

# Our Global Story

## Pioneering Education with Global Impact since 1821

التعليم الرائد مع التأثير العالمي منذ عام 1821

Pendidikan perintis dengan Impak Global sejak 1821

自 1821 年以来的全球影响力先驱教育



THE TIMES  
THE SUNDAY TIMES

GOOD  
UNIVERSITY  
GUIDE  
2018

INTERNATIONAL  
UNIVERSITY  
OF THE YEAR



# Shaping the Future

*Professor Richard A. Williams*



**Professor Richard A. Williams,**  
OBE, FREng, FRSE, FTSE  
Principal and Vice-Chancellor

Heriot-Watt University has an amazing heritage which informs our vision for the future as a progressive, connected global university. From our roots in Scotland in 1821 as the world's first Institute of Mechanics, Heriot-Watt has developed as a pioneer of international education with strong values around access to higher education and outstanding performance in graduate employability.

Heriot-Watt's remarkable development as a globally connected university with campuses in Scotland, Dubai and Malaysia, won the accolade of "International University of the Year" from the Sunday Times and the Times newspapers in 2018.

Through its 'Strategy 2025', Heriot-Watt is driving forwards as an international university which places students and staff at the heart of everything we do. Our strategy is to continue to build our international presence and impact through our campuses and partnerships, focusing on our strengths in learning and teaching and research.

At Heriot-Watt we are passionate about partnership. We believe that collaborative approaches which embrace diversity are central to being able to tackle the challenges and uncertainties in the world today. This extends to the partnership with our own students, working together to ensure that the broad experience at university helps our graduates to flourish and fulfil their potential, through an education designed for quality and professional orientation.

In this publication, we highlight some of the long-term alliances that give Heriot-Watt its distinctive international character. These include research collaborations and partnerships with business that make a real difference, impacting positively on economies, the environment and society.

Through a network of academic partners, we have extended access to degree programmes across the world and combined this with flexible online delivery to meet the demands of lifelong learning. Heriot-Watt students benefit from our commitment to student mobility, gaining lasting friendships and life-changing experiences.

This is all about people; it is our Global Story – contact us, partner with us and join us on this incredible journey.

