ANNUAL REPORT
2013-2014
WORLDWIDE UNIVERSITIES NETWORK
WUN ESSENTIALS
2013-2014

Reputation WUN continues to develop as a leading network of international peer research universities. WUN is invited increasingly to partner and participate in global fora with agencies and governments, bringing evidence-based policy options and solutions.

Research The focus of WUN research is regularly reviewed for quality, relevance and translation, in public health, climate and food, higher education and cultural understanding.

Relationships The 17 partners of WUN engage with WUN Plus members and stakeholders to source the best global talent, create opportunities that accelerate internationalisation, and build sustainable teams.

Resources As a result of its track record of success in innovation and application, WUN is steadily increasing its productivity and success in attracting resources for its operations.

Reforms WUN aspires to serve as an experimental laboratory for internationalisation in higher education and research, building a model of the collaborative world university with strong governance and delivery.

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We live in a dynamic world with urgent and complex challenges. Finding solutions to these pressing issues requires teamwork, leadership and innovation. The Worldwide Universities Network (WUN) is dedicated to combining resources, and creating and sharing knowledge in order to address these problems. As Chair of WUN, I am proud of what we have been able to accomplish this year.

Our success is an indication of the demand and need for global research teamwork – we have been able to take advantage of the excellent opportunities available for international research collaboration. As members of a global network of research-intensive universities, we recognise the value of partnership. The pooling of resources opens up tremendous new possibilities by maximising the reach and scope of our work. It has helped us proactively identify and address the dynamic challenges that our world faces.

The network now consists of 17 member universities, located in 10 countries on five continents, and the WUN research portfolio has grown significantly – we now boast 98 active IRGs (Interdisciplinary Research Groups). I am proud of the fact that we have been able to increase our research investments over the past few years. In 2012 and 2013 alone, we directly invested £525,786 in international research collaboration amongst our partners, which leverages many times that amount in external grants and resources.

I credit our success in increasing our research investments and widening our research partnerships to the inspired and active leadership at all levels of WUN. This type of leadership is vital – and will help ensure the network's continued growth and success. It has helped us strengthen and enhance the focus of the WUN Global Challenges program, which is built around four themes: Responding to Climate Change; Global Higher Education and Research; Public Health; and Understanding Cultures. This program, which was established in 2009, has enabled us to engage the global community and connect with prolific partners such as the United Nations Foundation, the World Bank Institute, the OECD and the World Health Organization, in order to find solutions to issues of global significance around our four themes.

I encourage you to review the WUN 2013-2014 Annual Report, which outlines our achievements of the past year. As I finish my term as Chair, I must add that it has truly been an honour and a privilege to serve WUN in this capacity, and be a part of its recent success. With such strong talent and leadership in place, I am confident that WUN will continue to support and strengthen its circle of international, interdisciplinary research partnerships, and create and apply new knowledge to find solutions to our most pressing global challenges.

Indira V Samarasekera, O.C.
Chair, WUN Partnership Board
President and Vice-Chancellor, University of Alberta
Reading our annual reports from the past three years one sees encouraging trends. The achievements give us confidence that WUN is serving as an experimental laboratory for international cooperation in higher education and research, providing opportunities for emerging and established researchers, focusing on a few global challenges, and working on frontier initiatives for the future.

The evidence for this progress is our profile with 17 peer research universities; strengthening relationships with many other “WUN Plus” (WUN+) partners from academia, international agencies, government, business and NGOs; increased productivity in publications, resources and grants; and engagement in policy options, mobility and visibility in international fora. These “WUN Essentials” are listed inside the front cover of this report.

A highlight has been the effectiveness of our strategic workshops around the world. These focus on practical outcomes with sustainable programmes and projects that are relevant to a global approach appropriate to our partnership. In addition, WUN scholars and experts work increasingly with the research associations and societies where a joint session or satellite meeting can build teamwork.

This annual report presents just 10 examples of the work of WUN in its four global challenges, 98 interdisciplinary research groups (IRGs), over 2,000 researchers and the associated conferences, workshops and virtual seminars. Increasingly, we are looking for ways to translate the knowledge and experience gained from our experiments to benefit scholars and students who are interested in accelerating their international participation, because that is the future for us all.

These advances are set to go faster, as are the fundamental reforms that are approaching higher education and research around the world. WUN, from its University Presidents to its graduate students, can contribute as thought leaders and operational players in these debates and their policy outcomes. Reaching a balance is vital to achieve innovation alongside the strengths of traditional education, deal with access and equity in a complex world, and bring new ideas that could enhance quality and reduce spiralling costs.

These high ambitions are supported by the progress of WUN in its leadership, governance and professional management, including the Partnership Board (Presidents), Academic Advisory Group (Vice Presidents), and Coordinators and Research Managers on each campus who stimulate and facilitate the organic growth of WUN programmes in research and education. Our small central Secretariat of three people in Sydney (2 FTE), and three in Leeds (1FTE) is very busy. As such, with the contributions from each partner and those of our many stakeholders, we present a model for a Global University that brings in much of the world and will develop in its partnership to be even more inclusive.

Of course there are also obstacles, as with any pioneering or innovative endeavour. In the past five years we have gained eight new partners but lost three for different reasons: largely attributable to resource issues around the ripples of the Global Financial Crisis that reached academia rather later than they did the finance and business sectors. We are responding actively with a focused recruitment and retention program, and encourage those who share our ambition and our research strengths to consider joining us as Partners or as WUN Plus members.

As always, I thank all those engaged with WUN for their commitment, energy and hard work. A special thank you to Indira Samarasekera (Alberta), who completes her two year term as our Partnership Board Chair; and to Max Price (Cape Town) who commences as Chair for the term 2014-16. As a global university research network, many of our meetings are by teleconferences. The fact that these are always so well attended by faculty and staff is extraordinary, especially when it means inevitably that some participants are working at all hours of the night.

John Hearn
Executive Director, Worldwide Universities Network
The WUN Academic Advisory Group (AAG) was again pleased to welcome a number of new members in 2013, but also sad to see some of its past members move on to new activities. The network is growing overall and the spread of universities across the globe is providing significant opportunities for us to address the Global Challenges with a truly global capability. All members have actively participated in lively discussions around our research and its impact and have provided new and diverse insights into the challenges facing modern research universities.

The AAG comprises senior academic staff from each of the WUN universities. Its role is to provide advice to the Chief Executive and the Partnership Board on a range of functions within the network and to assist the WUN Coordinators and the General Manager on key WUN initiatives. The AAG member is tasked with providing the academic leadership at their institution to ensure the success of the activities of the network and the alignment of these activities with their own university strategies.

A major focus of the AAG is enhancing each partner's global reputation through the quality and impact of WUN's academic efforts. AAG members once again ran the annual Research Development Fund (RDF) programme and this year we had a strong emphasis on ensuring the sustainability of the collaborative research projects by focusing on potential future funders. Additionally, the Understanding Cultures and Global Higher Education and Research Global Challenges were asked to align with the Public Health and Responding to Climate Change Global Challenges, where possible.

AAG members lead the WUN Global Challenge Steering Groups, and I would like to thank my colleagues who have significantly contributed to refining our strategic focus in these four key areas. This year, staying connected through monthly conference calls, AAG members have developed the RDF programme, opportunities for other potential areas of collaboration such as Big Data, and value statements describing the benefits that WUN membership provides its members and key partners.

For the past year, I have had the honour of serving as Chair of the AAG Steering Group, which includes members of the AAG selected to ensure representation from each major geographic region of the network. I would like to thank the secretariat for their support, and the Coordinators Group for the valuable advice on the practicability of some of your ideas!

I am confident that WUN is going from strength to strength and that the AAG serves the collective good with integrity and real collegiality.

Robyn Owens
Chair, WUN Academic Advisory Group
Deputy Vice-Chancellor (Research)
The University of Western Australia
We look forward to seeing you in Hong Kong at the 2015 WUN Conference and AGM 27-30 April 2015

Join the WUN community as it gathers in Hong Kong for the 2015 WUN Conference and AGM. “Asia’s World City” is a unique cosmopolitan destination; a modern economic and cultural hub built on a rich and diverse history. Our host will be The Chinese University of Hong Kong.

Mark your calendars now for the 2016 WUN Conference and AGM in Maastricht! 5-7 April 2016

In 2016, the WUN Conference and AGM will convene in mainland Europe for the first time in Maastricht, the Netherlands – a charming city in the heart of Europe with a fascinating blend of history and culture. Our host will be Maastricht University.
STRATEGIC DIRECTIONS

Each year the WUN Future Directions plan is reviewed at the Annual Conference and AGM. The plan distils progress, achievement and lessons from the past year in adjusting our priorities and programs for the next. The process includes consultations across WUN through annual reviews and visits with each partner, meeting the key people leading our governance, teamwork and research, including early career researchers and students.

At the Cape Town meetings in April a number of developments were proposed and approved by the Partnership Board, which emphasized the need to continue the focus and depth achieved over the past few years. A brief summary is provided here:

1. **Governance.** The systems built to engage the Partnership Board, Academic Advisory Group, Global Challenge Research Groups, and Coordinators Group are progressing. The vital role of the coordinators in engaging researchers and partners in high quality opportunities and resource bids will be strengthened, ensuring that coordinators have the capacity and time for their work. Coordinators will provide quarterly reports to their Presidents and AAG members. The Research Managers Group will remain informal and available on each campus.

