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Established in 2017, the Centre for Corporate Sustainability and Environmental Finance (CCSEF), Macquarie University, has considerably progressed towards its goal of developing a world-leading research centre with global impact on environmental and social issues. During 2021, a further year of challenge and uncertainty, CCSEF has persevered in its mission to demonstrate a financial and business case for action on environmental and social change.

Specifically, CCSEF’s research focuses on how firm’s strategic decisions, investment choices and the uptake of sustainable finance can help to tackle some of the world’s most pressing environmental and social problems. The Centre’s projects include research on how global environmental change and climate change impact corporate assets; regulatory change for stabilising and reducing environmental impacts; adaptation and resilience of companies against environmental change; valuing business opportunities associated with clean technology; and Environmental, Social and Governance (ESG) investing.

The 2021 research outcomes of CCSEF are outlined as follows:


- The Centre has been highly successful in securing research funding as highlighted by several new and continuing grants:
  - 2021-2023: Creating Sustainability-Oriented Fintech Lending Platforms in Australia, **Australian Research Council (ARC) Linkage Project** – Smith, T., Linnenluecke, M., Liao, Y. & Bu, D.
  - 2021-2022: Examining and Forecasting Insolvency and Financial Vulnerability for Unlisted Firms of Australia, **Australian Securities and Investments Commission (ASIC)** – Xue, R., Smith, T. & Linnenluecke, M.
▪ 2020-2022: Climate Risk Disclosure: Developing Measures for Best Practice, **Australian Research Council (ARC) Linkage Project** – Sidhu, B., Jones, S., Linnenluecke, M., Pinnuck, M., Malik, A. & Smith, T.

▪ 2020-2022: The Effects of International Climate Policy on Financial Markets, **Australian Research Council (ARC) Discovery Project** – Smith, T. & Linnenluecke, M.

▪ 2019-2021: Developing a Carbon Auditing Tool, **Industry Project with Toyota Financial Services**.

• With great commendation, another grant has already been attained starting 2022:

  ▪ 2022-2024: Political Connections and the Clean Tech Transition in China and Australia, **Australian Research Council (ARC) Discovery Project** – Smith, T., Han, J. & Linnenluecke, M.

• The Centre maintained a Higher Degree Research (HDR) community of 14 PhD/MRes students.

• The Centre’s expertise has frequently been recognised by invitations to speak at conferences:

  ▪ CCSEF Director Prof. Martina Linnenluecke was invited to speak at the Climate Finance and Economics Workshop “New directions in climate finance & economics research”, organised by the University of Sussex, UK.

  ▪ Prof. Martina Linnenluecke was invited to discuss sustainable finance at the 2nd CEFGroup Climate Finance Symposium and the Macquarie University Risk Day.

  ▪ Prof. Martina Linnenluecke was invited to deliver a seminar at Padova University, Italy, on “Research Challenges and Opportunities following the COVID-19 Recovery”, moderated by Valentina De Marchi, Associate Professor and President of Group for Research on Organizations and the Natural Environment (GRONEN).

  ▪ Prof. Martina Linnenluecke and Prof. Tom Smith were invited speakers at the 2021 Centre for Accounting Research & Education (CARE) Conference – Accounting for Sustainability and Responsible Investing.

  ▪ Dr. Rui Xue was invited to give a keynote speech about corporate sustainable behaviour at the 2021 Annual Conference of the Chinese National Association of Input-Output and Big Data.
• Prof. Martina Linnenluecke was a member of the conference committee for the *4th Annual Conference of the Global Research Alliance for Sustainable Finance and Investment (GRASFI)*, Central University of Finance and Economics (CUFE) in China, Sept 1-3, 2021.

• Prof. Martina Linnenluecke was appointed to the College of Experts of the Australian Research Council (ARC), for a 3-year term (2021-2023).

• The Centre has also maintained a strong media presence (see Appendix 2).
2. MEMBERSHIP OF CENTRE

Macquarie University’s CCSEF comprises an interdisciplinary team of leading experts in strategy, finance, and sustainability.

**ADVISORY BOARD**

The Advisory Board is comprised of the following members:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>Prof. Klaus Hubacek</td>
<td>Professor of Science, Technology and Society</td>
<td>University of Groningen</td>
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<tr>
<td>Scientia Prof. John Roberts</td>
<td>Scientia Professor of Marketing</td>
<td>University of New South Wales Business School</td>
</tr>
<tr>
<td>Prof. Baljit Sidhu</td>
<td>Professor of Accounting</td>
<td>University of Sydney Business School</td>
</tr>
<tr>
<td>Prof. Jian Zuo</td>
<td>Professor of Architecture and Built Environment</td>
<td>University of Adelaide</td>
</tr>
<tr>
<td>A/Prof. Rajat Panwar</td>
<td>Associate Professor of Responsible Business Practices in the College of Forestry and the College of Business</td>
<td>Oregon State University</td>
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DIRECTOR

Prof. Martina Linnenluecke
Professor of Environmental Finance, Macquarie Business School

Martina currently also serves as a Member of the College of Experts, Australian Research Council (ARC).