**Contact us at:**  
[internationaldevelopment@hw.ac.uk](mailto:internationaldevelopment@hw.ac.uk)

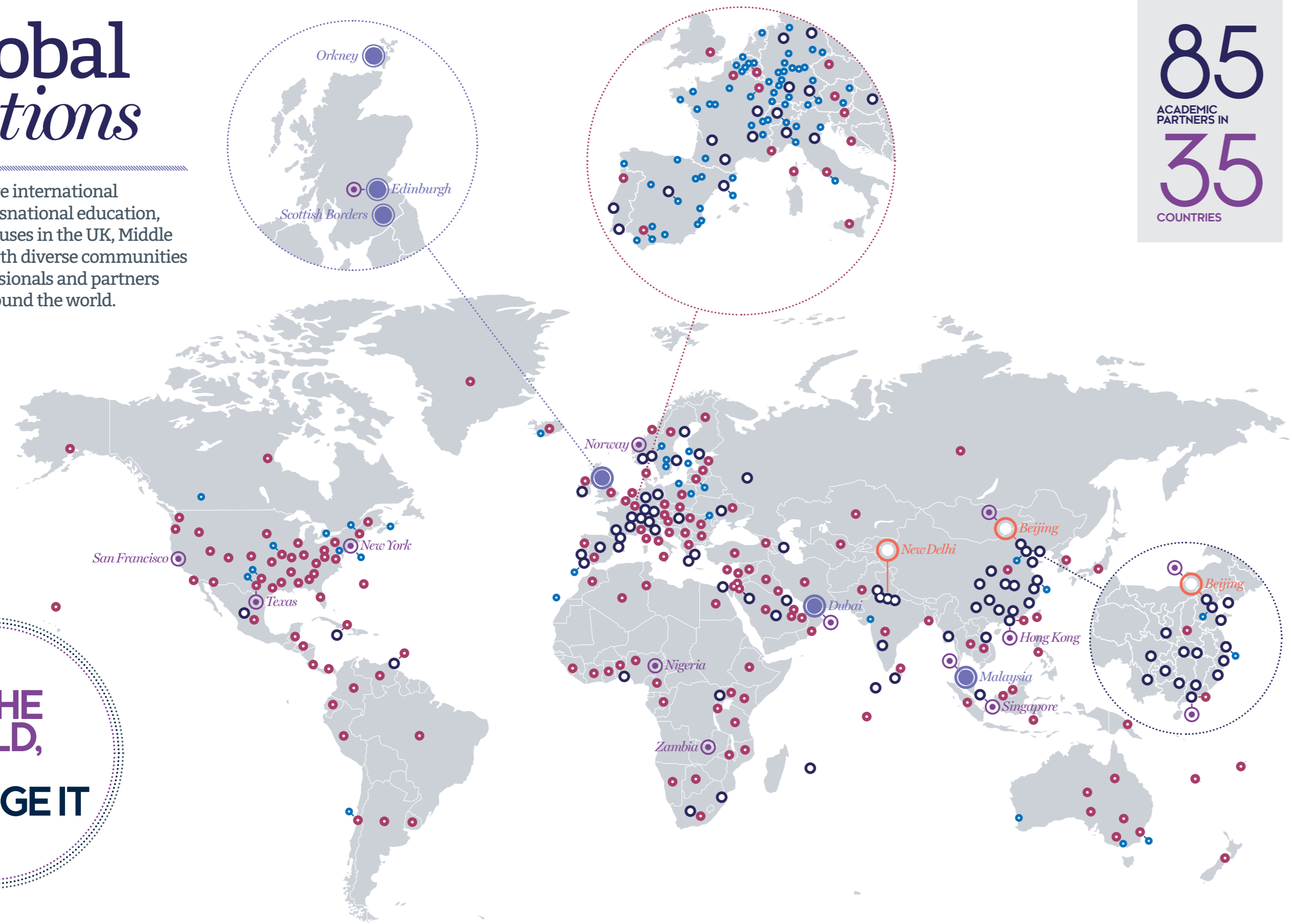


# Our Global Connections

Heriot-Watt has a distinctive international character. A pioneer in transnational education, today it works on five campuses in the UK, Middle East and South-East Asia with diverse communities of learners, scholars, professionals and partners from over 160 countries around the world.

## Map Key

- Campuses
- Offices
- Watt Club
- Academic Partners
- Research Collaborations
- Exchange Partners



85  
ACADEMIC PARTNERS IN  
35  
COUNTRIES

## Global Impact Through Partnerships

A flavour of our connections across the world.

### Capacity Building at Scale

**Baku, Azerbaijan**  
Heriot-Watt has built a large collaborative partnership with Baku Higher Oil School, a new university in Azerbaijan specialising in education relevant to the oil and gas industry. Since 2012, we have played a key role in capacity building, bringing new curricula, innovative teaching resources and rigorous international standards. We have together developed dual degree programmes in engineering with the support of SOCAR, the national oil company.

### Sino-UK Strategic Alliance

**Xi'an, China**  
Our strategic cooperation with Xidian University, one of the top universities in engineering in China, involves a high value research collaboration and doctoral exchange as well as a very successful joint education programme in telecommunications engineering. The partnership has seen engagement between hundreds of students, academic and professional services staff over the years.

### Ending Mass Arsenic Poisoning

**India & Bangladesh**  
The world's first fully autonomous, solar powered technology to remove arsenic from ground and surface water has been developed by Heriot-Watt's Professor Bhaskar Sen Gupta in collaboration with partners in India and Bangladesh. This has the potential to help over 137 million people, from 70 countries, thought to be exposed to high levels of arsenic in water.

### Amazon Alexa Prize

**Las Vegas, USA**  
Heriot-Watt's reputation for Robotics and Artificial Intelligence (AI) was reinforced by our selection for the \$3.5 million Amazon Alexa Prize. Out of hundreds of entrants, Team Alana was the only entrant chosen from the UK. The team went head to head with two international universities in developing AI software that can understand and respond to human conversation.

### Award-winning Green Campus Building

**Putrajaya, Malaysia**  
Our Malaysia campus has won several awards since its opening in 2014. The building's iconic 300-metre long arching grass roof acts as an unique insulating thermal and sun shading device as well as a rainwater collector – it is the first-of-its-kind in Malaysia. The building is also an expression of Heriot-Watt's commitment to green, sustainable learning environments built for the future.