2. **Membership.** WUN is exploring new members in building the network to be truly global in geography, while adding strengths and focus around its four research pillars, 100 interdisciplinary research groups, and 2000 researchers and associates. WUN will build the network to 20 partner universities by 2017, and may proceed to a maximum of 25 in 2020. New members are likely to be already working on joint programs and want to engage fully as in WUN. The WUN-Plus association integrates other universities and researchers in WUN programs.

3. **Global Challenges.** The four Global Challenges continue as the primary focus of WUN. Cross-cutting initiatives are being explored by working groups. These include initiatives in Big Data, Macroeconomic Analysis, and Student Mobility. Regional initiatives are being tested for a Global China Group and for an Africa Program in a few selected countries. A survey of facilities across the network: research centres, field stations, offices abroad, is in progress. The WUN Presidents will engage further as a global think-tank, especially in international higher education reform.

4. **Sustainability.** The sustainability fund established by the Board in 2013 has commenced with the objectives of strengthening lead programs and preparing major bids for funding. The joint venture partnership with Global Academy Jobs has broken even after 18 months and requires full cooperation of all partners to enhance business and competitiveness. WUN programs to build close relationships with international agencies, governments, business and alumni are growing, helping WUN and its leaders to engage in international evidence based policy development. A new website, communications program and social media initiative is in progress.

As WUN navigates the coming year, we will strengthen our partnership team, program quality, research opportunities and delivery of results. Essential to success is the continued engagement and commitment of the WUN community and attraction of the resources to achieve our ambitions.

John Hearn
Executive Director
WUN STRATEGY MAP

To be one of the leading international higher education networks, collaborating to accelerate the creation of knowledge and to develop the people required to address the challenges and opportunities of our rapidly changing world

WUN Purpose: WUN creates new multilateral opportunities for international collaboration in research and graduate education. It is a flexible dynamic organisation that uses the combined resources and intellectual power of its membership to achieve collective international objectives and to stretch international ambitions.

<table>
<thead>
<tr>
<th>Develop a vibrant international network collaborating on a diverse range of projects</th>
<th>Nurture high impact research communities tackling problems of global importance</th>
<th>Foster a world leading graduate education program for the next generation of innovators</th>
<th>Establish a powerful international partnership with strategic influence</th>
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<td>Develop and maintain a broad portfolio of international multilateral projects</td>
<td>Develop and strategically support a limited number of potential winners at Global Challenge level</td>
<td>Build a strong international graduate community engaged in high quality collaborative research seminars &amp; academic programs</td>
<td>Increase the power of the “WUN voice” in a lobbying and ambassadorial role.</td>
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<td>Develop a greater sense of ownership and leadership within WUN members of WUN activities</td>
<td>Extend the geographic and cultural scope &amp; academic capability for specific projects through the “WUN plus” concept</td>
<td>Develop and extend the Research Mobility Program</td>
<td>Ensure that WUN is recognised for the vast potential of its intellectual resources by external stakeholders</td>
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<td>Facilitate understanding, communication and interactions within WUN to increase the collaboration and build the community</td>
<td>Create and maintain a strategic oversight of the WUN potential Global Challenge priorities</td>
<td>Develop partnerships with leading international corporations, providing opportunities for them and our graduates</td>
<td>Build a strong understanding within the WUN community of the value to be gained from effective international collaboration</td>
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......supported and facilitated in a sustainable, integrated, responsive and strategic manner. We will need to...

| Ensure delivery and impact of WUN projects through strong alignment with members’ priorities | Focus our attention and resources upon these priorities, ensuring accountability and delivery | Communicate a clear vision and strategy for WUN and ensure this has wide engagement | Improve the marketing, branding and profile-raising of WUN |
Finding novel ways to address complex global issues such as climate change and public health was the recurring theme of this year’s WUN Annual Conference and AGM, held in Cape Town, South Africa from 28 March - 3 April 2014.

Over 130 representatives from member universities across five continents came together in the picturesque harbour city to share ideas and plan the network’s activities for the year ahead.

The conference opened with meetings of the four Global Challenge Steering Groups, which discussed progress and developed strategies in WUN’s key priority areas of climate change, public health, global higher education and research, and understanding cultures.

On the second day of the event, the Partnership Board, Academic Advisory Group (AAG), Coordinators Group and Research Managers Group each met to explore strategic issues such as WUN’s impact, membership growth, and Sustainability Fund. In the afternoon, all the groups convened for the AGM plenary session.

The network’s achievements over the past year were celebrated at the WUN Annual Dinner at the University of Cape Town’s historic Smuts Hall, where outgoing WUN Chair, Indira Samarasekera, was thanked for her two years of service at the helm of the network. Dr Max Price, Vice Chancellor of the
University of Cape Town and incoming Chair of WUN, delivered a speech outlining his vision for the next two years.

The last day of the conference saw the presidents of WUN’s member universities join with the leaders of some of Africa’s foremost universities for the fourth annual WUN Presidents Forum.

“The focus of this year’s Forum was on understanding the challenges that face African universities in the globalising higher education sector, and finding ways that WUN institutions can partner with them to mutual benefit,” explains Professor John Hearn, WUN Executive Director. After the Forum, the presidents and invited guests had the opportunity to network and cement new relationships during a tour of the scenic Stellenbosch wine-growing area.

Preceding the AGM, WUN hosted the Joint 4th Public Health/Responding to Climate Change Global Challenge Conference. Scholars from across WUN’s global network were joined by representatives from the Food and Agriculture Organization (FAO), World Health Organization (WHO), NCD Alliance, and the UK’s Department for International Development (DFID).

The event kicked off with three field trips designed to give delegates an on-the-ground perspective of public health and climate change issues in southern Africa. Over the next two days, the 88 delegates engaged in vigorous dialogue on a range of pressing issues at the intersection of climate change and public health, such as the impact on families, nutrition versus food, and urbanisation and nutrition.

“Bringing together so many international experts in public health and climate change in the one location has sparked a number of promising new connections across regions and disciplines, which we expect will result in fruitful research collaborations over the coming 12 months,” says Professor Hearn.

Four other satellite workshops were also held in Cape Town prior to the Annual Conference. WUN’s Resilience in Young People and Adolescents group, Health Migration group, in-FLAME (the International Inflammation Network), and a group focused on student mobility all converged in Cape Town to plan next steps for 2014-15.
GLOBAL CHALLENGE: RESPONDING TO CLIMATE CHANGE

Climate change poses an immense challenge to human society, compelling us to respond to extreme weather events, shifts in land use, food and water shortages, and population displacement, among other issues. While many communities are mounting responses, there are significant barriers to achieving sustainable solutions. Collaborative, multidisciplinary research involving partnerships across institutions and regions will play a crucial role in making progress.

WUN’s Responding to Climate Change Global Challenge fosters innovative, multidisciplinary research into the scientific, cultural, health and social dimensions of climate change. With its access to substantial expertise in the natural and social sciences across a global network, WUN is well-placed to carry out such work. Key research themes include the drivers and pressures of climate change; the impacts on systems affected by climate change; and managing a response to climate change. Specific projects focus on water management, ocean acidification, sea-level rise, urbanisation, and energy and health. A major focus in 2013-2014 was on how to achieve and maintain food and nutrition security without compromising water and energy security. Researchers work with policy-makers and practitioners to deliver research-driven outcomes at the global, regional and local level; emphasis is placed on identifying climatic and societal response thresholds to make our research useful to stakeholders.

Food security and land use change

The world’s spiralling demands for food, water and energy in the face of climate change has been termed the “perfect storm” by the UK’s former Chief Scientific Adviser, Sir John Beddington. A key problem is that increasing agricultural production to alleviate food security results in well-recognised environmental damage such as water pollution, higher greenhouse gas emissions, overreliance on fossil fuels and a reduction in biodiversity. Sustainable intensification of agriculture offers a promising solution, but can it truly deliver increased food security while minimising negative environmental impacts? If so, how?

A new collaboration between internationally recognised experts at Cape Town, Leeds, Southampton and Wisconsin-Madison, together with a range of global WUN+ partners, hopes to answer this question. The team came together in September 2013 to brainstorm ideas on the topic of food security – a key focus for the Responding to Climate Change Global Challenge – and to develop priorities for the coming 12 months. They decided on a project proposal which has been submitted to the Belmont Forum, a global consortium of funders into environmental change research.

The aim of the project is to explore how sustainable intensification can deliver increased food security to a range of different countries and regions, and to understand what its social, economic and technological drivers are. Integrating insights from both the natural and social sciences, the team will use a systems approach to analyse the complex interactions between land use and sustainable intensification.

Researchers will undertake case studies in Europe (UK and Switzerland), Southern Africa (Tanzania and South Africa), and India; three parts of the world with marked differences in their land use, food security, economic development and governance. Strategies for sustainable intensification will be identified and compared, from the use of GM crops to increasing the diversity of plants grown in order to make farms more resilient as weather patterns change.

