

**ZU
YD**

ANNUAL REPORT 2024/25

RESEARCH CENTRE CLUSTER MAASTRICHT ECONOMIC DOMAIN

Professional Communication in a Digitalizing Society

Global Minds @ Work

Future of Food

Sustainable International Business



FOREWORD

We are proud to present this year's snapshot of the work carried out by the Research Centres within the Maastricht Economic Domain of Zuyd University of Applied Sciences: Professional Communication in a Digitalizing Society (PROCODIS), Global Minds at Work, Future of Food, and Sustainable International Business. Throughout the 2024–2025 academic year, our centres have continued to push boundaries in their respective fields, united by a shared commitment to advancing knowledge, strengthening education, and enriching professional practice.

Each centre responds to urgent societal challenges and emerging opportunities—whether pioneering sustainable food systems, promoting responsible business and hospitality, enhancing inclusive communication in an increasingly digital world, or developing the global competencies young professionals need to thrive. Together, we form a dynamic coalition of expertise dedicated to shaping a better future.

This report offers educators, researchers and industry partners an accessible overview of how our four research centres are helping address today's most pressing issues through practice-oriented research and innovative teaching. You will find highlights ranging from VR-based simulation training that supports students with autism, to online experiential learning based on the Inner Development Goals. From new insights into the educational and professional value of the LEGO® Serious Play® method, to efforts to reduce single-use plastics in hospitality operations, green logistics for second-hand clothing in Europe and exciting developments within our PhD and Professional Doctorate trajectories.

As we look ahead, we remain committed to deepening our collaboration and amplifying our impact. In the coming year, we will further the development of a becoming a **'Learning hub on business innovation and social impact'** with a collective ambition to contribute to a more sustainable, inclusive and socially responsible world.

Dr. Ankie Hoefnagels (Chair Global Minds at Work)

Dr. Danny Han (Chair Future of Food)

Dr. Mark Pluymaekers (Chair PROCODIS)

Dr. Nikos Kalogeras (Chair Sustainable International Business)



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EDUCATION

Overview

Professional Communication in a Digitalizing Society

Helping students with autism practice group conversations in Virtual Reality

The 2024-2025 academic year had only just begun when we heard that the Erasmus+ grant application we had prepared with colleagues from University College Leuven-Limburg and VISTA College had been approved. This meant that we could start building a VR-based simulation training for students with autism who find it challenging to effectively participate in group discussions with fellow students. Below, Ana García Ardana, who initiated the project, explains how the collaboration unfolded.



Ana García Ardana

What was the main reason for starting the project?

The main reason why I started this project is, in fact, personal. When my son (then six) was diagnosed with autism, we could quickly find help and support for him. However, when my husband was diagnosed later in life, it became clear how difficult it was to find suitable guidance for an adult. This made me wonder what kind of support existed for our students at mbo, hbo, and university levels. That reflection marked the starting point of this project. I wanted to explore how

we can better support neurodivergent students in learning environments where collaboration and group work are so central. My goals were to raise awareness about autism within educational institutes, make hidden conditions more visible, and create opportunities for students with autism to share their voices, experiences, and strengths. The ultimate aim was to listen to them and co-create a research-based tool that could help them practise communication skills in a safe and meaningful way.

How did you experience the collaboration with UCLL and VISTA?

At the beginning, we were all very enthusiastic. The project was new and exciting, and from the first meeting, we realised how well our fields of expertise complemented each other. Tasks were easily distributed, and there was a clear sense of shared purpose. Later, due to illness of a key project team member within UCLL, communication became more difficult and expectations had to be adjusted. We ended up taking on more work than initially planned, but we continued to exchange ideas and learn from one another. The collaboration with VISTA has been excellent from start to finish. We have presented the project together at several conferences and workshops and continue exploring new opportunities for dissemination. Their expertise, especially in practical implementation, was invaluable. Overall, I learned a great deal from both partners about collaboration, resilience, and flexibility.

How were students with autism involved in the project?

Students with autism were involved from the very beginning. I contacted several students early on and conducted interviews to explore their ideas and needs. Their feedback guided every stage of the process, from the initial concept to the final version of the tool. They helped refine the scenarios,

suggested improvements for feedback design, and even recorded the voices of some of the avatars used in the app. Their involvement was continuous and essential, without them, the project would not have taken shape as it did. To tailor the training to their needs, we combined their direct input (through interviews, focus groups, and classroom observations) with insights from the literature on autism and communication. Listening to their lived experiences was key to making the tool truly relevant and neuro-affirming.

How satisfied are you with the final result? What are you most proud of?

What makes me proudest is that the project has raised awareness and encouraged open conversations about different ways of thinking and communicating. Additionally, developing a complete interactive scenario felt a bit like writing a short film script, and seeing it come to life was a true moment of joy. Equally meaningful were the students' reactions; that spark when they realised their voices were being heard. And of course, I am proud that I dared to knock on Mark's door three years ago and share what felt like a 'crazy idea", one that ultimately turned into something tangible and valuable.

What's next? How do you plan to follow up on this project?

