

Annual Report 2022 - 2023

Research Centres Maastricht Economic Domain Zuyd

Global Minds at Work

Future of Food

Data Driven Hospitality

Professional Communication in a Digitalizing Society

Sustainable International Business

Zuyd ZU
Research YD

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Foreword

It is with pleasure that we welcome you to the annual report of the five Research Centres of the Zuyd Economic Domain in Maastricht of the year 2022-2023.

We are literally quite a handful! Professional Communication in a Digitalizing Society (PROCODIS) and Sustainable International Business are linked to the academies of International Communication and International Business, respectively. Global Minds at Work, Future of Food and Data Driven Hospitality are hosted by Hotel Management School Maastricht. And even though we are housed in different buildings and divided by a river, we cross the bridge as often as we can. Last year we marked this intention by officially forming a cluster. Though our research centres each possess a recognisable and distinct profile and are at different stages of maturity, our research is inspired by three common themes: digitalisation, globalisation, and sustainability. We are all affiliated with internationally oriented economic bachelor programmes based in Maastricht. We see these commonalities as a strong basis for cooperation. This first joint annual report marks a milestone in our pursuit of joining forces in applied research to contribute to innovation of our professional field, providing impactful solutions for real-world challenges and strengthening the quality of professional education. In this report we would like to showcase some of the work of our dedicated teams of lecturer- researchers.

Some of the many highlights of last year were the successful accreditation of PROCODIS, Future of Food and Global Minds at Work in June and the kick off of the Professional Doctorate (PD) Program. From now on, we are able to educate highly qualified applied research professionals at EQM 8 level (comparable to PhD) who will contribute to solving complex challenges from the industry. The PD involves practice-oriented research aimed at knowledge and development of effective tactical interventions leveraging the triple helix of science, professional practice and education. In the PD process, industry partners formulate the demand, and actively contribute to the PD process and deliverables. Another positive development is the additional financial support from Zuyd UAS as a result of the ministry's emphasis to elevate practice-oriented research at universities of applied sciences which enables all centres to recruit dedicated candidates for a PhD trajectory in collaboration with research universities. By the time you read this report, three PhD candidates and one PD candidate associated with our cluster have embarked on their journey of learning. We wish them every bit of success.

We hope that the pages within this report reflect the quality and commitment of our researchers, collaborators, and partners who have joined us in our quest to advance applied research in the economic domain. We are excited to share our accomplishments with you and look forward to the opportunities that lie ahead. Obviously, we can only provide a snapshot of our work to share with you some of our inspiring stories and projects that contribute to the sectors we serve. A full overview of our activities and publications in 2022 -2023 can be found in the Appendix of the report.

Thank you for your ongoing support and trust in us. We invite you to explore the pages that follow, and we hope that our annual report will inspire you to cross the Noorder bridge, Wilhelmina bridge or Old Bridge (Aw Brök) in both directions.

With warm regards,

Dr. Ankie Hoefnagels – Professor Global Minds at Work

Dr. Mark Pluymaekers – Professor Professional Communication in a Digitalizing Society

Dr. Danny Han – Professor Future of Food

Dr. Nikos Kalogeras – Professor Sustainable International Business

Dr. Martijn Zoet – Professor Future Proof Financial / Data Driven Hospitality

Education and staff professionalisation

On the following pages you will find a snapshot of our contributions to education. A fascinating journey across a wide spectrum of research initiatives, educational endeavours, and collaborative projects. From the unveiling of the *Global Mind Monitor 3.0*, a pioneering tool for measuring global competence in students, to the innovative efforts within the *Food Boost Challenge Limburg* aimed at promoting healthier eating habits among South Limburg's youth, this collection underscores the importance of research, education, and sustainability. The *Innovating Business Education for Responsible Global Minds* project sets the stage for an exciting transformation in business education, focusing on internationalization, ethics, responsibility, and sustainability. Additionally, insights from a study on *Communication Skills among graduates* of the European Studies curriculum provide valuable feedback to enhance the learning experience.

Global Minds @ Work

The Global Mind Monitor 3.0: next steps in measuring global competence

The 23rd of March 2023 was a big day for Global Minds @ Work. During our 3rd annual 'Research and Education Day', we launched the new and completely updated version of the Global Mind Monitor. The GMM was structurally revised, both in terms of content and in the experience for a user. It is now hosted on a new online platform (globalmind.info), that also includes an educator's toolkit and student stories on global competence.

The main goal of the GMM remains the same: using scientifically validated measures to provide students insights in their global competence, in single measures, or longitudinal measures throughout their curriculum. Content-wise, the model focuses on students' knowledge, motivation, personality and actions (see figure below), and now also includes elements of sustainability.



The new content also comes with an entirely redesigned online portal, where students can access their individual results, and compare them to their peers. If students filled out the GMM multiple times, they can also see their development over time. One of the main improvements is that scores for the different measurements are presented in a more accessible format, easier for students to interpret, with all information in one place. The scores are not the end goal in itself, they ideally serve as a conversation starter, to reflect on intercultural competences together with peers or a mentor.



The launch of the new GMM was celebrated during our Research and Education Day, an event focused on intercultural teaching and research in higher education. Several teachers and researchers from Belgium, Germany and the Netherlands came together at the Hotel School in Maastricht to share new ideas around intercultural education. We did so with a debate on internationalization, story circles, with Lego Serious Play and in interactive research workshops.

We had the pleasure to host Darla Deardorff as a keynote speaker, a worldwide authority on the subject of global competence. After the keynote, Titia Bredée (Director General Nuffic), Jana Janssen (internationalization coordinator at Vista College) and Saskia Brand-Gruwel (board member at Zuyd) discussed the possible implications of the new legislation on internationalization in higher education with our audience.

Collaboration with Etil and next steps

Over the past year, our researchers collaborated closely with our partners at Etil Research Group to design the new GMM platform and to make sure it has all the functionalities that students and administrators need to create measurements, interpret their results and share their findings. Next to that, we create educational content with a new toolkit for educators, including best practices and educational activities in an international classroom. This toolkit is updated regularly, with new activities for anyone teaching in international education.

The new GMM now has been up and running for six months, and over 3000 students in 15 different educational institutes in the Netherlands, Belgium and the US already completed a measurement on their global competence. During this first period, we also collected suggestions for further improvement of the tool, from students, teachers and administrators. Thanks to all this input from our active users, we can continue to develop the tool further.

A next big step in this project is the design of a GMM for vocational education and a GMM for professionals. Thanks to additional funding from the province of Limburg, we are happy to announce that we will be launching the GMM for vocational education (mbo) early 2024.

Follow us on LinkedIn or on www.globalmind.info to stay tuned on new developments!

Future of Food

Food Boost Challenge Limburg

The Food Boost Challenge 2022-23 is a project that took place in Limburg (NL) from September 2022 till June 2023 (see: www.foodboostchallenge.nl). The Food Boost Challenge is an initiative of Medical Delta Living Lab VIT for Life / Haagse Hogeschool, Horti-Heroes and Foodvalley NL. The Research Centre Future of Food (Zuyd) collaborated with other educational institutes in the region: Vista College and Maastricht University, and further GGD and DSM(-Firmenich). The aim of the project was to set up a challenge for the youth in South Limburg, to come up with ideas to make healthier eating more attractive for adolescents between 12 and 24 years old living in South-Limburg (Heerlen and Kerkrade).

In the first phase of the project, a group of graduating (M13/14) students from the Hotel Management School Maastricht (HMSM) worked on the formulation of the challenge and the creation of the communication plan, later used for the Food Boost Challenge Limburg. The group of students was supervised by Maud Meijers. In this first phase of the project, Maud Meijers was also the chair of the project team. In a later phase the challenge was open to the youth of South-Limburg, and also presented to approximately 60 students of the minor Essentials in Foodservice (HMSM). The 60 students were divided over 10 teams of which 3 moved on to the finale. Maud Meijers coached these students during the minor. In the second half of the project, after the challenge was launched, a Community Involvement (ComIn) student of the HMSM assisted the project leader (Michelle van Roost) with various tasks including the creation of communication materials. During the finale the different teams were assessed by a jury consisting of 7 professionals from: Aldi, Rabobank, Leefstijl Lab, DSM(-Firmenich), Van Melick Groep, Unicef and LIOF.

The approach and research methods used during the Food Boost Challenge were presented at the EGEA conference in Barcelona (September 2023) by Wendy Scholtes-Bos and Machteld van Lieshout from The Hague University of Applied Sciences. Maud Meijers was a co-author for the presentation. The title of the presentation was: "The Food Boost Challenge: identifying changeable determinants and actionable improvements towards healthier food choices".



Professional Communication in a Digitalizing Society

As in previous years, our Research Centre provided a research assignment to students who participated in the Academic Paper minor of Zuyd's European Studies programme. In December 2022, they investigated which communication skills graduates of their programme use most frequently in their daily work practice. They also asked their fellow students to what extent the current curriculum enables them to develop these skills. The survey was conducted using an online questionnaire distributed to students and alumni via social media and other communication channels. 83 of them took the time to complete the questionnaire. Below, Fiona Bemelmans of the European Studies curriculum committee explains what the programme has learned from the outcomes of this research.

Why was this a good time to carry out an investigation into this topic?

European Studies started implementing a new curriculum four years ago. In such a process, evaluation is extremely valuable. Evaluation together with lecturers and students, but also evaluation from the perspective of a Research Centre. The colleagues at the Research Centre look at developments from a distance and have extensive experience in carrying out research such as this. Research is not only a must for our students, but also for ourselves. If we want to continue developing, we will have to look critically at ourselves. Research Centres can play a valuable role in general and when implementing a new curriculum in particular.

How did you experience the collaboration with the Research Centre for Professional Communication in a Digitalizing Society?

The Research Centre looks at the questions we pose with a down-to-earth and practical attitude. Yet there is also proximity, understanding of the content and current developments. Here you will notice their professionalism in taking on a supporting role for the development of our education. I really appreciate that combination. What we as a team always appreciate is hearing students' opinions, both during and after their studies. Of course, it is even better if that opinion is put at the center of a research study and clearly presented in a report, as was the case for this project.



Fiona Bemelmans of the European Studies curriculum committee



The students of the Academic Paper minor presenting their research results to stakeholders from the study programme and the Research Centre

What are the main take-aways from the research for the curriculum committee?

We feel that the study offers confirmation that we have done really well so far, but also that there is still room for improvement. For example, there is a partial discrepancy between the communication skills that graduates appear to use most often and the skills that students think they will need most in the future. It seems like we do offer the right content, but it is not always perceived that way by the students. Stimulating some awareness may be an appropriate solution. This can be done during the projects themselves and by adapting test formats, but also by creating an even clearer image of the future profession.

How will the results of this research be used to improve the programme?

The outcomes of the research have first been discussed with the members of the curriculum committee, the quality assurance coordinator and the educational advisor of the programme. In the next step, they will be presented to the entire team. Here, we will look at the big picture of the learning objectives of the programme and how they relate to actual professional practice. The block coordinators will then be asked to consider for each block how the various communication skills of the students can be further improved.

Sustainable International Business

Innovating Business Education for Responsible Global Minds

The vision of SIB is to achieve transformation and innovation for the sustainable business in education and SMEs with the aim to contribute to “health and well-being” of SMEs and citizens in the Euro-region, now and in the future. Thus, one main research theme line of SIB is *Innovation in Business Education*. Recently SIB acquired funding (by Erasmus+ project; European Commission) for the “*Innovating Business Education for Responsible Global Minds*” (IBE-ReGlomi) project. This transitional project is led by SIB (Dr. Jeanine Gregersen-Hermans) and envisages to become a landmark innovative approach to the integration of internationalisation, ethics, responsibility, and sustainability (ERS), and social entrepreneurship as the defining lens in business curricula.

IBE-ReGlomi project’s objective is to create transformative learning environments that spur the development of our students as young professionals with a global mind, who can take responsible business decisions that are based on societal and ecological grounds. Thus, SIB and the members of the transnational consortium aim to contribute to the quality of education and support the delivery of a coherent, transformational learning experience for all students, which they can transfer to real-life situations and apply in their future careers.





The IBE-ReGloMi partnership represents a truly global network through its local and global partners and associated partners. Specifically, the main partners of the consortium are: International Business School Maastricht/Zuyd UAS; Universitatea Babeş-Bolyai; Technology Arts Sciences TH Köln; Kozminski University; Kedge Business School, EFMD Global. Each of the participating universities is firmly rooted in its own local societal and business context, however in our reach we are each focused on the world. This is also reflected in our methodology that entails the co-creation of the project results together with our local students and student associations, our local and international associated partners, and our global partners.

Thereby, we aim to reach all our students, and support them to connect the dots between the following three initiatives, the various business domains and the corporate world.

- a) **Innovating Business Education:** We will co-create future oriented graduate profiles in collaboration with our local student and business associate partners and implement these profiles in our curricula by an innovative pedagogy, aimed at transforming mind-sets and illustrated by practical examples.
- b) **International Community of Practice:** We will create a community of good practice across the partners institution to inspire and learn from each other in which we welcome our fellow lecturers from our institutions. We will work with our fellow lectures to adapt and implement the IBE-ReGloMi approach in their own context and discipline through training and good practice examples.
- c) **Sharing and Outreach:** We will reach out to lecturers and researchers at other business schools, disciplines and levels of education and sectors to share our outcomes with the support of our associate partners (i.e., European Association for International Education; Academic Cooperation Association; the University La Sabana Columbia; World Council for Intercultural and Global Competence). By sharing and reaching out to a wide range of diverse stakeholders, we aspire to create an inclusive community of practice.