DEPUTY DIRECTORS

A/Prof. Abhay Singh
Associate Professor of Finance, Macquarie Business School

In 2021, Abhay was appointed Associate Professor and Deputy Head of the Department of Applied Finance at the Macquarie Business School, and Adjunct Associate Professor in the School of Business and Law at Edith Cowan University.

Honorary A/Prof. Dan Daugaard
Honorary Associate Professor of Finance, Macquarie Business School
Associate Professor of Finance, University of Tasmania

In 2021, Dan was appointed Honorary Associate Professor of Finance at Macquarie Business School, and Associate Professor of Finance and Head of Discipline at the Tasmanian School of Business and Economics.

MEMBERS

With the aim of fostering interdisciplinary collaboration, membership of the Centre is open to full-time academics across all departments within Macquarie University. In 2021, the Centre welcomed the following members:

A/Prof. Yin Liao (Associate Professor of Finance, Macquarie Business School)
Yin is an Associate Professor in Finance. Her main research interests are in the areas of financial econometrics, household finance, FinTech, sustainable finance and credit risk.

A/Prof. Vida Siahtiri (Associate Professor of Marketing, Macquarie Business School)
Vida’s research interests include work on environmental sustainability in the context of B2B brands, the role of brands and consumers in emerging markets, and work that addresses innovative products at the bottom of the pyramid.
ASSOCIATE MEMBERS

Associate membership of CCSEF is open to affiliated academics and industry partners outside Macquarie University. The Centre welcomes the following associate member:

A/Prof. Han Li (Associate Professor of Actuarial Studies, University of Melbourne)
Han has a broad range of research interests around longevity and mortality risks, ageing and retirement, and the impact of climate change on the insurance industry. Specifically, much of her research expertise centres on actuarial modelling and forecasting using advanced econometric and statistical techniques. Previously, Han was a member of the Centre as Senior Lecturer of Actuarial Studies at the Macquarie Business School. In 2022, Han has transitioned to an associate member of the Centre as Associate Professor of Actuarial Studies at the University of Melbourne.

VISITING SCHOLARS

The Centre was pleased to welcome A/Prof. Rawshan Ara Begum as a visiting scholar in 2021. A/Prof. Begum works as an Associate Professor at the Institute of Climate Change, National University of Malaysia (UKM). Prior to this, she was an Associate Professor at the Center for Water Cycle, Marine Environment and Disaster Management (CWMD) in Kumamoto University, Japan (Mar 2018-Jan 2020), and Institute of Climate Change, UKM (Feb 2013-Feb 2018). She also worked as Senior Lecturer (Nov 2008-Feb 2013) and Postdoctoral Fellow (Dec 2006-Nov 2008) at UKM. A/Prof. Begum obtained her PhD degree in Environment and Development from UKM in 2006.

A/Prof. Begum’s research focus is in the areas of environmental and energy economics as well as economics, financing and policy aspects of climate change and sustainability. She has significant expertise and skills in Quantitative & Qualitative Data Collection and Analysis; Econometric & Statistical Analysis; Cost-benefit Analysis; Environmental Valuation; Life Cycle Assessment; Time Series Analysis (Autoregressive Distributed Lag Cointegration), Input–Output Analysis; and Computable General Equilibrium Modelling. A/Prof. Begum is serving on the United Nations’ Intergovernmental Panel on Climate Change (IPCC) as Coordinating Lead Author (CLA) for the Sixth Assessment Report (2018-2022).
The Centre was pleased to continue the ongoing collaboration with visiting scholars **Prof. Frank Figge** (ESCP Business School, Paris) and **A/Prof. Andrea Stevenson Thorpe** (KEDGE Business School, Marseille).


**A/Prof. Andrea Stevenson Thorpe** is an *Associate Professor of Entrepreneurship, Innovation & Strategy* at KEDGE Business School, Marseille. She holds a PhD and an MBA from Aston Business School in the UK, and her international experience is reflected in her interests in international students, online pedagogy, and the process of internationalisation of business schools in Europe. Prof. Thorpe’s current research interests lie in the interface between the natural world, and management and organisations, including the circular economy. She currently teaches in the broad areas of strategy, entrepreneurship, and research methods.

**Relevant publications:**

https://doi.org/10.1016/j.ecolecon.2021.107190

https://doi.org/10.1016/j.lrp.2020.102066

https://doi.org/10.1016/j.ecolecon.2020.106838
POSTDOCTORAL RESEARCH FELLOWS

The Centre has employed 5 Postdoctoral Research Fellows over the course of 2021. Dr. Abbas Hejri was successful in securing a Macquarie University COVID Recovery Fellowship, which funds his full-time research position over the course of 2021-2022 and we extend our congratulations on this success.