Another issue to be explored is the scale of farming and its impact on productivity and sustainability; while large-scale, monoculture farms can be easier to manage, some argue that it is easier to achieve sustainability with a variety of smaller-scale farms. The role of governance systems at the supranational, national and subnational levels will be another area of focus. For example, EU policy has a major influence on farming and trade, and how sustainable farming might be implemented, on the European landmass; by contrast, in Southern Africa, transnational cooperation on these issues is at the discussion stage.
Ultimately, the intention is to develop a tool for making decisions in the areas of food security policy, land use policy and investment, founded upon a firm evidence base. “The output will be a recipe which identifies how and when sustainable intensification will actually deliver what you want it to, and what problems mean it might not, so that you can make recommendations on a global scale,” says Professor Guy Poppy from Southampton, who leads the collaboration. The proposal has passed through the initial round at the Belmont Forum and a final decision is expected in mid-2014.

Global farm platforms for sustainable livestock production

Climate change is likely to make global food security an even more compelling issue by reducing the amount of land available for farming. Ruminants such as cattle and goats can make an important contribution to food security as they convert feed unsuitable for human consumption into high-value protein, demand for which is increasing rapidly. An important goal, therefore, is to find strategies for sustainable intensification of ruminant farming to maximise food production. But this requires addressing a number of environmental issues including water and air pollution, carbon emissions and soil erosion. Intensification also raises animal welfare and product quality issues, and poses the risk of reduced fertility and production efficiency.

In response, a WUN team is exploring and testing potential strategies for sustainable intensification of ruminant farming in real-world production systems. The initiative is led by Bristol in collaboration with Alberta, Leeds, Penn State, Wisconsin, UWA and Zhejiang as well as WUN+ partners Rothamsted Research in the UK and the Kerala Veterinary and Animal Sciences University in India. The goal is to form a global network of model farm platforms across six continents to host innovative research into grazing systems and disseminate findings among local farmers.

“This project will enable common themes to be identified across a wide range of farm platforms which utilise the most appropriate genetics and management for their eco-region,” says animal health expert Professor Mark Eisler from Bristol, who leads the multidisciplinary project with colleague Dr Michael Lee. “We will begin the rewriting of the rulebook on global livestock production by matching the correct animal phenotype to the correct environment, feeding systems and health plan to ensure responsible production where yield is not the only metric.”

Each of the three farm platforms created so far is developing strategies for sustainable intensification tailored to its own region. At the farm located in Western Australia, researchers are investigating whether a local native shrub can help livestock to better cope with parasitic worms while curbing methane emissions. At the farm in Kerala (picture above), the focus is on a water fern which can be harvested from ponds to provide a protein supplement for cattle and goats. At the North Wyke farm in Devon in the UK, researchers are studying the ability of red clover to boost meat and milk production while reducing pollution. Next, the aim is to develop new farm platforms in the US, China, Canada, Ethiopia and Uruguay.

The project builds on an earlier collaboration between Bristol, Leeds, Penn State, UWA and Zhejiang together with WUN+ partners which has been examining how future farming systems can provide healthy food from healthy animals. Its recommendations include reducing the amount of human feed given to livestock by maximising the use of natural pastures and crop residue, and avoiding the use of imported animals with no resistance to heat, disease and parasites. The group has written up its conclusions in a position paper published in the March edition of Nature.
Building more resilient urban food systems

Climate change is expected to make agriculture non-viable in a growing number of areas around the world, and to cause regional food harvests to fail more frequently. As a result, an important plank of our climate change response must be to develop new ways to ensure food security for the global population. Urban agriculture is one exciting and potentially fruitful way forward, especially since a large proportion of the world’s hungry people live in cities with no access to land to grow their own food. The viability of urban agriculture, however, has not yet been subject to extensive inquiry.

The WUN Resilient Urban Food Systems Network is a multidisciplinary collaboration which seeks to assess the viability of urban agriculture to contribute to urban food security, and foster innovation in urban agriculture in order to strengthen the global food supply. It involves 26 researchers from Alberta, Auckland, CUHK, Auckland, Leeds and UWA as well as a range of international WUN+ partners including the US National Center for Atmospheric Research.

“While urban agriculture isn’t new, there has been an explosion in new activities in this area across the industrialised world over the past 10 years,” explains Professor Debra Davidson from Alberta, the group’s founder. “They include a host of new experiments with the potential to enhance urban agriculture’s viability.”

A key area of focus for the group is finding ways to increase food production on small areas of land in urban areas, such as by improving the health of soils and managing water better. Another goal is to optimise food distribution systems and marketing, as well as encouraging more people to participate in local food production, and to reconsider their relationship to food from the perspective of health and sustainability.

The network held its inaugural planning workshop at Leeds in May 2013 (pictured above right), when WUN members came together with a number of regional stakeholders in the UK who have an interest in urban agriculture. It saw a fertile exchange of ideas not only between researchers from different disciplines but also with policy-makers, small business owners and community garden participants.

One early success of the network is an agreement with the University of Alberta to launch a community garden on a parcel of land at its agricultural research station. As well as benefiting university students and staff, the garden will serve as a model for demonstrating community gardening and current best practices. Researchers will also use the garden to investigate sustainable farming methods such as soil and water-saving techniques, companion planting and low-carbon agricultural management.

Members of the group have also submitted a proposal for CAD$2.5 million in funding from Canada’s Social Sciences and Humanities Research Council to support an ambitious, interdisciplinary research project. It involves an international comparison of urban agriculture practices focused on both middle and high-income countries. The researchers hope the initiative will unearth innovative strategies for upscaling urban agriculture and enable a two-way exchange of knowledge with policy-makers and practitioners.

**KEY OUTCOMES**

- Inaugural visioning workshop held in Leeds in May 2013 with 24 researchers and stakeholders in attendance
- Paper on interdisciplinary research in urban agriculture presented at the 5th AESOP Sustainable Food Planning Conference in Montpellier, France in October 2013; currently being expanded into a journal article
- Secured agreement from the University of Alberta to create a demonstration garden at its South Campus; constituted a governing board for the initiative
- CAD$2.5 million grant proposal to Canada’s Social Sciences and Humanities Research Council in development
GLOBAL CHALLENGE: GLOBAL HIGHER EDUCATION AND RESEARCH

Globalisation is affecting higher education in unprecedented ways. Ever-increasing flows of students across borders, the war for academic talent, and the rise of new technologies are all changing the ways that universities operate and how societies view the role of higher education. Key issues to explore include how to provide equal access to education and ensure affordability; how changing patterns of public/private collaboration affect the research and educational missions of universities; how technology mediates and advances research and higher education; and the changing roles of academics, students and administrators under conditions of globalisation.

The WUN Global Challenge in Higher Education and Research thematic area seeks to understand the sources, mechanisms and social structures that give rise to today’s higher education and research challenges, and to develop practicable strategies for reform. In 2013-2014, the Global Challenge focused on access and equity; MOOCs and emerging technologies; the internationalisation of the academic curriculum; the global reform agenda; and international higher education and research policy. Our collaborative work makes an active contribution to the global conversation on higher education and research, providing commentary to inform universities, conferences, international agencies, policy frameworks and the media.

Policies for reforms in international higher education

The global higher education sector has undergone a major expansion over the past 15 years, with the number of students attending university abroad rising sharply from 3 million to a predicted 7.2 million in 2020. These changes have delivered a range of advantages to higher education including economic development, intercultural understanding and the training of leaders for the future. But they have also brought risks and challenges, including the difficulty of matching quality with quantity, a substantial rise in the cost of higher education, and threats to access and equity. The situation has been made more urgent by the effects of the Global Financial Crisis on the higher education sector, which are only becoming apparent five years on.

WUN is engaging with the benefits and challenges arising from globalised higher education in three distinct ways. Each year, the presidents of WUN universities come together as a global think-tank to examine current issues in the sector and propose policy solutions. Presidents Forums to date have focused on higher education reform to 2020 (Shanghai 2011); the knowledge gaps between universities, governments and business (London 2012); and the challenge of global food and nutrition security (Washington DC 2013). The results of these fora are communicated in publications and in briefings to the international organisations with whom WUN works.

WUN also commissions scholarly research and reports which explore future developments and challenges for the global higher education sector. On the basis of these articles, WUN formulates strategies designed to anticipate and respond to important emerging issues. In 2013-2014, reports were commissioned from Professor Adam Nelson of Wisconsin-Madison on historical lessons for universities (see article on following page); and from Professor Keri Facer of Bristol on the capacity of universities to make a contribution to society’s conversations about the future.

Finally, WUN works in close partnership with international agencies to hold joint strategy workshops and formulate evidence-based policies for reforms. Professor John Hearn, WUN Executive Director, served as a member of the core steering group for OECD’s Innovation, Higher Education and Research for Development (IHERD). The result of the OECD collaboration with WUN and many other experts and organisations was 31 published reports by OECD staff and partners on higher education development in 19 countries (including 13 emerging and developing countries and nine OECD countries). Four policy briefs based on the findings of the reports were also published by IHERD. WUN continues to partner with the British Council and the World Bank to inform global higher education policy; outcomes from these projects are expected in early 2015.
Universities 2030: learning from the past to anticipate the future

Universities face a host of challenges in adapting to new forms of globalised higher education. To help them steer the course ahead, WUN commissioned a report to provide an historical perspective on internationalisation by universities. Professor Adam Nelson, an educational policy and history scholar from Wisconsin-Madison, co-produced the 40-page document with graduate student Nicholas Strohl. It features essays by nine leading historians of higher education, including two from WUN institutions Sydney and Zhejiang.