The strength of the consortium and all its associated partners, local and global, will ensure the quality and the applicability of the results, also for other HE areas, levels of education or sectors.

Professional practice and society

The following section showcases a variety of recent and current research initiatives and collaborations across different fields, shedding light on the evolving landscape of (social) sustainability, community involvement, communication, and technological innovation. Our endeavours range from the transformative impact of the Corporate Sustainability Reporting Directive (CSRD) on the hotel industry, to the community-building efforts of the Refugee Project Maastricht. We explore collaborations with platforms like CustomerFirst, where research insights meet the interests of professionals in the customer contact industry. Additionally, we introduce the burgeoning field of 3D food printing, and how it's finding its place in the realm of gastronomy. We also delve into the sustainable practices of SMEs in Limburg, Netherlands, examining the barriers and implications of their transition towards Sustainable Production Systems (SPS).

Global Minds @ Work

Training the volunteers of Refugee Project Maastricht

Because the research centre Global Minds @ Work is embedded in an applied science context, there is a need to contribute to the professional practice and society at large. One of the organizations that approached the center for advice and support is Refugee Project Maastricht.

Refugee Project Maastricht is a volunteer-led organization connecting refugees, (international) students and local residents in Maastricht. It was founded in 2015 as a community service project of student pastorate The InnBetween (the University Chaplaincy) in cooperation with Maastricht University and with the support of the Municipality of Maastricht. Its aim is building bridges between people from different backgrounds and making people feel at home in Maastricht to enable them to thrive. The focus is on community building: Refugee Project Maastricht believes that every human being needs to feel part of a community to flourish, and that strong communities are inclusive and diverse by nature. It strongly encourages mutual solidarity and intercultural understanding. Refugee Project Maastricht contributes to an environment in which people can grow and learn from each other by empowering the community through the acknowledgement of their integrity, skills and knowledge. All human beings have the ability to make a positive impact on someone else's life, which is proven by the engagement and mutual contribution to well-being within the community.



Over the years Refugee Project Maastricht has grown to an organization with over 100 volunteers and 1500 monthly participants. The project is located in a cosy home (the K5 Community Centre) in the centre of Maastricht, a space to share skills and beliefs, to grow and to learn for everyone. Refugee Project Maastricht has six programmes within which

several teams of volunteers run a variety of activities for different age groups that contribute to a feeling of safety, a sense of community and mutual respect. Some examples are art sessions, music workshops, language cafes, teen skateboarding and movie nights, next to buddy coaching, advocacy events and monthly hikes. Refugee Project Maastricht makes sure that everything it does matches the needs of the community and actively looks for ways to “flip the script” and to include refugees in leadership positions and to encourage them to be active as volunteers themselves.

The collaboration between students, refugees and local residents from a wide variety of cultural backgrounds also has its challenges. The research centre Global Minds @ Work was therefore asked to conduct a series of workshops focusing on story circles: a flexible tool that is used to cultivate intercultural dialogue through the strengthening of interaction and understanding across differences. Story circles offer a way for individuals from different backgrounds to come together to exchange experiences and to explore cultural commonalities and differences. Through the sharing of life experiences situated in specific cultural settings, participants not only gain a deeper understanding of themselves but also of their fellow humans. This interactive process fosters the enhancement of key elements of intercultural competence, such as demonstrating respect for others, cultivating curiosity about similarities and differences with others, greater cultural self-awareness, empathy, openness, developing relationships with culturally different others and ultimately a greater sense of cultural humility.

In 2022-2023 four different workshops were offered for a total of around 60 participants. The feedback was generally very positive and we can say the story circles greatly contributed to Refugee Project Maastricht’s goal to support people in building lasting and meaningful connections. The collaboration between Refugee Project Maastricht and the research centre Global Mind @ Work will be continued in 2023-2024, and besides story circles two other trainings will be developed and offered, with a focus on the culture map and cultural synergy.

Future Of Food

3D Food Printing Project Pipeline

The Research Centre Future of Food is currently building a project pipeline on food 3D printing. In the past months (2023) we worked on the first phase, which involved the creation of an overview paper that identified opportunities and challenges related to the implementation of 3DFP in the foodservice and gastronomy context to date. We build on Mantihal et al.'s (2020)¹ review of 3D food printing which focused on the novelty in the preparation of food for various business sizes. There remains much debate on the practicality and scalability of 3D food printers in industrial kitchens and how they can be embedded to enhance kitchen operations and the dining experience without disturbing the operational flow of the food preparation and service. Our paper extends the food production perspective by providing a discourse on adoption factors in the hospitality industry. Based on this review, we highlight opportunities of 3D food printing in the industry and identify needed directions for further research to address current shortcomings in our understanding, technological limitations and embedding for richer gastronomic experiences through 3DFP. The paper will be submitted to the International Journal of Gastronomy and Food Science for their special issue on 3D-Food Printing in Gastronomy and used as foundation to set up new initiatives to give 3D food printing a more prominent role in our industry.

In spring 2023, two Community Involvement (ComIn) students already worked on exploring the use and possibilities of our Foodini 3D food printer. They tested the printing of various materials including mashed potatoes, yellow pea puree and Callebaut milk chocolate. In fall 2023, two new ComIn students will work on a follow-up project where the complexity of the printed structures is increased and in additional "dimension" will also be added. This additional dimension, so-called 4D food printing, involves an added visible effect to the 3D printed product i.e. the deformation, modification of color, flavor and nutritional value of a 3D printed food product. The stimulation factors responsible for the 4D effect on the 3D printed products are e.g. pH, water absorption, temperature, and microwave radiation (Teng et al., 2021)².



- 1 Mantihal, S., Kobun, R., & Lee, B. B. (2020). 3D food printing of as the new way of preparing food: A review. *International Journal of Gastronomy and Food Science*, 22, 100260.
- 2 Teng, X., Zhang, M., & Mujumdar, A. S. (2021). 4D printing: Recent advances and proposals in the food sector. *Trends in Food Science & Technology*, 110, 349-363.

Data Driven Hospitality

The hotel industry is poised for a significant transformation towards sustainability, responsibility, and enduring value with the advent of the Corporate Sustainability Reporting Directive (CSRD). This abstract provides an overview of the CSRD's core principles and explores the opportunities and challenges it presents to the hotel sector.

The European Green Deal, aimed at achieving climate neutrality by 2050, includes the CSRD, a directive compelling companies to report on their sustainability efforts. The CSRD extends beyond financial performance to encompass environmental and societal impacts. Initially targeting publicly listed companies, it will soon expand to encompass larger enterprises and eventually small and medium-sized businesses.

The implementation of the CSRD comes at a challenging time for the hotel industry, still recovering from the COVID-19 pandemic and striving for operational efficiency. This regulation requires hotels to re-evaluate their business practices, shifting focus from minimizing ecological footprints to demonstrating a positive social impact. Hotels are expected to adhere to the 12 CSRD standards known as the European Sustainability Reporting Standards (ESRS), with an emphasis on environmental, social, and governance (ESG) aspects.

However, the CSRD also presents substantial opportunities. The "Multiple Value Creation" model introduces the concept that hotels can create value across various capital types, emphasizing not only financial, produced, and intellectual capital but also natural, human, and social network capital. Engaging stakeholders from different forms of capital can assist hotels in comprehending their societal and environmental impact, following the "double materiality analysis."

Embracing sustainability offers more than ethical benefits. Proactive sustainability strategies can enhance investor relations, customer loyalty, workforce morale, supplier relationships, competitive edge, and community ties. Furthermore, the CSRD allows hotels to tailor their approach in alignment with their unique corporate culture, potentially strengthening their brand image.

In a world where sustainability plays an increasingly pivotal role in consumer and investor decisions, the proactive response of the hotel industry to the CSRD holds the potential to be a game-changer. The directive provides an opportunity for hotels not only to meet legal requirements but also to emerge as sustainability leaders, offering a competitive advantage in a market where demand for sustainability is burgeoning.

On the picture below the moment of project handover to our client who is enthusiastic about the project results and confirms the competitive edge their organization gains through CSRD. This positions the hotel industry as a sustainability leader in a growing market.



Professional Communication in a Digitalizing Society

In 2022-2023, we entered into a collaboration with CustomerFirst, the largest Dutch trade magazine for the customer contact industry. For the Research Centre, CustomerFirst is a very interesting platform to share insights from research with professionals who are interested in topics such as conversational AI, machine translation and digital communication skills. We do this by writing articles that appear in both the physical and online versions of the magazine, and through presentations at the annual conference, where more than 200 customer contact professionals come together to be updated on the latest developments in their field.

In 2020, we published our first article on the CustomerFirst website, based on one of the studies from Michelle van Pinxteren's PhD thesis. When we shared another popular publication with the editors in 2022, we were invited to also present our research during the next CustomerFirst conference in September 2022. That presentation was so well received that the editors asked us whether we were interested in a systematic collaboration to create content for the target group of the trade magazine.

Since then, two articles have been published in CustomerFirst to which Anna Krispin and Mark Pluymaekers have contributed on behalf of the Research Centre: one article that delves deeper into the opportunities that ChatGPT offers for the customer contact sector, and one article about the question to what extent conversational agents can – and should – exhibit empathy and emotional intelligence during contact with customers. We hope that there will be many more contributions in the coming years!



One of the articles published in CustomerFirst in 2023

The observation that our research themes are also receiving attention outside the world of higher education is further evidenced by the fact that the regional newspaper Dagblad de Limburger published two opinion pieces written by Mark Pluymaekers this year. The first piece, which appeared in January 2023, was also about ChatGPT, and was a response to an earlier background article that highlighted the negative effects of the rise of this tool for education. However, we also see many opportunities, because the use of ChatGPT can help students come up with subtopics, structure information, and adapt the writing style to the wishes and needs of the target group. Of course, this should always be done in a transparent and responsible manner.

The second article took a slightly different angle; it argued that the much-vaunted respect that professional rugby players show towards referees can at least partly be explained by the good communication skills that those referees possess. There are dozens of videos on YouTube showing how rugby referees interact with players: clear, respectful, but also with a good dose of humour. The message should be clear: whether you are dealing with an angry customer or a rugby player high on adrenaline, good communication skills make all the difference!



Mark Pluymaekers presenting during the 2023 CustomerFirst conference

Sustainable International Business

Understanding SMEs' Sustainability Transition

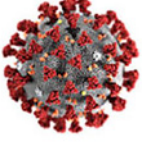





During the last three years, SIB researchers have been exploring the patterns of the transition to sustainability of more than 300 SMEs in Limburg, the Netherlands. Our aim is to identify the sustainability-related needs of these SMEs and understand their underlying decision-making process regarding their choice to opt for sustainable production methods and sustainable market behavior in order to enable more informed managerial and societal implications.

The mission of SIB is to contribute to the economic development of the Limburg region by using innovative applied research and education in the field of sustainable business and to encourage IB graduates and businesses to further develop their ambitions in an effective and sustainable manner. This mission has been realized by means of applied business research and education in collaboration with students, regional, national, and international stakeholders during the last three years.

A Risky Decision Context

The findings of (an ongoing) empirical study, which have been conducted by our research centre (SIB, 2022) about the drivers of SMEs in the agri-food and hospitality sector in Limburg, in which third-year IB and Zuyd students attending the minors on Applied Business Sustainability were highly engaged, provide evidence about the substantial role of several risk-related factors as drivers of SMEs' strategic decision to opt for Sustainable Production Systems (SPSs). Thereby, recognizing the dilemma of SMEs to make such a strategic decision (to opt for an SPS) since they may be confronted with unexpected market constraints and uncertainty and risks regarding their investment outputs, we explored the barriers to SMEs' transition to SPSs. Box 1 summarizes the barriers and key challenges that SMEs in Limburg (NL) are confronted with based on the results of SIB's study. Forces from both the broader market environment of SMEs (e.g., perception of risky market environment; covid-19 pandemic; regulatory burden) and SMEs' specific characteristics (e.g., lack of technical and digital skills) seem to play an essential role in their efforts towards sustainability.

Box 1: Barriers and Key-Challenges of SMEs in Limburg, the Netherlands (2022)

	Covid Pandemic	<p>Besides the EU-27 support measures aimed at maintaining employment and helping SMEs address liquidity needs and get access to finance, most SMEs perceive high risk for investing into SPSs in the recovery phase of the pandemic.</p>
	Regulatory Burden	<p>Compliance with environmental and energy regulations and green public procurement is still not yet widely adopted by SMEs. Consultation for SME stakeholders on new legislative proposals is required.</p>
	Access to Finance	<p>Covid-19 has negatively affected their access to finance. Most SMEs perceive that accessing funding as a complicated and risky process in the recovery phase of the pandemic.</p>
	Start-up Environment	<p>The start-up environment has been extremely risky during the Covid-19 period. Most SMEs and start-ups have been confronted with solvency problems during the last 2,5 years.</p>
	Digitalisation	<p>The lack of adequate access to technical and digital skills or highly skilled workers is a commonly identified challenge for almost all SMEs.</p>
	Managerial Competences	<p>Investing into the development of managerial competences, skills and training of SMEs' personnel is a main challenge for all SMEs.</p>

Source: SIB (2022)

Managerial & Policy Implications

Understanding the factors that play a crucial role in the willingness of SMEs to switch/invest in SPSs reveals insights critical to policy-makers and SMEs' managers in the agri-food and hospitality markets in Limburg, who wish to increase the likelihood of SMEs' switching to SPSs. Hence, more informed decisions regarding the design of policies and strategies to increase SPS adoption can be made. For example, our results indicate that the risk perception of SMEs, level of understanding, financial as well as information needs regarding new legislations and technologies, and professional (online) communication needs seem to be the main barriers to the adoption of SPSs. Such barriers may be removed when SMEs receive education and training on how to evaluate, manage and mitigate the potential risks when opting to change their production practices. In addition, public policy initiatives may provide them with a minimum return, e.g., tax allowances, for their investment in sustainable practices during a specific time window and, by doing so, temporarily reduce the risk-adjusted cost of capital for SMEs that make the switch to SPSs. Also, Regional Development Offices and the government of provinces, such as Provincie Limburg and LIOF, in collaboration with knowledge institutions in the region such as SIB/Zuyd UAS, can develop experienced-based life-long training and professionalization programmes for SME owners and managers. These programmes may enable SMEs to overcome several barriers to adopting SPSs and motivate them to explore further synergies that will have a payoff in the long-run.

