

FORUM

MEMBER
MAGAZINE

Discussing international education



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Published by

European Association for International Education
PO Box 11189, 1001 GD Amsterdam, the Netherlands
EMAIL info@eaie.org
www.eaie.org

Editor Douglas Proctor

Publications Committee Douglas Proctor (*Chair*),
Jos Beelen, Han Aarts, Lucia Brajkovic, Ragnhild Solvi Berg,
Jacob Gibbons

Associate Director, Knowledge Development and Research

Laura E. Rumbley
Head of Marketing and Communications
Kellie Diepstraten
Editorial Coordinator Jacob Gibbons
Graphic Designers Maeghan Dunn, Nhu Nguyen

EMAIL publications@eaie.org

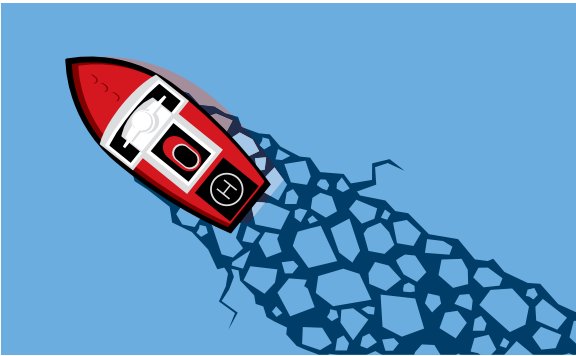
Printed by Drukkerij Raddraaier, Amsterdam

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ISSN 1389-0808

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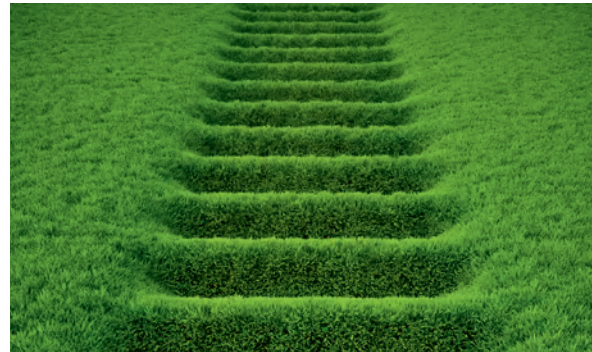
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“Sustainability is a wider concept than climate, and internationalisation is far more than mobility”

SUSTAINABILITY THROUGH INTERNATIONALISATION



22

“Sustainability is a journey, not a checklist”

IN CONVERSATION WITH DANIELLA TILBURY

30

“Equitable access to education will require models for distance and hybrid education across borders”

BROADENING ACCESS TO ENVIRONMENTAL STUDIES



EDITORIAL

The Spring 2022 issue of *Forum* looks at the growing body of enquiry and reflection on how international education intersects with our changing climate. This question has taken on significant prominence in the last several years in light of two profoundly important – and ironically contradictory – truths. On the one hand, the physical mobility associated with international education contributes directly to climate degradation. At the same time, international collaboration in higher education can and must play an active role in addressing this worldwide crisis.

As we are now aware, the 2021 UN Climate Change Conference, COP26, shone an unflinching spotlight on the urgent challenges currently facing the environment and the impact of human activity on the planet. So how do we, as international educators, reconcile the environmental impact of our work, and what are the alternatives? Internationalisation in higher education can be understood as a direct contributor to the climate emergency, particularly via the extensive use of air travel. However, it should also be seen as a key source of innovative solutions that will support the global effort to deter further degradation and enhance environmental resilience and regeneration.

Articles selected for this edition of *Forum* are drawn from individuals, institutions and associations from across Europe and further afield. In some cases, they present case studies of how particular institutions or groups of international educators have sought to frame local responses, such as the enhancement of online international learning or the integration of sustainability initiatives into

the curriculum. Other articles question where the responsibility for greening international education lies, be it with students themselves, with their institutions, with national governments or within the funding parameters of EU programmes. In that context, the policy framework for action is brought into question, with reflections on how to strategically align international higher education and climate goals, as well as how to empower changemakers at all levels.

I am delighted that Professor Daniella Tilbury agreed to be interviewed for this issue, given her academic and policy work on sustainability as a key agenda for the future of higher education. From Gibraltar, and formerly the inaugural Vice-Chancellor and CEO of the University of Gibraltar, Professor Tilbury reflects on how her career in education for sustainability was kick-started by an international study experience in Australia. Indeed, she views international education as an accelerator of change, pointing to the fact that cross-border travel by students and staff challenges assumptions and bursts socio-cultural bubbles. That being said, she joins with other authors in this issue to call for a smarter and more efficient approach to travel. Compellingly, Professor Tilbury states that sustainability itself is a journey, rather than a checklist. She calls on higher education institutions to mainstream sustainability concerns and considerations into all courses so that future decision-makers, leaders and practitioners embed sustainability in their everyday thinking and planning across all professions.

In addition to the interview, I'm pleased that some of the authors in this issue have a close association with the



Climate Action Network for International Educators (CANIE). From its origins as a collective of concerned practitioners hosting meetings on the sidelines of international education conferences, CANIE has grown to become a key influencer of policy and practice at institutions worldwide, with chapters established in Europe, Oceania, and the Americas.

With my thanks to fellow members of the EAIE Publications Committee Dr Jos Beelen and Han Aarts who joined me in reviewing submissions; I hope that you enjoy reading this edition of *Forum*.

— DOUGLAS PROCTOR, EDITOR
PUBLICATIONS@EAIE.ORG

CONTRIBUTORS

Adrienne Fusek

Glasgow project officer and founding board member, Climate Action Network for International Educators (CANIE)
Inspired by her time studying abroad in Mexico, Adrienne dedicated her career to helping others have similar experiences.

Michael Salmon

Doctoral student, University of Bath
Michael explores university internationalisation and higher education policy as a doctoral student. He is a fan of chess and speaks Spanish and Chinese.

Helena Alves

Policy and research officer, European University Foundation
Inspired by her background in international relations, Helena began working in international education to help people broaden their horizons.

Paola di Marzo

Project officer, Erasmus Student Network (ESN)
Paola discovered the positive effects of international education through her experiences studying in Poland and working in Kosovo. She is a self-described cookie-lover.

Ipek Tekdemir

Political advisor, EU Parliament
Ipek was only 14 when she went to the USA for her first international study exchange. She is an early riser who likes playing tennis before work.

Susan Göldi

Professor and academic coordinator, University of Applied Sciences and Arts Northwestern Switzerland
Quintessentially Swiss, Susan speaks German, French, and a little bit of Italian. She's currently studying Spanish.

Barbara Therese Miller

Professor, University of Applied Sciences and Arts Northwestern Switzerland
Barbara balances her work at the university with race-biking from Basel to the Swiss border. She loves solving Sudoku and Futoshiki puzzles.

Nikolina Fuduric

Professor, University of Applied Sciences and Arts Northwestern Switzerland
Nikolina was raised between two cultures and has lived in five countries. She thrives in the Swiss mountains and in culturally diverse environments.

Nathalie Amstutz

Professor, University of Applied Sciences and Arts Northwestern Switzerland
Nathalie is an international education expert in gender and diversity studies. She is passionate about languages and speaks French, German, English and Swedish.

Jannicke Holmseth Bukve

Adviser, Western Norway University of Applied Sciences
Jannicke's interest in international education stems from her own experiences abroad – a 6-month study exchange in Ghana and a summer internship in Tajikistan.

Solveig Råheim Grønsdal

Senior adviser, Western Norway University of Applied Sciences
Solveig's interest in the global community inspired her to work in international education. She was educated in Tanzania, Spain and Niger, and grows her own vegetables.

Torunn Stornes Kittelsen

Senior adviser, Western Norway University of Applied Sciences
In addition to mountain hiking with her Alaskan husky, doing yoga and growing her own vegetables, Torunn is a multi-disciplinary internationalisation expert.

Sami Andreas Patrikainen Skogstad

Adviser, Western Norway University of Applied Sciences
Sami played both football and violin for 13 years in his youth. He now combines his background in comparative politics with his work in international mobility.

Marit Schulstad Wasa

Senior adviser and Erasmus+ coordinator, Western Norway University of Applied Sciences
Marit's passion for international education is rooted in her love of travelling and understanding other cultures.

Anete Veidemane

Researcher, University of Twente
Anete has studied in nine countries. She continues to find new ways to challenge herself, most recently having joined a stand-up comedy group.

Daniela Craciun

Postdoctoral researcher, University of Twente
Daniela has studied in six countries and speaks seven languages. Her love for literature inspired her to start a book club during the pandemic.

Cara Skikne

Senior editor, Studyportals
A University of Oxford alumna, Cara is passionate about inclusivity and fair access in higher education. She enjoys poetry, comedy and birdwatching.

Sophie-Adelaide Magnier

Director of international cooperation, Université Grenoble Alpes
Her experience as an exchange student in five different countries (France, Canada, USA, Indonesia and Australia) prompted Sophie-Adelaide's decision to pursue a career in international education.

Elena Borsetto

Postdoctoral researcher and adjunct professor, Ca' Foscari University of Venice
Elena started her international education journey by analysing the use of English in academic settings and has since studied the acquired skills of double-degree students.

Sebastian Fernandes

Chief operating officer, FPP
Having studied in five countries and speaking almost five languages, Sebastian is truly a citizen of the world. He is passionate about gardening and has many amazing trees.

Jack Townsend

Sales and marketing director, FPP
Though he has never studied abroad, Jack has spent the last five years living in Spain, Italy, and South Africa. He loves to be outdoors with his golf clubs or his camera.

Hong Yang

Associate professor, University of Reading
A former international student at University College London, Hong now teaches international students in Reading. He enjoys travelling, reading and playing badminton.

Adinda van Gaalen

Policy advisor research, Inholland University of Applied Sciences
Prior to transitioning to a career in internationalisation, Adinda studied and worked in tourism. She loves languages and travelling and is currently pursuing a PhD.

Pii-Tuulia Nikula

Principal academic, Eastern Institute of Technology
With expertise in sustainability and government policy, Pii-Tuulia is also a co-founder and board member of the Climate Action Network for International Educators (CANIE).

UNIQUELY POSITIONED TO LEAD ON

CLIMATE ACTION



As international educators, we have a singular opportunity to impact the climate crisis in a proactive and positive way. Controlling study abroad programmes means we can control their carbon emissions – it’s up to us to lead the way towards a cleaner, safer future.

Images of a tidy jet stream flowing along the top of a cloud-covered blue and green globe appear in my mind. It’s early February and as people trickle into yet another Zoom meeting, a colleague in the state of Texas tells us that his campus has been without power for several days and that his international students have made it safely to warming stations throughout the city.

My mental jet stream whirls out of control and plummets to Texas before meandering to the east coast of the country. In my mind’s eye, it’s like a scene from *The Wizard of Oz*, the jet stream snatching up cows and cars, spitting them out hundreds of miles away, leaving only frozen wreckage behind. I know this is a bit dramatic, but the polar jet stream dipping down into Texas?! Really?! I sit in the meeting and say nothing; I smile. I’m on mute.

Until recently, our collective actions have not demonstrated that we are willing to tackle the situation

I’m an international educator, not a climate scientist, so I’m not sure if I’m overreacting, but I’m distraught. Not just because of this single event in Texas, which I later learned killed nearly 250 people, but because of events like it that are happening all over the world and at a chaotic frequency – extreme cold, record heat, fires followed by floods followed by mudslides. Since that February meeting, Texas has experienced

its hottest December since the 19th century and we learned that global temperatures broke record highs for the sixth consecutive year.

I find it curious that almost every article below doomsday headlines about the climate crisis ends with: ‘But there’s still hope! We just need to act now.’ Is there still hope? I have to believe there must be. If there is, every sector has a role to play and international educators have a responsibility, and a unique capacity, to help turn the tide.

PART OF THE PROBLEM

In 1997, the Kyoto Protocol made it clear that we must reduce greenhouse gas emissions “in order to promote sustainable development”. In 2015, with the ratification of the Paris Agreement, the guidance was that global temperature rise must be limited to no more than 1.5°C above pre-industrial levels to avoid the worst climate catastrophe. Since then, we’ve learned that almost half of the climate change tipping points are expected to occur between 1°C and 2°C, and we’re currently teetering at 1.2°C.

