

## **Recap of the first Symposium on Teaching and Curriculum Development in Sustainability Entrepreneurship, titled Progress and Prospects**

*A Joint Initiative of ESCP Business School and the UN Environment Programme*

The symposium was held at ESCP Business School's Berlin Campus on July 4 and 5, 2022 and was sponsored by ESCP and the UN Environment Programme (UNEP). There were twenty-two people in attendance from universities around Europe, all of whom were teaching or working on problems related to sustainability entrepreneurship.

### **Day 1: Symposium Introduction**

The symposium opened with remarks from the three hosts: Dr. Robert Sheldon, from ESCP Business School Paris, Dr. Florian Lüdeke-Freund, from ESCP Business School Berlin, and Garrette E. Clark, from the UN Environment Programme. Sheldon and Lüdeke-Freund are the academic co-directors of ESCP's MSc in Sustainability Entrepreneurship & Innovation (MSEI) and Clark is the Sustainable Lifestyles Programme Officer at UNEP. Full bios of all the speakers may be found at the end of this document.

Before the hosts intervened, Dr. Véronique Tran, the Dean of ESCP Berlin, warmly welcomed the attendees and expressed how important sustainability is to the school, and how important sustainability entrepreneurship is to confronting the challenges that lie ahead for all of us.

Sheldon began by introducing the radical and still emerging concept of sustainability entrepreneurship by it as the use of venture creation to bring about a specific social or environmental change. Students with an activist mindset are no longer limited to starting non-profits and NGOs, now they're starting companies to achieve their aims, something that previous generations may have found to be anathema.

He then went on to pose a number of questions that would inform the symposium and animate discussions between the attendees during and after the events of the day. These questions were: What is sustainability entrepreneurship? What social aspects fall under its purview? What are sustainability ventures? What makes a business model sustainable? How do we incorporate impact creation and measurement into the entrepreneurial process?

Lüdeke-Freund then took the floor and described in detail the curriculum of ESCP's MSc in Sustainability Entrepreneurship and Innovation. The program was started in 2018 and now welcomes 48 students per year from around the world. It has had a unique partnership with UNEP since 2019, which shares the program's goal of training the responsible and impact-oriented business leaders that the world needs now as we confront the triple threat of climate change, biodiversity loss and pollution.

He then introduced a definition of sustainability entrepreneurship: **"Sustainability entrepreneurship aims to preserve, restore, and/or distribute more justly a natural or social resource via the profit-oriented commercialization of new products or services."**

Emphasizing that sustainability entrepreneurship is not just about doing business as responsibly as possible, he said that it's about creating businesses that have a social or environmental mission from

inception. This is business in the service of sustainability, not just business trying to be as sustainable as possible. The difference is critical, not least because one way or another all businesses will eventually have to be 'responsible' as resources grow scarce and the competition becomes more sustainable.

Clark began her remarks by introducing UNEP and showing where it fits into the structure of the United Nations. She framed the problem that attendees were here to address by discussing the dire state of the planet. However, she said, the mainstream solutions that are being proposed are not working, mainly because they conflict with people's aspirations. People want more, not less. We need to define and foster a new set of aspirations that will be effective while allowing people to achieve what they want.

She then discussed the concept of sustainability and some common myths about it, before turning to what she does as Programme Officer for Sustainable Lifestyles. She points out that households and household consumption account for two-thirds of greenhouse gas emissions. The problem is how people are living their lives, which is why UNEP has created the sustainable lifestyles initiative. Impact is going to happen here, at the level of the consumer, in the choices that they make on an every-day basis.

Sheldon retakes the floor and introduces the centerpiece of the partnership between ESCP and UNEP, which is the Sustainable Lifestyles Venture Project, or SLV. This is a year-long module during which students come up with an idea for a sustainability venture; a company that is designed to achieve a specific social or environmental goal. The students follow a design thinking+ methodology, spending their first semester engaging in research and ethnographic fieldwork related to a social or environmental problem. They try to understand the problem, and look at the role that consumption and patterns play in that problem. They try to understand who the actors are in the relevant value chains, what they do and why. In the second term they engage in ideation, transforming their observations into actionable problems and solution. They then test their idea and its associated business model in the marketplace by running experiments using various prototypes. In the third and final term of the SLV they write a business plan that incorporates their findings from the market, and pitch their idea to professional jury.