Research

The following section presents a range of research projects conducted by our cluster, each delving into diverse areas of study. The research centre Global Minds @ Work focuses on fostering global competence in the workplace and academia, particularly in the context of cultural intelligence (CQ). The research centre Professional Communication in a Digitalizing Society details a multi-continental research project on immersive technologies and their role in enhancing communication skills, particularly through virtual reality. It highlights the importance of these skills and how immersive technology can provide a safe environment for practice. Research on immersive technology has also evolved in the research centre Future of Food with a research entitled 'Augmented digital human vs. human agents in storytelling marketing'. The research collaborations of the Sustainable International Business research centre with Aristotle University and Wageningen University & Research aim to develop sustainable systems and strategies for SMEs, with a focus on the free-rider problem in agricultural cooperatives. It also delves into issues related to unfair trading practices (UTPs) in the agri-food sector and the analysis of a specialized EU Directive to protect weaker suppliers.

Global Minds @ Work

Cultural Intelligence (CQ): Creating a Global Perspective.

The research centre Global Minds @ Work seeks to develop global minds on the work floor, next to education global minds of students. With this research line, we address the role and operationalisation of global competence in different professional domains. In order to optimize our research, we collaborate with colleagues Penn State University (USA) on this research project. Our shared goal is to create a global perspective on the current state of cultural intelligence (CQ).

In collaboration with Dr. Bert van Hoof (PSU) and Dr. Hyung Joon Yoon (PSU) a cross-cultural study was initially conducted in the USA and Europe, examining among others the effect of employees' cultural intelligence, defined as *the ability to function effectively in intercultural environments* (van Dyne & Ang 2009), on their hopeful career state (Yoon et al., 2021) and international mobility. Employees who are hopeful, optimistic, and resilient are more likely to "weather the storm" of dynamic circumstances than peers with lower hopefulness levels (Snyder et al., 1996). Moreover, the results of this project will not only help to gain insight in the extent to which cultural intelligence enhances people's attitude towards their careers, it will also allow valorising this in advice to different professional sectors, who are facing challenges of attracting and retaining qualified staff members.

In a first step we focussed on investigating the current state of CQ in six European countries: the Netherlands, Belgium, Germany, the United Kingdom, France and Poland. We collected panel-data for these countries, resulting in 659 respondents equally divided over the countries. The concept of CQ consists of four dimensions as depicted in figure 1: motivational CQ, metacognitive CQ, cognitive CQ and behavioural CQ.

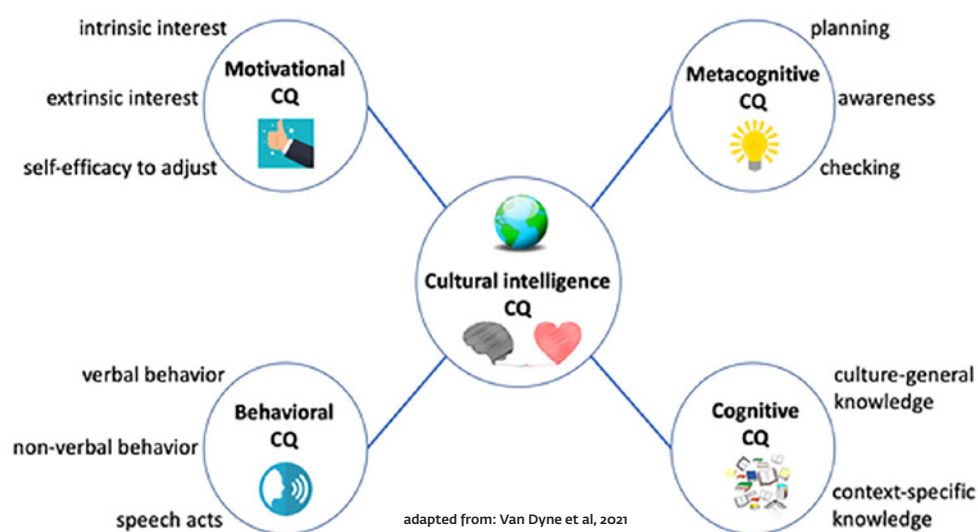


figure 1

This study assesses cultural intelligence (CQ) levels among line-level employees in the six selected European countries, also investigating the four dimensions. The study found that between country differences exists for CQ levels and its subdimension, predominantly in comparison to the Netherlands. Next, it advocates a strategic focus of the work field on fostering CQ, especially in time of labour shortages in organizations in both the private and public sectors. This study is currently being made ready for submission, and an earlier version was presented in July at the IAIR conference 2023 in Philadelphia, PA, USA.

Expanding our Global reach.

Another big step forward in this project in 2023, was the inclusion of data from Ecuador, in order to expand our global perspective on CQ even further. Together with Ana Cueva from *Universidad Central del Ecuador*, data was collected among Ecuadorian line-level employees. A paper was submitted earlier this year to the Brazilian journal *CULTUR - Revista de Cultura e Turismo*, and is currently still under review.

After the USA, Europe and South-America, over the summer period of 2023 we took another step in our final reach for global presence, by collecting data in Asia. This data collection was completed recently for China, Taiwan, Vietnam, Korea, and Singapore. With the addition of these five Asian countries, we now are close to getting a global perspective, with Africa and Oceania being the continents that are still on our wish-list.

Moving forward with this project, our aim is to investigate the current state of CQ using all collected data. This means that we will be able to compare findings from the USA, Europe, South-America (Ecuador) and Asia on CQ levels and CQ subdimensions. Moreover, we will continue to examine the effects of CQ on employees' hopeful career state, with the ambition to submit two articles on this in 2024, using subsets of the data collected (e.g., the recent data from Asia).

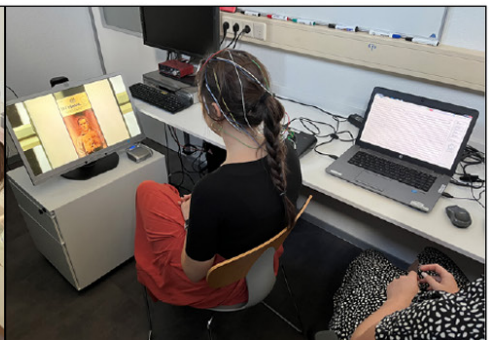
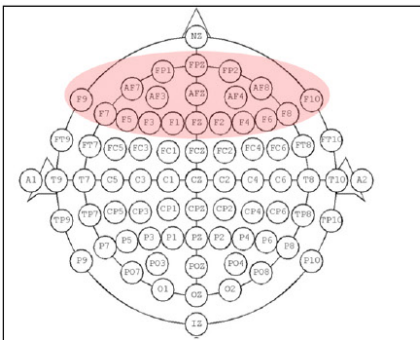
Future Of Food

The 4th industrial revolution has ushered in a new era in consumer marketing, marked by the integration of reality-enhancing technologies into everyday life. This transformation, accelerated by the COVID-19 pandemic, has seen consumers embracing virtual environments and digital humans, all powered by advanced technologies like augmented reality (AR), virtual reality (VR), artificial intelligence (AI), and more. Among these, AR has gained popularity due to its accessibility through mobile devices, allowing the overlay of digital content on the physical world. Notably, digital humans, computer-generated entities with human-like characteristics, are being employed to enhance storytelling and brand engagement also in the food service and retail context. Augmented digital humans equipped with AR are proving effective in customer service, brand marketing, and product support due to their ability to convey rich visual and auditory information, including emotional states. Storytelling, a potent marketing tool, has found a powerful ally in these immersive technologies. Through a process known as narrative transportation, consumers become deeply engrossed in stories, leading to positive attitudes and engagement.

Our research entitled 'Augmented digital human vs. human agents in storytelling marketing: Exploratory electroencephalography and experimental studies' published in *Psychology & Marketing*, investigates how technology-driven storytelling advertising, using augmented digital humans via AR mobile apps, promotes positive consumer experiences and frequent purchase intentions in wine retailing by comparing the effectiveness of human and digital human storytelling agents. Additionally, we employed Electroencephalography (EEG) to measure physiological responses, offering new insights into immersive marketing.

Our findings show that a digital human agent with a human-like appearance (but not to the point of discomfort) elicits stronger positive consumer responses than a human agent. Overall, both agents promote narrative transportation when the story fits the product well, but an augmented digital human agent promotes a more intense storytelling experience, providing a new way for brands to promote interaction and increase the entertainment value of consumer advertising. Our findings suggest that augmented digital human storytelling agents can effectively promote behavioral intentions and engagement, especially in social settings. Augmented digital humans with human-like features are recommended for storytelling immersion, offering positive consumer responses.

Overall, the research highlights the potential of augmented digital humans in enhancing immersive storytelling advertising, with significant implications for marketers and advertisers in creating more engaging and effective campaigns.



Professional Communication in a Digitalizing Society

During the 2022-2023 academic year, the Dutch Ministry of Education, Culture & Science announced that it will make approximately €100 million of additional annual funding available between 2022 and 2032 for practice-oriented research at universities of applied sciences. At Zuyd, most of this additional budget will be added to the base funding of Research Centres, so that they can set up new projects that make practice-oriented research more sustainable, both in quantitative and in qualitative terms. Within our Research Centre, we will use part of this funding to create a PhD position for Anna Krispin, who has been working for us since April 2022. Below, Anna tells us more about her ambitions and the contents of her PhD research.



Anna Krispin

What is your main motivation to start a PhD?

My main motivation is my passion for research into communication and technology. I get a lot of energy from reading articles and sharing interesting discoveries with others. Furthermore, I am driven by my ambition to have an impact on social changes through my work, especially through research in the field of digitalization and inclusion. By conducting practice-oriented research, I can ensure that my findings are valuable to a wide audience; not only to scientists, but also to fellow lecturers and professionals.

What will your research be about?

My research focuses on improving oral communication skills through the use of immersive technologies such as Virtual Reality (VR). The major advantage of these technologies is that they provide a psychologically safe practice environment in which users receive feedback from the system. Since oral communicative situations, such as presentations, job interviews or group discussions, are experienced by many people as challenging and frightening, immersive technology is a promising training tool for practicing such situations. Immersive technologies have already been used to practice presentations or one-on-one conversations, but in group settings virtual environments have mainly been used as a collaboration platform. Developing a high-quality immersive training environ-

ment for group conversations is the biggest challenge within my PhD. To do this, I need to investigate under which conditions immersive technologies are effective training tools, which verbal behaviors make people effective in group conversations and which of these behaviors could potentially be trained using immersive technology.



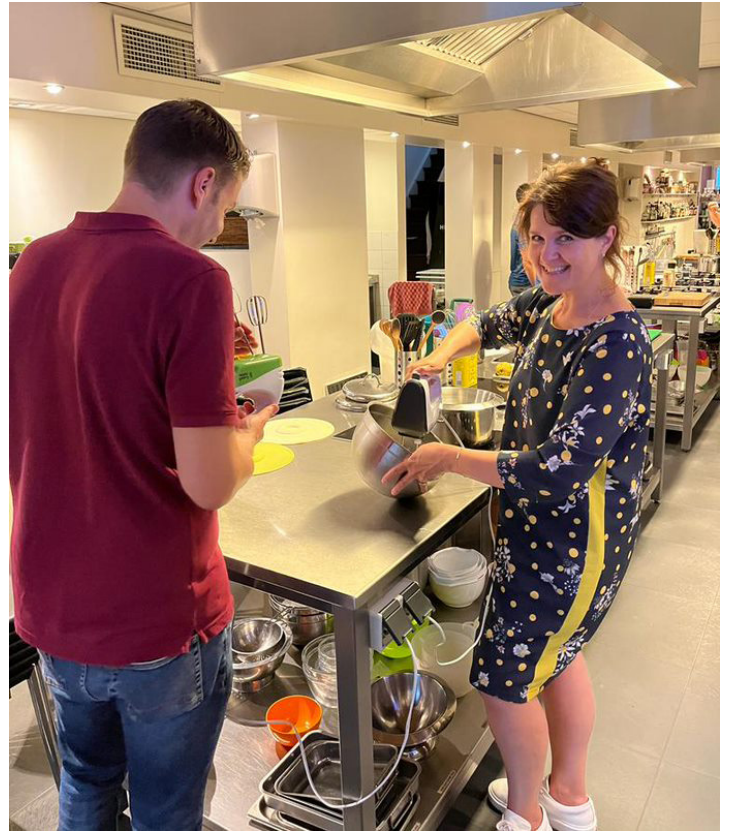
Visualization of a simulation training for small-group communication

Why is it important to do research into this topic?