### Pioneering Carbon Storage

**Edinburgh, UK**  
Heriot-Watt's Research Centre for Carbon Solutions is celebrating 10 years of research critical to the future of the planet. Established by Professor Mercedes Maroto-Valer with a Challenging Engineering Award by the UK Engineering and Physical Sciences Research Council, it has grown to become a leading international research centre driving the wider deployment of carbon solutions for sustainable energy.

### Championing Distance Learning

**Trinidad & Tobago**  
Since 2003, Edinburgh Business School (EBS) and SBCS Global Learning Institute, a leader in the field of tertiary education and corporate training in the English-speaking Caribbean, have a long established partnership in the delivery of EBS programmes. SBCS support thousands of students globally and now teach learners online as part of EBS online tuition.

### Oldest University Alumni Association in the UK

The very first branch of our Alumni Association, the Watt Club was established in Norway in 1953. It has a fascinating history going back to the Second World War when Riccarton House in Edinburgh was command headquarters for the liberation of Norway. A plaque, unveiled by King Harald and Queen Sonja of Norway during their visit to the Edinburgh campus in 1994, commemorates this connection.

### 25,000 Exams Around the World

**150 Countries**  
The International Centre for Examinations, within the Edinburgh Business School, provides secure arrangements for examinations for international programmes, managing a staggering 25,000 examinations for the University in 470 locations in 150 countries each year.

### One-of-a-kind Erasmus Mundus Programme

**Girona, Spain & Dijon, France**  
In collaboration with the Universitat de Girona and Université de Bourgogne, Heriot-Watt developed the only Erasmus Mundus programme, *Masters in Vision Image and Robotics (VIBOT)*, in the field of computer vision and robotics. Since 2006, the partnership has fostered a strong academic and industrial community across the globe.

### Scottish Confucius Institute for Business and Communication

**Tianjin, China**  
One of a small number of business-focused Confucius Institutes in the UK, Heriot-Watt's unique centre in collaboration with Tianjin University of Finance and Economics has been a valuable part of the institutional profile in China since 2013. The Institute supports strategic University activities and bridges Scottish and Chinese businesses by offering an extensive business, higher learning and cultural programme.

### Improving Irrigation Techniques

**India**  
Reducing water consumption and improving irrigation techniques in India is vital: currently, 600 million people are at high risk of surface water supply disruption. Headed by Professor Edward Owens, Heriot-Watt's *Smart Control of Rural Renewable Energy and Storage* project has already seen its cloud-based, micro-irrigation system reducing water and energy use by up to 80%. The project has the potential to create a more resource efficient and sustainable future for the global agricultural sector.

### A New International Centre for Economics and Debate

**Edinburgh, UK**  
After an extended period of renovation, we have recently re-opened Panmure House, Adam Smith's only surviving home, in historic Edinburgh. We aim to restore its rightful place as a policy centre for debate on global economics and society, and to inspire and facilitate ground-breaking academic thinking and research.

# Inspiring Locations

With our roots in Scotland, our ambition and reach are truly international. A leader in transnational education wherever we are, Heriot-Watt is a powerful driver of the global economy. Together with our alumni, civic community and industry partners, we transform people, society and the world we live in.

## INSPIRATIONAL SURROUNDINGS

Our campuses are based in some of the world's most inspiring locations. Each offers superb facilities, safe surroundings and an international welcome.

We have built connected and integrated learning environments close to the vibrant cities of Edinburgh, Dubai and Kuala Lumpur. These stimulating cities and the challenges of future urban living echo through our research but also inspire our students when they transfer between our campus locations.

Tradition and innovation intertwine in Edinburgh, home to the world's biggest arts and cultural festival and a unique living heritage (UNESCO World Heritage site). As one of the Middle East's most dynamic cities, Dubai is a hub for economic innovation and diversification. Meanwhile, Kuala Lumpur with its remarkable cultural diversity boasts gleaming skyscrapers, fascinating architecture and a myriad of natural attractions.