Lüdeke-Freund introduces Dr. Stefan Schaltegger, the symposium's keynote speaker.

### **Day 1: Keynote address by Dr. Stefan Schaltegger**

Schaltegger's talk began with a historical walk-through of progress in the teaching of sustainability management and entrepreneurship in the business school context. He brings us to the present by asking: how can survive/thrive with radical sustainability transformations? The days of going organic and recycle-reuse-reduce have ended – we now need radical transformation, which managers and entrepreneurs need expertise and know-how in sustainable business model development and organizational transformation.

Schaltegger noted a sharp mindset shift among business leaders and business developers. No longer are they simply adapting to sustainability challenges for the sake of (somehow) surviving as an organisation and (somehow) developing a competitive advantage from reacting to ecological and social issues. No longer are they adapting problem definitions to current ways of doing business. But instead they see business, i.e. organisations, their activities, and offerings, as a tool to solve

ecological and social problems. This includes a paradigm shift from seeing the primary purpose of business as making customers happy to protecting all stakeholders from going extinct. Doing what is necessary instead of just doing what they can.

He also pointed out another trend: Sustainability management meets sustainability entrepreneurship. In the future we might see a convergence of sustainability management and entrepreneurship approaches – moving to entrepreneurial sustainability managers and managing sustainability entrepreneurs. What does this mean for our educational approaches?

#### **Day 1: Drs. Siri Jacobsen and Thomas B. Long**

Jacobsen introduced her research on Teaching Entrepreneurship for Sustainability, a collaborative project co-funded by the Erasmus+ Programme of the European Union. Their aim is to understand what the state of the art is in teaching sustainability entrepreneurship and to create effective teaching module templates based on their findings. They have just completed a literature review on the subject, and a report on teaching tools and methods. Their results show six competences that are key to sustainability entrepreneurship. These include interpersonal competence, systems thinking, anticipatory thinking, strategic competence, opportunity recognition and normative competence.

#### **Day 1: Drs. Klaus Fichter and Olof Hjelm**

Fichter and Hjelm chose to put the spotlight on challenge-based learning, a radical mindset shift requires problem-based, respectively challenge-based learning. They argued that it can help students to discover the underlying root causes of sustainability problems and avoid getting stuck and shocked by the symptoms. It can help them not to fall in love with solutions too early, and it can help them to deal with ambivalence, tensions, non-answers and getting stuck.

Collaborative learning and project formats are critical. They allow students to learn from and together with experts and practitioners. They extend the classroom to the real world and allow students to experience real engagement. What kinds of project format allow students to experience challenge-based learning and to experience what it means to participate in the required radical mindset shift?

In this kind of teaching, teachers turn into organisers, facilitators, guides, and coaches that engage in collaboration and co-creation with the students and project partners to support challenge-based and collaborative learning in diverse project-based formats that go beyond the classroom. It's a different kind of pedagogical posture than many are used to, but when done well it becomes a powerful tool for learning.

#### **Day 1: Hybrid event moderated by Garrette Clark with panelists Dr. Carlos Trujillo, Universidad de los Andes, Colombia; Brock Dickinson, University of Waterloo, Canada, and Dr. Sirasa Kantaratanakul, Thammasat University, Thailand**

Garrette Clark welcomed the panelists, who joined via Zoom, as well as the three discussants present on stage: Drs. Siri Jacobsen, Florian Lüdeke-Freund and Robert Sheldon. She opened with a question for the panel: "Question for the panel: What needs to be done to amplify effective integration of sustainability in (the private sector and) business schools?"

Kantaratanakul discussed her work in developing and running Thammasat's programs in sustainability, including the Bachelor of Arts in Global Studies and Social Entrepreneurship, the Master of Arts in Innovation and Sustainability, and the PhD in the same subject. She discussed the ideation and prototyping processes that the bachelor's students use and displayed some of their prototypes. She highlighted external partnerships with Greenpeace, TetraPak and others in their Masters program. She also discussed their bespoke educational experiences that are built around sustainability themes.