Communication skills are considered crucial soft skills for the professionals of the future. Group conversations are also a large part of the daily activities of many professionals. The scientific literature and practice show that such conversations are experienced as difficult; consider, for example, sensitive discussions in team meetings or conveying bad news to a group of customers. The challenge with group conversations lies mainly in the time pressure and the unpredictable group dynamics. However, little research has been done into effective communicative behavior in group conversations and how immersive technologies can be used to train this behavior.

Who will you be collaborating with during your PhD project?

First and foremost, I will collaborate with the Maastricht University School of Business and Economics (SBE), where my promotor prof. dr. Dominik Mahr works. He is also affiliated with the DEXLab, where research is conducted into various applications of immersive technology. Furthermore, I will certainly be in touch with the company DialogueTrainer, which has a lot of expertise in developing digital simulation-based conversation training. Finally, we plan to collaborate with VISTA College and University College Leuven-Limburg (UCLL) in building a training environment that allows students with autism to practice communication skills during group work.



Sustainable International Business

SMEs & Collective Action

The knowledge domain of the research centre Sustainable International Business (SIB) is focused on applied business research for supporting small medium enterprises (SMEs) in Limburg for making their ambitions more sustainable through collective action. The goal of SIB is to give SME owners/managers tangible insights into both intra-organizational and external sustainable aspects. In order to optimize our research, we collaborate with colleagues from the Aristotle University (Greece) and Wageningen University & Research (the Netherlands).

The SMEs' sustainable behaviour is one of the two main research theme lines of SIB. The emphasis of this research line is thus placed upon designing, implementing and monitoring sustainable systems that improve the continuity in terms of SME's efficiency, productivity, growth, performance, and, hence, profitability. A prominent decision context in commodities and services markets is the (voluntarily) cooperative business schemes (i.e., user-owned and user-controlled companies that distribute economic, social, natural and market-related benefits on the basis of their membership's use of their services and systems). The members of these voluntarily marketing institutions in the Netherlands (i.e., cooperatives) are mostly SMEs that enjoy market access and bargaining power in competitive markets (e.g., food and agribusinesses; banking; insurance).

Within the research line of SMEs' sustainable behaviour, relevant research questions regarding the development of competitive sustainable strategies in the intra-organizational and external environment of co-operatives, and hence of their participating SMEs are addressed. In a recent study¹, published in the journal *Annals of Public & Cooperative Economics*, Dr. Theo Benos (SIB researcher) and Prof. Dr. Nikos Kalogeras (SIB head), examined empirically the free-rider problem of participating SMEs (members) of agricultural cooperatives. This is a central collective action issue in agricultural cooperatives and a prevalent form of which arises when SMEs (members) systematically side-sell to competing chain actors and do not realize their contractual agreements for collective action. Despite the plethora of studies on side-selling's antecedents, little is known about side-selling's actual consequences, particularly from the standpoint of participating SMEs in cooperatives. In two studies, we delivered a member-based assessment of side-selling's influence on critical cooperative benefits for SMEs and explored possible solutions. In the first study, with survey data from 128 members of four fruit cooperatives, we showed that side-selling has a negative effect on perceived cooperative benefits, even in the presence of other collective action issues (e.g., the influence costs problem). In the same study, we posit and demonstrate that side-selling's aversive impact on cooperative benefits can be appeased when SMEs (members) think that their cooperative's transparency regarding cooperative activities is high (see Figure 1 please).

¹ Benos, T., Sergaki, P., Kalogeras, N., D. Tzinalas (2023), Coping with side-selling in Cooperatives. *Annals of Public and Cooperative Economics*. 32(1), 127–150 <https://doi.org/10.1111/apce.12414>

In other words, the negative effect of side-selling by others on perceived member benefits was only neutralized when transparency levels were high. This probably implies that participating SMEs might not hold their cooperative responsible for the opportunistic conduct of other participating SMEs if the cooperative as an organization maintains a transparency-based relationship with its members in general.

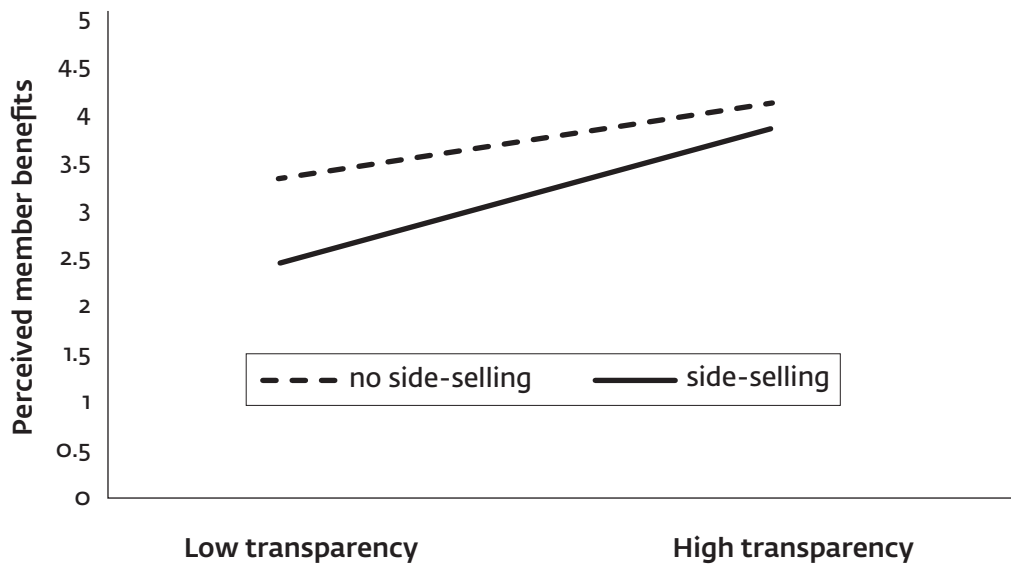


Figure 1. Moderating effect of perceived transparency on the relationship between side-selling and perceived member benefits

In the second study, with interview data from 20 SMEs (cooperative members), we find that different punitive (e.g., expelling members) and collaborative (e.g., fostering trust) solutions are considered effective. Accordingly, our recent article advances extant knowledge of an issue that deals with SMEs behaviour in commodity supply chains and strikes at the heart of cooperative activity and offers valuable insights to cooperative decision-makers seeking to confront it.

Sample student projects

Involving students in our research and helping them develop an investigative mindset is one of the primary goals in applied research. In the realm of academic exploration and innovative collaboration, we provide a snapshot of a collection of student projects that exemplify the fusion of research, orientation to practice, and creativity in education. These projects emerge from the vibrant academic environment in the cluster and touch upon diverse facets of our evolving world. From helping the Expat Centre Maastricht Region's quest to enhance the experience of expatriates, debunking misconceptions and proposing tangible improvements. To delving into the realm of healthcare, where students partner with Envida Care Centre and research centers to reimagine the role of food in person-centered care, highlighting its potential impact on the wellbeing of elderly residents. The Research Centre SIB explores sustainable business behavior in Limburg, where students explore the challenges and opportunities faced by SMEs as they transition towards sustainability.

Student project Expat Centre Maastricht

During the 4th year of the Bachelor Hotel Management at the Hotel Management School Maastricht, all students work on a management project. Those management projects deal with real live business challenges and the task of the students is to conduct research, advise their client and come up with efficient solutions. In 2022, a group of five students (Alina Bothe, Florian Keursten, Jurriaan Los, Hana Peters and Elina Veelenturf) conducted their project for the Expat Centre Maastricht Region.

The Expat Centre Maastricht Region (ECMR) is part of the municipality of Maastricht and commits to helping expatriates coming to Maastricht Region (MR). Maastricht scored low in the InterNations survey as an expat city, which resulted in publicity on the matter, being picked up by local media. InterNations, who claim to be the largest global community for people who live and work abroad, published a ranking on the best and worst expat cities of 2021 to live in, in which Maastricht Region (MR) ranked 50th out of the 57 participating cities.

The project group interviewed and surveyed expatriates, employers of expatriates and partners of ECMR. Additionally, experts were interviewed to have a better understanding of ECMR's operations and to receive insights into prior research which was done about expatriates.

The first and most apparent conclusion was that expatriates enjoy living in the Maastricht region (MR), contrary to the results of the InterNations survey. To illustrate this; respondents ranked MR with a 7.4 out of 10 on average. Next to that, the project group raised the question about the awareness of ECMR and just over half of the interviewees and respondents seemed aware of its existence. Those that did hear of them, rated their service quality at an average of 6.24 on a scale of 10. When asked what ECMR could improve, or what additional services they could offer, several respondents revealed that the information given by ECMR is too vague, and that more specific information is required. Lastly, expatriates have communicated they would like ECMR to offer additional support, mostly in social interaction, events and workshops.

The above stated conclusions and conducted research resulted in three concepts the project group presented to ECMR. The first concept is *The Expat Journey*, which is a visual to support expats in settling in MR and to familiarize expats with habits in the Netherlands and MR. The second concept is *The Expat Map*. This is a digital map containing all 17 municipalities in the MR in which expats can find essential information to support their informal integration, for example social groups and sports clubs. The third concept is *The Expat Buddy Project*, which is a collaboration between HMSM and ECMR to provide the possibility for expats to socialise with a buddy to support and familiarize them with the MR.

Looking back at the project and the fact that ECMR implemented the low-cost and easy implementable solutions we can say that this project was a true intercultural experience from which the students learnt a lot. To quote one of the students: "The fact that so many employees of the municipality attended our presentation and that our advice was implemented truly showed that our research has made a positive impact on the life of internationals."



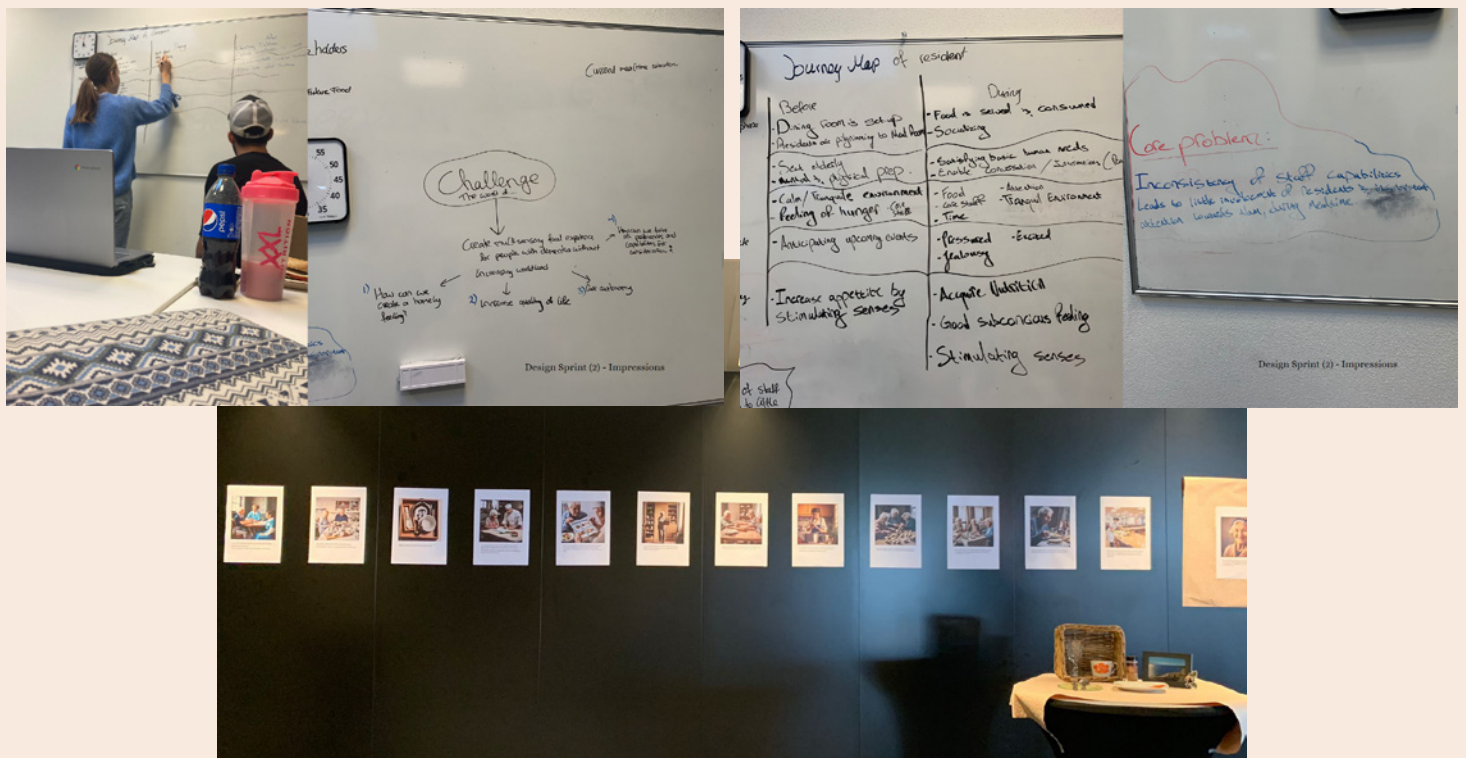
Future of Food

Envida Care Centre, the Research Centre Future of Food and the Centre of Expertise voor Innovatieve Zorg en Technologie (EIZT) joined forces in exploring and 'Reimagining the role of food in person-centered care' together with students from HMSM. This forms a starting point of collaboration which is expected to grow into collaborative research projects, prototype design and testing in living lab conditions and acquisition of funding opportunities to develop this emerging area that combines hospitality in healthcare.