We know now that the climate crisis is anthropogenic and poses an acute threat to all our planet’s inhabitants. We know now that we are at ‘code red for humanity’, with Black, brown, Indigenous and low-income communities being impacted disproportionately. Has the international education sector been paying attention? If we have, until recently, our collective actions have not demonstrated that we are willing to tackle the situation.

It can be assumed that travel by air (both for student mobility and international education business travel) causes the largest share of planet-warming

greenhouse gas emissions from our sector. There may be examples of countries that have increased student mobility while decreasing air travel but, overall, we have increased travel by air since the ratification of the Paris Agreement. Low-carbon travel, such as by train, is generally not available or affordable internationally.

Despite knowing better, our sector has been part of the problem

According to the Institute of International Education, in the time between the ratification of the Paris Agreement and the onset of the COVID-19 pandemic, education abroad participation increased by approximately 7% and the proportion of participants on short-term programmes increased from 63% to 65%. We can assume that if it weren't for a global health crisis grinding international travel to a halt, this trend would have continued. Despite knowing better, our sector has been part of the problem.

UNIQUELY POSITIONED

International educators are uniquely positioned to lead on developing solutions to the climate crisis, because a) we have leverage over travel, which is a major emitter of greenhouse gases; and b) we can be seen as having the most to lose. International travel has been a fundamental component of our business models and, unlike colleagues in other sectors, we can yield control over this important piece of

the puzzle. Because we control the programmes and activities we create for our students, we also control their associated climate impacts – both positive and negative. The nature of our work gives us the power to meaningfully reduce emissions, which positions us as leaders within our institutions and organisations.

Given that we have a lot to lose, we could be viewed as being resistant to change. But with all eyes on us, we must demonstrate that we're serious about the climate crisis and are willing to rethink previous models for the sake of a cleaner, safer future. While leading the change to dramatically reduce emissions may feel like a threat to our pre-pandemic ways of operating, it will increase our sector's

Because we control the programmes and activities we create for our students, we also control their associated climate impacts

resilience by meeting students' rapidly changing expectations regarding institutional commitments to climate action, diversity and inclusion. As a threat multiplier, the climate crisis is exacerbating racial and socioeconomic inequalities, thus undermining critical diversity, equity and inclusion efforts.

HOW WE WILL LEAD

In a sector that leans heavily on partnerships and cooperation, it's not surprising that this collaborative spirit is already responsible for generating solutions and securing commitments. In November 2021, in parallel with COP26 in Glasgow,

the Climate Action Network for International Educators (CANIE) convened a forum of 57 international education leaders to collaboratively articulate the sector's climate ambitions and commitment to action. The upcoming Glasgow Protocol will be a product of these discussions and serve as the climate action commitment of the international education sector at large. The protocol will contain principles to guide climate action in international education, recommended greenhouse gas reduction targets and timelines, and concrete actions for reducing the sector's footprint (negative climate impacts) while increasing its handprint (positive climate impacts).

Our work as international educators has always been fundamental to fostering international peace, security and well-being. A core purpose of the sector is to build understanding and respect among different peoples in order to transcend borders, cultures and languages to solve global problems. There is currently no greater global problem than the climate crisis – and the sector must prove that it can and will rise to the occasion.

—ADRIENNE FUSEK

CRITICAL CLIMATE LEARNING STRIKING THE RIGHT BALANCE

It is no longer enough to assume that students who spend time abroad will develop a global mindset and the necessary skills to eventually offset the carbon cost of their learning. The climate impact of international travel – and our expectations of learning outcomes related to sustainability – must become an explicit part of our study abroad programmes. ▶



There have been repeated calls for international education to translate ideas into action with regard to the climate crisis and the disproportionate carbon footprint of certain educational activities. Hans de Wit and Philip Altbach^{1 2} have argued that internationalisation needs to shift away from being mainly driven by mobility, and that institutions and individuals need to commit to immediate, measurable targets for reduced emissions. Organisations such as the Climate Action Network for International Educators are attempting to place sustainability front and centre in the discourse around international education.

‘act’ that international higher education is performing, wherein the knowledge, skills and experiences that students acquire can be seen to compensate for the environmental damage wrought by air travel.

This is likely to be a familiar rhetorical device to all readers; to unpack it a little further, we might contend that through international experiences, students will acquire global mindsets that will lead them, in the longer term, to advocate for climate justice, support international efforts to protect the environment and adapt their own behaviour to contribute to sustainability as a result of their broadened horizons. Alternatively, the balancing

admit at this point that attempting to measure the positive environmental impact of international student experiences appears to be a fool’s errand, as there has been little attempt to truly engage with what this means in concrete terms. It may be a familiar rhetorical strategy, as I have suggested, but in practice there is much more that needs to be done, starting with certain key questions:

- Are students aware of the sustainability balancing act? Are they informed that we expect them to acquire certain skills, knowledge and experience that will offset the carbon cost of their learning?
- Do we have a framework to evaluate whether this balance is being struck? For example, can we design learning outcomes that will lead to positive environmental action in a rigorous way, and then assess their achievement?

Are students informed that we expect them to acquire certain skills, knowledge and experience that will offset the carbon cost of their learning?

SUSTAINABILITY BALANCING ACT

In one of the most comprehensive attempts to measure and respond to the scale of the problem, Robin Shields³ demonstrates that the carbon footprint from international student travel is continuing to rise, although perhaps not as precipitously as might be feared. One of the most interesting and underappreciated aspects of his excellent paper is his framing of what we might call the sustainability balancing

act might be manifested in specific new skills and knowledge in the domain of environmentalism that have been acquired through projects as part of study abroad – there are many fine examples of programmes that offer such skills.

Shields rightly shies away from attempting to quantify this equilibrium between emissions today versus beneficial future change, saying it is beyond the scope of his paper. But we might also

CRITICAL CLIMATE LEARNING

Before addressing these questions, let us shift gears and consider a different area where international education has received sustained criticism and has undergone a paradigm shift in response: service learning. The traditional, naive model of taking students abroad to build schools, dig wells and feel good about helping the less fortunate is now thoroughly outmoded, replaced by a critical approach to service that explicitly draws students’ attention to the inequalities and power imbalances in any such endeavour, problematising its

own nature and ensuring that this problematisation is apparent to participants.

I would like to suggest that we need a comparable ‘critical climate learning’ approach for these programmes of ours that involve taking students to other countries at great environmental cost, especially for short stretches of time. Just as critical service learning foregrounds the elements of service that are neocolonialist or otherwise socially questionable, and makes this

the environmental cost of international education activities:

- Make the carbon emissions of specific activities (field trips, education abroad, summer schools) clear, ideally partnering with students to calculate these. If consumer goods can increasingly display carbon dioxide production on the labels, there is little reason for international education activities to fail to do so;

of climate change on the destination and its inhabitants, rather than in generic global terms.

Virtual mobility, as advocated by many, is a fantastic tool for international education for a number of different reasons, including sustainability. But physical mobility will not disappear, and in-person experiences will continue to hold a special transformative power, especially for those students who otherwise have less opportunity for international engagement. With this being the case, let us ensure that our eyes – and our students’ eyes – are wide open to the impact of the travel involved, and that we are approaching these issues with rigour rather than hazy assumptions of future benefits from learning.

—MICHAEL SALMON

We need a comparable ‘critical climate learning’ approach for these programmes of ours that involve taking students to other countries at great environmental cost

problematic status central to the learning and assessment that students take part in, we need to do the same for the environmental harms of travelling for learning experiences, rather than hand-waving at assumed consciousness-raising and future plans to offset emissions. (As an aside, offsetting emissions at an institutional level without involving students would seem a particularly unambitious way to conduct education when seen through this lens.)

What might critical climate learning involve? I do not profess to have all the answers, but there are some immediate steps that would seem to fulfil this goal of foregrounding and problematising

- Give options to students around travel and other programme components, and again quantify, contextualise and discuss these in terms of environmental impact;
- Consider and discuss what participants could do in the future to balance the carbon emissions of their programme;
- For any course with a disproportionate carbon footprint, include in the learning outcomes concrete sustainability skills or knowledge, and audit the overall achievement of these outcomes rather than assuming that the balancing act is successfully performed; and
- For any programme taking students to a new destination, explore the impact

1. De Wit, H., & Altbach, P.G. (2020, January 11). *Time to cut international education's carbon footprint*. University World News. <https://www.universityworldnews.com/post.php?story=20200108084344396>

2. De Wit, H., & Altbach, P.G. (2021, December 4). *Now is the time to get serious on the climate crisis*. University World News. <https://www.universityworldnews.com/post.php?story=20211130110255785>

3. Shields, R. (2019). The sustainability of international higher education: Student mobility and global climate change. *Journal of Cleaner Production*, 217, 594–602. <https://doi.org/10.1016/j.jclepro.2019.01.291>

THE GREENING OF ERASMUS+ HAS ONLY JUST BEGUN

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Tentative steps are being taken to make the EU's flagship mobility programme more environmentally sustainable – but putting all the responsibility on students is not the way to go. Universities and governments must get involved in creating strategies and a common framework to support carbon-neutral exchanges.

The Erasmus student mobility programme started in 1987. By the end of 2020, it had supported nearly 12 million participants: students, apprentices, youth volunteers and staff from more than 150 countries across all continents.¹

Despite its many actions, the programme, now known as Erasmus+, is still mainly identified with student exchange, since it is the most extensive student mobility scheme in the world. Its success and impact in supporting cultural awareness, jobs, equity and inclusion are indisputable. However, with the climate change crisis comes an urgent need to align the programme with sustainability goals and to consider its environmental costs alongside its benefits.

Attention has therefore turned to the carbon footprint generated by the

movement of thousands of people across Europe and beyond. For instance, Key Action 103 – which enables student and staff mobility between higher education institutions in European Union member states and associated countries – produced an estimated 160,000 tons of carbon dioxide equivalent in 2017 alone.²

THE 'GREEN TOP-UP'

The vast majority of students travel by plane to reach and return from their Erasmus destinations, because students prioritise price and time factors, as shown in a recent survey of the Green Erasmus project.³ To lower the environmental impact of mobility, the latest iteration of the Erasmus+ programme considers providing a single contribution of €50 as a top-up for students who choose a sustainable method of



transport, along with up to four days of additional individual support.

This method, however, is not enough to encourage students to opt for sustainable travel choices as it does not cover the extra costs that a train journey usually entails, the Green Erasmus research shows. In fact, this approach shifts the

responsibility to the last link in the chain: the students, who are often not in a position to be picky about their mode of transport because of financial, geographical and infrastructural factors. Students

from southern and eastern regions would need higher financial support to have the same opportunities as their peers from central Europe, for example. Focusing solely on student travel through a 'one-size-fits-all' approach might therefore make the programme elitist and exclusive. Rather, attention should

drive societal shifts, but governments or large institutions need to create conditions to enable lifestyle changes.

STRAINS AND CONTRADICTIONS

Making Erasmus+ travel greener is essential, as a carbon-neutral programme would encourage participation and ensure its values were better aligned with those of the participants, which could also be a powerful incentive for mobility. Nevertheless, greening should also be approached from the inclusion and participation angles through extensive structural investments and financial support.

While putting pressure on students, the top-up initiative also puts an additional strain on higher education institutions. The lack of adequate guidelines on how to implement the top-up, together with the funding bottleneck experienced

Focusing solely on student travel through a 'one-size-fits-all' approach might make the programme elitist and exclusive

also focus on member states' differences in terms of sustainable national strategies and infrastructure, which affect mobility alternatives as well as the attitudes, values and beliefs of students. Individual change can

in the 2021–2022 academic year, translated into a burden on already over-worked international relations offices.⁴ The amount of additional bureaucracy makes it very difficult to implement. A thorough analysis of the pressure points and a revision and simplification

is a rather simple answer to a complex issue that requires a holistic approach. It is important to capitalise on what the programme can already do to increase people's environmental skills, competencies and awareness, as well as change their habits and behaviours.

student aware of their environmental behaviour and promote civic engagement through the support and expertise of local students' associations and non-governmental organisations.