Our more rural campus locations in the Scottish Borders and the Orkney Islands have become leading centres for creativity and global enterprise. These truly unique natural settings provide highly specialist study and research environments in textile design, fashion technologies, renewable and marine energy and technologies with strong international industry links and collaborations.

In the past ten years, we have opened offices in China and India. Our teams in Beijing and New Delhi support Heriot-Watt's strategic relationships and further our local collaborations with existing and new partners in higher education, industry and government.

*Florence, a Chemical Engineering student, transferred from our Malaysia Campus to spend her final two years in Edinburgh on an Inter-Campus Transfer.*

Florence Ong Woei Yng,  
BEng Chemical Engineering





# International Communities

Heriot-Watt is an integrated global university with strong links across Europe and the rest of the world.

With a heritage of pursuing knowledge for the benefit of society and for increasing access to higher education, we are renowned for providing high quality professionally orientated education and research relevant to industry and business. Our five campuses in the Middle East, South East Asia and the UK, along with our global network of partners and community of online learners, present a new model of transnational education – the integrated global university where culture, learning, research and collaboration flow around and from the university in all its locations. We have instigated structural change to champion this new model – strengthening the alignment and effectiveness of our systems and processes, assuring and enhancing quality, and championing increased collegiality across all our communities and locations.

## GLOBAL COMMUNITY

This global community of scholars comprises 29,000 students from 160 countries. Recognising the complexity and unpredictability of the future, we nurture a distinctive university experience building inventive, entrepreneurial and resilient minds, creating highly specialist scholars who can make an impact in the world and become leaders in ideas and solutions.

## WATT CLUB COMMUNITY

Formed in 1854, The Watt Club is the UK's oldest Higher Education Institution alumni association, now truly global with over 120,000 members and branches on four continents. The newest branches opened in Nigeria and Zambia, strengthening the bond with our growing communities in these countries.

## COMMUNITY IMPACT

In Malaysia, we launched the 'Youth Transformation Programme' to help bring out the best in young people as they embark on their journey into higher education. The programme helps young people to achieve their full potential through creativity, innovation and critical thinking and also combats low self-esteem, developing resilience and emotional intelligence. Student volunteering is growing at Heriot-Watt as an important part of the broader student experience, resonating well with the values adopted across the University's communities. In Dubai, our students joined the 'Protect Your Mum' campaign raising awareness of breast cancer locally by organising a range of events including an annual show.



*Heriot-Watt Dubai delivers benefits worth AED 520 million (£94 million) a year to the local economy.*

Biggar Economics,  
Independent economic consultancy

*Heriot-Watt Malaysia already delivers benefits worth MYR 10,000,000 (£1.8 million) a year to the local economy.*

Keddie Consulting,  
Independent economics advisor

# 37<sup>th</sup>

GLOBAL UNIVERSITY

37th in the world for international outlook. *Times Higher Education World University Rankings 2019.*



# Inspiring Learners

Heriot-Watt graduates are highly employable worldwide, benefiting from a distinctive, relevant and specialist education at a university with a truly international character. Our people set the gold standard and are sought by the best organisations worldwide.

“  
The opportunity to study in two vastly dissimilar cultures promised to both broaden my outlook and turbocharge my career prospects.  
”

Matthias Goldbeck, International Business Management (Go Global student who spent a semester in Dubai and a semester in Malaysia)

### ACADEMIC RECOGNITION

We have a high proportion of staff and students studying and working with us from outside of the UK: 73% of Heriot-Watt students and 36% of staff are international. This diversity creates campus communities where everyone can learn from each other and collaboration is the norm.

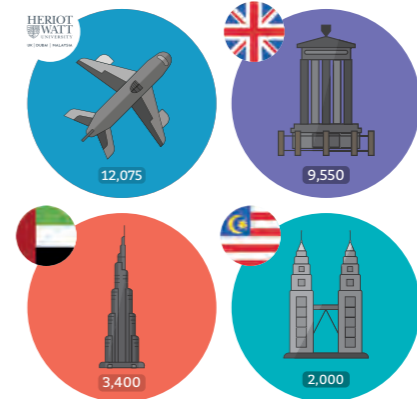
Go Global, our student mobility programme, provides more and more students with the opportunity to continue their programme of study in an alternative campus location through a range of short to longer term transfer options. These experiences are often transformational, helping our students succeed in an increasingly connected world. They acquire not only the knowledge and skills through their study, but also cultural intelligence, increased resilience and confidence through their interactions within different cultural contexts. Heriot-Watt's ethos and graduate attributes are reflected in this endeavour – specialist, creative, professional and global.