Trujillo chose to focus his remarks on delivering sustainable entrepreneurship content at the Universidad de los Andes. He works with students in the Master of Environmental Management and in the MBA. In the former students are very familiar with sustainability but not with business, and in the latter it's the converse. He also described the Latin American Entrepreneurship contest, which he runs with UNEP. Here the challenge is that students assume the consumer will adopt their solutions without understanding the drivers of behavioral change in front of competition, when this should be in their pitch.

Brock Dickinson described his experiences working with students in the domain of sustainable entrepreneurship at the university of Waterloo, where he is an entrepreneur in residence.

A lively debate ensued between the panelists and the discussants, moderated by Clark, who closed out the day by thanking everyone and pointing to many great examples of sustainability-related curricula that came out of the session.

## **Day 2: Workshops**

The first workshop was run by the UNEP sustainable lifestyles team: Garrette Clark, Laura Astudillo and Francesca Berardi. The theme was the sustainability compass, which is a hierarchy of sustainability-related actions related to consumption that is intended to help people augment their impact. It takes the form of an inverted pyramid. The most powerful actions, or sustainability-related missions, are the ones that prevent people from consuming in the first place. Next down the pyramid are business models that reduce consumption, followed by those that deal with the effects of consumption, usually circular in nature: recycling, recovery and disposal. Workshop participants are asked to break out into groups and discuss the following questions before coming back with a summary of findings: How do 'new business models' fit in your programme? How does impending resource scarcity fit? How can a basic sustainability compass be integrated into business school's curricula?

The second workshop was run by Dr. Antonieta Alcorta de Bronstein (University of Vechta) and Dr. Jana-Michaela Timm (University of Hamburg). Their workshop focused on the following question: How to encourage students to become entrepreneurial change agents? They are working on teaching approaches that will allow them to support students to develop as entrepreneurial thinkers and change agents for sustainable development.

The goal of the workshop was to ideate about tools, methods and settings for educators who want to support students' transformative learning in entrepreneurship education for sustainability. To do this they asked the workshop attendees to break out into groups and conduct a series of timed thought experiments, the first of which was: what does an educator have to do to actively hinder a deep

understanding of the phenomenon/problem and (critical) reflection of the students so that they do not question their points of view and beliefs?

The third workshop was again run by the UNEP sustainable lifestyles team: Garrette Clark, Laura Astudillo and Francesca Berardi. This workshop was about using social media as a tool for effecting change in the sustainability space. The exercise began with a discussion of various types of social media, as well as with a psychological profile of Gen Z. A case study was presented that was based on the successful social media challenges run by UNEP under the aegis of The Anatomy of Action. This framework challenges people, over fifteen days, to demonstrate a behavioral change in each of five consumption areas: Food, Stuff, Move, Money and Fun. Workshop participants then broke out into groups to discuss the following questions: How is social media currently covered in your programmes? How does advertising and marketing interact with entrepreneur focused courses? What can be done to raise awareness and build skills on social media as a tool for entrepreneurs? What other ways can entrepreneurs tap into understanding and shaping aspirations for sustainable living?

## **Day 2: Student Sustainability Venture Pitches**

In the afternoon attendees were invited to the auditorium, where the 48 students enrolled in the MSc in Sustainability Entrepreneurship and Innovation were to pitch their sustainability venture business plans. The attendees were free to ask each group questions about their business models, which ranged from enquiries about the projected impact of their business in their mission area, to questions about financials and marketing strategy. At the end of the session, attendees evaluated each group by allotting a portion of a fictional 500,000 Euros that each was given to invest in early stage ventures.

The winning team was TerraLab, a start-up that provides compost to farmers that is laced with microbial additives that are adapted to the region in which the farmer operates, thereby allowing them to reduce or even eliminate their use of chemical fertilizers. The second place went to BrickitBack, a start-up that recovers and resells construction waste. Third place went to Loop, which rents out high-end kitchen appliances that are energy efficient and designed to last for at least twenty years.

## **Day 2: Closing Remarks**

Sheldon closed out the SLV session by congratulating the students on completing the year-long and extremely challenging Sustainable Lifestyles Venture Project, and by thanking the symposium attendees for their participation.