Dr. Ashley Ding
Ashley joined the Centre as a Postdoctoral Research Fellow in 2019. She completed her PhD in Environmental Finance at the University of Queensland, where she also worked as an associate lecturer in Finance. Prior to this, she graduated with first-class honours in commerce at the Australian National University (ANU). She was a junior practitioner at Green Steps (ANU branch) with training and expertise in carbon accounting, providing greenhouse gas emissions assessment and reporting. Her current research interests include market volatility in fossil fuel and clean energy markets, asset pricing and cleantech innovation, ESG reporting, and climate policy uncertainty.

Dr. Zahra Borghei Ghomi
Zahra joined the Centre as a Postdoctoral Research Fellow in 2020. She completed her PhD in greenhouse gas emissions disclosure while working as a casual academic in the Macquarie Business School. Zahra comes from a background as an accounting practitioner before embarking on an academic career. Her current research interests include corporate governance and sustainability.

Dr. Yun Shen
Yun joined the Centre as a postdoctoral research fellow in March 2020. She completed her PhD in Applied Finance at the University of South Australia. Her research interests focus on CEO characteristics, empirical corporate finance, (anti-)money laundering, corporate social responsibility, ESG, and natural experiments.

Dr. Georgina Ge
Georgina joined the Centre as a Postdoctoral Research Fellow in 2020. She completed her PhD in Finance at Macquarie University in 2019 which was supported by a Macquarie University Research Excellence Scholarship. Georgina is an expert on asset-liability mismatch risk in the “shadow banking” industry, the risk profiles of financial intermediaries, and the information sensitivity of the money market.

Dr. Abbas Hejri
Abbas joined the Centre as a Postdoctoral Research Fellow in 2020. He completed his PhD in Applied Finance at Macquarie University. Abbas is a multidisciplinary researcher with a background in engineering and data science. His current research areas include mutual funds, ESG, empirical corporate finance, sustainability, and business ethics.
3. HDR STUDENTS

CCSEF offers supervision for those pursuing a PhD or research degree in the areas of corporate sustainability and environmental finance.

LIST OF HDR STUDENTS

<table>
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<tr>
<th>PhD Students</th>
<th>Principal Supervisor</th>
<th>Associate Supervisor</th>
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<tbody>
<tr>
<td>Guilherme Belloque</td>
<td>Prof. Martina Linnenluecke</td>
<td>Prof. Tom Smith</td>
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<td>Danny Falyon</td>
<td>Prof. Tom Smith</td>
<td>Prof. Martina Linnenluecke</td>
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<td>Mona Mashhadi Rajabi</td>
<td>Prof. Martina Linnenluecke</td>
<td>Prof. Tom Smith</td>
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<td>Nazanin Sadeghi</td>
<td>Prof. Martina Linnenluecke</td>
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<tr>
<td>Ali Shimbar</td>
<td>Prof. Martina Linnenluecke</td>
<td>Prof. Tom Smith</td>
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<td>Hamid Yahyaei</td>
<td>A/Prof. Abhay Singh</td>
<td>Prof. Tom Smith</td>
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<td>Rui Yang</td>
<td>Prof. Martina Linnenluecke</td>
<td>Dr. Rui Xue</td>
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<tr>
<th>MRes Students</th>
<th>Principal Supervisor</th>
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<tr>
<td>Damian Bridge</td>
<td>Prof. Tom Smith</td>
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<td>Scott Davies</td>
<td>A/Prof. Abhay Singh</td>
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<td>Qinqin Xia</td>
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<td>Yuhao Yang</td>
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<td>Mingqin Yu</td>
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<td>Boning Zhang</td>
<td>Dr. Rui Xue</td>
<td>TBC</td>
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APPENDIX 1: 2021 OUTPUTS

Note: listed here are only publications with direct relevance to the Centre’s research streams. All researchers have publications in addition to those listed here which are available via their respective profiles.

PUBLICATIONS


CONFERENCE PRESENTATIONS


INDUSTRY WHITE PAPERS


## APPENDIX 2: 2021 MEDIA MENTIONS

<table>
<thead>
<tr>
<th>Publication</th>
<th>CCSEF Mention</th>
<th>Date</th>
<th>Author</th>
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<tr>
<td><strong>November</strong></td>
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Centre for Corporate Sustainability and Environmental Finance

We help the business community, industry bodies and government on matters of corporate sustainability and environmental finance. Through our research and academic excellence, we see value and opportunities in working with you to develop solutions that reduce environmental impacts and costs, and strengthen business resilience and responsibility.

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