The notion of a carbon-neutral Erasmus+ holds enormous buy-in among students and universities, but current steps to reduce its negative environmental impact should be regarded as only the starting signal for a vital and urgent quest. Involving the whole community – including regional and local governments where relevant – in devising realistic strategies to carbon neutrality will be key, as will greater investment, both in infrastructure and in supporting users who are asked to eschew cheap flights. Combining this with a simplification of processes to ease implementation would mean not only a more environmentally but also a more administratively sustainable Erasmus+ programme.

—HELENA ALVES, PAOLA DIMARZO

Greening should be approached from the inclusion and participation angles through extensive structural investments and financial support

of the implementation processes are in order, which would also result in a more environmentally sustainable (reducing the number of documents needed) and streamlined process.

Additionally, the different initiatives and priorities that are currently being promoted may result in contradictory messages being passed on to the academic community; this is particularly the case in terms of making Erasmus greener by promoting shorter mobility periods, whose carbon footprint is actually proportionally higher than spending a semester or a year abroad.

Different grant and mobility options tailored to students' needs are warmly welcomed, but a clear strategy is essential to ensure the goals set out from the beginning are achieved. Moreover, when a strategy is translated into action, explicit guidelines for its promotion and implementation should follow, in order to prevent the above-mentioned issues faced by international relations offices.

ENABLING BEHAVIOURAL CHANGE

Although it has its merits, the €50 top-up and focus on students' actions

To this end, the interaction with local communities and local challenges during a mobility exchange is essential to raise awareness – among students and the host community – of climate change's impact. As identified in a Green Erasmus survey about higher education institutions' good practices, some institutions have already grasped this concept and organised behavioural change initiatives such as communication and awareness-raising campaigns, or projects with active student participation.⁵ Moreover, some institutions have started to offer, through their own means, compensation schemes for students opting for sustainable means of transport, to encourage greener transport choices that could compete against cheap flights.

Most of all, institutions have started to understand that mobility experiences may incentivise new habits and have a positive impact on students and society at large. Nevertheless, these initiatives are limited to institutions' independent strategies. Building on the Erasmus Charter for Higher Education 2021–2027, a common framework could ensure a standardised approach to make every

1. European Commission. (2021). *Erasmus+ annual report 2020*. Directorate-General for Education, Youth, Sport and Culture. <https://data.europa.eu/doi/10.2766/049341>

2. Finnish National Agency for Education. (2021). *Feasibility study on compensation scenarios for the new and greener Erasmus+ programme 2021–2027*. https://www.oph.fi/sites/default/files/documents/Feasibility_Study_Compensation_ErasmusPlus.pdf

3. Diekmann, A., & Karaiskos, G. (2022). *Research on the habits of Erasmus students: Consumer, daily life, and travel habits of Erasmus students from the perspective of their environmental attitudes and beliefs*. Green Erasmus. <https://greenerasmus.org/documents/GE-report.pdf>

4. European University Foundation. (2021, November 3). *Funding bottleneck casts a dark cloud over the start of Erasmus+ 2021/2027*. <https://uni-foundation.eu/funding-bottleneck-erasmus/>

5. Terzieva, V. (2021). *Sustainable internationalisation at higher education institutions: Online survey report 2021*. Green Erasmus. https://uni-foundation.eu/uploads/2021_GE_Staff_Survey_Report.pdf

CLIMATE CHANGE AND ENVIRONMENTAL EDUCATION IN EUROPE

FAST FACTS

In recent years, various European-level policies and measures have been enacted to address the issue of environmental impact. Efforts encouraging environmental awareness, environmentally friendly behaviours and commitment to action have also surfaced in agendas connected directly to education.

A 2021 EUROBAROMETER SURVEY OF EU CITIZENS FOUND THAT:¹

93% CONSIDER CLIMATE CHANGE A SERIOUS PROBLEM
 87% SAY THE EU NEEDS AMBITIOUS TARGETS FOR RENEWABLE ENERGY
 87% SAY THE EU SHOULD GIVE ENERGY EFFICIENCY SUPPORT
 64% ARE ALREADY TAKING INDIVIDUAL ACTION

EDUCATION FOR CLIMATE COALITION

Recognising the importance of making environmental education a systemic feature of educational policies and practices across the EU, the Education for Climate Coalition was launched in 2020. This bottom-up approach aims to mobilise students and embed climate neutrality curricula in school education and focuses on five priority areas:²

INTERACTION BETWEEN EDUCATION AND SCIENTIFIC RESEARCH

EUROPEAN GREEN DEAL

This set of policy objectives was put forth by the European Commission in 2019 and aims to achieve significant greenhouse gas emission reductions by 2030 then full climate neutrality by 2050. The deal highlights the urgency of advancing towards regenerative growth models, pursuing zero-pollution, and reducing environmental and climate pressures³

EUROPEAN CLIMATE LAW

In line with the 2015 Paris Agreement objectives, the Council of the EU has adopted the European Climate Law, a legally binding obligation through which the EU seeks to accomplish climate neutrality by 2050. Another aspirational goal it entails is the reduction of greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels⁴

NEXT STEPS FOR A SUSTAINABLE EUROPEAN FUTURE

This 2016 communication from the European Commission offered an EU response to the '2030 Agenda for Sustainable Development' adopted at the September 2015 United Nations General Assembly, and indicated how the Sustainable Development Goals (SDGs) could be integrated into EU policy⁵

GREEN ERASMUS

Co-funded for three years (2020–2023) by the Erasmus+ Programme, this project brings together three student organisations, two higher education institutions and the European University Foundation around three main goals:

- Decreasing the negative impact of the Erasmus+ Programme on environmental sustainability
- Raising awareness across the European higher education sector about the importance of sustainable internationalisation
- Empowering student organisations to be agents of change in relation to environmental sustainability⁶



AWARENESS OF ISSUES

GREEN SKILLS DEVELOPMENT

TEACHER EDUCATION

CHANGES TO CITIZEN BEHAVIOUR

—IPEK TEKDEMIR AND EAIE

1. European Commission. (2021a). Eurobarometer Survey: Europeans consider climate change to be the most serious problem facing the world. https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3156

2. European Commission. (2016). *Next steps for a sustainable European future - European action for sustainability: Questions & Answers*. https://ec.europa.eu/commission/presscorner/detail/en/MEMO_16_3886

3. European Commission. (2022). A European Green Deal. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

4. European Commission. (2021b). European Climate Law. https://ec.europa.eu/clima/eu-action/european-green-deal/european-climate-law_en

5. European Commission. (n.d.). Education for Climate: vision & purpose. <https://education-for-climate.ec.europa.eu/community/about-why>

6. Green Erasmus. (n.d.) Green Erasmus. <https://greenerasmus.org>

THE CLIMATE CRISIS CALLS FOR COIL



Three examples of Collaborative Online International Learning (COIL) projects bringing together Switzerland, the United States, Canada, the Middle East and North Africa show that if this technique is used well, it can be a hugely beneficial and sustainable way for students and lecturers to broaden their horizons.

The vision of higher education as a “change agent”¹ that can address “accelerating environmental change, resource scarcity, increasing inequality and injustice” seems to have advanced with the pandemic, which is driving virtualisation in education.

In recent years, much has been said and written about virtual exchange² and one specific form called Collaborative Online International Learning (COIL). Both have increased in popularity with lockdowns and border closures.

The pandemic and its effects led the FHNW School of Business in Switzerland to start a virtual exchange programme for students. This proved an attractive offer for partner universities and students alike, with the transition from on-site to online lectures being implemented at very short notice.

Görlinger and Nussbaum³ have shown that student mobility has a clear impact on the carbon footprint of a university. Sustainable alternatives to physical student mobility are therefore a necessity rather than a choice. At the same time, it is only fair to create as many opportunities to participate in international learning as possible and to no longer discriminate against students who do not have the financial means to travel, who have family commitments or who lack the energy or courage. Despite a “dramatic” rise in international student mobility⁴, it is beneficial for the climate that many students – in Switzerland, an estimated 80% – do not travel. The reality is that these students have, to date, both protected the climate and minimised universities’ carbon footprints.

In this article, we will share three examples that demonstrate how lecturers at the FHNW and partner institutions created international learning opportunities, in line with their universities’ sustainability and wider outreach policies, that had a low environmental impact and were open to all students.

EXAMPLE ONE: THE ‘PADLET’

Our first example, a COIL initiative between two marketing lecturers from the FHNW and California State University, Monterey Bay, in the United States, consisted of a joint online interactive board called a padlet, where students from their two global marketing classes contributed posts and comments.

The lecturers allocated 15 minutes each week in class to allow students to post, respond to posts or reflect on learnings from these posts, particularly regarding cultural differences. The padlet was created in August 2021; students started using it a month later and finished in December.

The key challenge for this COIL effort was to establish a common understanding and trust between two lecturers who never met each other in person. They met online at key stages of the semester and reflected on the effectiveness of the padlet in terms of allowing students to experience cultural learning as an integral part of applying international marketing theories.

One FHNW student commented: “I really appreciated the fact that we had the opportunity to interact with students from California. I learned from the American students to write my feedback in more detail, as they do.” Another said that the padlet exercise “added a lot of value to the concepts learned in class”.

A joint online board is a very effective, user-friendly tool to allow students to experience cultural similarities and differences. It also enabled the two lecturers to determine whether deeper cooperation and integration would be feasible in line with different methodologies and teaching styles.

EXAMPLE TWO: COMPUTER SIMULATION

Our second example, a COIL project between two lecturers from the FHNW and Sheridan College, Canada, focused on intercultural aspects of ethics, politics and individual responsibility towards society. Challenges in setting



up the COIL experience included different semester start times, different credit levels, different expectations of assessments and different teaching cultures. In an intense dialogue, solutions were found and many synergies were identified.

Students were introduced to the theories of ethics and cooperation. Both professors moderated online discussions in a full assembly and in small groups. One lecturer commented: “We both benefited from exchanging ideas on subject matter and didactics. We gave each other regular feedback. We were exposed to new material and to new expertise.”

Binary thinking will not lead to finding solutions to the urgent environmental issues facing businesses and society

A computer simulation of the Massachusetts Institute of Technology’s Fishbanks game was conducted in mixed groups of Swiss and Canadian students. The simulation required decision-making in terms of profit and resource maximisation for fishers. Students created ecosystems and learned to map the stakeholders in an interconnected system in which the interests and relationships of each stakeholder were visible. The goal was to help students make decisions in complex environments and sensitise them to the fact that binary thinking will not lead to finding

solutions to the urgent environmental issues facing businesses and society.

EXAMPLE THREE: A GRADUATE COURSE

Our final example is a COIL graduate course that forms part of a cooperation project called Promoting Gender Equality and Diversity through Shared Knowledge Production. The project is funded by the vice-chancellors’ group Swissuniversities and involves the University of Zurich, the University of Geneva, the FHNW and partners in the Middle East and North Africa.

The jointly conducted COIL graduate course, called Introduction to Transcultural Gender and Diversity Studies, aims to critically assess the different ways in which terminologies of gender and diversity, as well as related forms of expertise, are produced, translated, transferred and put into practice globally.

In the most recent course feedback, students said they appreciated the opportunity to share knowledge in this cooperative setting. The interdisciplinary approach of the course is challenging. It makes it clear from the beginning that different bodies of knowledge are being brought into the exchange, so the learning effect is considerable for both students and lecturers.

COIL IS KEY

All of these COIL projects are currently being reviewed and, because of the positive experiences reported so far, are likely to resume in the coming autumn semester. The courses are mostly electives – students can choose to take them as

part of their wider programme of study – which gives the participating institutions more flexibility in scheduling and means that more students and faculty can get involved in international activities.

From now on, COIL practices are going to form an integral part of our international opportunities and enhance our portfolio. And although we do not expect them to quench students’ thirst for mobility, they do provide great opportunities to create beneficial international learning experiences for all students in a climate-friendly way.

Once they are set up, COIL projects can provide a sustainable way for students and lecturers to increase their knowledge, their international experience and their network without increasing their institutions’ carbon footprints.