Lüdeke-Freund addressed the symposium audience with a list of take-aways from the symposium, which included the following points:

- We're seeing a radical paradigm shift in how business is used and perceived in relation to sustainability, and by extension in how business leaders are behaving.
- Sustainability managers are becoming more entrepreneurial as they reinvent their business models rather than just adjust them to be more socially and environmentally responsible.
- Challenge-based and collaborative learning methods are key tools for teaching sustainability entrepreneurship and are worth the effort on the part of teachers.

- There are specific competences that sustainability entrepreneurs have and upon which they rely. Teaching and measuring them is the challenge.
- Students and practitioners can maximize the impact a business model can have by using tools like the sustainability compass.
- Get your hands dirty with social media to promote and communicate about (radically) alternative ways of educating sustainability entrepreneurs, doing business, and living our life. Regardless of how old you are!

Clark joined Lüdeke-Freund and Sheldon on stage to thank the participants and to reiterate how important it is that business schools assume the role of educating the transformative business leaders that the world needs now. She is heartened by the symposium attendance, and by the plethora of initiatives and experiments that are ongoing in the area of sustainability entrepreneurship. These can act as a catalyst for advancing the economy toward sustainable production and consumption.

Sheldon thanked the attendees again and invited everyone to next year's symposium, to be held in Paris at ESCP Business School and UNEP offices on the Paris UNESCO headquarters campus.

The day was followed by a reception with the students, and later by a gala dinner in downtown Berlin.

### **Biographies of speakers:**

**Garrette Clark** is the Sustainable Lifestyles Programme Officer, in the Economics Division of the UN Environment Programme in Paris. With a sustainability career spanning over 30 years, her expertise lies in promoting how we can live better and lighter - everyone. Technically referred to as 'sustainable consumption and production,' her team runs research on sustainably living, develops methodologies to support disruptive change (eg AnatomyofAction, sustainable product design, eco-innovation) and engages partners, including new wild cards like, youth activists, social media platforms and cultural influencers to communicate real, aspirational sustainable living messages. She has a Masters degree from Goldman School of Public Policy (University of California, Berkeley) and a BA in Medieval History from Smith College (United States).

**Brock Dickinson** is an Assistant Director of the Economic Development Program, and has worked in local economic development for 25 years. He is currently the Entrepreneur in Residence and an Adjunct Professor with the University of Waterloo. He was previously CEO of MDB Insight, Canada's largest specialist economic development consultancy, where he worked with hundreds of communities across North America. Before this private sector role, Brock headed a number of provincial and municipal economic development agencies in both Ontario and Nova Scotia, and spent six years as a consultant with the United Nations, leading sustainable development projects in 30 countries.

**Dr Klaus Fichter** is the founder and director of the Borderstep Institute for Innovation and Sustainability. He is adjunct Professor of Innovation Management and Sustainability at the [Carl von Ossietzky University of Oldenburg](#), Germany, and is member of the [Oldenburg Center for Sustainability Economics and Management \(CENTOS\)](#). He is head of graduate degree programs in innovation management and sustainable entrepreneurship. He is widely published author in journals such as Industrial Ecology, R&D Management and Environmental Innovation and Societal Transition, and a business entrepreneur, he has proven credentials in both academia and the business world. He studied business administration, entrepreneurship and economics at the [University of Bremen](#).

**Dr Emma Folmer** is an assistant professor of sustainable entrepreneurship at the University of Groningen in the Netherlands. Her research focuses on the spatial and institutional context of conventional and social entrepreneurship. She is also interested in how community-based social enterprises find opportunities and create change in their local

communities. Emma is currently researching this in the context of community energy groups through the CREDs funded project “Social Entrepreneurship at the Grid Edge: Understanding the Opportunities for Community Led DSR and Collective Self-Consumption” with Dr Charlotte Johnson, Dr Anna Rebmann and Ms Alexandra Schneiders.

**Dr Siri Jacobsen** is Associate Professor in innovation, specializing in green innovation, R&D alliances, sustainable entrepreneurship and circular economy. She is program director of an MBA program in technology management and coordinator of MBA programs at Nord University Business School. She is an experienced educator and education developer, and has leadership experience from research as well as education development projects.