The essays cover a broad range of topics from the changes that took place in British “settler” universities in the late 19th century to the recent rise of the University of Luxembourg, one of the newest research universities in Europe. Two of the essays traced the evolution of specific institutions – the University of São Paulo and the University of Sydney – from the economic turmoil of the Great Depression to the present day.

Internationalisation in Chinese higher education was the focus of three of the essays. In “Long Road Ahead: Modernizing Chinese Universities”, Professor Yang Rui from the University of Hong Kong traces the evolution of the university in China and the adoption of ideas and policies from overseas. “The central purpose of China’s modern higher education has been to combine Chinese and Western elements, to ‘indigenize’ Western models, and to bring together aspects of both philosophical heritages,” he writes. “Yet, such markedly different cultural roots have led to continuous conflicts between traditional Chinese and new Western ideas of the university – and of ‘modernity’ itself.” To prosper into the future, he concludes, China’s higher education sector needs to “find an appropriate – one might even say uniquely Chinese – way to balance indigenous and Western ideas of the university.”

In “Government-Backed Study Abroad and the Internationalization of Chinese Higher Education, 1945-1985,” Associate Professor Gilsun Song from Zhejiang examines China’s efforts to develop its skills, particularly in science and technology, by sending students on international study and exchange programs – strategies that changed with each major political shift of this period. “These students have often helped guide China towards international partnerships and opportunities, while at the same time growing the capacity of Chinese higher education as an international force and an engine of domestic economic growth,” she writes.
GLOBAL CHALLENGE: PUBLIC HEALTH

Non-communicable diseases (NCDs) such as cardiovascular disease, cancer, diabetes and chronic respiratory diseases are now the leading cause of death for humanity, causing over 60 per cent of all global deaths. Of these, around 80 per cent occur in low and middle-income countries, where the heavy burden of NCDs impedes economic development. The problem is increasing at an alarming rate: WHO estimates that NCDs will rise 17 per cent globally over the next decade, posing a serious threat to human health, productivity and the fabric of society.

The WUN Public Health Global Challenge responds to this complex problem by bringing together some of the world’s leading experts to explore socio-economic, cultural and behavioural solutions across the life-course. Our network gives us a unique capacity to share insights across countries and disciplines. Research focuses on three themes: the health of families and migrants across the life-course; health resilience in adolescents in different cultural contexts; and schools as a setting for reducing risk factors related to NCDs. Special attention is paid to population-level and individual approaches that increase access to education, promote health literacy, and empower women. Links are sought to other major global initiatives such as those related to the UN’s Sustainable Development Goals.

A life-course approach to prevention of non-communicable diseases

Tackling the rapid rise of NCDs, especially cardiovascular disease, diabetes, chronic lung disease and some forms of cancer, requires a life-course approach beginning in early life, probably even before conception. Adopting this focus is based on substantial evidence for the links between maternal, perinatal, infant and childhood factors and the risk of developing NCDs in adulthood, through changing the sensitivity to later-life exposures. The life-course approach is particularly important in low and middle income countries, but also helpful in developed societies where there are significant social disparities.

Given its considerable research expertise in public health, epidemiology, underlying mechanisms and biomarkers, as well as the translational medicine being undertaken in its partner institutions, WUN is well-placed to respond to this issue. An expert WUN group first came together in Shanghai in May 2011 to work on the topic and has been collaborating since then under the leadership of Professor Mark Hanson from Southampton and Professor Sir Peter Gluckman from Auckland, with active participation from the Vice-Chancellor at Southampton, Professor Don Nutbeam.

The group’s research follows a life-course approach with a particular focus on early life. Poor nutritional status and lifestyle among mothers, and probably fathers too, which has long-term consequences on the healthy development of their babies, is a key area of focus; another focus is poor diet among children and adolescents, which can predispose them to conditions such as obesity and confer risk of NCDs. Researchers aim to gather evidence to understand the nature of the problem and its causes, to identify biomarkers of risk such as epigenetic changes, as well as to explore practical interventions to reduce the risk of disease. Clinical trials and educational initiatives to promote health literacy in adolescents and young adults are two important strategies for achieving this.

2013-2014 saw the group consolidate its global network and forge partnerships with international agencies such as the UN Foundation and the World Health Organization. In September 2013, Professor Hanson and Professor John Hearn, Executive Director of WUN, attended the United Nations Secretary-General’s Every Woman Every Child review at the UN Foundation and the UN Global Compact group in New York. They also held consultations during 2013 with the WHO reproductive health research group concerning a partnership with WUN. Meanwhile, the group is also exploring the potential for fruitful collaborations with the private sector. A good example of the latter is the collaboration with Novo Nordisk on the Jom Mama project to promote healthy lifestyles in young married couples in Malaysia.

A key achievement of the collaboration over the past two years has been its input into UN documentation that spelt out the challenge of NCDs for the first time. WUN’s Shanghai Declaration regarding early life opportunities for addressing NCDs in developing countries fed directly into the Political Declaration that emerged from the UN’s High Level Meeting on Non-communicable Diseases. Now, the medium-term goal is to contribute to the documents published in support of the UN’s post-2015 Sustainable Development Goals.

KEY OUTCOMES

Forged new ongoing partnerships between WUN, the World Health Organization (WHO) and United Nations Foundation

Input into Secretary-General’s Every Woman, Every Child review and UN Global Compact meeting

Working with Novo Nordisk, Steno Diabetes Centre, University of Witwatersrand and Malaysian Government on Jom Mama project to reduce risk of diabetes
in-FLAME: the International Inflammation Network

The rising burden of NCDs now poses the greatest threat to global health. Inflammation is a common element in almost all these diseases, including obesity, allergies, asthma, autoimmune disorders, cardiovascular and metabolic diseases, cancer, and neurodegenerative conditions. Early environmental effects on the developing immune system play an especially important role in causing inflammation and can have lifelong consequences for many organ systems.

To tackle the problem, WUN members have formed in-FLAME: the International Inflammation Network – an interdisciplinary collaboration dedicated to understanding the risk factors for inflammation and devising strategies to prevent them. It is led by UWA in partnership with Alberta, Auckland, Bergen, Cape Town, CUHK, Southampton, Sydney and Wisconsin–Madison together with experts from 30 WUN+ institutions across the globe.

“We are a diverse group of researchers from 19 countries with the shared goal of understanding the early life determinants of inflammation,” explains UWA’s Professor Susan Prescott, who founded the network after the 2011 WUN Public Health Global Challenge conference in Shanghai. “We place a particular emphasis on declining biodiversity, particularly of human gut microflora, which is often overlooked as a critical factor in the development of immune and metabolic health.”

The network is developing an integrated programme of population, biological and intervention studies aimed at preventing inflammation and subsequent disease. in-FLAME’s original research to date includes a comparison of maternal and infant gut microbial diversity between regions; an international comparison of breast milk composition; studies on the effects of maternal nutrition on fetal immune cells; and a global survey on the prevalence of food allergy in collaboration with the World Allergy Organization.

A new research project in 2013-2014 plans to conduct a randomised controlled trial of soluble dietary fibre and probiotics in pregnancy. The goal is to improve the diversity of the microbiome and reduce inflammation, thereby potentially reducing allergic disease in children. “It’s a fairly simple intervention which could have far-reaching effects because of its ability to modulate our microbiome and steer our immune responses for the future,” says Professor Prescott, who leads the study. Her group has secured the support of a commercial partner to provide the product, while a major grant application to Australia’s National Health and Medical Research Council is pending.

The network’s second annual workshop (pictured below), which was held in Washington DC in May 2013, provided a forum to share progress and discuss new collaborations, including a shared application to the US National Institutes of Health call for birth cohort studies. The third in-FLAME workshop, to be held Cape Town in April 2014, will focus attention on the role of modern environmental pollutants in NCDs, the interaction between infectious and non-infectious microbial exposures, and early nutrition.

In the long term, in-FLAME aims to harmonise the various research protocols used across the network. By collecting the same information, at the same time points, using the same methods, researchers would have access to large, standardised data sets which could shed new light on a range of important topics. A committee is working to develop standard operating procedures for all in-FLAME participants.

**KEY OUTCOMES**

- 6 research papers published or in press
- 2nd annual workshop held in Washington DC, May 2013
- 3rd annual workshop to be held in Cape Town, April 2014
- Three competitive Research Collaborative Awards secured from UWA with a total value of AUD$60,000
Shaping better health systems by empowering patients

Providing care for people with NCDs is emerging as one of the key global health challenges of the 21st century. Low, middle and high-income countries are struggling to cope with the rising burden of care associated with heart disease, cancer and diabetes within an ageing population. Such care must be well-organised and integrated in order to address patients’ needs and be cost effective. To achieve this, policy-makers, managers and health practitioners require rigorous data, analysis and practical insights to help them shape better health systems.