—SUSAN GÖLDI, BARBARA THERESA MILLER, NIKOLINA FUDURIC, NATHALIE AMSTUTZ

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- Görlinger, S., & Nussbaum, U. (2019). *Die Mobilitätsplattform der ETH Zürich*. ETH Zürich. <https://ethz.ch/content/dam/ethz/associates/services/organisation/Schulleitung/mobilitaetsplattform/Kurzinfo%20Mobilitaetsplattform%20ETH%20Z%3BCrich.pdf>
 - O’Dowd, R. (2018). From telecollaboration to virtual exchange: State-of-the-art and the role of UNICollaboration in moving forward. *Journal of Virtual Exchange*, 1, 1–23. <https://doi.org/10.14705/jrpn.2018.jve.1>
 - Shields, R. (2019). The sustainability of international higher education: Student mobility and global climate change. *Journal of Cleaner Production*, 217, 594–602. <https://doi.org/10.1016/j.jclepro.2019.01.291>
 - Stephens, J. C., Hernandez, M. E., Román, M., Graham, A. C., & Scholz, R. W. (2008). Higher education as a change agent for sustainability in different cultures and contexts. *International Journal of Sustainability in Higher Education*, 9(3), 317–338. <https://doi.org/10.1108/14676370810885916>

SUSTAINABILITY

through

INTERNATIONALISATION

A broader understanding of how internationalisation contributes to sustainability goals is necessary. The reasons why we internationalise – international cooperation, intercultural skills development and knowledge dissemination – are what give us the best possible chance of tackling major societal challenges and achieving global sustainability goals. ▶

The sustainability perspective of internationalisation is often reduced to climate emissions related to travelling. However, sustainability is a wider concept than climate, and internationalisation is far more than mobility.

Sustainable development must balance social, economic and environmental aspects, and the United Nations' Sustainable Development Goals also recognise that action in one area affects results in others. Major societal challenges must be met with interdisciplinary knowledge in both research and education. International cooperation is a prerequisite for the development of knowledge and for ensuring quality in higher education.

In the strategies and management documents of Western Norway University of Applied Sciences (HVL), sustainability is central. The institution also has an international action plan that emphasises stronger international cooperation, environmentally friendly solutions to travel, development of digital solutions and Internationalisation at Home. Are internationalisation and sustainability contradictory, or is it possible to promote internationalisation as an important part of working sustainably in higher education and research?

SHARING KNOWLEDGE

Research and higher education are central to the development of a sustainable society – environmentally, socially, culturally, economically and politically. Many of the issues related to these aspects are global in nature and require both comparative perspectives and collaboration with research environments in other countries. Such

challenges are addressed through various funding opportunities.

International research and education cooperation is thus an important factor in sustainable development. Although international project collaborations contribute

global challenges and become global citizens. Through informal meetings and formal learning arenas, they can exchange knowledge and perspectives that are likely to have a positive impact on individuals and society. HVL has

Internationalisation can provide students with intercultural competencies that raise their global awareness, helping them to solve global challenges and become global citizens

to more travel to some extent, it is necessary for researchers and students to meet physically to help solve global challenges, including climate-related issues.

In recent years, HVL has increased its projects and funding in international education and research. Although such funding is focused on sustainability, the knowledge developed in these projects must be shared broadly, in line with Sustainable Development Goal 17, which aims to “strengthen the means of implementation and revitalise the global partnership for sustainable development”. In other words, sustainability in international projects presupposes dissemination and broad use of the project results, both within the institutions involved and externally among stakeholders.

DEVELOPING SKILLS

Internationalisation in education can provide students with intercultural competencies that raise their global awareness, helping them to solve

established a Global Lounge on all five campuses to provide an informal space for interaction between local and international students and staff.

Increased mobility is a stated goal within Norwegian higher education and an important tool for providing students with intercultural competencies and international perspectives. Results from the 2019–2020 Erasmus+ participant report, from outgoing students at HVL, show that their stay abroad contributed to the development of skills such as cooperation, adaptability, cultural competence and problem solving, and made them more open to new challenges. Such skills will equip these students for a future characterised by lifelong learning and the constantly changing work life that is increasingly in demand by employers.

Despite the importance of mobility for skills development, higher education institutions must strike a balance between the benefits of mobility and carbon emissions. How sustainable mobility is comes down to where and how students

and staff travel, and what they do during their stay. As a response to this, HVL offers a travel grant rewarding green travel and encourages students to explore alternatives to air travel.

COMPLEMENTING TRAVEL

Mobility and Internationalisation at Home should be seen as complementary elements to achieve international learning and intercultural competencies. HVL has recently explored virtual exchange, and in particular Collaborative Online International Learning (COIL). One such project involved Université Adventiste Zurcher in Madagascar and focused on global health and nursing education.

they will also increase their intercultural competence and foster valuable skills that enable them to create innovative solutions for the 21st century.

ACHIEVING SUSTAINABILITY GOALS

Universities can contribute to achieving Sustainable Development Goals by strengthening internationalisation and prioritising mobility involving partners with a strong 'green' profile. By taking conscious steps, institutions can use Internationalisation at Home and mobility to promote sustainability and create positive ripple effects academically, socially and economically, particularly with innovation in mind.

internationalisation and relating them to the concept of sustainability.

This approach can be valuable in that it equips the leadership at higher education institutions with a discourse connecting sustainability and internationalisation in a wider context, thus contributing to the development of a broader understanding of how and why internationalisation is sustainable and can contribute to achieving sustainability goals.

—JANNICKE HOLMSETH BUKVE,
SOLVEIG RÅHEIM GRØNSDAL,
TORUNN STORNES KITTELSEN,
SAMI ANDREAS PATRIKAINEN SKOGSTAD,
MARIT SCHULSTAD WASA

International relations offices can help ensure that the institutional discourse around internationalisation and sustainability does not only revolve around carbon footprints and mobility

Students found it academically and culturally educational to take part in a COIL project, and they found it especially exciting to have direct contact with nursing students in another country. COIL can be linked to sustainability through being a virtual arena for interdisciplinary and intercultural collaboration, and the theme for the collaboration between students can focus on sustainability goals and major societal challenges.

Through student and staff mobility and Internationalisation at Home, participants will not only gain explicit professional competencies for working life;

International relations offices can help ensure that the institutional discourse around internationalisation and sustainability does not only revolve around carbon footprints and mobility. As an example, HVL has established a team that strategically works on analyses of topics relating to internationalisation within the Division of Research, Internationalisation and Innovation. The team members look at areas such as mobility, international projects and Internationalisation at Home, and the interdisciplinary expertise of the team provides a good basis for highlighting different elements within

IN CONVERSATION WITH

DANIELLA TILBURY

MARIO ADAMO
EAIE



Former Vice-Chancellor and CEO of the University of Gibraltar, Professor Daniella Tilbury firmly believes that international education can accelerate change. With her decision to pursue a career in education for sustainability having been heavily influenced by an international study experience in Australia, she acknowledges the power of cross-border travel to challenge assumptions and burst socio-cultural bubbles. She encourages us to view sustainability as a journey, rather than a checklist, and calls on higher education institutions to approach travel more efficiently and to reframe the student experience by mainstreaming sustainability and teaching students to shape change as it happens.

How did you choose the topic of your PhD dissertation, the wholly new discipline, that is 'education for sustainable development' (ESD)? What concerns, thoughts and aspirations influenced your decision?

DT: That is a good question to start with. I did my PhD in Cambridge, in the late 1980s, at a time when very few were talking about the term 'sustainability' and what it meant. More specifically, no one had addressed sustainability in higher education or confronted the implications for teaching and learning, or the type of organisations that universities needed to become. This meant that my work was very exploratory as there was no prior work that I could base it off of or learn from. I was very much discouraged by others from undertaking this research, as sustainability was considered a passing fad or trend. I was advised that it would be academic suicide to pursue this investigation.

The fact is that I was driven by the underpinning ambition of sustainability and its focus on education for change. A significant life experience influenced this. I had the fortune of being an exchange or international student at Deakin University in Australia as an undergraduate. It was a formative experience when I understood the need to question the purpose and practice of education and not just the themes of learning. Most importantly, the experience challenged many of my worldviews and decentred me

from what had been a limited worldview. It broadened my horizons so that I had understood the need to look beyond immediate issues and saw the sometimes invisible connections between people and planet issues. I came back very driven with the idea of pursuing research in this area.

It clarified for me that universities and colleges were not fit for purpose and that we needed to engage in a process of reimagining and re-crafting higher education. I was interested in the role and purpose of higher education, and how sustainable development was actually questioning the whole premise of what universities were doing and why.

Fast forward to the present day and the future ahead. How can university administrators and educators continue to innovate ESD and keep its relevance and effectiveness intact, for example in equipping future generations with the skills they will require?

DT: Higher education has been involved in international negotiating processes on climate action and sustainable development from the very start. Universities and colleges have been very present since Stockholm in 1972 and continue to be leading influencers at Climate Change COPs. The issue for me is that society still sees universities primarily as the generators of climate science. However, we

shouldn't simply be talking about having the data and the research, or training enough climate science experts. We need to mainstream sustainability concerns and considerations into all of higher education, leading to every profession: doctors, nurses, architects, vets – all existing careers. We need to talk about how we teach the decision-makers,

We need to get to the core of what university student experiences are, and reframe them

leaders and practitioners of tomorrow to embed sustainability in their everyday thinking and planning.

At the moment, we are just developing students' knowledge and understanding of the current issues and how the world is changing, while we need to be moving towards helping them learn to shape that change as it is happening. So we can't just add the Sustainable Development Goals, the SDGs, to existing practice. We can't just add themes to assignments or field trips. We need to get to the core of what university student experiences are, and reframe them. Until we start reforming, we will continue to be just expertise in someone else's agenda, rather than social disruptors. And higher education has a role to play in social disruption, just like we did with women's and gender issues.

By definition, education yields its profits in the medium to long term. Given the urgency of the climate crisis, can internationalisation act as a catalyst for education to yield a quicker profit, and amplify its reach?

DT: I believe that international education can accelerate change. When a student or a lecturer travels; when they go to a different social context that challenges their assumptions; that challenges their experience, their socio-cultural bubbles, and moves us closer to a sustainable future. They see the world differently; these experiences and being exposed to people from other cultures and concerns, challenges and questions the 'glasses'

carbon compensate when we can, and only travel when it is needed. Cutting out travel completely from international education, for me, is not the answer with regards to climate change.

Scholars and climate activists stress the crucial role of participatory processes in the quest for sustainability. Is this also true for universities, and how do we get there?

DT: Participation is a token word in higher education at the moment, and that needs to change. We used to think that participation was simply about creating spaces for people interested in doing something, whether that was creating a green office,

What we need to do is travel more smartly, more efficiently; we need to carbon compensate when we can, and only travel when it is needed

through which we often see the world. If we want change to happen, we need to constantly be exposed to these experiential or 'life-significant' moments. People often say to me, "oh, but the carbon footprint associated with international travel, that's the real problem". No, that's not the problem! In fact, travel is, for me, a key to the solution to this problem, because you are displaced, and placed in a position where you are questioning and rethinking. What we need to do is travel more smartly, more efficiently; we need to

a voluntary experience, or a field study centre associated with a particular issue. What we've actually learned over the course of the last decade, is that young people no longer know how to participate or make a difference. Greta and her generation are hitting the streets because it's the only thing they know how to do. They don't know how to participate to influence. Yes, we need to continue to create spaces for participation. However, we also need to scaffold and help stakeholders understand how they can participate

with meaning and with influence. That requires an element of capacity building, but also time. One of the key things about good projects and initiatives is that they don't happen in a linear way. Those who want to learn will do so in their own time. We need to make a bigger effort to not only explain why participation is necessary, but to help them do it. We need to create opportunities inside and outside the classroom, so that our students, educators and administrators can feel a part of a significant life experience that will change their way of engaging, as well as their role at the university.

Participation is a token word in higher education at the moment, and that needs to change

As a university and sustainability leader, you have set the sustainability strategies of numerous HEIs across various geographies. How can university leaders replicate successful models, while doing justice to the unique potential and challenges of local contexts?

DT: I find that the experiences of others tend to be good for a couple of things. Looking to others is important as a motivator and also as a driver for change, in the sense that the experiences of others become useful case studies to illustrate how things can happen. But, as every



Daniella Tilbury speaking at the UN Climate Change Conference, UK 2021

institution is unique, they are not useful when you try to replicate them. Sustainability is a journey, not a checklist. That means that if you want to bring about change in your institution to address climate or sustainability, you need to understand your context. And it's frustrating, because it will take time and there are no quick fixes. You have to provide opportunities for reflection, safe spaces for capacity building and for listening, participation and engagement, rather than checklists of actions (or reactions) for change.