Wherever a Heriot-Watt student is located, the learning outcomes of their programme are identical, with one degree certificate globally.

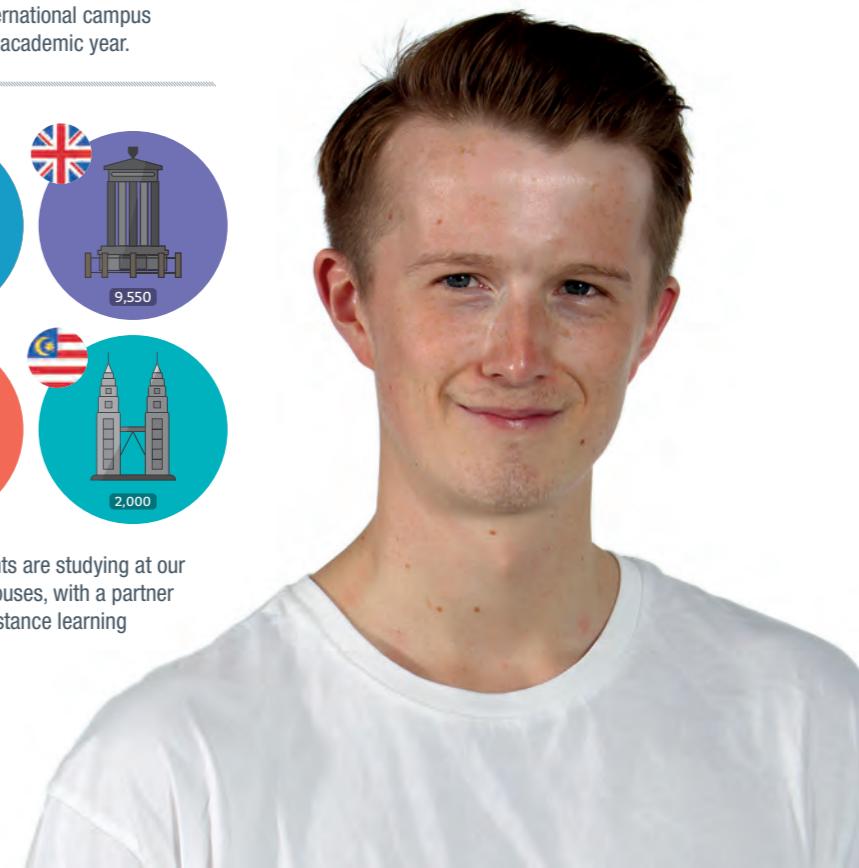
# 750

### GO GLOBAL

Over 750 students have spent time studying at an international campus since the 2015/16 academic year.



65% of our students are studying at our international campuses, with a partner university or by distance learning



# Connecting *with Business & Industry*

Heriot-Watt's professional and research orientation is reflected through strategic partnerships with business and industry across the globe. The translation of research excellence into practical application is a distinctive feature of Heriot-Watt and forms the foundation of many relationships between the University and its industry collaborators.

We use science and innovation to promote economic development and social welfare around the world – our industry-driven 'Next Generation Green Data Centre' will integrate novel Malaysian and UK green energy and cooling technologies to provide energy efficient cooling around the world and change lives. The project is backed by Dearman, Green Data Centre LLP and University Teknologi Malaysia.