To fill the gap, a group of WUN researchers from Sydney, Leeds and Alberta have combined their expertise to compare the different approaches of health systems in Australia, the UK and Canada. Their aim is to identify best practice approaches that can be shared and applied more widely.

A key focus for the researchers is to examine how primary health care is organised and funded across their different locations and how existing mechanisms could be used to empower patients. One of the group’s key insights is that patients must be placed at the helm of preventative care and treatment of NCDs. “At the end of the day, patients have to be involved in managing their own care, an important part of which is navigating the health care maze,” explains Professor Stephanie Short from Sydney, the group’s principal investigator. This is the basis of their current Australian Research Council Discovery Project grant that explores Australians’ differential capacity to make health care choices.

In 2013-2014, members of the group had a paper accepted for publication in Australian Health Review which reports on their research into how primary care systems in Australia can be “turned upside down” to place patients at the centre of preventative care and treatment. The article posits that government health reforms to primary care in Australia have not adequately integrated the management of chronic diseases for patients. To remedy the situation, they argue for better coordination between general medical practitioners and providers of care such as nurses and physiotherapists when managing chronic illnesses, which can reduce the number of patients who are hospitalised. The paper also highlights how reforming governance arrangements involving multiple lines of responsibility, and increasing transparency in reporting by doctors, can improve care.

Currently, the group is collaborating on another paper which seeks to paint a detailed picture of how primary health care networks are organised in Australia, the UK and Canada. Having completed the necessary empirical work, they are now refining a conceptual framework which will provide the basis for ongoing research. Their next step will be to extend this framework to a development context by testing how applicable it is to low and middle income countries. To advance that goal, the group has forged a new partnership with WUN member Cape Town as well as WUN+ institutions in India and Indonesia.

Fostering the talents of its emerging researchers has been a consistent focus for the project team since it was established. When she joined the group, Dr Kirsten Harley was a postdoctoral fellow at Sydney; she has since been appointed to a lectureship there. Another collaborator, Dr Gianluca Veronesi, was a lecturer at Leeds when he joined and has since been promoted to Associate Professor. “As well as our research outcomes, I’m really pleased with the outcomes of this project in terms of mentoring and career development,” says Professor Short.

KEY OUTCOMES

- Paper on governance, transparency and alignment in the Coalition of Australian Governments National Health Reform Agreement accepted by Australian Health Review (in press)
- AUD$268,000 Australian Research Council Discovery Grant awarded for research to be conducted from 2013 to 2015 on the topic “How Australians navigate the healthcare maze: the differential capacity to choose”
- Health Care and Public Policy 5th edition co-authored by Stephanie Short, to be published by Palgrave Macmillan in 2014, will feature insights developed through the WUN group

Members of the WUN Shaping Health Systems project team at a site visit to the Westview Physician Collaborative at the University of Alberta. Rear L-R: Dr Duncan Ross, University of Leeds; Professor Stephanie Short, University of Sydney; Associate Professor Trish Reay, University of Alberta. Front L-R: Assistant Clinical Professor Allan Bailey, University of Alberta; Dr Kirsten Harley, University of Sydney
GLOBAL CHALLENGE: UNDERSTANDING CULTURES

Globalisation is challenging national, regional and individual cultural practices in many different ways. Increased population mobility, a more integrated transnational economic system and the rise of international communications networks are just some of the trends that are impacting local cultures. A deeper understanding of these interactions must inform effective policy-making and implementation. But conducting international, comparative studies of cultural processes in a rigorous way is a major task beyond the scope of any single institution or national group.

That is where the WUN Understanding Cultures Global Challenge makes a contribution. This thematic area unites scholars from the humanities and social sciences, as well as other disciplines, in international collaborations to develop research into culture and society that addresses issues of relevance to policy-makers. A key goal is gaining a better understanding of the consequences of globalisation for the world’s cultures. Researchers are encouraged to explore the role of new technologies and new forms of knowledge exchange. The focus of Understanding Cultures in 2013-2014 was on macroeconomic and social change; migration and adaptability; the ageing society; and global Indigenous development. This thematic area is also home to the Global China Group, which focuses on building a two-way understanding of China.

Building a two-way understanding of China

Understanding and engaging with China has never been more important. Home to 1.4 billion of the world’s 7 billion people, China is emerging strongly in many fields of human endeavour including science and technology, education and international affairs. Its growing influence is perceived as beneficial in some quarters, and as a threat in others. With its diverse research strengths across health, education, food security, politics, history, literature and the arts, WUN is uniquely positioned to offer a multi-perspective, interdisciplinary approach to the study of China.

The Global China Group brings together the significant research expertise in contemporary China studies across WUN in a two-way process of understanding and engagement; equal focus is placed on how China sees the world and how the world sees China. The main focus of the group is understanding China’s social and economic development, with sub-themes covering cultural change; climate change; food security; public health; and higher education. These areas offer a promising platform to forge diplomatic relations and collaborative research on projects of mutual priority.

Building on the work of its predecessor, the WUN Contemporary China Centre, the group seeks to develop strong linkages with government, NGOs and industry as well as academic partners from beyond the network. The ultimate goal is to serve as a leading knowledge partner on contemporary issues facing China and the world. The Global China Group is co-chaired by Professor Zhang Junsen of CUHK and Professor John Hearn, WUN Executive Director.

The group’s inaugural conference was held at CUHK in December 2013 (pictured at left). It saw 70 experts from various disciplines come together to explore the theme of the Chinese family in transition, including issues such as the one-child policy, the ageing population, and necessary social and economic reforms. As a result of the conference, three new collaborations have been formed between WUN experts and their Chinese counterparts: a project on ageing in China involving Alberta and Tsinghua University; a project on demographic predictions of the one-child policy involving two leading Chinese universities, both WUN+ institutions; and a project on social support system reform in China.

Another aim of the conference was to discuss and agree upon a forward programme of research and events. A strategic workshop with the University of Chicago in May will explore the impact of China’s food security policies on global agriculture exporters; a proposed strategic workshop in Beijing is set to analyse social and economic policy development following the Third Plenary Session of the 18th CPC Congress; while a planned conference at the 2015 WUN Conference and AGM in Hong Kong will focus on international public health and China. “Perhaps the most exciting
potential of this group is the opportunity to gain clarity on the different cultural approaches and thinking of China and international communities, as they work to address global and local challenges,” says Professor John Hearn, Executive Director of WUN.

**Skilled migration: the benefits of multilingual identities**

Skilled migration is a major focus of attention for policy-makers and international agencies such as the World Bank and the IMF. Educated migrants bring a wealth of expertise to their host countries and transfer remittances, knowledge and technology back to their countries of origin. Most research and policy discussion has focused on the financial impact of skilled migration rather than the soft skills that it can promote. In particular, little attention has been paid to the value of multilingual identities among professional migrants.

WUN researchers have come together to gain a better understanding of the communication skills and strategies that professional migrants deploy as part of their interactions in the transnational workplace. The collaboration is led by Professor Suresh Canagarajah from Penn State in partnership with scholars from Bristol, Cape Town, CUHK, Leeds, Rochester, Sydney, Wisconsin-Madison and York, as well as WUN+ institution Hong Kong Baptist University. The project team includes experts from a diverse range of fields including cultural studies, linguistics, geography, sociology and education.

Their most recent study was based on interviews with skilled migrants from a variety of speech communities living across four continents; it builds upon a similar, previous study of global English conducted by the same group. Interview questions explored how migrants navigate the possible conflicts between their linguistic and cultural identities, and relationships in their new workplaces; and the skills and knowledge that enable them to do so.

The results were surprising, according to Professor Canagarajah “We thought there might be a lot of pressure to adapt to local norms, but a lot said they didn’t experience any,” he explains. Rather, the majority reported an acceptance of diversity in their workplace. Many of the interviewees considered the workplace to be inclusive and transnational, says the researcher, rather than Australian or British, for example.

In November 2013, members of the project team converged at Penn State for a two-day workshop to share data and report on their findings. On the third day, the group held a public conference on migration and language. Ultimately, they intend for their work to make a significant contribution to public policy. “We are trying to make a case to policymakers that diversity can be valuable for development,” says Professor Canagarajah.

While the paradigm currently adopted by many immigration authorities takes a normative approach to English language learning – as demonstrated by the high importance placed on the IELTS test – the group argues there should be greater regard for the diverse languages and values workers bring with them. While these qualities are not as easily measurable, they can be vitally important, especially as workplaces internationalise.

“Homogeneity is instrumental, it’s very good for the short run and it looks efficient,” adds Professor Canagarajah. “But it is also very vulnerable and not conducive to further development. Diversity is for the long run. The diversity that these skilled professionals bring builds a stronger foundation for work, development and progress.”

