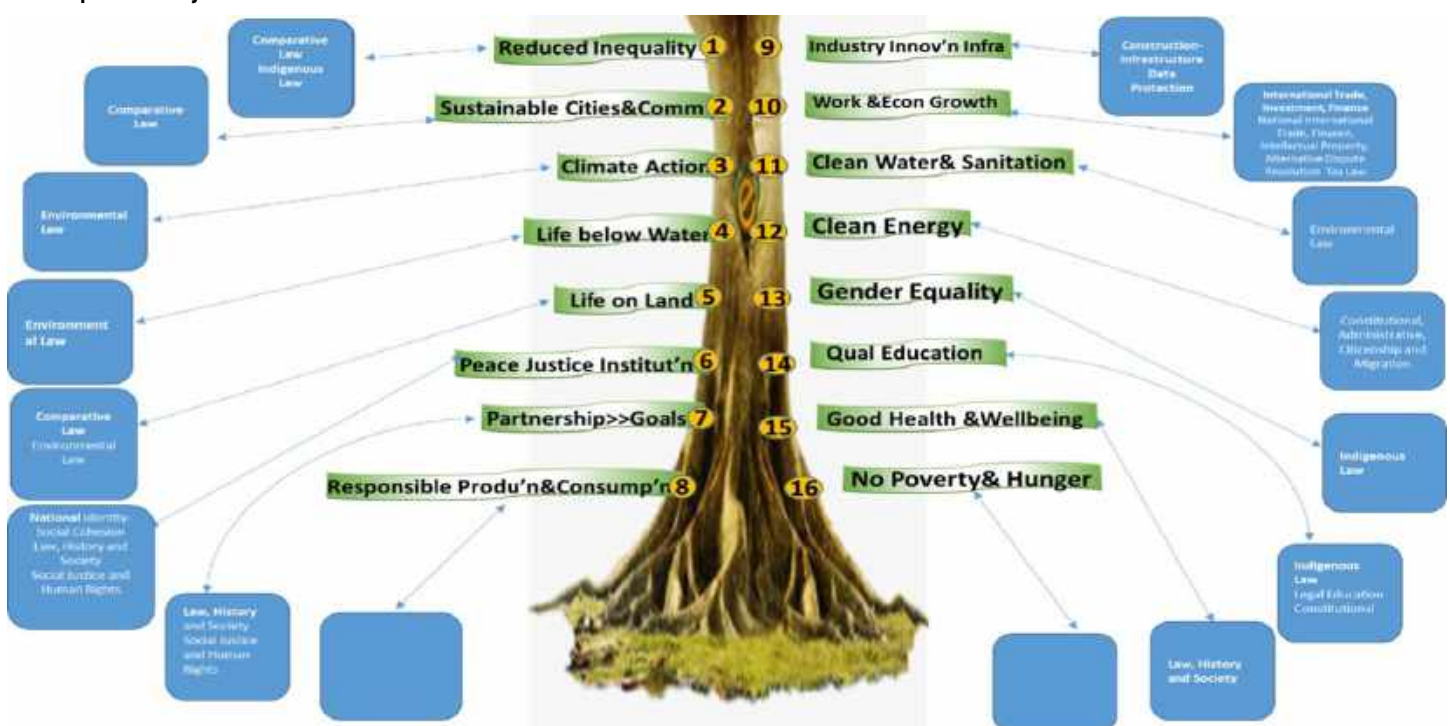
*'In the Social and Cultural Transformations we are fundamentally concerned with social justice and education and the way in which these two ideas work together - so the importance of social justice within systems of education as well as the ways in which better education has real bearings on social justice within a society. We also see inequality as a concept that is fundamentally unsustainable and a look at history bears this out. For our group, issues of planetary health such as Climate Change or the current Covid crisis exacerbate existing inequities within our culture producing negative effects on people and on cultural systems. We see the role of academics who work in this space as vital to sustainable solutions that promote wellbeing and transform culture in positive and robust ways.'*

In the College of Law and Justice Rob Walters showed where research is emerging and aligned with planetary health themes.

The Business area was represented by Shah Miah, who outlined their research programs and their discussions around planetary health.

Our Strategic Economics research program has strong alignment with Planetary Health, with its major programs being

- ◆ Understanding, and quantifying, the impact of investment in health and human capital, especially in low- and-middle income countries, as a step towards generating the funding necessary to achieve the SDGs by 2030;
- ◆ Studying key aspects of climate change and of rapidly emerging renewable technologies, as well as the policy and practice of adequate responses to these challenges; and



# FROM THE DESK OF THE DIRECTOR

- ♦ Integrating these elements into new sustainable development strategies, vitally necessary now for low income countries comprising more than half the world's population.

Finally, **Corinne Reid** summed up the mid-year review with a description of the strong ecosystem of researchers that makes up the ISILC endeavour. She revealed her pleasant surprise at finding that as she lifted the covers off each area advertised on the University's website there was genuine and productive research taking place in each.

**Prof. Yuan Miao** and **Sudha Subramani** have won a prestigious Oracle for Research Cloud Credits award, receiving cloud services to the value of US \$100,000 in order to undertake research in 'Extracting Actionable Knowledge from Domestic Violence Discourse on Social Media during COVID-19'. Well done!

## Far-right extremism

**Dr Mario Peucker** has been invited to become a Senior Fellow at the Centre for the Analysis of the Radical Right (CARR), a prestigious global network of academics working on far-right extremism. This honorary position shows how well respected is his work in this area.

## Australian National Fabrication Facility

Victoria University is now a member of ANNF Ltd and we now have access to the Melbourne Centre for Nanofabrication (<https://www.nanomelbourne.com/>) as well as other nanotechnology centres across Australia (<https://www.anff.org.au/>). Dr **Jianhua Zhang** will be VU's Technology fellow for the MCN for 2020/21.

## October 2

Put this date in your diary as the Industry Day for our new School for Transport Systems and Civic Infrastructure. If you would like to attend, please register at: <https://vuevents.eventsair.com/stsci-industry-day/stsci-industry-day-rego/Site/Register>

## Meika's new bundle of joy

Join with me in welcoming **Meika's** baby to the world.



# FROM THE DESK OF THE DIRECTOR

**M**eika Scholz and partner **Steve Felsing** had their baby on Saturday, 13 June, 2020 at 2.30 pm in the afternoon. At birth **Ario James Felsing** weighed 3.095 kg, 6.82 lbs and is 45 cm long. **Meika** is doing well.



**W**e are very pleased to have **Jo Xuereb** taking on the role of ISILC Administrative Officer while Meika is on maternity leave. **Jo** has joined us from the College of Health and Biomedicine,



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**Professor Stephen Gray**

**Director, Institute for Sustainable Industries and Liveable Cities**

**Victoria University, Melbourne**

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