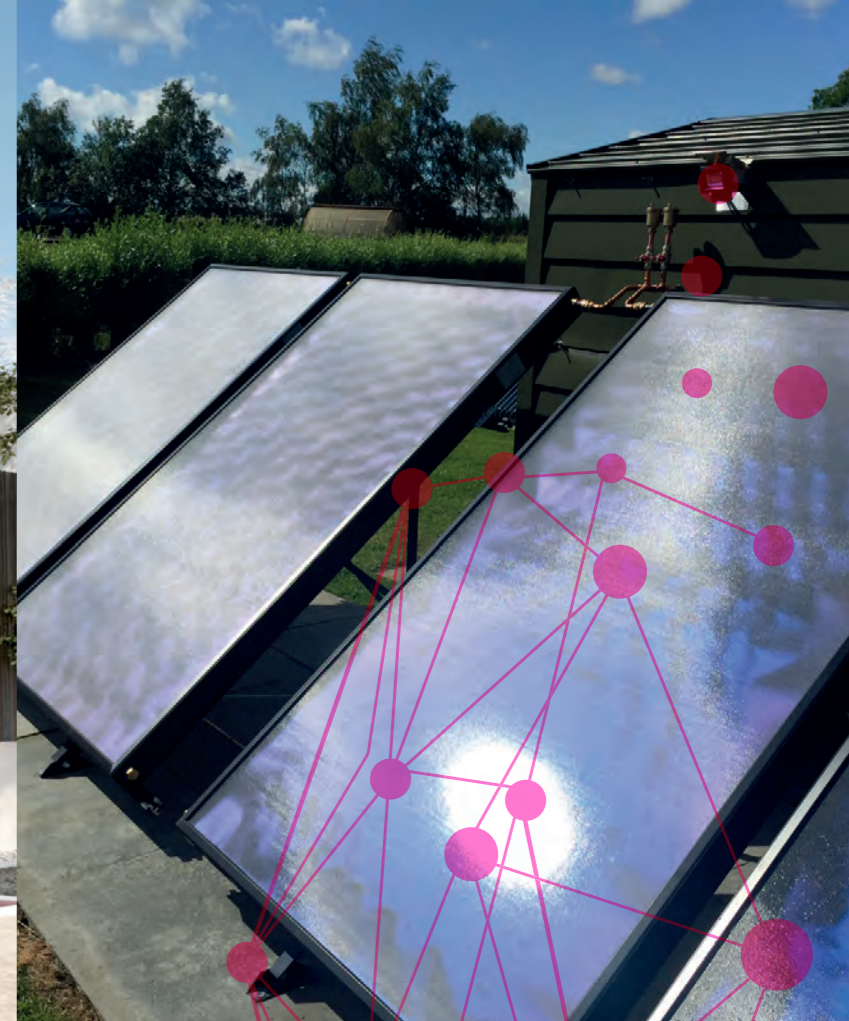
We recently launched a major Joint Industry Project with Petronas in Malaysia which focuses on minimising uncertainties affecting the prediction of hydrocarbon recovery as well as supporting simulation studies through the acquisition of key physical data.

In Dubai, ORA House – a solar home prototype – is being designed and manufactured by Heriot-Watt students in the first ever Solar Decathlon Middle East competition (see image bottom left). The team involving staff and students have created a space to sustainably reduce carbon production and mitigate against climate change. The project also provides an innovative solution that revolves around enhancing the relationship between man, nature and the built environment. ORA House has been sponsored by industry partners including Diamond Developers.

As part of our well-established partnership with BP, we have led on an in-depth data collation process for BP's Statistical Review of World Energy since 2007. Our team provides the analysis which covers energy consumption, production, reserves and trade, as well as data relating to carbon emissions, allowing for a fully integrated and dynamic picture of world energy markets.

Spanning two decades, Heriot-Watt's partnership with Total has expanded to cover a range of global research and development and education activities including PhD and post-doctorate studies, internships, industry-based visits, business and education forums.

Working hand in hand with business, Heriot-Watt is also playing a leading role in work-based learning, creating a new generation of graduates uniquely well placed to meet current and future challenges.





# Pioneering Research

Project COMET\*\* is an excellent example of how Heriot-Watt can develop partnerships to carry out research that inspires in an area of high economic and societal impact.

Professor Mercedes Maroto-Valer,  
School of Engineering and  
Physical Sciences

From discovery to application, our research community is driving to be at the forefront of new ideas and solutions to create radical innovations that make a difference in the real world.

## TRANSFORMING SOCIETY

We are renowned for world-leading research in the specialist fields of energy, engineering, robotics, social and life sciences, business and design, working closely with industry on a global platform.

From our life-changing Homelessness Monitor project informing legislation in the UK and Australia to our world-leading role in spearheading a revolution in cell-biology, we are applying research and technological innovation to address global challenges.