**KEY OUTCOMES**

- Global China Group launch conference at CUHK held in December 2013
- A planned series of 3 strategic workshops to develop priority programmes for the Group
- Development of new partnerships with WUN+ universities and government in China

Skilled migrants bring with them diverse languages, skills and values that are a strong asset to the workplaces they join.
International exchanges can have a powerful impact on emerging scholars. By visiting foreign universities, researchers can expand their knowledge and skill sets, widen their professional networks, and sometimes take advantage of new career opportunities. In 2013–2014 WUN further developed its WUN Passport concept – opening up opportunities for students and early career researchers to take advantage of their place in a global network of leading universities. Through the Research Mobility Programme (RMP), students and staff from WUN universities are able to travel to another member institution for a period of up to three months to collaborate, learn, teach and share across borders. Participants often report that the experience has a transformative effect on their studies and their academic career.

Brendan Murphy, a PhD student in mathematics from Rochester, was one of the participants in the RMP during 2013-2014. His exchange took him to Bristol, where he joined forces with a local PhD student and another scholar from Russia to study an area of additive combinatorics known as sum-product problems. After making significant progress together, they are now writing up their results in a journal article. “Visiting Bristol was a great experience personally and professionally,” says Brendan. “These research connections have broadened my perspectives, and when the time comes to leave Rochester, I will apply to postdoctorate positions in Bristol and other European universities.”

Makalani Myrtveit, a PhD student from Bergen, received funds from the RMP for an exchange to Auckland’s Department of Health Psychology. There she joined senior faculty in exploring the role of thoughts and emotions in chronic illnesses. “Getting to know researchers from around the world and seeing how they conduct and interpret studies has for me been a great inspiration,” she says. “I am really grateful for the opportunity and I look forward to continuing to work within this international collaboration I am now a part of.”

Postdoctoral researchers and faculty members from WUN universities also participate in the RMP. Dr Matthew Boswell, a postdoctoral fellow from Leeds, received a grant to visit Sydney and UWA where he gave a series of public lectures and masterclasses on the topic of memory and the Holocaust; he is now applying for funding to consolidate an international network in this area. Dr Wenfei Winnie Wang (pictured above), a lecturer from Bristol, visited CUHK to undertake a project on the impact of return migration on rural development in China, and its implications for Vietnam. “I will benefit greatly from this in terms of my academic career development, my research capacity in the field of migration studies, and my project management skills,” she explains. Her collaboration with Professor Jianfa Shen from CUHK recently resulted in a major grant from the UK’s Economic and Social Research Council (ESRC) which will involve scholars from six institutions.

Undergraduate students were also supported by WUN in 2013-2014 through an innovative exchange programme based at UWA. Led by Associate Professor Judith Berman, the scheme invites talented undergraduates from Nanjing and Zhejiang to UWA for eight weeks of intensive research training (pictured below left). “The cooperation between universities from different countries provides students with great opportunities to work with many world-class researchers, to experience other cultures, and to improve ourselves,” says Wang Benya from Zhejiang, a student participant in the scheme. “I hope more students and universities can be involved.”

In 2013, WUN also created a Student Mobility Working Group to explore ways the network can further extend the WUN Passport concept and open more opportunities to both undergraduate and postgraduate students. The group is exploring ways of building sustainable models for network-wide mobility including expanded exchange programmes, summer schools and blended learning programmes.
Tackling complex global issues such as food security, the obesity epidemic or migration flows requires the collaboration of experts from across different institutions, nations and disciplines. WUN exists to foster this collaboration in its four priority areas of climate change, public health, higher education and cultural understanding. Researchers are given relatively modest grants to help them expand their networks, seek out partners and attract ongoing funding from other sources. Since 2009, WUN has invested well over £1 million in collaborative research, which has catalysed many times that amount in external funding.

WUN uses three distinct mechanisms to invest in research. Our flagship programme is the Research Development Fund (RDF), a competitive grant scheme designed to kick-start new, interdisciplinary collaborations among member universities. Seed funding awards of between £10,000 and £15,000 are typically used for exploratory research, targeted workshops, faculty exchanges and the formation of collaborative networks. Applications must include at least three WUN member universities and span at least two geographical regions. In 2013-2014, 16 projects received a total of £167,000 from the RDF.

For example, the WUN Indigenous Research Network received £13,000 to study how research on Indigenous communities can be better targeted to improving the lives of native peoples around the world. The project will compare the experiences of a range of cultures including the Aboriginal and Torres Strait Islanders of Australia, the Sami of Norway, the Maori of New Zealand, and the First Nations of Canada. Nine WUN universities are involved in the network. The WUN grant will enable the group to “meet to share mixed discipline and multi-national approaches to best practice ethical research in the many fields of research that affect Indigenous peoples,” explains its founder, Associate Professor Catriona Elder from Sydney.

Another WUN initiative funded by the RDF is titled Developing Compatible Energy and Climate Strategies. Its goal is to explore strategies for supplying affordable energy that also reduce carbon emissions – such as carbon capture, biofuels, solar energy and wind turbines – and seek ways to improve them. The project received a grant of £8,000. “It is enabling us to strengthen the geographical reach of our research network,” says Dr Håvard Haarstad from Bergen, who leads the project with partners from CUHK, Leeds, Sheffield and Wisconsin-Madison. “The activities we will develop with the WUN funding will be helpful in exploring opportunities for larger grant proposals and publication projects.”

The second mechanism for research funding at WUN is the Global Challenge Fund, which fosters collaboration across the network as a whole. Much of the funding is used to unite research communities at major international events such as the WUN Joint Fourth Public Health/Responding to Climate Change Global Challenge Conference, to be held in Cape Town in March 2014. The conference will see WUN experts join scholars from other universities, policy-makers and industry representatives to discuss the public health implications resulting from our biological, social and technological responses to climate change. In 2013-2014, WUN invested £60,000 through the Global Challenge Fund.

A third funding scheme was launched in 2013-2014 to give extra assistance to existing WUN research projects. The Sustainability Fund is designed to act as a “pump prime” for some of WUN’s most promising initiatives, helping researchers who have highly-developed research projects to work towards bids to major funding agencies. “Our research investments support teams who can forge long-term, sustainable projects and work with partners and policy-makers to make a real difference on the issues that matter to global society,” says Professor John Hearn, Executive Director of WUN.
PARTNER WITH US

Agencies, policy-makers and philanthropic organisations

WUN partners with a wide range of international agencies and organisations including the UN, OECD, WHO and World Bank Institute to further its goal of delivering solutions to pressing global challenges. Through these partnerships, WUN makes an impact on scientific discovery, policy frameworks and communities around the world. By partnering with WUN, your organisation can harness the resources of 17 leading universities in 10 countries across five continents through the one channel. Work with us to define a truly global research agenda.

Researchers at WUN universities

Every year, WUN researchers ignite new and exciting international collaborations across our four Global Challenge themes. If you are a researcher at a WUN institution – whether early in your career or established in your field – and you wish to start a new project or find out more about existing collaborations, the best place to start is with your local WUN Coordinator. Contact details are on the WUN website at www.wun.ac.uk/about/members.

Researchers outside WUN

WUN research projects are not limited to just the 17 member universities of WUN. We work closely with experts from many other universities around the world as well as the private sector to ensure the very best minds contribute to our research and expand its intellectual reach. Our work with external partners is known as WUN Plus (WUN+). Researchers make an important contribution to joint projects and are named partners on funding programmes and publications. However, they do not qualify for direct funding from WUN.

Universities wishing to join WUN

WUN is a network of peer universities from around the world. If you are a research-intensive university with a global reputation, a vision for international excellence and strengths in our priority research areas we are interested to hear from you. Members are approved by the WUN Partnership Board. The first step towards membership is a willingness to participate and invest in WUN.

Online tools and support

WUN provides a range of digital tools to support communication and collaboration among researchers:

- Virtual seminars that bring researchers from distant locations together to share ideas. This service also offers postgraduate students access to international scholars they may not otherwise interact with.
- Desktop conferencing to support meetings and smaller seminars, and to help develop collaborations.
- Public web pages for promoting projects and initiatives. All research groups involving three or more WUN member universities from two or more geographic regions are given space on the WUN website to promote activities.
- Cloud-based communications for sharing data, applications and preparatory work.
- Email lists for day-to-day communications and announcements.

WUN also offers funding support and advice to help interdisciplinary research projects identify, bid for and secure external funding. Assistance is provided by WUN’s team of expert research managers and administrators.

WUN partner operations

Each WUN member chooses their own model of implementation and operation for WUN. However, we have studied the criteria for successful engagement and they include:

- The President of the University acting as champion for the network, engaging with the Partnership Board, advising on strategy and resource development, and attending the Annual Conference and Annual General Meeting.
- A Senior University Officer, preferably a Vice-President, with the responsibility for research or internationalisation of a research strategy.
- A full or part-time Coordinator to manage the programme and projects of WUN within the university and to act as an intermediary between the Network and the university community. The Coordinator works with academics to develop initiatives, follow up on programmes, track achievements and communicate academic and funding opportunities.
- A modest sum set aside by each member university to support collaboration among members.

Global Academy Jobs

WUN has partnered with Global Academy Jobs (GAJ) to develop a truly global academic mobility and recruitment portal.

As the academic world becomes ever more borderless and the mobility of researchers and students intensifies, GAJ responds to provide universities with access to academic talent around the world, while at the same time providing diverse career opportunities for academics at every stage of their career path – from postdoctoral researchers, lecturers and professors, to Presidents and Vice-Chancellors.