COP26 has been a reminder of the painstaking complexity of multilateralism. How can university partnerships and alliances for sustainability bear fruits, and offer a healthy model of international collaboration?

DT: Universities are more recently competing in sustainability, through rankings and a whole range of different indices, awards and prizes. I don't think these are helping, because there has to be a sharing of not just experiences but resources in this agenda. For example, why can't we have sustainability offices across two universities in the same city that share resources and expertise? It would make

more sense and have more impact: economies of scale. When I was Dean of Sustainability, I reached out to the local college and other institutions in my region to share resources and do projects together. Why reinvent the wheel? It just makes a lot more sense, and the students get a much more expanded bubble of experiences and understand the meaning of partnerships for sustainability.

DECODE PROJECT

HELPING DEANS EMBED
SUSTAINABILITY IN
UNIVERSITIES



Though often overlooked, deans can play a critical role in driving transformation for sustainable development within higher education. DECODE, a project supported by the European Commission, supports deans in their efforts to embed sustainability in their universities, addressing the drivers, success factors and obstacles associated with getting ‘all hands on deck’.

In 1987, an urgent call was made “to propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond”¹. Despite this call, sustainable development remained largely at the periphery of societal concerns by the end of the 20th century. Three and a half decades later, the impacts of the climate crisis are wide-ranging and the message that our current way of living is not sustainable has gained momentum in public debates.

A lot of hope for driving sustainable development initiatives has been placed on the higher education sector, since it can educate and empower future generations to make sustainable decisions; research and develop innovative solutions for mitigating and adapting to the impacts of climate change; and lead through example by implementing sustainable practices on university campuses².

It is true that solutions to the problem of climate change will not come from higher education alone. Cooperation between the private and public sectors and civil society is needed if we are to find viable solutions to this systemic problem. But in this article, we will zoom in on academia.

CONNECTING PINS AND AMPLIFIERS

To facilitate a transformation towards sustainable development, higher education institutions are undertaking a large number of initiatives, both in a top-down and in a bottom-up manner. What is often overlooked is the ‘middle-out’ approach³, or the role of deans and other heads of academic units (such as faculties and departments). These academic leaders are in a unique position to drive change by connecting top-down and bottom-up efforts and amplifying the voices on both sides. As such, they serve as both *connecting pins* and *amplifiers*.

The DECODE project (2020–2023), supported by the European Commission, aims to strengthen the ‘middle-out’ approach to institutional transformation by supporting deans in their efforts to embed sustainability in their academic units. Deans have the potential to play a critical role in driving this transformation. With this in mind, as part of the DECODE project, we asked deans from across Europe about the critical success factors, key drivers and obstacles involved in promoting sustainability in their universities.

The DECODE survey was sent out to 7027 European deans. The core part (comprising 28 questions) was completed by more than 500 deans from 30 European countries, while a voluntary part was completed by more than 250 respondents. While selection bias is likely, the sample contains respondents with different levels of experience and from different geographical regions, academic fields and university types.

These academic leaders are in a unique position to drive change by connecting top-down and bottom-up efforts

DRIVERS AND SUCCESS FACTORS

In the voluntary part of the survey, we asked deans what the critical success factors were that enabled academic units to undertake sustainability initiatives. Four factors came out on top (see Figure 1): the most important was the commitment of the institution’s central leadership (52%), followed by the involvement of the entire academic unit (45%), the commitment

FIGURE 1

What are the critical success factors that enable your academic unit to undertake sustainability initiatives?⁴

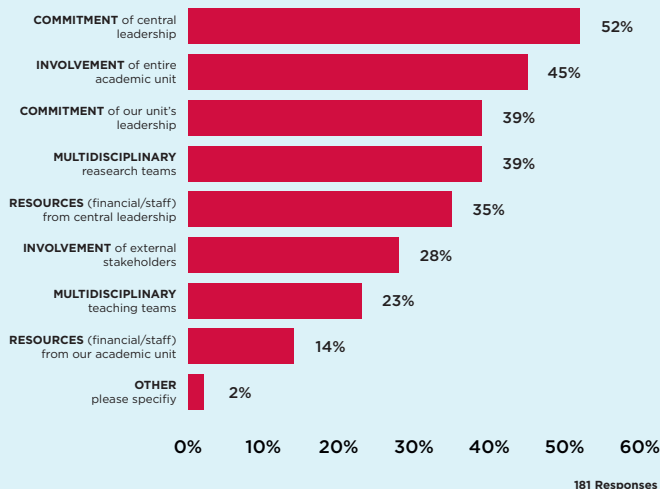
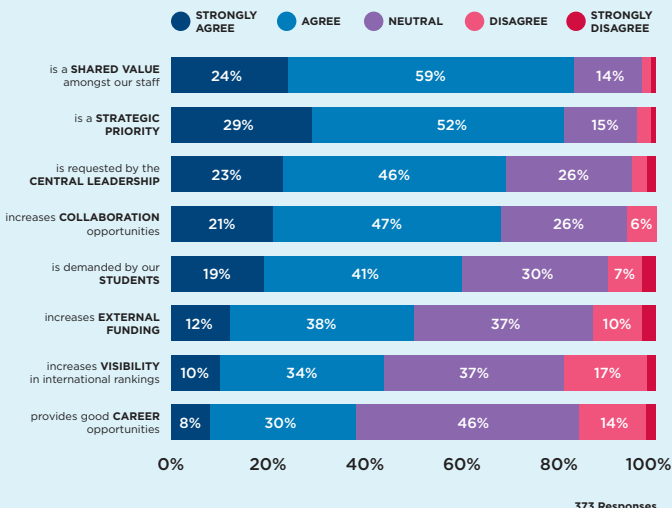


FIGURE 2

What are the key drivers for your academic unit to undertake sustainability initiatives?⁵



of the unit’s academic leadership (39%) and the presence of multidisciplinary research teams (39%). This highlights that having institution-wide commitment from the top and bottom – in other words, having ‘all hands on deck’ – is critical for the success of transformations related to sustainability.

We also asked deans what had driven them to undertake sustainability initiatives that were already in progress (see Figure 2). The large majority (83%) agreed or strongly agreed that sustainability was a shared value amongst their staff, signaling strong intrinsic motivation to pursue such initiatives. This was followed by sustainability being a strategic priority (81%) and requests by central leadership (69%). Similar to the critical success factors, it appears that staff engagement and commitment from central leadership tend to drive sustainability initiatives.

Amongst the eight drivers, the three with the lowest scores were increases in external funding (50%), visibility in international rankings (44%) and good career opportunities (38%). While these external factors are not the main drivers

behind sustainability initiatives, funding does play a major role when it comes to obstacles.

OBSTACLES AND SUPPORT

Indeed, the three most important obstacles to undertaking sustainability initiatives mentioned were a lack of time (79%), lack of funding for sustainability-related education (60%) and research (59%), and lack of knowledge about sustainability-related topics (40%) (see Figure 3). Academic staff seem to experience mission overload, with research,

We also asked deans to report on what type of support they would need to make progress on implementing the sustainability agenda in their academic unit. In order to make progress on sustainability transformations, more than half of the deans indicated five support mechanisms they felt were required. These were: support to further develop their unit’s sustainability strategy, external project funding, staff training opportunities, peer learning or good practice exchange, and support provided by their institution (such as funding).

Having ‘all hands on deck’ is critical for the success of transformations related to sustainability

teaching, administrative and societal engagement obligations being juggled simultaneously. The less prevalent obstacles were lack of sustainability-related career ambitions (32%), accreditation and regulation for sustainability degrees (29%), and support from central leadership (21%).

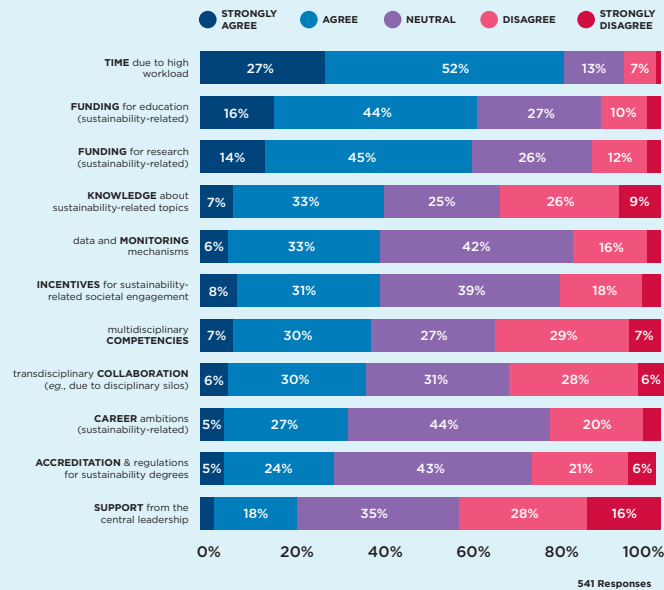
COLLABORATION AND LEARNING

Looking towards the future, more than 75% of deans agreed or strongly agreed that in the next five years, attention to sustainability would increase in their academic unit across all functions: research, teaching, societal engagement,

FIGURE 3

What are the key obstacles that stand in the way of your academic staff undertaking sustainability initiatives?

*For our academic unit, the key obstacles include the lack of...*⁶



and operations and administration. The strongest agreement was shown for teaching and research (both 86%). This signals a clear priority given to sustainable development across various academic fields in Europe. Moreover, when asked if they would like to join the European Deans’ Council for Sustainability as part of the DECODE project, three quarters responded positively.

These results show strong motivation amongst European deans to collaborate and learn from each other. Yet we should also not forget that many good practices will come from outside Europe. For a transformation as urgent and complex as this one, we truly need ‘all hands on deck’, both within and across organisations, surpassing geographical boundaries and welcoming experts, practitioners and activists. We should not wait another three and a half decades for the next urgent call – by then, it might be too late.

—ANETE VEIDEMANE,
DANIELA CRACIUN

1. Brundtland, G. H. (1987). *Report of the World Commission on Environment and Development: Our common future*. World Commission on Environment and Development. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
2. Findler, F., Schönherr, N., Lozano, R., Reider, D., & Martinuzzi, A. (2019). The impacts of higher education institutions on sustainable development: A review and conceptualization. *International Journal of Sustainability in Higher Education*, 20(1), 23–38. <https://doi.org/10.1108/IJSHE-07-2017-0114>
3. Cummings, R., Phillips, R., Tilbrook, R., & Lowe, K. (2005). Middle-out approaches to reform of university teaching and learning: Champions striding between the top-down and bottom-up approaches. *The International Review of Research in Open and Distributed Learning*, 6(1). <https://doi.org/10.19173/irrodl.v6i1.224>
4. Jongbloed, B., & Veidemane, A. (2021). *Embedding sustainability in academia: Deans as change makers - final report*. Center for Higher Education Policy Studies. https://decode-council.org/wp-content/uploads/2021/11/DECODE-final-report_IO-upd_16_11_2021.pdf
5. Jongbloed, B., Veidemane, A., & Bayezid, A. (2021). *Embedding sustainability in academia: Deans as change makers - survey of deans*. Center for Higher Education Policy Studies. https://decode-council.org/wp-content/uploads/2021/11/Deans_Survey_Report_2021.pdf
6. Jongbloed, B., Veidemane, A., & Hu, D. (2021). *Embedding sustainability in academia: Deans as change makers - literature review*. Center for Higher Education Policy Studies. https://decode-council.org/wp-content/uploads/2021/11/DECODE_Report_CHEPS_Literature-Review_Oct26_2021.pdf

BROADENING ACCESS TO ENVIRONMENTAL

Interest in environmental studies and Earth sciences is growing rapidly in the Global South, accelerated by the effects of the climate crisis. But this interest will go to waste if prospective students cannot access the education and infrastructure they need. Governments and universities must bridge the gap by providing better support and funding for distance and hybrid learning.

When it comes to student interest in environmental studies and Earth sciences, there is a growing disconnect between different countries: interest is rising sharply in the Global South but plummeting in the Global North. This is an interesting dynamic given the disproportionate effects of climate change around the world. According to the Center for Effective Global Action,¹ Global South economies bear the brunt of climate change despite the fact that the Global North is responsible for the lion's share of emissions.