Healthcare is increasingly moving towards a care model that emphasizes the wellbeing of people. This paradigm shift from a focus on medical care towards a focus on quality-of-life has been especially evident in residential elderly care, where a call for person-centered care is establishing itself as a philosophy that has the needs of the individual resident at its core. Elderly care home providers such as Envida, are continuously exploring ways to trigger people with dementia to retain and live a meaningful life.

The project 'Reimagining the role of food in person-centered care' focuses on the different roles of food and beverages (social, psychological and physiological) in nursing homes as a vital catalyst for wellbeing and quality of life by focusing on creating multisensory food experiences that contribute to the person-food interaction, social environment, playfulness, and identity.

Our students are well underway in this project and use design thinking methodology to ideate possible directions, generate and test prototypes and manage stakeholder perspectives. Students worked with stakeholders on design sprints hosted at Brightlands Campus Heerlen and meet with professionals on site at Envida locations as well as external experts to fully grasp the complexity and opportunities of the challenge. Below are some impressions from the design sprint session.



Sustainable International Business

Sustainable Behaviour of SMEs in Limburg

The research center SIB in collaboration with the IB Academy/Zuyd UAS offer three minors, for IB, Zuyd UAS, and exchange students: a) Sustainability in Business; b) Applied Sustainability I; and c) Applied Sustainability II. Students lead their learning process through their field work on real-life business challenges in the areas of business sustainability and circularity.



Specifically, students study empirically, by means of qualitative and quantitative applied business research, the drivers of the transition process to sustainability of SMEs established and operating in Limburg, the Netherlands. Specifically, their focus is on key-areas such as SMEs' financial, supply chain, business law, marketing and management aspects. IB, Zuyd UAS, and exchange students collect primary data from a range of SMEs (i.e., from micro SMEs and start-ups and up to medium-sized firms) in the domains of hospitality, tourism, food services, and retailing. Through their field research work (i.e., face-to-face) interviews, business students acquire the experience for dealing with the

real-sustainable business field and develop their own business networks. Overall, their studies provide evidence and indicate the bottlenecks and opportunities of SMEs in transition to sustainability. Factors such as their risk perception and attitude, lack of knowledge about funding and lack of understanding about sustainability-related business laws and regulations underlining the transition process seem to play a very critical role.

The results of student studies are delivered in the form of informative pitches and research-based consultancy reports to the participating SMEs as a token of appreciation for their time and efforts to participate in this project. Also, results of these studies have been presented in international workshops, seminars, and conferences (e.g., *11th International Conference on International Business*, Paphos, Cyprus, 15-17 Sept, 2023). Moreover, SMEs' managers and owners are often invited to the IB communities of learning and practice and develop fruitful interaction and collaboration with the IB students, coaches and experts, and other stakeholders within and outside Zuyd borders.

Future Outlook

We hope that this annual report has given you a good overview of our recent contributions to education, professional practice and the academic knowledge domains in which we are active. Many of the projects and initiatives we describe in this annual report will be followed up in some way or form in the coming year; after all, research is never finished!

Moreover, we will intensify our collaboration in several areas. For example, we will provide the PD and PhD candidates who will start in 2023-2024 with the opportunity to benefit from each other's expertise by establishing a graduate student network. Although the candidates conduct research on different topics, the context in which they do this is similar, and so are the challenges they will encounter during the next four years of their journey.

We also intend to bring the other members of the Research Centres into contact with each other more systematically, so that they can share their output with colleagues and develop new ideas for collaborative projects under the cluster. To this end, we will organize our first joint research day in the spring of 2024. By presenting and discussing ongoing research, we can help each other to continuously improve its quality. In this way we add a cross-disciplinary dimension to the quality culture we have always held in high regard.

Our collaboration will also lead to the establishment of a joint Living Lab in 2023-2024; a place where lecturer-researchers, students, industry partners and other stakeholders from the area work together to answer research questions derived from practical challenges. A key focus within the Lab will be on studying the implications of emerging technologies such as the interactions with digital humans in service and professional encounters. We believe that such interactions can enrich consumer experiences, stimulate sustainable economic behavior and help students and professionals develop crucial intercultural and communication skills. We will explore in the coming year how this research can contribute to the sustainability of regional businesses as well as the external visibility of our Research Centres.

We look at the near future with great optimism, as it offers numerous opportunities for both, the individual Research Centres and the cluster within which we collaborate. We would love to shape this future together with our main stakeholders: students, lecturers, professionals and their employers. So if you also see opportunities for collaboration, be sure to contact us!

Meet the teams

Team members per research centre

Global Minds @ Work



Member	Role	Academy	Appointment
dr. Ankie Hoefnagels	Professor	Hotel Management School	0,6 FTE
dr. Joris Boonen	Lecturer-researcher and Program leader	Hotel Management School	0,2 FTE
Martine Prins MA	Lecturer-researcher	European Studies	0,2 FTE
dr. Hilde Hanegreefs	Lecturer-researcher	Hotel Management School	0,2 FTE
dr. Tom Kuypers	Lecturer-researcher	Hotel Management School	0,2 FTE
Marlene van Heel – Bradbury MA	Lecturer-researcher	Oriental Languages and Communication	0,2 FTE
Isabelle Grosch MA	Lecturer-Researcher	Oriental Languages and Communication	0,2 FTE
Sandra Valkenburg MA	Researcher	Education & Research Department Zuyd	0,2 FTE (until May 2022)
Lyvie Schoenmaekers	Office Manager		
Total			2,0 FTE

Future of Food



Member	Role	Academy	Appointment
dr. Dai-In Danny Han	Professor	Hotel Management School	0,6 FTE
Silvia Abreu e Silva	Lecturer-researcher	Hotel Management School	0,4 FTE
Malu Boerwinkel	Lecturer-researcher	Hotel Management School	0,4 FTE
Maud Meijers	Lecturer-researcher	Hotel Management School	0,4 FTE
dr. Kimberley van der Heijden	Lecturer-researcher	Hotel Management School	0,2 FTE
Lyvie Schoenmaeckers	Lab Manager / Management Assistant		
Total			2,0 FTE

Data-Driven Hospitality



Member	Role	Academy	Appointment
dr. Martijn Zoet	Professor	Finance and Accounting	0,2 FTE
Ing. Armand Odekerken MBA	Lecturer-researcher	Hotel Management School	0,2 FTE
Leo Fransen MSc	Lecturer-researcher	Hotel Management School	0,2 FTE
Luc Houben MSc	Lecturer-researcher	Lecturer-researcher	0,2 FTE
Lyvie Schoenmaekers	Office Manager		
Total			0,8 FTE

Professional Communication in a Digitalizing Society



Member	Role	Academy	Appointment
dr. Mark Pluymaekers	Professor	Oriental Languages and Communication	0.6 FTE
dr. Svenja Widdershoven	Lecturer-researcher	European Studies	0.2 FTE
dr. Hilde Hanegreefs	Lecturer-researcher	Hotel Management School	0.2 FTE
dr. Bert Jans	Lecturer-researcher	Hotel Management School	0.2 FTE
Joop Bindels MA	Lecturer-researcher	Translation and Interpreting	0.2 FTE
Anna Krispin MA	Lecturer-researcher	Speech & Language Therapy	0.5 FTE
Natasha Gousseva MSc	Lecturer-researcher	European Studies	0.2 FTE
Thea Buursma	Support staff		
Total			2,1 FTE

Sustainable International Business



Member	Role	Academy	Appointment
dr. Nikos Kalogeras	Professor	International Business	0.6 FTE
Betty Ajdadilish	Lecturer-researcher	International Business	0.1 FTE
dr. Theo Benos	Researcher	International Business	0.1 FTE
dr. Norman Dytianquin	Lecturer-researcher	International Business	0.2 FTE
Gaby Gijssberts - Engstfeld	Lecturer-researcher	International Business	0.2 FTE
dr. Jeanine Gregersen - Hermans	Lecturer-researcher	International Business	0.2 FTE
dr. Mohammed Khalil	Senior researcher	International Business	0.3 FTE
Sanne Oort, van	Lecturer-researcher	International Business	0.1 FTE
Jules Verheesen	Lecturer-researcher	International Business	0.05 FTE
Katie Crawford	Office Manager	International Business	0.1 FTE (from March 2023)
Total			1,95 FTE

Overview of outputs

Overview of outputs

Global Minds @ Work

EDUCATION

Output type	
Student projects	7
Guest lectures / workshops / events for students	22
Professionalization activities for lecturers	11
Educational products	3
Educational publications	0

1. *Story Circle Training*. Series of workshops at Refugee Project Maastricht (September 2022- June 2023).
2. *Introduction to Global Competence*. Lecture at the introduction of first year students at International Communication Zuyd (August 2023).
3. *Global Competence: the What , Why and How?* Online lecture for students of the Hospitality Management School, Penn State University, U.S.A. (August 2023).
4. *Working with Story Circles*. Workshop for Staff of International Communication Zuyd (August 2023).
5. *Global Competence Workshop*. Workshop at the VISTA College Onderwijs cafe event (July 2023).
6. *Working with the Global Mind Monitor*. Online session at the Saxion UAS Global Village Week (July 2023).
7. *Global Minds learning path at Hotel Management School Maastricht*. Work visit of Institut Lucia de Brouckère, Brussels (June 2023).
8. *Global Mind Monitor*. Work visit of representatives from Radboud University Nijmegen (June 2023).
9. *Internationalisation at home*. Staff professionalisation event organised by Zuyd UAS, Nuffic and Global Minds at Work, Heerlen (June 2023).
10. *Critical Review of the Global Mind Learning Path*. Brainstorm session for staff at Hotel Management School Maastricht (June 2023).
11. *Global Competence and the Global Mind Monitor*. Presentation at Dutch Alliance Vocational Education (MBO), Tilburg (May 2023).
12. *The Global Mind Monitor*. Part of International event at Fachhochschule Aachen, on invitation by Prof.Dr. Matthias Wessling (May 2023).
13. *Fostering CQ amongst Dutch domestic students in Dutch Higher Education*. Student project at Oriental Languages and Communication (April – May 2023).
14. *Global Minds at the Movies: No Bears, with Betty Aydadilish*. Movie night at Lumière Cinema Maastricht for Zuyd students (April 2023).
15. *Internationalisation in Higher Education*. Panel session at the WICKED Conference: Interdisciplinarity is the future of solving complex problems. Organised by Global studies, Maastricht University (April 2023).
16. *Global Mind Monitor 3.0 Event*. Official launch of the GMM portal with keynotes and workshops. (March 2023).
17. *Global Mind presentations, lectures and workshops (five)*. Ankie Hoefnagels, Walter Conti Visiting Professor, Hospitality Management School, Penn State University, U.S.A. (March 2023)
18. *Circles of Understanding*. Pilot project on online micro learning to foster global citizenship. Collaboration between HMSM (Community Involvement) and the Begripsacademie (Spring 2023).
19. *Global Spotlight Podcast Project*. Student project. COIL Collaboration between HMSM minor Horizons in Hospitality and Penn State School of Hospitality Management (April – May 2023).
20. *Hospitality for Non Profit Organisations*. Student project (m13/14) Hotel Management School Maastricht (February – July 2023).
21. *Perceptions of inclusion in the international classroom: students advising management*. Student project. Collaboration between European Studies and OTC. (January – April 2023).
22. *Global Minds at the Movies: El Buen Patron, with Ana Garcia Adana*. Movie night at Lumière Cinema Maastricht for Zuyd students (January 2023).
23. *Global Spotlight Podcast Project*. Student project. Pilot COIL Collaboration between HMSM Excellence student volunteers and Penn State School of Hospitality Management (November – December 2022)
24. *What is the Global Mind Monitor?* Workshop for OTC students of the Minor Intercultural Communication (November 2022).
25. *Global Minds at the Movies: Bulado, with Ashwin David*. Movie night at Lumière Cinema Maastricht for Zuyd students (October 2022).
26. *Curious People Workshop: Diversity and Story Circles*. Workshop for internship supervisors at Hotel Management School Maastricht (September 2022).
27. *Kick Off Global Minds*. Workshop for students of the Master Facility and Real Estate Management (September 2022).

28. *Working with the Global Mind Monitor*. Workshop for internship supervisors at Hotel Management School Maastricht (September 2022).
29. *Enhancing the image of Maastricht as an expat city*. Student project (m13/14) Hotel Management School Maastricht (September 2022 – February 2023).
30. *Intercultural competence in the Euregion*. Guest lecture at the Euregion day of Zuyd Business Studies (September 2022).
31. *Cultural Differences between Belgium and the Netherlands*. Guest lecture at the Euregion day of Zuyd Business Studies (September 2022).
32. *Global Competence: What is it and why it matters*. Senior seminar Hospitality Management School, Penn State University, U.S.A. (September 2022).
33. *Masterclass Global Competence: The Global Mind Monitor*. Lecture in General Education Interdomain Elective Course in Hospitality Management, Penn State University, U.S.A. (September 2022).
34. *Integrating Global Competence in the Professional and Education Profile (Dutch: BOP) of the Bachelor Programme International Communication*. Consultancy project (2022 -2023).
35. *Mini Lesson on cultural differences in marketing communication*. Educational development for the Open Day of Bachelor Programme International Communication.