By uniquely combining interdisciplinary expertise and scientific breakthroughs, we are developing a whole portfolio of technologies aimed at reducing carbon dioxide emissions while meeting energy demands. We are leading the way in developing practical quantum communication and imaging approaches to secure data systems from global cyber-attacks.

We are turning assumptions about the use of languages, spoken and signed, on their head revealing the effects of multilingual, multicultural communication. Our research into 'psychotextiles' raises fascinating possibilities and has the potential to transform product manufacturing, engineering and provide visual medicine.

Our robotics research will revolutionise the global economy over the next 20 years spanning the nuclear, space and offshore industries, transport, healthcare and manufacturing. Meanwhile, Heriot-Watt's Interaction Lab is breaking new ground in the development of robots that can learn from human language and how to interact socially with humans.

9th  
82%

## WORLD-CLASS RESEARCH

The UK Research Excellence Framework 2014 ranked Heriot-Watt 1st in Scotland and 9th in the UK for impact with 82% of research ranked world-class.

80%+

## RESEARCH-LED EDUCATION

Over 80% of academic staff are currently engaged in research at internationally recognised levels delivering research as diverse as providing greater equality for deaf people, helping to manage risk in the insurance industry and enhancing oil extraction from the North Sea.

\*Project SCORRES is an Innovate UK-funded project managing solar-PV capacity, electrical storage and demand to optimise irrigation schedules using novel forecasting techniques.

\*\*Project COMET is a large government-backed initiative to drive innovation in carbon capture and storage.



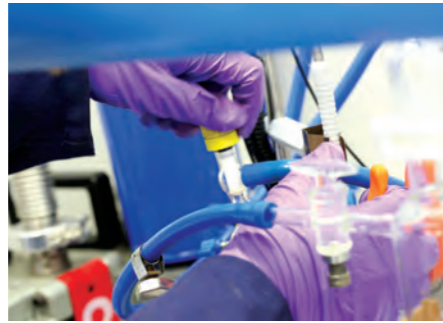
Our research, SCORRES\*, deals with the fundamentals of life in food, water and energy. Its potential to impact on water- and energy-stressed regions of the world is huge and we are really excited about the next steps.

Professor Edward Owens,  
(Image: Vimal Bhojraj)



# Collaborating

## *with Academic Partners & Learners*



Collaboration and partnership run through Heriot-Watt's DNA and are essential to the character of the institution. Over three decades we have worked with partners to establish an extensive global network of 85 academic partners in 35 countries.

### PARTNERING WITH LEARNERS

We also partner with individual learners – in the past 25 years we have nurtured a large community of distance-learning students around the world. This reflects our commitment to providing access to high quality programmes and recognises the changing educational needs and aspirations of people wherever they may be. These programmes range from the Edinburgh Business School MBA programme, to the MSc in Petroleum Engineering, MSc in Safety Risk and Reliability Engineering and MSc in Marine Renewable Energy. In the coming years, we will be investing in advanced learning technologies allowing even more flexibility to meet the demands of lifelong learning.

### FORGING LONG-TERM ALLIANCES

With strategic academic partners, who share our values and commitment to high quality education, we collaborate on many levels from innovative teaching and capacity building to impactful research and international education projects. We support governments, companies and universities in the development of their staff, providing international experiences for students and staff. Our distinctive international character presents a unique proposition for our partners – they can access expertise and opportunities across all our campuses around the globe and build multi-site collaborations.

Our academic partnerships range from dual and joint awards at all levels – including unique Erasmus Mundus programmes – to mobility, articulation and progression arrangements and distance learning. We have a distinctive network of long-term learning partners around the world, a model pioneered in the 1990s, allowing students to register and study flexibly for a Heriot-Watt degree within their own country.

*I began studying for my MBA with Edinburgh Business School because it offered me the opportunity to study in my own time and at my own pace. Studying independently was challenging but I always felt supported through platforms such as the student portal and online tutorials.*

Charissa Jaganath,  
MBA Graduate, South Africa



If you would like to discuss a  
collaboration with us, please contact  
[internationaldevelopment@hw.ac.uk](mailto:internationaldevelopment@hw.ac.uk)

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