Studyportals data from over 52 million prospective students in 2021 showed a stark difference between student interest from traditional 'source' countries in the Global South and 'destination' countries in the Global North. The top destination countries for environmental studies and Earth sciences are all based in the Global North (the UK, Germany, Canada, the United States and the Netherlands). These are also the countries where prospective student interest is falling sharply. In contrast, interest in these disciplines from prospective students based in India, Nigeria, Turkey and Vietnam has increased. The trend is developing over time.

In 2019, 10% of interest came from the US. In December 2021, that figure was down to 4.4%. People from Turkey, meanwhile, made up 2.3% of prospective environmental studies and Earth sciences students in 2018. That shot up to 8.5% by December 2021.

In higher education in general, there is a large imbalance between traditional destination countries and countries where the educational infrastructure struggles to cope with rising demand. The question is: What other options are available to link interested students to quality institutions – to broaden access to environmental studies?

DISTANCE LEARNING

One option would be to broaden access through distance learning. The benefit of distance learning comes down to ease of access, the opportunity to get a quality education without having to relocate and the chance to grapple with local problems within one's own community while learning. Access to top institutions means students can gain more recognised degrees and add their voice to a global community of experts.

The most obvious problem with distance learning, however, is the



STUDIES

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digital divide. This gap, underlined by structural socio-economic conditions, has been made worse by the pandemic. It is estimated that globally, about 60% of the planet's population has access to the in-

FUNDING AND FORMATS

Further complicating the issue of distance learning is the problem of funding. Jo Ritzen, who was Minister of Education, Culture and Science in the Netherlands

international education have the opportunity to study abroad. Pedro said: "I think that UNESCO has to remind everyone that this transformative experience, which is so critical in today's globalised world, is just accessible to a minority."

He added: "The experience of mobility could be readily enhanced by the hybridisation of face-to-face and virtual components. We have to recognise that blended mobility can increase that low percentage of internationally mobile students without necessarily increasing carbon footprints."

Broadening access to environmental studies means connecting interested students to the right education – in whatever format that might take. New models are needed to address the asymmetry between regions with high student interest and regions with the educational resources needed to address climate change.

— CARA SKIKNE

Many of the source countries with the most prospective students interested in the environment have poor internet access

ternet. Many of the source countries with the most prospective students interested in the environment have poor internet access. According to the World Bank,² Nigeria's internet penetration stood at 34% in 2019, while that of India stood at 41%. That compares with 95% for the UK, the top destination for environmental studies.

Francesc Pedró, Director of UNESCO's Institute for Higher Education in Latin America and the Caribbean, told me in September 2021: "If we were to trust that technology can provide us with solutions to increase access in those particular contexts then we need to make sure that connectivity is available precisely where it is most needed."

from 1989 to 1998, told me in November 2021 that the funding of distance education was a public policy issue. "It should also be easier to find funds to participate in distance education. Why is there only support for scholarships in full-time education? We have a very strange world in which students who work and study at the same time will have no support."

In 2021, Studyportals listed 11,312 English-taught programmes in environmental studies and Earth sciences. The vast majority of these were full-time and on-campus programmes.

Equitable access to education will require models for distance and hybrid education across borders. According to UNESCO, only 3% of students in

1. Reschektko, Y. (2020, November 19). *Evidence to action 2020: Climate change and the Global South*. Center for Effective Global Action. <https://medium.com/center-for-effective-global-action/evidence-to-action-2020-climate-change-and-the-global-south-792b643b2ee0>

2. World Bank. *Individuals using the Internet (% of population)*. <https://data.worldbank.org/indicator/IT.NET.USER.ZS>

A MOUNTAIN TO CLIMB

CLIMATE-PROOFING OUR PROGRAMMES

While virtual programmes may seem like a good climate-friendly solution to internationalisation, they cannot fully replicate the physical interaction that leads people to a better mutual understanding. Université Grenoble Alpes explores the sustainable ways in which they can still meet academic and international objectives for international student programmes.

Part of the work of the international office at Université Grenoble Alpes is to guide university stakeholders in designing programmes for the international community we host. These programmes take on many forms, ranging from diploma programmes to undergraduate summer schools, and some aim to give potential students a taste of our university and attract them to study or work here.

One two-week programme, called Mountains in a Changing World, reflects on change (including climate change) and its impact on a specific environment. The focus on mountains is inspired by the location of Grenoble at the intersection of three mountain ranges. The scientific objective of the programme is to visualise and measure changes, to reflect on their origins and to offer mitigation solutions to limit their effects.

Mountains in a Changing World is open to undergraduate students from all over the world, and in its past editions it has attracted people from various countries. This year's programme should be no different.

FACING A DILEMMA

However, we are facing a dilemma with this programme. It is intended as a showcase of our university's research on this topic and has been designed as a local programme where we take students on field trips to highlight case studies. We also have in-classroom conferences provided by our researchers, who explain what we are seeing in terms of change, why it is of importance and how it can evolve in the future.



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Yet we all have in mind the recommendations of the United Nations' Intergovernmental Panel on Climate Change to limit the effect of climate change by reducing our carbon footprint – notably by decreasing international travel and using other options, such as online participation, wherever possible.

While doing this might help us to achieve our first objective of raising awareness of how climate change affects mountain environments, it would not fulfill our second objective of initiating students into our university environment.

UNDERSTANDING 'THE OTHER'

If there is one thing that the COVID-19 pandemic has taught international offices, it is that virtual programmes can achieve academic goals but they are truly lacking in the power to help people understand the essence of humankind

– to see 'the other' as a real being who exists in a physical world. We strongly defend the idea that it is this interaction with 'the other' that leads to a mutual reinforcement in terms of understanding and acceptance of differences.

To get to know 'the other' requires interaction, physical presence and a desire to engage beyond virtual learning: it needs non-verbal communication and cultural components that go beyond the written word; we must see and feel things that cannot be passed through a screen. Therefore, while virtual programmes might seem like acceptable short-term alternatives, they alone cannot replace physical immersion in other international environments.

More often than not, the academic component is sufficient for universities – but in the long run, will this limited intellectual understanding of others be sufficient for society?

BALANCING OBJECTIVES

In this year's edition of the Mountains in a Changing World programme, we have decided to include a collaborative workshop designed by researchers in Grenoble. This in-person workshop, called *Ma Terre en 180 Minutes* (My Earth in 180 Minutes), is intended as a way for groups of individuals to reflect on their carbon footprint and how they can collectively modify certain behaviours to reduce it.

This workshop questions transportation (by air, water, train and car) and activities (field trips, conferences and individual work), and it suggests measures to alleviate the impact.

The idea in introducing this workshop is for students in the summer programme to debate their own carbon footprint and to collectively offer propositions as to how to balance both objectives of the summer programme: academic and international. We will guide students as they ponder this question, and we are very keen to see what will come out of their reflections, which we hope will contribute to adapting the programme for future versions.

Although introducing this workshop in our summer programme will not solve our conundrum, it will add an awareness of the difficulty of reconciling sustainability with university objectives. Our biggest hope is that we will take a step towards alleviating climate change while maintaining our academic and international objectives.

—SOPHIE-ADELAIDE MAGNIER



VENICE

AN ANCIENT CITY IN SEARCH OF A SUSTAINABLE FUTURE

Ca' Foscari University of Venice is working in close cooperation with the city of Venice to address the challenges of sustainable development. Two very different projects, providing support for start-ups and itineraries for tourists, show what can be achieved when institutions and local authorities unite for the common good.

The effects of climate change, such as global warming, water pollution and sea level rise, are highly evident in Venice, which, with its unique and fragile ecosystem, has become a symbol of this global transformation. The city is also, then, the ideal context for a wake-up call on the challenges of sustainable development.

In the 150 years since its birth, Ca' Foscari University of Venice – with its eight departments and buildings scattered across the city – has gained a central role in the survival of Venice, as its students and faculty keep the city alive and provide important nourishment for its educational, social and commercial activities.

The city and the university work in symbiosis through the numerous research projects that have been conducted to investigate the treasures of Venice, such as its precious artistic and historic artefacts, its marine life and its particular landscape. The university is now calling for young talent, new business ideas and technological solutions that could help to reverse the negative

climate trend. Two recent projects are quite significant in showing how local initiatives aimed at pursuing sustainability can set an example and have an international impact.

START-UP SUPPORT

The first project, called VeniSIA – or the Venice Sustainability Innovation Accelerator – is a business accelerator programme based in the Department of Management at the university. It is dedicated to the development of business ideas and technological solutions capable of tackling climate change and other environmental challenges. VeniSIA's mission is to support corporate labs and start-ups through education, financing and mentorship, and to help them address five of the 17 Sustainable Development Goals (SDGs): affordable and clean energy; sustainable cities and communities; responsible consumption and production; climate action; and life below water.

Moreover, it aims “to identify, scale and commercialise impactful sustainability technology solutions



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through business model innovation”¹. The programme is the first active in the context of “Venice, the world capital of sustainability”, a plan of interventions approved by the regional council. This plan focuses on the sustainable development not only of the city but also of the entire area surrounding it.

In September 2021, VeniSIA chose the impact of the SDGs on business models as the theme for the annual Italian Strategy Innovation Forum. At the forum, the 10 best environmental innovation start-ups were presented, selected from over 1300 projects from 28 countries around the world. Those 10 start-ups will soon proceed with the implementation of their solutions in a co-working space set up specifically in the main building of Ca’ Foscari University. Among the projects to be developed, there will be technological solutions for the abatement of carbon dioxide emissions, the improvement of energy-efficient systems and sustainable mobility, and the monitoring of air and water quality.

TOURIST ROUTES

The second example of how higher education can play an active role in fighting climate change is the student association

located along the routes. At the same time, the routes have been designed to raise awareness of the objectives of sustainable development. In the app itineraries, the discourse on sustainability is addressed from three perspectives: social, to better manage tourist flows; economic, to favour encounters with artisanal, sustainable and ‘niche’ realities; and environmental, to focus on the dissemination of information about how to live within the city respectfully and from an ecological point of view.

Both VeniSIA and VenITER represent ways of reflecting on global problems by starting from examples of local realities

Ca’ Foscari for SDGs, founded in September 2021. The team, which is made up of students from different disciplines who are united by their common interest in the SDGs and other social and economic issues, recently designed and developed a smartphone application called VenITER, which guides visitors to Venice along alternative routes to the classic ones, with the ambitious aim of contributing to the regulation of tourist flows and preventing overcrowding.

The project aims to regulate pedestrian flows in real time through the use of GPS localisation and checkpoints

Both VeniSIA and VenITER represent ways of reflecting on global problems by starting from examples of local realities. These two initiatives show how different bottom-up approaches can succeed when they are based on synergies between universities and local areas, united for the realisation of a common good.

—ELENA BORSETTO

1. Fondazione Università Ca’ Foscari. (2020). VeniSIA. Retrieved from https://www.unive.it/pag/fileadmin/user_upload/eventi/conferenze/sif/documenti/VeniSIA_the_project_ENG.pdf

TIME TO EMBRACE THE BENEFITS OF DIGITAL STUDENT RECRUITMENT



The rise of digital technologies gives us the opportunity to make better and more environmentally friendly connections with future students – in a much easier and cheaper way than spending weeks on the road.

International student recruitment has long relied on the ever-expanding global network of flights to transport recruiters, marketeers and admissions officers to metropolises around the world, in an attempt to get the name of their institutions out there. While international education is certainly not the only – or even the greatest – contributor to our changing climate, we can still do our part to reduce the footprint we leave when searching for future generations of students.

While it may have seemed not so long ago that the world's resources were plentiful and that global warming was not quite so urgent, today, we know how false that is. The digital revolution allows us to work together to find sustainable solutions that enable us to continue to grow while protecting the planet and its remaining resources.

BORN WITH A SMARTPHONE

It's time that we look for, and utilise, these new and improving tools for connecting with potential future students on the other side of the world. We no longer need to take flights for a short conversation with a passing student, as the past two years of COVID-19 restrictions have shown us. More people around the world have become comfortable with using videoconferencing to carry out meetings that would have been held in person in years gone by.

Students who are now approaching the age where they may be thinking about going on to study abroad were born during the years when smartphones were first introduced, and using online tools to connect with people comes naturally to them. Technology

plays a central role in future students' lives, and they will surely exploit this when it comes to searching for a university, college or language school.