Output type

Lectures / workshops / events for professionals	8
Research reports for external organizations	1
Publications in professional or public media	14
Other media expressions for professionals (e.g., podcasts or interviews)	2

1. Hoefnagels, A. (August 2023). *De kracht van Lego Serious Play*. Analyst education and society at De Stemming, L1 Radio.
2. Hoefnagels, A. (August 2023). *Samen gelukkig in de blauwe zone* [Happy together in the Blue Zone]. Dagblad De Limburger.
3. Hoefnagels, A. (June 2023). *Geen Heilige Boontjes* [About formerly incarcerated people in hospitality]. Dagblad de Limburger.
4. *Klimmen op de empathiemuur: culturele intelligentie als zachte kracht*. Presentation at Podium Royal, Heerlen (July 2023).
5. Hoefnagels, A. (May 2023). *Niet lopen maar stappen* [About Dutch versus Flemish language]. Dagblad de Limburger.
6. *Diversity and Inclusion in Higher Education*. Presentation for Board members of Dutch MBO organisations (May 2023).
7. Hoefnagels, A. (April 2023). *Leuke dingen doen met leuke mensen* [Doing nice things with nice people]. Dagblad de Limburger.
8. Hoefnagels, A. (April 2023). *Over Empathie*. Interview by Fons Geraets in De Stemming, L1 Radio.
9. *Global Minds at Work*. Presentation for the official delegation of the city of Chengdu, China. Organised by Confucius Institute (April 2023).
10. Hoefnagels, A. (March 2023). *Een brief van Minister Dijkgraaf* [A letter from minister Dijkgraaf]. Dagblad de Limburger
11. *Cultural Intelligence as a soft skill*. Presentation for Cercles des Savoueurs (March 2023).
12. Hoefnagels, A. (February 2023). *Kijken met de blik van een astronaut* [The orbital perspective]. Dagblad de Limburger.
13. Grosch, I. (February 2023). Rückwanderung. Blog post. Retrievable from: https://www.linkedin.com/posts/isabellegrosch_remigration-intercultural-experiencematters-activity-7016870102964805633-RmZR?utm_source=share&utm_medium=member_desktop
14. Hoefnagels, A. (January 2022). *Erfgenaam van de hele schepping* [Inheriting our entire planet]. Dagblad de Limburger.
15. *Internationalisering op de Hotel Management School Maastricht*. Presentatie in het kader van het bezoek landelijk netwerk HBO bestuurders (January 2023).
16. *Culturele intelligentie als zachte kracht in een polariserende wereld*. Lecture for Podium Babel, Sittard (January 2023).
17. Hoefnagels, A. (December 2022). *Een verbindend opruimritueel* [A connecting cleaning ritual]. Dagblad de Limburger.
18. Hoefnagels, A. (December 2022). *Hospitality Abroad*. Fundament, Alumni Magazine Hotel Management School Maastricht.
19. Grosch, I. (November 2022). Heimatreisen. Blog post. Retrievable from: https://www.linkedin.com/posts/isabellegrosch_culturalvalues-germanculture-familyexchange-activity-7021412889940938754-IE5T?utm_source=share&utm_medium=member_desktop
20. *Global Competence at Work*. Lecture for Ladies League Limburg (November 2022).
21. Hoefnagels, A. (November 2022). *Taal als sleutel tot integratie* [Language as key to integration]. Dagblad de Limburger.
22. *Integrating Global Competence in your Teaching: the what, why and how*. Online session at International Program for Chinese Teachers of English as a Foreign Language, Organised by Globi (October 2022).
23. Hoefnagels, A. (October 2022). *Een Breekbaar paradijs* [A fragile paradise]. Dagblad de Limburger.
24. Hoefnagels, A. (September 2022). *Ik ben omdat wij zijn* [I am because we are]. Dagblad de Limburger.

Output type	
Conference presentations	8
Events for fellow researchers	3
Scientific publications	4
<ol style="list-style-type: none"> 1. Grosch, I., Boonen, J., & Hoefnagels, A. (2023). Cultural intelligence and the role of international classroom composition: Insights from Dutch higher education. <i>International Journal of Intercultural Relations</i>, 96, 101866. 2. Boonen, J. (2023). Students' evolving understanding of 'Global Citizenship': A case study at B.Sc. Global Studies. <i>Conference presentation at the International Association of Intercultural Research Conference in Philadelphia, U.S.A.</i> 3. Kuypers, T., Hoefnagels, A., Van Hoof, B. (2023). Cultural Intelligence for a more hopeful career state: A country comparison study. <i>Conference presentation at the International Association of Intercultural Research Conference in Philadelphia, U.S.A.</i> 4. Hoefnagels, A. (March 2023), work sessions for Graduate school (Walter Conti Visiting Professor) at the Hospitality Management School, Penn State University, U.S.A. 5. Boonen, J., Grosch, I., Kuypers, T., & Hoefnagels, A. (2023). Research workshop on the Global Minds Research & Education Event (including presentations of dr. Joep Hofhuis (EUR) and prof. Miriam Schwarzenthal (University Wuppertal), Zuyd University of Applied Sciences, 23 March, Maastricht. 6. Ivkovic, S., Surian, A., Boonen, J., Baumann Montecinos, J., Di Mauro, M., Cai, X. S (2024). Developing Intercultural Skills to Advance the United Nations' Sustainable Development Goals (UN'S SDGs) in Deardorff, D. (ed.) [<i>In press</i>]. Star Scholars: Maryland US. 7. Van Heel-Bradbury, M., Boonen, J. & Hoefnagels, A. (2022). Students advising management: A cross-curricular case study on intercultural learning at a Dutch University of Applied Sciences. <i>World Council Intercultural Connector Biannual Magazine</i>. 21 December 2022. 8. Van Heel-Bradbury, M., Boonen, J. & Hoefnagels, A. (2022). Student Agency Shapes Intercultural Project. <i>Conference presentation at the European Association for Practitioner Research on Improving Learning – EAPRIL</i>, 23-25 November, Nijmegen. 9. Kuypers, T. & Trotta, D. (2022). The role of Cultural Intelligence in fostering individual's career development. <i>Conference presentation at the Dutch HRM Network Conference</i>, 09-11 November, Enschede. 10. Kuypers, T. & Hoefnagels, A. (2022). Cultural Intelligence and a Hopeful Career State: is there a connection? <i>Presentation at the World Council on Intercultural and Global Competence</i>, 15 September, Online. 11. Grosch, I., Boonen, J. & Hoefnagels, A. (2022). Effects of the International Classroom Composition on Domestic Students' Level of Cultural Intelligence (CQ). <i>Presentation at the International Academy for Intercultural Research Biannual Conference</i>, July 2022, Rapperswil, Switzerland. 12. Van Heel-Bradbury, M., Boonen, J. & Hoefnagels, A. (2022). Students advising management: A cross-curricular case study on intercultural learning at Zuyd University of Applied Sciences (NL). <i>Presentation at the International Academy for Intercultural Research Biannual Conference</i>, July 2022, Rapperswil, Switzerland. 13. Boonen, J. & Hoefnagels, A. (2022). Effective interventions for global competence development in an international classroom. Symposium hosted at <i>the International Academy for Intercultural Research Biannual Conference</i>, July 2022, Rapperswil, Switzerland. 14. Hanegreefs, H., Pluymaekers, M. & Hoefnagels, A. (2022). Linguistic markers of intercultural competence in student blogs. <i>Preprints</i>, 2022040303. Retrievable from: https://www.preprints.org/manuscript/202204.0303/download/final_file. 	

Overview of outputs

Future of Food

EDUCATION

Output type	
Student projects	6
Guest lectures / workshops / events for students	7
Professionalization activities for lecturers	0
Educational products	5
Educational publications	0

- Han, D. (September 2022 – May 2023). Student project: AI Cocktail. Student groups Minor AI, Minor DataVisualization in collaboration with Breda UAS, Zuyd.
- Abreu e Silva, S. (November 2022). Cooking Workshop: Awaken your inner chef. Wellness Weel Zuyd, Food Experience Lab, HMSM.
- Han, D. (December 2022). Guest lecture: The physiology of food experiences. Minor gastronomic experiences, HMSM.
- Han, D. (February 2023). Guest lecture: The physiology of food experiences. Minor Horizons in Hospitality, HMSM.
- Han, D. (June 2023). Guest lecture: The physiology of food experiences. Minor Horizons in Hospitality, HMSM.
- Han, D. (July 2023). Welcome to the realm of experiences, Graduation Ceremony Healthcare Biometrics, Auberge de Rousch, Heerlen.
- Abreu e Silva, S.G. (October, 2022). World Food Week: Cooking Healthy Together [Cooking workshop]. Maastricht, the Netherlands.
- Abreu e Silva, S.G. (2023). Latin America: Beyond soccer, carnival and favelas. [PowerPoint slides]. Minor Creating Customer Delight. Hotel Management School Maastricht, Zuyd University of Applied Sciences. https://zuydhogeschool-my.sharepoint.com/:b:/r/personal/silvia_abreuesilva_zuyd_nl/Documents/Documents/Minor%20CCD/latin%20america.pdf?csf=1&web=1&e=c49bTu
- van der Heijden, K. (November 2022, April 2023) Consumer Psychology for Gastronomic Experiences [PowerPoint slides]. Minor Gastronomic Experiences. Hotel Management School Maastricht, Zuyd University of Applied Science https://zuydhogeschool-my.sharepoint.com/:p:/r/personal/kimberley_vanderheijden_zuyd_nl/_layouts/15/Doc.aspx?sourcedoc=%7BC9E8A070-D4BD-49CF-88AF-1507FD36B67A%7D&file=Lecture%20Gastronomy%20December2022.pptx&action=edit&mobileredirect=true
- van der Heijden, K. (November 2022, April 2023) Workshop Persuasion Techniques Cialdini [PowerPoint slides]. Minor New Business. Hotel Management School Maastricht, Zuyd University of Applied Sciences https://zuydhogeschool-my.sharepoint.com/personal/kimberley_vanderheijden_zuyd_nl/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fkimberley%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing%2FWorkshop%20persuasion%20May%202023%2Epdf&parent=%2Fpersonal%2Fkimberley%5F%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing
- van der Heijden, K. (November 2022, April 2023) Consumer Psychology for the Hotel Industry [PowerPoint slides]. Minor Creating Customer Delight. Hotel Management School Maastricht, Zuyd University of Applied Sciences https://zuydhogeschool-my.sharepoint.com/personal/kimberley_vanderheijden_zuyd_nl/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fkimberley%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing%2FGuest%20lecture%20CCD%20April%202023%20student%20edition%2Epdf&parent=%2Fpersonal%2Fkimberley%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing
- van der Heijden, K. (November 2022, April 2023) Workshop Persuasion Techniques Cialdini [PowerPoint slides]. Minor Creating Customer Delight. Hotel Management School Maastricht, Zuyd University of Applied Sciences https://zuydhogeschool-my.sharepoint.com/personal/kimberley_vanderheijden_zuyd_nl/_layouts/15/onedrive.aspx?id=%2Fpersonal%2Fkimberley%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing%2FWorkshop%20persuasion%20May%202023%2Epdf&parent=%2Fpersonal%2Fkimberley%5Fvanderheijden%5Fzuyd%5Fnl%2FDocuments%2FCourses%2FCCD%20April%202023%2FMarketing

13. van der Heijden, K. (April 2023) Hackaton Marriot Bonvoy. Minor Creating Customer Delight. Hotel Management School Maastricht, Zuyd University of Applied Sciences
14. Meijers, M. (September 2022 – February 2024). Three consecutive graduation projects (M13/14) for the Bruis Muziekfestival (Muziekgieterij) in collaboration with Brightlands and the Research Centre Future of Food: Verduuzaming Bruis Muziekfestival
15. Meijers, M. (September 2022 – February 2023). A graduation project (M13/14) for Food Boost Challenge Limburg (2022 –2023).
16. Meijers, M. (February 2022 – April 2023). Food Boost Challenge Limburg as assignment for 60 students in the minor Essentials in Food Service.
17. Meijers, M. (March 2022 – July 2023). Supervision Community Involvement student – Food Boost Challenge Limburg
18. Meijers, M. (April 2022 – July 2023). Supervision Community two Involvement students – 3D Food Printing

Output type

Lectures / workshops / events for professionals	10
Research reports for external organizations	0
Publications in professional or public media	3
Other media expressions for professionals (e.g., podcasts or interviews)	2

1. Boerwinkel, M., Meijers, M., & Han, D. (October 2022) Symposium: Ethical food experience symposium, EuroCHRIE 2022, Wittenborg University of Applied Sciences, Apeldoorn.
2. Meijers, M. (July 2022 – July 2023). Collaboration with various industry partners and educational institutes on the organization of Food Boost Challenge Limburg, chair of project team in phase 1.
3. Van der Heijden, K. (2023) Green Nudges. *LinkedIn*. <https://www.linkedin.com/company/green-nudges>
4. Han, D. (2023) In gesprek met Danny Han: 'Beleving verandert', Interview *tvoo.nl*
5. Han, D. (2023) Interview, *PROEF! 2023*, Satelliet.
6. Abreu e Silva, S.G. (February, 2023) A journey into space to create sustainable awareness. [<https://www.instagram.com/gastronomyminor/>] [Article]. *LinkedIn*. <https://www.linkedin.com/pulse/journey-space-create-sustainable-awareness-food-experience-lab>
7. Abreu e Silva, S.G. (August, 2023) "From Senses to Success: Sílvia Gabriela Abreu e Silva 1st Pangborn Adventure!" [Post]. *LinkedIn*. https://www.linkedin.com/posts/food-experience-lab-b758a4264_pangbornsymposium-sensoryscience-phdjourney-activity-7101844169064607744-9oHi?utm_source=share&utm_medium=member_desktop
8. Han, D. (March 2023). Immersive Experiences in the Events industry, CIIC Groeifonds consortium, Postillion Hotel Brunswik.
9. Han, D. (June 2023). Immersive Experience Framework Workshop, Amaze Amsterdam.
10. Meijers, M. (June, 2023). Food Boost Challenge Limburg Finale, Heerlen, NL
11. Meijers, M., Boerwinkel, B., Schoenmaeckers, L., Han, D. (June, 2023). Sensory workshop / 3DFP demo / Wine tasting, Sensory workshop / 3DFP demo / Wine tasting.
12. Han, D., Abreu, S., Boerwinkel, M. (June, 2023). Cluster Audit, Hotel Management School Maastricht, Teaching Hotel Chateau Bethlehem.
13. Meijers, M. (June, 2023). 3D Food Printing Demo, Cluster Audit, Hotel Management School Maastricht, Teaching Hotel Chateau Bethlehem.
14. Meijers, M. (June, 2023). Organisation of staff excursion to the Food Inspiration Outdoor Days
15. Abreu e Silva, S.G., Boerwinkel, M. (June, 2023). Wine, 3D printing and XR experience: a taste of the Food Experience Lab HSM [Meeting Landelijk Platform Professionele Masters] Maastricht, the Netherlands.