**Dr Thomas B. Long** is Assistant Professor of Sustainable Entrepreneurship at the University of Groningen’s Campus Fryslân Faculty, and a member of the Centre for Sustainable Entrepreneurship. Tom’s research interests focus on sustainable entrepreneurship and business strategy. This includes sustainable entrepreneurship in nature and heritage areas, sustainable business model innovation and increasingly the examination of what post-growth thinking means in these contexts. Tom teaches courses on the Foundations of Sustainable Entrepreneurship, Sustainable Entrepreneurial Strategy, Context and Sustainable Entrepreneurship as well as 22nd Century Economy, and directs and coordinates the Sustainable Start-up Academy at Campus Fryslân, an initiative to encourage and support students in launching their own sustainable ventures.

**Dr Florian Lüdeke-Freund** is Professor for Corporate Sustainability at ESCP Business School, Berlin, Germany. He is member of ESCP’s European Sustainability Department and Academic Director of the MSc Sustainability Entrepreneurship & Innovation for the Berlin campus. Florian’s research and teaching focus on corporate sustainability management, sustainability entrepreneurship, and sustainable business models. He is Associate Editor at Journal of Business Models, Editorial Review Board Member at Organization & Environment, and Co-Chair of the International Conference Series on New Business Models. His latest book is on [www.SustainableBusiness.Design](http://www.SustainableBusiness.Design) and offers a rich overview of sustainable business models.

**Laura Astudillo Mesías** is the Communications Consultant for the Sustainable Lifestyles and Education Programme, in the Economy Division of the UN Environment Program in Paris. She started her career as a journalist covering sustainability before moving on to Sustainable Development. In UNEP, she has been working on shifting the way sustainability is communicated by highlighting the role individuals can play to live better and lighter for the last two years. By engaging all kinds of stakeholders, the Sustainable Lifestyles Programme is trying to convey real, aspirational sustainable messages to promote effective action for change among businesses, governments and civil society. She has a Master’s degree in International Development from Sciences Po (France) and a degree in Journalism from Universidad del Rosario (Colombia).

**Dr Stefan Shaltegger** is founder and head of the Centre for Sustainability Management (CSM) and professor of Sustainability Management at Leuphana University Lüneburg. In 2003, he founded the world-wide first MBA in Sustainability Management with 650 students and alumni until 2020. Stefan Shaltegger is among the internationally most cited researchers in sustainability management. His main research interests are fundamental concepts and methods of sustainability management (sustainable entrepreneurship, biodiversity management, operationalisation of corporate sustainability, sustainable business models, and sustainable supply chain management) and measuring and controlling of corporate sustainability (environmental and sustainability accounting, reporting, and controlling). He studied Economics, Marketing, and Economic Policy (Environmental Economics) and received a PhD from the University of Basel, Switzerland.

**Dr Robert Charles Sheldon** is Associate Professor for Entrepreneurship at ESCP Business School in Paris, France, and is a member of the JB Say Institute for Entrepreneurship. He is the Academic Director of the MSc in Sustainability Entrepreneurship & Innovation for the Paris campus. In addition to being an active and experienced entrepreneur, he has an MBA from Babson College and a PhD from Sciences Po Paris in organizational sociology. His research focuses on the process of new market creation, decision-making under uncertainty, and sustainability entrepreneurship. He teaches

entrepreneurial methods, design thinking and sustainability entrepreneurship in the MSc, MBA and Executive MBA programs.

**Dr Carlos Trujillo** has a Doctorate and a Master's degree in Economics and Management from Pompeu Fabra University, Barcelona, and is the director of a research group on individual decision-making and marketing. His academic training has focused mainly on economic psychology, behavioral economics and experimental economics. He teaches the following courses: an undergraduate course in Consumer Behavior and Market Research; Marketing Management, with an emphasis on the social and sustainable market as part of the Master of Environmental Management (MGA); and a Behavioral Science course, which is part of the Master's and Doctorate in Business Administration programs. His objective is to help build links between the market and the areas of sustainability.