ENHANCED RECRUITMENT

Not only can technology replace the need to travel to connect with potential students; it can also enhance interactions and result in a far more effective use of time. We no longer need to spend weeks on the road, dishing out tens of thousands of marketing dollars to reach a handful of cities (with much of this going to hotels, airlines and restaurants rather than being used directly to connect with prospective students).

Through technology, it's possible to reach countless cities, towns and villages – far more than a single person could visit – to connect with students who are actively searching for their ideal institution abroad. A single event of just a few hours can replace an entire week's worth of flights, taxis, checking in and setting up booths.

Through integrated tools such as matching systems, students and recruiters can see in advance if they are a good match for each other or not. This means that students can dedicate more time to speaking to representatives of schools that have what they are looking for, rather than being lost in a sea of booths that are all hoping to gain their interest.

ENVIRONMENTAL BENEFITS

Through virtual events, webinars and live streamings on social media, we also eliminate the need to print and ship hundreds of tonnes of brochures, many of which may never even leave the conference centre.

Instead, prospective students can download the brochures they're most interested in and view them at any time and in any place. They can show them to a friend on their mobile phone at the mall, or forward them to their parents by email so they can see what their child is considering. This is an environmentally friendly impact of a virtual approach to recruitment. Our forests will thank us – and so will our students.

in-person events in 2019, decided to move to an entirely virtual offering permanently after the pandemic. The company identifies many advantages to this, including economic, environmental and time-saving benefits for institutions and students alike.

Recently, FPP released a new sustainability approach, aiming to reach carbon neutrality in the very near future with actions that include eliminating all printing, using digital business cards, working with

A single event of just a few hours can replace an entire week's worth of flights, taxis, checking in and setting up booths

“We deserve a safe future. And we demand a safe future. Is that really too much to ask?” said Greta Thunberg at the global climate strike in New York in September 2019. Generation Z has spoken loud and clear, and it has put climate change at the top of its agenda.

Research conducted by Times Higher Education has found that prospective international students say they are more likely to choose a university based on its commitment to sustainability than for its location. But even with this evidence, there has been minimal action from universities to eliminate the footprint we leave when recruiting these future generations of students.

MAKING THE CHANGE


In February 2021, one of the leading organisers of student recruitment events, FPP, which organised more than 290

providers that have clear and effective sustainability policies, selecting flights with reduced emissions (when the need to travel is unavoidable) and planting a tree for each and every virtual booth it hosts. To date, more than 9200 trees have been planted in areas around the world where they were needed most.

While international education will continue to play an important role in the development of future generations of students, the way their journey begins needs to change. Through ever-improving technology, we can reach more people in more corners than ever before, opening doors that may have been closed in the past for those in remote locations, while still reaching those who live around the corner from a conference centre.

—SEBASTIAN FERNANDES,
JACK TOWNSEND





CHINESE STUDENTS & CARBON EMISSIONS

Lessons from COVID-19

As the world's largest source of international students, China has a responsibility to try to reduce the related carbon emissions. Different destination countries, lower-carbon transport options and diverse forms of mobility are among the ways they are prepared to embrace and promote changes in internationalisation in the post-pandemic era.▶

China has become the world's largest carbon emitter since 2006, contributing more than a quarter of global carbon emissions. It is also the world's largest source of international students and one of the most popular destinations for international students. The number of Chinese students going abroad for study more than tripled from 0.229 million in 2009 to 0.704 million in 2019.¹ As is the case for most countries, however, the carbon footprint associated with Chinese students' international mobility has rarely been explored.

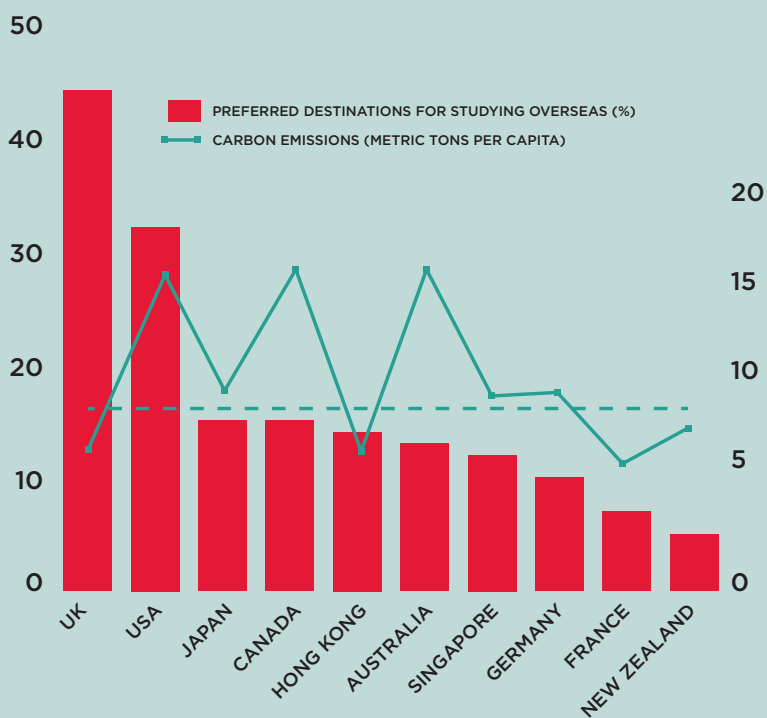
As the first country to suffer from COVID-19, China adopted a series of response measures, especially online education, to reduce the impact of the pandemic on students' international mobility. In addition to protecting human health, the virtual mobility developed during the pandemic is helping to reduce carbon emissions from international education. Nevertheless, it is still unknown how to apply the lessons learned during the pandemic in mitigating carbon emissions from international student mobility in the post-pandemic period. This article aims to enhance awareness of this problem and propose solutions.

CARBON EMISSIONS

The internationalisation of higher education is regarded as a significant part of China's response to globalisation and socio-economic developments, as re-emphasised recently in the World Class 2.0 project and the Belt and Road Initiative. The vast majority of Chinese students travel to Europe, the United States and Oceania through international aviation, which comes with the cost of massive

FIGURE 1

Chinese students' top 10 destinations for studying overseas in 2021 (% multiple choice); and carbon emissions per capita (metric tons per capita) of the top 10 destinations. The green dashed line represents China's carbon emissions per capita. Carbon emissions per capita in the UK, Hong Kong, France and New Zealand are lower than in mainland China. Data from Statista⁸ and the World Bank.³



carbon emissions. Emissions from a single flight from Shanghai to London (around 972 kilograms) can easily exceed the entire annual emissions of an average individual in many countries, such as 628kg per capita in Rwanda.²

In addition, carbon emissions associated with international student mobility include changes in personal consumption related to food, energy use and local transportation. Different from travel-related emissions, consumption emissions can be negative, as students may produce less carbon in the host country than in China (Figure 1). In particular, the carbon emissions per capita in the UK, Hong Kong, France and New Zealand are lower than in mainland China.³ However, without empirical studies and data, carbon emissions associated with Chinese students' international mobility still receive little attention.

PANDEMIC IMPACTS

The COVID-19 pandemic has caused

unprecedented impacts on global health and the economy. In terms of international mobility, the pandemic has changed the weight of factors influencing Chinese students' and parents' decisions on study abroad and country choice, with health protection and safety occupying a more prominent position.⁴ According to a QS survey, the study abroad plans of Chinese students have been heavily affected.⁵

Under the direct and indirect impacts of the pandemic, the scale of international student mobility has shrunk and the form has changed. It has become more diverse: virtual mobility, short-term mobility and enrolments in domestic international schools have been widely employed to meet international education needs and make up for the reduction in physical mobility. Notably, the pandemic has provided a valuable opportunity to improve and popularise virtual mobility.

To solve the dilemma of Chinese students interested in studying internationally and ensure the mobility of

these students during the pandemic, the Chinese Ministry of Education has introduced a policy that allows students who are hindered from studying abroad to study in some domestic universities or enter Chinese-foreign cooperatively-run schools. When the pandemic is over, these students with interests in international learning experiences can continue their studies on the campuses of foreign universities. The policy supports mobility modes that combine virtual and physical mobility.

In the pandemic, these cooperatively-run schools, such as the Reading Academy at Nanjing University of Information Science and Technology, have played an indispensable role in enrolment, recruitment and mobility initiatives, including 3+1 programmes, foundation and pathway programmes, and programmes with built-in mobility schemes.

foreign credits and improving the education of international students in China.⁴

Virtual mobility should receive more attention and be applied appropriately. This may involve joint teaching programmes with domestic and foreign universities, or short-term visiting projects combined with cooperatively-run schools. More attention should also go to Internationalisation at Home, including course internationalisation, credit transfer agreements, the establishment of cooperative networks, courses taught in foreign languages, and communication between local and foreign students.⁶

For physical mobility, universities can incentivise the use of transport with lower carbon emissions, which will rely on improving aircraft fuel efficiency and the availability of aviation biofuels, and promote lower-carbon destinations and more regional mobility. When students

with 12 international branch campuses (including five with British institutions and three with Australian institutions).

In the post-pandemic era, China is still predicted to be the largest source of international students.⁷ To mitigate the carbon emissions embedded in international education, we must encourage low-carbon transport and promote destination countries and areas with lower carbon emissions per capita.

—HONG YANG

We must encourage low-carbon transport and promote destination countries and areas with lower carbon emissions per capita

SUSTAINABLE SOLUTIONS

COVID-19 has drastically changed global higher education, and universities need to prepare for new challenges in the post-pandemic period. China's Ministry of Education has released a document on "accelerating and expanding the opening up of education in the new era". China plans to promote international student mobility by strengthening multilateral cooperation, improving mechanisms for mutual recognition of Chinese and for-

study in countries or areas with lower per-capita emissions than China, such as the UK, Hong Kong, France and New Zealand (Figure 1), their personal carbon emissions can decrease during their education period. Increasing regionalisation of Chinese students' international mobility means that a growing share of international students remain relatively close to China, which will decrease travel distances and mitigate carbon emissions. Malaysia is a possible host in the region,

1. Statista. (2021). *Number of students from China going abroad for study from 2009 to 2019*. <https://www.statista.com/statistics/227240/number-of-chinese-students-that-study-abroad/>
2. Shields, R. (2019). The sustainability of international higher education: Student mobility and global climate change. *Journal of Cleaner Production*, 217, 594–602. <https://doi.org/10.1016/j.jclepro.2019.01.291>
3. The World Bank. (2021). *CO2 emissions (metric tons per capita)*. <https://data.worldbank.org/indicator/EN.ATM.CO2E.PC>
4. Yang, Q., Shen, J., & Xu, Y. (2021). Changes in international student mobility amid the COVID-19 pandemic and response in the China context. *Fudan Journal of the Humanities and Social Sciences*, 15, 23–40. <https://doi.org/10.1007/s40647-021-00333-7>
5. QS. (2020). *How COVID-19 is impacting prospective international students across the globe*. London: Quacquarelli Symonds Publications.
6. Crowther, P., Joris, M., Otten, M., et al. (2000). *Internationalisation at home: A position paper*. Amsterdam: EAIE.
7. Universities UK. (2021). *International student recruitment data*. <https://www.universitiesuk.ac.uk/universities-uk-international/explore-uuki/international-student-recruitment/international-student-recruitment-data>
8. Statista. (2022). *Chinese students' preferred destinations for studying overseas in 2015 and 2021*. <https://www.statista.com/statistics/1108708/china-students-preferred-destinations-for-study-abroad/>

ACHIEVING OUR CLIMATE GOALS A STRATEGIC APPROACH

We all know that the international education sector must play its part in tackling the climate crisis, but how do we deal with the fact that climate goals are often in conflict with internationalisation ideals? We must make strategic choices that weigh both the benefits of internationalisation and the environmental costs.

The climate crisis requires all of us to do all we can to change our behaviours. It is true that the international higher education sector alone will not be able to turn the climate situation around. However, every sector needs to contribute – and international education is no exception. Fortunately, higher education institutions in Europe are already taking climate action in different ways, such as by decarbonising their activities, teaching climate literacy, conducting research on climate change and influencing stakeholders.

Sometimes, however, climate goals may be in conflict with other institutional aspirations, including those related to internationalisation. These tensions and the intersection of climate change and international education have received growing attention in recent years, but plenty of work is still required. Higher education institutions need to act more strategically in this area by carefully assessing both the benefits of internationalisation and the environmental costs.