Since the joint initiative was formed in June 2012, GAJ has become one of the world’s fastest growing online job portals. To date, WUN’s member universities have advertised 12,223 jobs through GAJ, representing a significant cost saving and profile generation to WUN members.

For more information visit http://globalacademyjobs.com/
CONFERENCES, EVENTS & STRATEGIC WORKSHOPS

Throughout the year, the Worldwide Universities Network hosts conferences, workshops, seminars, virtual seminars and events that bring an international community of researchers together to share ideas, spark collaboration and further our ground-breaking research. We don’t work in a vacuum, and these events partner with leading universities, academic societies, international organisations, foundations and governments to ensure our research is informed and impactful.

Listed below is a small selection of important events between May 2013 and April 2014.

Health, Poverty and Sustainability Science
Bergen, Norway | 29 January 2014
Hosted by the University of Bergen, this meeting explored options for a WUN application to EU Horizon 2020.

Autism: Global Challenges and Local Needs Conference
Hong Kong | 16-17 January 2014
Hosted by the Chinese University of Hong Kong, this conference examined scientific advances in the area of autism spectrum disorders and the development of effective system-wide policy responses.

Inaugural WUN Global China Conference
Hong Kong | 5-6 December 2013
Hosted by the Chinese University of Hong Kong, this conference focused on family transition, ageing and social security in China. It has led to strengthened relationships and an ongoing programme of engagement with new Chinese partners and the government of China.

WUN Adolescent Health Workshop
Auckland, New Zealand | 30 November – 1 December 2013
Hosted by the University of Auckland, this workshop explored school-based interventions in health and scientific literacy development.

WUN Health Literacy Conference
Sydney, Australia | 26-28 November 2013
Hosted by the University of Sydney, this conference brought together over 200 researchers, practitioners and experts to examine gaps and devise solutions in how the public receive and translate information relating to their healthcare.

From Zero to Hero – Europe’s 30 Year Journey in Consumer Medicines Information
Madison, USA | 7 November 2013
In the 2013 University of Wisconsin-Madison Rennebohm Lecture, Professor Theo Raynor of the University of Leeds gave a running history of the UK’s move towards better information for medicine consumers.

Understanding the Overlap Between Infectious and Non-communicable Diseases in Low- and Middle-income Countries
Cape Town, South Africa | 6 November 2013
Hosted by the University of Cape Town, this colloquium presented frameworks for adapting to epidemiological and demographic transition.

3rd WUN Responding to Climate Change Global Challenge Conference
Leeds, UK | 11-13 September 2013
Hosted by the University of Leeds, this conference examined food, water, energy and human security as a meta-challenge. It advanced one of WUN’s four key research thematic areas.

Transformative Gender Justice Workshop
Leeds, UK | 11-12 September 2013
Hosted by the University of Leeds, this workshop looked at the potential for judicial and non-judicial justice mechanisms to have transformative outcomes upon gender relations in countries with histories of violence.

Imagining Globality: China’s Global Projects in Culture
Edmonton, Canada | 12 June 2013
Hosted by the University of Alberta’s China Institute, this conference explored China’s global projects and what they say about China’s place in the world.

Language Assessment Research Network Conference
Zhejiang, China | 7-10 June 2013
Hosted by Zhejiang University, this conference examined the ever-increasing use of English as the default language of global higher education and how we can better assess English language for HE.

To find out more about WUN events visit www.wun.ac.uk/events
LEADERSHIP AND GOVERNANCE

WUN is managed by a Secretariat consisting of the Executive Director, Professor John Hearn, and the General Manager, Nicholas Haskins. The network is governed by a series of three governance boards:

**Partnership Board**
The Partnership Board is responsible for setting forth the policy of the Network and is made up of the Presidents, Vice-Chancellors or Rectors of the member universities.

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<th>University</th>
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<td>The University of Alberta, Canada</td>
<td>Professor Indira Samarasekera * (Chair)</td>
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<td>The University of Auckland, New Zealand</td>
<td>Professor Stuart McCutcheon *</td>
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<td>The University of Bergen, Norway</td>
<td>Professor Sigmund Granmo / Professor Dag Rune Olsen</td>
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<td>The University of Bristol, United Kingdom</td>
<td>Sir Eric Thomas</td>
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<td>The University of Cape Town, South Africa</td>
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<td>The Chinese University of Hong Kong, Hong Kong</td>
<td>Professor Joseph J.Y. Sung *</td>
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<td>The University of Leeds, United Kingdom</td>
<td>Professor Michael Arthur / Sir Alan Langlands</td>
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<td>Maastricht University, The Netherlands</td>
<td>Professor Dr Martin Paul</td>
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<td>Nanjing University, China</td>
<td>Professor Jun Chen</td>
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<td>The Pennsylvania State University, USA</td>
<td>President Rodney Erickson *</td>
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<td>The University of Rochester, USA</td>
<td>President Joel Seligman</td>
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<td>The University of Sheffield, United Kingdom</td>
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<td>The University of Wisconsin-Madison, USA</td>
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<td>The University of York, United Kingdom</td>
<td>Professor Brian Cantor / Professor Koen Lambert</td>
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<tr>
<td>Zhejiang University, China</td>
<td>President Wei Yang / President Jianhua Lin</td>
</tr>
<tr>
<td>The Worldwide Universities Network</td>
<td>Professor John Hearn *</td>
</tr>
</tbody>
</table>

**Academic Advisory Group**
The AAG is responsible for overseeing the academic portfolio of the Network and advising the Partnership Board on strategic direction. It is made up of senior administrators, usually at the level of Vice-President or Deputy Vice-Chancellor with responsibility for the research or internationalisation priorities of the member universities.

<table>
<thead>
<tr>
<th>University</th>
<th>2013/14 Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>The University of Alberta, Canada</td>
<td>Professor Murray Gray *</td>
</tr>
<tr>
<td>The University of Auckland, New Zealand</td>
<td>Professor Jane Harding</td>
</tr>
<tr>
<td>The University of Bergen, Norway</td>
<td>Professor Astrid Andresen / Professor Anne C. Johannessen</td>
</tr>
<tr>
<td>The University of Bristol, United Kingdom</td>
<td>Professor Guy Orpen / Professor Nick Lieven</td>
</tr>
<tr>
<td>The University of Cape Town, South Africa</td>
<td>Professor Dane Visser</td>
</tr>
<tr>
<td>The Chinese University of Hong Kong, Hong Kong</td>
<td>Professor Sian Griffiths</td>
</tr>
<tr>
<td>The University of Leeds, United Kingdom</td>
<td>Professor David Hogg</td>
</tr>
<tr>
<td>Maastricht University, The Netherlands</td>
<td>Professor Luc Soete / Professor Tom van Veen *</td>
</tr>
<tr>
<td>Nanjing University, China</td>
<td>Professor Rong Zhang</td>
</tr>
<tr>
<td>The Pennsylvania State University, USA</td>
<td>Professor Marty Trethewey</td>
</tr>
<tr>
<td>The University of Rochester, USA</td>
<td>Professor Peter Lennie</td>
</tr>
<tr>
<td>The University of Sheffield, United Kingdom</td>
<td>Professor Rebecca Hughes</td>
</tr>
<tr>
<td>The University of Southampton, United Kingdom</td>
<td>Professor Philip Nelson / Professor Mark Spearing</td>
</tr>
<tr>
<td>The University of Sydney, Australia</td>
<td>Professor Mark Adams</td>
</tr>
<tr>
<td>The University of Western Australia, Australia</td>
<td>Professor Robyn Owens * (Chair)</td>
</tr>
<tr>
<td>The University of Wisconsin-Madison, USA</td>
<td>Professor Guido Podestá</td>
</tr>
<tr>
<td>The University of York, United Kingdom</td>
<td>Professor John Local / Professor Deborah Smith</td>
</tr>
<tr>
<td>Zhejiang University, China</td>
<td>Professor Yonghua Song</td>
</tr>
</tbody>
</table>
Coordinators Group

Each WUN member university appoints an administrator to manage the implementation of the WUN strategies and programmes on campus and to serve as the main contact point for network initiatives. This group shares information on collaborative opportunities and develops WUN’s research programmes.