Output type

Conference presentations	6
Events for fellow researchers	2
Scientific publications	9

1. Tuominen, P., Han, D., & Kuokkanen, H. (October 2022). Presentation: Gadgets without Pedagogy? Immersive learning Experience Framework for Hospitality Education. EuroCHRIE 2022, Wittenborg University of Applied Sciences, Apeldoorn.
2. Han, D. & Orłowski, M. (October 2022): Presentation: Driving sustainable food choices through interactive content narratives in mixed reality. EuroCHRIE 2022, Wittenborg University of Applied Sciences, Apeldoorn
3. Han, D. (October 2022). Symposium: Global ICHRIE Research marathon, EuroCHRIE 2022, Wittenborg University of Applied Sciences, Apeldoorn.
4. Han, D., Abreu e Silva, S., Schröder, K., Melissen, F., & Haggis-Burridge, M. (2022). Designing immersive sustainable food experiences in augmented reality: a consumer participatory co-creation approach. *Foods*, 11(22), 3646.

5. Han, D. I. D., Bergs, Y., & Moorhouse, N. (2022). Virtual reality consumer experience escapes: preparing for the metaverse. *Virtual Reality*, 1-16.
6. Han, D., Boerwinkel, M., Haggis-Burridge, M., & Melissen, F. (2022). Deconstructing Immersion in the Experience Economy Framework for Immersive Dining Experiences through Mixed Reality. *Foods*, 11(23), 3780.
7. Tuomi, A., Tussyadiah, I., Han, D., & Ascensão, M. P. (2022). Implications of Cellular Agriculture for Hospitality and Tourism Management Research: Sustainable Development Goal Perspective.
8. Boerwinkel, M., Gabriela, S., e Silva, A., Meijers, M., & Han, D. I. D. (2023). Future of Food and Menu Design: Leading question: What does the menu of the future look like?. In *Critical Questions in Sustainability and Hospitality* (pp. 87-96). Routledge.
9. Han, D., Melissen, F., & Haggis-Burridge, M. (2023). Immersive experience framework: a Delphi approach, *Behaviour & Information Technology*, <https://doi.org/10.1080/0144929X.2023.2183054>
10. Vadam, C., Hoek, I., McCann, S., Lipkin, H., Perera, C., van der Veecken, R., ... & Han, D. I. D. (2023). From Wellness to Wellbeing: Leading question: What is the path to stakeholder wellbeing?. In *Critical Questions in Sustainability and Hospitality* (pp. 97-109). Routledge.
11. Vadam, C., Perera, C., van der Veecken, R., Innocenti, M., Lipkin, H., McCann, S., ... & Han, D. I. D. Return on Sustainability Investments: Leading question: Is sustainability paying off?. In *Critical Questions in Sustainability and Hospitality* (pp. 209-218). Routledge.
12. Han, D. & Orłowski, M. (June 2023). Studying consumer perception in immersive wine experiences, International XR Conference 2023, UNLV Las Vegas, USA.
13. Sung, E., Han, D. I. D., Choi, Y. K., Gillespie, B., Couperus, A., & Koppert, M. (2023). Augmented digital human vs. human agents in storytelling marketing: Exploratory electroencephalography and experimental studies. *Psychology & Marketing*.
14. Sung, E.C., Couperus, A., Koppert, M., Han, D.D., Choi, Y.K., & Gillespie, B. (2023). Eeg neuroscience in the narrative transportation process: digital human and human advertising. *Global Marketing Conference*, Seoul, South Korea.
15. Han, D. & Tuominen, P. (2023). XReality Education, SUCSESS Project Dissemination Seminar, University of Johannesburg, South Africa.
16. Tuominen, P., Han, D., & Schoenmaeckers, L. (2023). The BOX Demo, SUCSESS Project Dissemination Seminar, University of Johannesburg, South Africa.
17. Abreu e Silva, S.G., Havermans, R.C., Han, D. I. D. (2023, August 20-24). Can taste profiles predict the enjoyment of a healthy, sustainable meal? [Poster Presentation]. 15th Pangborn Sensory Science Symposium "Meeting new challenges in a changing world", Nantes, France. <https://www.pangbornsymposium.com/>

Overview of outputs

Data-driven Hospitality

EDUCATION

Output type	
Student projects	4
Guest lectures / workshops / events for students	6
Professionalization activities for lecturers	1
Educational products	4
Educational publications	0
<ol style="list-style-type: none"> 1. Service design in collaboration with stakeholders. Portal design for relevant trend predictions 2. Hotel career analytics: analyses of career development from different managerial perspectives. 3. Education on the Corporate Sustainability Reporting Directive (CSRD). 4. Application of conjoint analysis for identifying stakeholders' preferences. 5. CSRD training for students conducting project on this subject at Dutch hotel chain. 6. AI in hospitality guest lecture for MGM. 7. Finance Escape room for Hotel Management Students. 8. Data-analyses workshop with the focus on anomaly detection based on data from Refresh. 9. Minor Data Driven Decision Making. <ol style="list-style-type: none"> 9.A Coaching student projects. 9.B The course statistics. 9.C The course data-analyses. 	

PROFESSIONAL PRACTICE & SOCIETY

Output type	
Lectures / workshops / events for professionals	3
Research reports for external organizations	2
Publications in professional or public media	0
Other media expressions for professionals (e.g., podcasts or interviews)	4
<p>For Hotels in general:</p> <ol style="list-style-type: none"> 1. CSRD Training for Professionals 2. Participation in workshop exploring the tourism data portal of Limburg 3. Identification of the need for market predictions in the hotel industry (student project) 4. Prototypes of trend prediction portals 5. Identification of interests in carrier developments in the hotel industry, based on website analyses, based on machine learning techniques 6. Identify CSRD implementation approach in general. <p>For Postillion Hotels specific:</p> <ol style="list-style-type: none"> 1. Analysis of sustainability themes and challenges. 2. Recommendations for preparing for CSRD legislation. 3. Guidance on measuring and reporting sustainability activities. 4. Tools and formats for integrating sustainability into operations. <ol style="list-style-type: none"> a. An advisory report with ESRS objectives and explanations. b. A format to engage operational staff (#CSRDIKDOEMEE). c. A one-pager summarizing the key points of implementing CSRD in the hotel organization d. An explanatory video on CSRD legislation for all employees. e. A focus on aligning sustainability activities with stakeholder expectations. 	

Output type	
Conference presentations	3
Events for fellow researchers	0
Scientific publications	2
<ol style="list-style-type: none"> 1. Presentation at frontiers in Services on trend predictions for the hotel industry and the effect of machine learning techniques on stake holder acceptance, by Armand Odekerken and Clint Wolfs June 2023 2. Publication in process for publication: Duurzaamheid in de hotelwereld: De CSRD als katalysator voor verandering (Armand Odekerken, Quinten Cörvers, Holly Hinde, Róbin Mol en Lisanne Suppers) 3. Heeren, A., Zoet, M. and Mantelaers, E. (2022), Continuous Monitoring of Gender Equality. The development of a counter-account system for the hospitality industry. <i>International Journal on Advances in Systems and Measurements</i> 3 (4), 60-71. 4. A. Kitchiner, M. Ursache, E. Vlijm, E. Mantelaers, and M. Zoet (2002), Variation in job titles within the hospitality workforce: A computation grounded theory approach. Proceedings of Eknow. 	

Overview of outputs

Professional Communication in a Digitalizing Society

EDUCATION

Output type	
Student projects	7
Guest lectures / workshops / events for students	5
Professionalization activities for lecturers	7
Educational products	5
Educational publications	0
<ol style="list-style-type: none"> 1. <i>Review analysis using artificial intelligence</i>. Guest lecture for students enrolled in the Service Design minor at the School of Facility Management. 2. <i>SENSOR</i>. An interactive demo for students enrolled in the Service Design minor at the School of Facility Management. 3. <i>Communication in the CEE region</i>. Workshop for students at the School of European Studies. 4. <i>The power of AI: Exploring the potential of ChatGPT in SLP</i>. Workshop at the 2023 Summer School for Speech and Language Pathology, Antwerp, Belgium. 5. <i>Know your apps: Applying evidence-based practice when using apps in SLP</i>. Workshop at the 2023 Summer School for Speech and Language Pathology, Antwerp, Belgium. 6. Training course for graduation supervisors at Zuyd University of Applied Sciences (2 editions). 7. Training course for early career lecturer-researchers at Zuyd University of Applied Sciences (1 edition). 8. <i>AI in education</i>. Presentation for lecturers at the School of Speech and Language Therapy. 9. <i>Transcreation and creative translation</i>. Knowledge session for lecturers at the School of Translation and Interpreting. 10. <i>Technology and translation</i>. Knowledge session for lecturers at the School of Translation and Interpreting. 11. <i>ChatGPT – The writing assistant</i>. Workshop for lecturers involved in the learning community Blended Learning at Zuyd University of Applied Sciences. 	

PROFESSIONAL PRACTICE & SOCIETY

Output type	
Lectures / workshops / events for professionals	3
Research reports for external organizations	0
Publications in professional or public media	4
Other media expressions for professionals (e.g., podcasts or interviews)	3
<ol style="list-style-type: none"> 1. <i>Een klik met de klant - Wanneer voelen klanten een klik met een digitale assistent?</i> [A connection with the customer – When do customers feel a connection with a digital assistant?]. Presentation at the 2022 CustomerFirst Conference, Kamerik, the Netherlands. 2. <i>Social robots in healthcare</i>. Demonstration at the Zuyd Technology Experience Day. 3. <i>Machinevertaalvaardigheid in het hoger onderwijs</i>. [Machine translation literacy in higher education]. Presentation at the 2023 meeting of Nederlandse Universitaire Talencentra (NUT), Tilburg, the Netherlands. 4. Krispin, A., Pluymaekers, M. & Van Pinxteren, M. (2022). Een klik met de klant. [A connection with the customer]. <i>CustomerFirst 2022 / 8-9, 28-30</i>. Retrievable from: https://customerfirst.nl/achtergronden/2022/10/een-klik-met-de-klant/index.xml. 5. Pluymaekers, M. (2023, 10 January). Een zegen voor het schrijfonderwijs. [A blessing for writing education]. <i>Dagblad de Limburger</i>. 6. Pluymaekers, M. (2023, 19 April). Over respect en lange tenen. [About respect and long toes]. <i>Dagblad de Limburger</i>. 7. Baij, R., Krispin, A. & Pluymaekers, M. (2023a). ChatGPT: vloek of zegen voor de klantenservice? [ChatGPT: Curse or blessing for customer service departments?]. <i>CustomerFirst 2023 / 3, 12-14</i>. Retrievable from: https://customerfirst.nl/achtergronden/2023/04/chatgpt-vloek-of-zegen-voor-de-klantenservice/. 8. Podcast about translation technology and CAT tools, in collaboration with Metafraze. Retrievable from: https://music.amazon.co.uk/podcasts/1b6efd2-72ab-4b47-a3e2-2ad65337ecdd/episodes/a27d7590-1f07-4bc5-8de5-1e24ad36fb45/life-in-translation-episode-6-joop-bindels. 	

9. Podcast about sustainability communication (in Dutch). Retrieval from: <https://zuyd.mediasite.com/mediasite/Showcase/default/Presentation/d67ea053ed1045dob5570f4bf9615781d>.
10. Podcast about simulation-based conversation training with virtual training actors. Retrieval from: <https://zuyd.mediasite.com/mediasite/Showcase/default/Presentation/86646a2bc0bc4a959e5f8cd56273ab371d>.