In Europe, a number of actors are contributing to this work. For instance, the European Association for International Education (EAIE) helps increase awareness, while the European Commission supports the Green Erasmus project and the development of sustainable travel policies by universities. At the same time, bottom-up initiatives are also advocating for action. During the COP26 climate conference in Glasgow, the non-profit Climate Action Network for International Educators (CANIE) brought together leaders and influencers to strengthen the international education sector's response to the global challenge of climate change.

FOOTPRINTS AND HANDPRINTS

Available solutions and their strategic application in higher education, however, are still not well understood. One way of conceptualising solutions is to focus on the carbon footprint and the carbon handprint of international education. The first consists

of an inward-looking view where greenhouse gas emissions from international higher education, such as emissions related to offices and programmes, are measured and managed. Many European universities are already measuring their institutional emissions, but they often exclude the carbon footprint of running various international activities.

Strategic choices are required to meet both sustainability and internationalisation goals. It is good to acknowledge that almost no activity is entirely carbon-neutral: even online international activities have a carbon footprint. However, activities such as short-term but long-distance staff and student exchanges result in larger carbon footprints than activities related to Internationalisation at Home or virtual exchanges. This highlights the need for strategic choices.

The concept of the carbon handprint, meanwhile, can be used to consider how international educators

Almost no activity is entirely carbon-neutral: even online international activities have a carbon footprint

can inspire and support others to reduce their emissions. Whereas the idea around the carbon footprint is to reduce emissions from their current size to as close to zero as possible, the handprint does not have such limits and institutions can continue to grow their positive impacts infinitely. This can be achieved by including climate and eco-literacy as part of the curriculum of all students engaging in international education, by using climate consciousness as a procurement or partnership criterion and by influencing others within the sector to take similar action.

International educators should attempt to reduce their footprint and increase their handprint to have

the greatest impact. However, what we can do depends very much on the alternatives available to reach our internationalisation goals. In the end, this comes down to a cost–benefit analysis between international education and our climate.

COSTS AND BENEFITS

Strategic evaluation requires that we know the costs and benefits of our international activities. We can see, for instance, that many higher education institutions struggle to develop green travel policies as they encounter dilemmas such as green travel options often requiring higher budgets. This may result in less money for other educational and research purposes or fewer staff being able to benefit from travelling, which in turn may lead to more inequality. If going green requires more travel time, this may be an issue for some people in terms of maintaining a good work–life balance, particularly staff with young families.

Another dilemma is that, in general, shorter distances mean greener travelling than longer distances with the same transport. However, prioritising destinations in terms of distance may limit the extent to which staff and students experience cultural diversity. This also requires more knowledge about the benefits of international travel, which are not clear-cut. We may sometimes be able to identify opportunities to increase educational or other benefits while cutting environmental costs.

Strategic choices also need to be informed by the relative and absolute costs of internationalisation activities. If the carbon footprint of one staff member travelling between continents is higher than that of one student travelling within

Europe, you could focus on reducing staff travel first. However, if you consider that one staff exchange may provide 100 students with an international view on their field of study, the cost–benefit balance has a different result. A focus on students may have a bigger impact than a focus on staff, even though the current

carbon footprint of internationalisation for staff may be larger than for students. We want graduates to become conscious green travellers for work and pleasure, so we need to educate them and support them in this pursuit.

CHOICES AND GOALS

If you are aiming for a more strategic approach to contribute to climate goals within your institution, while also supporting internationalisation, you may consider the following steps. First of all, start by evaluating the carbon footprint of internationalisation within your institution. Second, if your institution has a sustainability strategy, your internationalisation strategy should be aligned with it. Third, benefit from the knowledge available in your institution, for instance by building and nurturing an effective relationship with the sustainability office. Fourth, develop a framework allowing you to assess the costs and benefits of different international education provisions before deciding which modes (such as virtual or physical mobility) to offer.

You should also assess the opportunities and resources available before setting feasible short- and long-term goals and identifying the resources required to achieve them. In addition, avoid green choices that have negative effects on other strategic priorities such as equality, work–life balance and efficient budgeting.

We want graduates to become conscious green travellers for work and pleasure, so we need to educate them and support them in this pursuit

For instance, you may want to prioritise staff with little travel experience over more experienced staff. Finally, use climate consciousness as a criterion for all internationalisation activities, including procurement and partnerships. Encourage long-term relationships with international partners and support long-term programmes rather than one-off visits of staff or students.

By introducing these approaches, European higher education institutions can better navigate the tensions between internationalisation and the climate, allowing them to act more strategically in this area. Equally important is recognising that the climate challenge requires both a sense of urgency and a long-term commitment, including engagement by top leadership and governing bodies, concrete and ambitious goals, and sufficient resource allocation.

—ADINDA VAN GAALLEN,
PII-TUULIA NIKULA

THE CATALAN UNIVERSITY SYSTEM COLLECTIVE ACTION TOWARD SUSTAINABILITY

The signature Catalan university system is pulling out all the stops when it comes to achieving sustainable internationalisation. Working together in such areas as student mobility, training and research on the wellbeing of our planet, they have made strong collaboration a cornerstone of their system and are collectively tackling the climate crisis. ▶



Catalonia shares in the concerns about climate change and agrees that the urgent challenges we are facing call for a variety of transformative actions. In connection, the Catalan university system is doing its part to see change come to fruition.

Made up of 12 universities¹, 66 research centres, 265,000 students, 20,000 professors and 25,000 researchers, the Catalan university system is working together to achieve the UN Sustainable Development Goals (SDGs), as outlined in the 2030 Agenda for Sustainable Development. In addition to the university system's own 2030 Agenda action plan, all of its universities have internationalisation plans that include actions for sustainability.

Moreover, beyond the actions envisaged in the joint plan, Catalonian universities are prioritising three elements of sustainable internationalisation above all else: the sustainability of student mobility, training in sustainability and institutional and research projects on planetary wellbeing.

TOWARDS SUSTAINABLE MOBILITY

Not only did the COVID-19 pandemic accelerate hybrid collaboration formulas that were already being developed, newly introduced COIL methodologies have also taken us further down the path towards more innovative and sustainable programmes at the international level. It is against this backdrop that sustainable mobility remains at the heart of current projects within the Catalan university system. The Universitat de Girona has been raising awareness of the impact of mobility by



showing the CO₂ emissions of exchange journeys based on the type of transport used. On top of that, the Universitat de Barcelona (UB) has developed a training module on circular economy as a part of the European Erasmus+ UNI-ECO project. The Universitat Internacional de Catalunya also offers annual cross-disciplinary sustainability workshops.

Universities included in the European Commission's European Universities initiative² are equally concerned about sustainable mobility as a key issue within their international partnerships. These partnerships have given rise to a wide range of initiatives. One such example is the creation of a master's degree in Global Challenges for Sustainability, promoted by the UB through CHARM-EU. Another initiative, created by the Universitat Rovira i Virgili's Aurora Alliance Sustainability Working Group, is the *Aurora Travel Codex*, a guide to promote green travel and reduce and mitigate CO₂ emissions. The Universitat Autònoma de Barcelona has also designed training modules in English using a challenge-

based learning methodology. These are offered to local students and students from the ECIU University consortium.

COMMITTED TO SUSTAINABILITY EDUCATION

Catalan universities are also leading numerous initiatives to embed sustainability in higher education curriculum. Particularly noteworthy is the introduction of the SDGs in undergraduate and postgraduate education, such as the master's degree in planetary health offered by the Universitat Oberta de Catalunya (UOC) and the Universitat Pompeu Fabra (UPF), in collaboration with the Barcelona Institute for Global Health. The role of AQU Catalunya, our university quality assurance agency, also plays an important role in guaranteeing that SDG training at bachelor's degree level is present in all studies.

This dedication to sustainability education is further demonstrated by various measures to accelerate the process of making campuses more sustainable, as well as action plans to address the climate emergency. One example of this is the Sustainable UPC 2030 Plan, an initiative



of the Universitat Politècnica de Catalunya aimed at moving towards the decarbonisation of international mobility. More globally, they are carrying out strategic projects related to the health and wellbeing of the planet, such as UPF's Planetary Wellbeing initiative.

Catalonia seeks to be present in all those initiatives and projects that are committed to the transformation and wellbeing of the planet

EXPLORING PLANETARY WELLBEING

Finally, Catalonia seeks to be present in all those initiatives and projects that are committed to the transformation and wellbeing of the planet, and actively promotes a model based on respectful practices in the environmental, economic and socio-cultural spheres. Alongside

individual research initiatives, the 39 centres that form part of the Catalan Research Centres Institute (CERCA)³ are working towards achieving the SDGs within the RIS3CAT and Horizon 2020 projects. There are currently 442 projects under way.

Furthermore, Catalan universities are involved in a number of notable applied research initiatives that involve knowledge transfer to society. For example, the La Salle-Universitat Ramon Llull project, 'Towards Healthy smArt MetropOliS (THAMOS): Data-driven multidisciplinary strategies for pursuing sustainable mobility', focuses on the transformation of smart and healthy metropolises. Comparatively, a project headed by Universitat de Vic – Universitat Central de Catalunya looks at zero waste treatment in the agri-food industry, specifically when it comes to meat-processing. Finally, the UOC is endeavouring to help industries, cities, infrastructure operators and citizens in general to benefit from the Internet of Things.

WHAT LIES AHEAD

The 32nd Annual EAIE Conference and Exhibition will take place in Barcelona, a city that has been awarded a Biosphere certification for its commitment to sustainability in the tourism sector. Catalonia is very pleased to host this event and sees it as an exciting time to meet and reflect on all the challenges ahead of us – as individuals, institutions and as a society – as we continue to tackle the climate crisis.

— COORDINATED BY THE INTER-UNIVERSITY COUNCIL OF CATALONIA

1. Catalan universities: Universitat de Barcelona (UB); Universitat Autònoma de Barcelona (UAB); Universitat Politècnica de Catalunya (UPC); Universitat Pompeu Fabra (UPF); Universitat Ramon Llull (URL); Universitat de Lleida (UdL); Universitat de Girona (UdG); Universitat Rovira i Virgili (URV); Universitat Oberta de Catalunya (UOC); Universitat Central de Catalunya (UVic-UCC); Universitat Internacional de Catalunya (UIC); Universitat Abat Oliba CEU (UAO CEU).

2. European Universities partnerships: CHARM-European University (Challenge-driven, Accessible, Research-based Mobile). Participant: UB; ECIU University. Participant: UAB; UNITE! (University Network for Innovation, Technology and Engineering). Participant: UPC; EUTOPIA (European Universities Transforming to an Open, Inclusive Academy for 2050). Participant: UPD; Aurora Alliance (European University Network initiative). Participant: URV.

3. CERCA: Centres de Recerca de Catalunya



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25
FEB

Standing in solidarity with Ukraine

The EAIE stands in solidarity with our colleagues in Ukraine, affected students, their families and loved ones, and strongly condemns the Russian government's acts of war against the country.

<http://ow.ly/WcPW50I4nyA>



25
JAN

Understanding international student needs: ESN Survey results

Take a deep dive into the research conducted by The Erasmus Student Network for a better understanding of international students' challenges, needs and ideas.

<http://ow.ly/ASpF50HCnTk>



18
JAN

International education agents: the good, the bad and the ugly

How can institutions maximise their resources while increasing international student enrolment? This piece discussed the good, the bad, and the ugly of working with international student agents.

<http://ow.ly/Q4zO50HwHs5>

EAIE PODCAST



02
MAR

Karol Vieker & Malaika Marable Serrano: Let's talk about discrimination

Diversity, equity and inclusion professionals Malaika Marable Serrano and Karol Vieker discussed discrimination in international higher education.

<http://ow.ly/48n250I7NrA>



16
FEB

Bessie Dendrinos: Multilingualism matters

Guest Bessie Dendrinos discussed the richness of linguistic diversity around the world and its relationship to the world of international higher education.

<http://ow.ly/qxfC50I8ON0>



08
DEC

Rajika Bhandari: A life in international education

Skilled migration and academic mobility are widespread, but what is the impact on the individual? Rajika Bhandari, an international higher education expert, reflected on her experiences living through these dynamics.

<http://ow.ly/X5Qi50I80Yp>



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