<table>
<thead>
<tr>
<th>University</th>
<th>2013/14 Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>The University of Alberta, Canada</td>
<td>Dr Stefan Scherer</td>
</tr>
<tr>
<td>The University of Auckland, New Zealand</td>
<td>Ms Usha Bhatia</td>
</tr>
<tr>
<td>The University of Bergen, Norway</td>
<td>Mr Bjørn Erik Andersen</td>
</tr>
<tr>
<td>The University of Bristol, United Kingdom</td>
<td>Dr Susan Jim</td>
</tr>
<tr>
<td>The University of Cape Town, South Africa</td>
<td>Ms Lara Dunwell</td>
</tr>
<tr>
<td>The Chinese University of Hong Kong, Hong Kong</td>
<td>Ms Shally Fan</td>
</tr>
<tr>
<td>The University of Leeds, United Kingdom</td>
<td>Ms Louise Heery</td>
</tr>
<tr>
<td>Maastricht University, The Netherlands</td>
<td>Ms Krista Knopper</td>
</tr>
<tr>
<td>Nanjing University, China</td>
<td>Ms Sun Wen</td>
</tr>
<tr>
<td>The Pennsylvania State University, USA</td>
<td>Ms Coleen A. Hynoski</td>
</tr>
<tr>
<td>The University of Rochester, USA</td>
<td>Mr Todd St. Vrain (Chair)</td>
</tr>
<tr>
<td>The University of Sheffield, United Kingdom</td>
<td>Ms Karen Tsui</td>
</tr>
<tr>
<td>The University of Southampton, United Kingdom</td>
<td>Dr Elisa Lawson / Ms Eleonora Gandolfi</td>
</tr>
<tr>
<td>The University of Sydney, Australia</td>
<td>Ms Amanda Sayan</td>
</tr>
<tr>
<td>The University of Western Australia, Australia</td>
<td>Associate Professor Judith Berman</td>
</tr>
<tr>
<td>The University of Wisconsin-Madison, USA</td>
<td>Mr David Joiner</td>
</tr>
<tr>
<td>The University of York, United Kingdom</td>
<td>Ms Anna Wishart</td>
</tr>
<tr>
<td>Zhejiang University, China</td>
<td>Mr Hu Zhengming</td>
</tr>
</tbody>
</table>

* denotes Steering Group member

Global Challenge Steering Groups

The four identified WUN Global Challenges are guided by steering groups made up of representatives of the WUN Partnership Board, AAG and Coordinators Group in addition to a panel of research experts drawn from the field.

The Chairs of the Global Challenge Steering Groups are drawn from the AAG:

<table>
<thead>
<tr>
<th>Global Challenge</th>
<th>2013/14 Chairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding to Climate Change</td>
<td>Professor Phil David Hogg, The University of Leeds</td>
</tr>
<tr>
<td>Global Higher Education and Research</td>
<td>Professor Nick Lieven, The University of Sheffield</td>
</tr>
<tr>
<td>Public Health (Non-communicable disease)</td>
<td>Professor Jane Harding, The University of Auckland</td>
</tr>
<tr>
<td>Understanding Cultures</td>
<td>Professor Danie Visser, The University of Cape Town</td>
</tr>
</tbody>
</table>

Contacts

For more information on WUN please contact:

**Executive Director:**
John Hearn  jhearn@wun.ac.uk

**General Manager:**
Nicholas Haskins  nhaskins@wun.ac.uk

**Program Officer:**
Megan O’Callaghan  mocallaghan@wun.ac.uk

**Annual Report Editor:**
Chris Rodley  crodley@gmail.com

**Website:**
www.wun.ac.uk
## List of WUN Interdisciplinary Research Groups

<table>
<thead>
<tr>
<th>Activity Name</th>
<th>Lead Academic, Institution</th>
<th>WUN Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCWA - Adapting to Climate Change for Water Adaptation</td>
<td>Professor Joe Holden, Leeds</td>
<td>Bristol, Penn State, Sheffield, UWA, York, Zhejiang</td>
</tr>
<tr>
<td>Adopting REDD+ for Conservation, Sustainable Community Livelihood and Climate Change Mitigation</td>
<td>Associate Professor Lawal Manafa, CUHK</td>
<td>Bergen, Leeds, York</td>
</tr>
<tr>
<td>Ancient soils and modern land use - a challenge for critical zone science</td>
<td>Assistant Professor Matthias Leopold, UWA</td>
<td>Auckland, Penn State, Sheffield, Sydney, UCT</td>
</tr>
<tr>
<td>Arctic Environments: Vulnerabilities &amp; Opportunities</td>
<td>Dr Katy Roucoux, Dr Katherine Armit, Leeds</td>
<td>Alberta, Bergen, Sheffield, Southampton, UW-Madison</td>
</tr>
<tr>
<td>Building an Indian Ocean Archaeology Network</td>
<td>Professor Alistair Paterson, UWA</td>
<td>Auckland, Bristol, Sheffield, Southampton, Sydney, UCT</td>
</tr>
<tr>
<td>Changing Coasts, Climate Change and Other Drivers</td>
<td>Professor Robert Nichols, Southampton</td>
<td>Auckland, Bristol, UWA</td>
</tr>
<tr>
<td>Characterising Space Radiation &amp; its Impact on Climate Change</td>
<td>Professor Ian Mann, Alberta</td>
<td>Bergen, Leeds</td>
</tr>
<tr>
<td>Climate Change in the Media</td>
<td>Associate Professor Meng J, UWA</td>
<td>Leeds, Sheffield, Zhejiang</td>
</tr>
<tr>
<td>Critical Zone &amp; Soils Science Consortium</td>
<td>Professor Steve Banwart, Sheffield</td>
<td>Bristol, Penn State, UWA</td>
</tr>
<tr>
<td>Developing compatible energy and climate strategies</td>
<td>Dr Hilvard Haastad, Bergen</td>
<td>CUHK, Leads, Sheffield, UW-Madison</td>
</tr>
<tr>
<td>Ecosystem Services, Complexity &amp; People</td>
<td>Professor Guy Poppy, Southampton</td>
<td>Leeds, Penn State, UWA</td>
</tr>
<tr>
<td>Ensuring Sustainable and Responsible Production of Healthy Food from Healthy Animals</td>
<td>Professor Mark Eisler, Bristol</td>
<td>Leeds, Penn State, UWA, Zhejiang</td>
</tr>
<tr>
<td>Evaluating the Potential for Urban Agriculture to Enhance Food Security in Response to Climate Change</td>
<td>Associate Professor Debra Davidson, Alberta</td>
<td>Auckland, CUHK, Leeds, UWA</td>
</tr>
<tr>
<td>Gender &amp; Climate Change</td>
<td>Professor Nancy Tuana, Penn State</td>
<td>Bergen, UCT, UWA</td>
</tr>
<tr>
<td>Global farm platforms for optimisation of grazing livestock productions systems</td>
<td>Professor Mark Eisler, Bristol</td>
<td>Alberta, Bristol, Leeds, Penn State, UWA, UW-Madison, Zhejiang</td>
</tr>
<tr>
<td>Global Patterns of Climate Adaptation in Kilps</td>
<td>Dr Thomas Wernberg, UWA</td>
<td>Bergen</td>
</tr>
<tr>
<td>Ice Sheet and Climate Interaction - Implications for Coastal Engineering</td>
<td>Dr Mark Siddall, Bristol</td>
<td>Alberta, Bergen, Leeds, Southampton, UWA, UW-Madison</td>
</tr>
<tr>
<td>Inclusive and green innovation</td>
<td>Professor Xiaobo Wu, Zhejiang</td>
<td>Alberta, Penn State</td>
</tr>
<tr>
<td>The Impact of Climate Change on the Socio-Ecology of Animals: Effects on Epidemic Disease Spread and Species Invasion</td>
<td>Dr Luca Giuggioli, Bristol</td>
<td>Alberta, Penn State</td>
</tr>
<tr>
<td>Impact of Land Use Change on Future Water Quality</td>
<td>Professor Neil Coles, UWA</td>
<td>Southampton, Zhejiang</td>
</tr>
<tr>
<td>Limits to Adaptation</td>
<td>Dr Petra Tschakert, Penn State</td>
<td>UCT, UWA</td>
</tr>
<tr>
<td>Managing the Globalization of Water Services in a World Affected by Climate Change: Regulatory and Economic Challenges</td>
<td>Associate Professor Julien Chaisse, CUHK</td>
<td>Leeds, Maastricht, Sydney</td>
</tr>
<tr>
<td>NEOTOMA: A Community Database for Ecological Responses to Climate Changes of the Recent Past</td>
<td>Professor Jack Williams, UW-Madison</td>
<td>Penn State, Southampton</td>
</tr>
<tr>
<td>New Technologies and Enhanced Techniques for Water Resources Assessment in a Changing Climate</td>
<td>Professor Neil Coles, UWA</td>
<td>Southampton</td>
</tr>
<tr>
<td>Ocean Acidification</td>
<td>Professor Malcolm McCulloch, UWA</td>
<td>Bergen, Bristol, Penn State, Southampton, York</td>
</tr>
<tr>
<td>Ocean Edibles in a Changing Climate: Understanding the Impact on Coastal Climates and Worldwide Fisheries Production</td>
<td>Associate Professor Andrew Jeffs, Auckland</td>
<td>UCT, UWA</td>
</tr>
<tr>
<td>Paleo Arctic Climates &amp; Environments (pACE)</td>
<td>Dr Tim White, Penn State</td>
<td>Bergen, Leeds, Sheffield, Southampton</td>
</tr>
<tr>
<td>Plant Systems: Adapting to Climate Change</td>
<td>Professor Martin Barbetti, UWA</td>
<td>Alberta, Zhejiang</td>
</tr>
<tr>
<td>Relative Sea Level, Ice Sheets &amp; Isostasy</td>
<td>Dr Mark Siddall, Bristol</td>
<td>Alberta, Bergen</td>
</tr>
<tr>
<td>Resilient Pasts and Sustainable Futures? Designing Socially Significant Scenarios</td>
<td>Dr Rob Marchant, York</td>
<td>Leeds, Penn State, UWA</td>
</tr>
</tbody>
</table>