Output type

Conference presentations	5
Events for fellow researchers	0
Scientific publications	3

1. *Enhancing cross-cultural job interview skills through simulation training with a virtual training actor*. Presentation at the 2022 conference of the European Communication Research and Education Association (ECREA), Aarhus, Denmark.
2. *Gen Z's conceptualizations and communication preferences with regard to sustainability*. Presentation at the 2023 European conference of the Association for Business Communication (ABC), Naples, Italy.
3. *Het essay als selectie-instrument: Wat is de meest hanteerbare beoordelingsmethodiek?* [The essay as a selection instrument: Which assessment method is the most manageable?]. Presentation at the 2023 conference of Netwerk Academische Communicatieve Vaardigheden (NACV), Leuven, Belgium.
4. *Developing a framework for machine translation literacy in higher education*. Presentation at the 2023 conference of the Network of Interdisciplinary Translation Studies (NITS), Leiden, the Netherlands.
5. *The effect of embodied conversational agents' communication style on interaction satisfaction in different service contexts*. Presentation at the 2023 Frontiers in Services conference, Maastricht, the Netherlands.
6. Bindels, J. & Pluymaekers, M. (2022). The use of MT by undergraduate translation students for different learning tasks. *Journal of Data Mining and Digital Humanities*, December 2022. Retrieval from: <https://jdmhdh.episciences.org/9831/pdf>.
7. Hanegreefs, H., Pluymaekers, M. & Hoefnagels, A. (2022). Linguistic markers of intercultural competence in student blogs. *Preprints*, 2022040303. Retrieval from: https://www.preprints.org/manuscript/202204.0303/download/final_file.
8. Van Pinxteren, M.M.E., Pluymaekers, M., Lemmink, J. & Krispin, A. (2023). Effects of communication style on relational outcomes in interactions between customers and embodied conversational agents. *Psychology & Marketing*, 40, 938–953. Retrieval from: <https://onlinelibrary.wiley.com/doi/10.1002/mar.21792>.

Overview of outputs

Sustainable International Business

EDUCATION

Output type	
Student projects	6
Guest lectures / workshops / events for students	3
Professionalization activities for lecturers	4
Educational products	1
Educational publications	1
<ol style="list-style-type: none"> 1. Minors: Sustainability in Business; Applied Business Sustainability I; Applied Business Sustainability II <ol style="list-style-type: none"> 1.A Coaching student projects. 1.B The courses sustainable finance; sustainable marketing; sustainable SCM; Research-based consulting 1.C Business Challenges on the Drivers of SMEs' Sustainable Behaviour and 1 on SMEs' Circular Behaviour 2. Erasmus mobility project: The SSE (Social and Sustainable Entrepreneurship) project: Student Trip in Egypt 3. Project ESEM (Entrepreneurship and Sustainable Communities in Emerging Markets) –Certificate program at IB 4. Business Challenge: NATO Army Logistics (January 2023) 5. Professionalization course for IB & Zuyd Lecturers: Education for Sustainable Development 6. Moderation and coordination of the IB Trajectory Staff Development in the series of the IB Team Building Seminars. 7. Organization of the Seminar "Improvisation: Listen, Observe, and Act" for the IB lecturers in the series of IB Team Building Seminars. 8. IB Lunch Club for IB&C researchers and IB lecturers: "SIB-What is in it for you?" (June 2023). 9. Research-based consulting guide for IB students 10. Website: https://ibe-reglomi.eu/ (Innovating Business Education for Responsible Global Mind – IBE-ReGlomi, Erasmus+ project coordinated by SIB) 	

PROFESSIONAL PRACTICE & SOCIETY

Output type	
Lectures / workshops / events for professionals	5
Research reports for external organizations	2
Publications in professional or public media	0
Other media expressions for professionals (e.g., podcasts or interviews)	0
<ol style="list-style-type: none"> 1. "The Role of Sustainability in Business Curricula" (Kalogeras, 2023), Invited Speaker from the IB National Platform (May 2023), Amsterdam Arena, the Netherlands. 2. "Problem Solving Techniques for Non-Profit Organizations", (Kalogeras, 2022)Invited Instructor by the Voluntarily foundation of Kardamila (November, 2022), Chios island, Greece 3. Presentation of SIB research centre in the Annual Meeting of the Academy of European Studies (November 2022), Maastricht 4. Key-note Speech "Cooperate to Transform: Understanding SMEs' Sustainability Transition" (Kalogeras, Sept. 2023), in the 11th International Conference on International Business, Paphos, Cyprus. 5. "Inclusive Comprehensive Internationalisation: Enhancing global learning opportunities for ALL students" (Gergresen-Hermans, May 2023) Online workshop as part of the Inclusion Academy, Academic Cooperation Association, Brussels. 6. <i>Principles for Responsible Management in Education – IBSM 2023</i>, Bi-Annual Progress Report. 7. EFMD/EPAS-EQUIS: International Business School Maastricht (IBSM), Annual Progress Report. 8. Skylakaki, M., & Benos, T. (2023). Tourism and the agri-food sector in Greece. diaNEOsis Policy and Research Institute (in Greek). https://www.dianeosis.org/wp-content/uploads/2023/05/Agrodiatrofi.pdf 	

Output type

Conference presentations	14
Events for fellow researchers	2
Scientific publications	12

- Benos, T., Sergaki, P., Kalogeras, N., D. Tzinalas (2023), Coping with side-selling in Cooperatives. *Annals of Public and Cooperative Economics*. 32(1), 127–150 <https://doi.org/10.1111/apce.12414>
- Dytianquin, N., Kalogeras, N., van Oorschot, J., Abujidi, N. (2023). Circularity in the construction and demolition industry: Comparing weighting methods for multicriteria decision analysis. *Frontiers in Sustainability*. 4: 115865 <https://doi.org/10.3389/frsus.2023.115865>
- Gregersen-Hermans, J. & Lauridsen, K.M. (2022). Change Happens Through People: Evidencing the Value of Professional Development for Educators Involved in Internationalised Programmes. *Journal of Studies in International Education*, 27(5) <https://doi.org/10.1177/10283153221121387>
- Ammigan, R., Gregersen-Hermans, J., De Wit H., Hunter, F., Jones, E. Murphy A.C. (2023). CHEI in an evolving research context. In: F. Hunter, R. Ammigan, H. de Wit, J. Gregersen-Hermans, E. Jones, and A. C. Murphy, (Eds.) *Internationalisation in higher education: Responding to new opportunities and challenges. Ten years of research by the Centre for Higher Education Internationalisation (CHEI)*. EDUCatt. ISBN: 979-12-5535-123-8
- Gregersen-Hermans, J., De Vries, M. & Heiligers – Duckers, C. (forthcoming). Responsible Global Business Graduates: Closing the gap between strategy and practice. In: Leal, W., Shore, A., Wall, T., Trevisan, L. V. (Eds). *Sustainability in Business Education, Research and Practices*. Springer Nature Switzerland.
- Gregersen-Hermans, J & Klitgaard-Moeller (2023) Between a Rock and a Hard Place: Toward a student-centered value proposition for agents. In: P. Nikula, V. Raimo and E. West (Eds). *Student Recruitment Agents in International Higher Education: A Multi-Stakeholder Perspective on Challenges and Best Practices*. Routledge. <https://doi.org/10.4324/9781003230083-12>
- Hunter, F., Ammigan, R., de Wit, H., Gregersen-Hermans, J., Jones, E. and Murphy, A. C. (Eds.) *Internationalisation in higher education: Responding to new opportunities and challenges. Ten years of research by the Centre for Higher Education Internationalisation (CHEI)*. EDUCatt. ISBN: 979-12-5535-123-8
- Lauridsen, K.M. & Gregersen-Hermans (2023) From experience to expertise – different avenues leading to professional development for HE educators. In: F. Hunter, R. Ammigan, H. de Wit, J. Gregersen-Hermans, E. Jones, and A. C. Murphy (Eds.) *Internationalisation in higher education: Responding to new opportunities and challenges. Ten years of research by the Centre for Higher Education Internationalisation (CHEI)*. EDUCatt. ISBN: 979-12-5535-123-8
- Manousakis, T. Sergaki, G., Kalogeras, N., Benos, T., van Dijk, G., (2023/forthcoming), Member Preferences for Cooperative Attributes: A Best Worst Scale Analysis. In: Mattas, K., Baourakis, G., and Stamoulis, C., (Eds). *Cooperative Management Series*, Springer Publications
- Tiganis, A., Kalogeras, N., Avgeris, A., Sergaki, P., Tsakiridou, E., (2022), Consumer Preferences for Local Food Products Marketed by Women's Cooperatives. In: Mattas, K., Stamoulis, C., Barourakis, G., (Eds), *Food Policy Modelling: Responses to Current Issues*, Cooperative Management Series, Springer Publications, pp. Springer Publications, pp. 115-133 https://doi.org/10.1007/978-3-031-08317-4_8
- Whitsed, C., Gregersen-Hermans, J. & Casals-Sala, M. (2023). Re-imagining internationalisation with an ecological twist. In: F. Hunter, R. Ammigan, H. de Wit, J. Gregersen-Hermans, E. Jones, and A. C. Murphy (Eds.) *Internationalisation in higher education: Responding to new opportunities and challenges. Ten years of research by the Centre for Higher Education Internationalisation (CHEI)*. EDUCatt. ISBN: 979-12-5535-123-8
- Whitsed, C., Gregersen-Hermans, J., Casals-Sala, M. & Leask, B. (2022) Engaging staff in Internationalisation. In Deardorff, D., Leask, B., de Wit, H. & Charles, H. (Eds.). *The Handbook of International Higher Education*, 2nd edition. Stylus Publishing <https://doi.org/10.4324/9781003447863-20>
- Benos, T., & Kalogeras, N. (2023, September 15-17). Fairer business relationships? Examining the Directive on the unfair trading practices in the European agri-food sector [Paper presentation]. 11th International Conference on International Business (ICIB 2023), Paphos, Cyprus.
- Dytianquin, N. (2022, Sept. 20-23). Could Have a Technology Shock Caused the 1997Asian Crisis?: Applications of the Field of Influence Approach to Input-Output Analysis. 9th Sociedad Hispanico-Americano Analisis Input-Output) SHAI0 Conference in Aveiro, Portugal.
- Dytianquin, N. Paindavoine, S. Kalogeras, N., (2023, June 19-21). Going Circular with What We Wear and How We Build: Parallelisms between the Dutch and French Catwalks of Fashion and Construction. 4th Symposium on Circular Economy and Sustainability in Heraklion, Greece.
- Dytianquin, N. Indzheva, D., Kalogeras, N. (2023, Sept. 15-17). Financing Peace — The Elusive Yet Enable (r/d) SDG. 11th International Conference International Business (ICIB) at Neapolis University, Pafos, Cyprus.

17. Gregersen-Hermans, J., Faget, M., Halwas, S. & Compaan, M. (2023, September 27-29) Innovating Business Education for Responsible Global Minds: How to engage students in purposeful global learning. Conference presentation at European Association for international Education, Rotterdam
18. Gregersen-Hermans, J., Casals Sala, M., Alamri, M. (2023, September 27-29). Inclusive Comprehensive Internationalisation: How to merge two streams. Conference presentation at European Association for international Education, Rotterdam
19. Gregersen-Hermans, J. (2023, June 14 – 16)) The Doctoral Experience at the Centre for Higher Education Internationalisation, Unicatt. Conference presentation at the EUA-CDE annual meeting on Engaged research - the role of communication in doctoral education, Lahti Finland.
20. Gregersen-Hermans, J. & Casals Sala, M. (2023 May 16). Inclusive Comprehensive Internationalisation
21. Gregersen-Hermans, J. & de Vries, M. (2023, February 23 -24). Responsible Global Business Graduates: Closing the gap between strategy and practice. Presented at the European Symposium on Sustainability in Business Education, Research and Practices, Liverpool John Moores University, Liverpool, United Kingdom,
22. Gregersen-Hermans, J. & Casals -Sala, M. (September 2022). Oils, pastels & acrylics: It's not the choice of color but the medium that counts in internationalization at home. European Association for international Education, Barcelona.
23. Kalogeras, N., & J.M.E., Pennings (2022). Members' Choice for Marketing Cooperatives' Financial Structure: Evidence from the Netherlands. [Paper presentation]. 182nd European Association of Agricultural Economist Seminar (EAAE), Crete, Greece.
24. Khalil, M., Boerma, N. (2022, September 22-23). Leapfrog and Reverse Innovation for survival of innovative start-ups in a saturated market [Paper presentation]. 10th Annual Conference Universities, Entrepreneurship and Enterprise Development in Africa, Hochschule Bonn-Rhein-Sieg, Sankt Augustin, Germany
25. Khalil, M. (2023, April 20). Feasibility and usability of telemedicine for improving accessibility to primary and specialist care for mothers and child in their first 1000 days in rural, mountainous and remote area in Morocco, SDGs 3 and 5 [Oral presentation, Online]. Symposium, Communities development and social innovation, University Sultan Moulay Slimane, Beni Mellal, Morocco.
26. Rigopoulos, K., Daskou, S., Kalogeras, N., (2023). Teaching e-Consumer Behaviour deploying Facebook page interactions among students. [Paper presentation]. 11th International Conference on Contemporary Marketing Issues, Corfu, Greece, July 12-14.
27. Kalogeras, N., (2023). Keynote speaker and member of the international scientific committee for the 11th International Conference on International Business (ICIB), Paphos, Cyprus, 15-17 Sept. 2023
28. Kalogeras, N., Member of the International Scientific Committee of the 11th International Conference on Contemporary Marketing Issues, Corfu, Greece, July 12-14.