Several follow-up activities are already

planned. We are presenting the app at VISTA in October, and at an event organized by SURF in The Hague in November. In January, we will promote it further in collaboration with the Zuid-Limburg Autism Network. We are also in contact with various organisations that have provided feedback on how to make the tool more visible and accessible. As the app is free, our goal is to reach as many educators and professionals as possible. Looking ahead, we are considering

developing a second scenario, this time focusing on leadership and how to guide a meeting. In parallel, we are preparing a new project on internships and autism, exploring how to better accommodate the needs of students on the spectrum, not only by supporting them directly, but also by raising awareness among teaching staff, mentors, and supervisors. If all goes well, this will become an Interreg-funded cross-border project involving partners from the Netherlands and Belgium.



Ana García Ardana presenting the project during the 10th XR Metaverse Conference in June 2025



A screenshot from the VR training environment



The project team members who were present at the final project meeting

Professional Communication in a Digitalizing Society

Training for Graduation Supervisors

In the fall of 2024, the 12th edition of the Training for Graduation Supervisors took place with participants from the Zuyd departments of Speech and Language Therapy, Communication and Multimedia Design, Facility Management, and Health Innovation. The training was first developed in 2018 by our Research Centre to meet the changing professionalization needs of colleagues who supervise graduation projects.

While previous courses focused primarily on methodological issues (e.g., when is a research project considered 'good enough?'), this training focuses on the role of supervisors and the effective use of their most important tool: feedback. After all, supervising research is not the same as conducting research, and because the student must demonstrate their professional competence with their graduation project, it's important for the supervisor not to take too much ownership of the project.

Moreover, because most feedback during the graduation process is provided in written form, misunderstandings sometimes arise regarding the areas for improvement that the student should prioritize. During the training, participants receive concrete advice on how to formulate clear feedback that encourages students to reflect and take action, and they are provided with tools they can use in their role as supervisors when students seem to be getting stuck.



The course book of the Training for Graduation Supervisors

Since the first edition in 2018, approximately 110 Zuyd colleagues from all academic domains have participated in the training. They generally find the contents of the training very informative and directly applicable in their own practice. Since the fall of 2019, participants have been using the book 'Zijn mijn onderzoeksvragen goed zo?', written specifically for this course by Mark Pluymaekers and Joris Boonen. The training is offered in collaboration with Zuyd's Teacher Professional Development program, which has also planned a new edition for 2025-2026.

GLOBAL MINDS @ WORK



The Circles of Understanding edition at the Zuyd International business school, with Ewald Theunisse

The Circles of Understanding: a powerful tool for Inner Development in Higher Education

What are the Circles of Understanding?

Circles of Understanding are discovery programs that offer a unique combination of experiential learning, personal relevance community-based sharing, and micro-dosed reflection over time. It no longer feels like learning as we used to know it. It's more like a shared journey of discovery - inspiring, connecting, and unfolding both synchronously and asynchronously. Each Circle is rooted in four underlying forces that quietly power personal and collective development: Curiosity to Learn, Courage, Compassion, and Commitment. We call it the four-wheel drive of human growth, of working and living together with purpose.

The Circles explore a wide range of themes: from cross-cultural understanding and communication to collaboration, composure, critical thinking and creativity. A Circle consists of

16 to 24 Challenges, released every four days, making the total duration between 64 and 100 days. The journey usually begins with a live launch event — either in person or online when participants are spread across the globe. Each Circle concludes with a graduation session in which participating teams share their insights and experiences.

At the heart of every Circle is a dedicated app, accessible on both smartphone and desktop, where the Challenges are released. Each Challenge provides an insight, a brief explanation, and an invitation to think, act, and communicate in ways that broaden the mind, open new perspectives, and spark discoveries in the art of living. What truly sets the Circles apart is the fully GDPR-compliant private space within the app, shared by a small group of six participants.

Tell us about your collaboration with Global Minds at Work and Zuyd's International Business school?

We conducted a number pilot with Global Minds at Work with staff and students of the Hotel Management School, followed by a full Circle for four groups of students at Zuyd's International Business School in the spring of 2025. The evaluations were unanimously positive.

At Zuyd's IBS, for example, students rated their learning outcomes very highly: "I am more conscious of differences and similarities between myself and my peers" scored 9.0/10; "I feel more open and curious about other people's ideas and opinions" scored 9.3/10; and

"I feel better equipped to collaborate with people from different cultures and perspectives" scored 9.7/10. When asked whether they would participate in a second Circle, all students said yes!

What are the next steps in the collaboration project?

We will run two Circles at IBS during periods 3 and 4 of this academic year, one of them with the minor Leading People and Culture and UCLL Leuven. This time, the Circles will be accompanied by a research project. The results will help to make the Circles more evidence informed and form the basis for a publication on the Circles as an effective and innovative learning instrument.



Showcase: Circles of Understanding at Zuyd International Business School

Esther Vrinzen is a lecturer and coach at Zuyd's International Business School. She organised and supervised the Circles Edition with Ewald. What are her take aways?

As a moderator for the "Circles of Understanding", I was surprised by how many challenges students face in their daily lives. It was rewarding to witness how the Circles encouraged them to open up and connect with each other. The safe, supportive environment allowed them to see that they are not alone in their struggles. By stepping out of their comfort zones, students learned to embrace vulnerability and grew both personally and collectively. The process was inspiring, as they stimulated each other's self-awareness and emotional growth, creating a powerful sense of community and mutual support.

Do you want to know more about the Circles of Understanding or would you like to join the project with your students? Check out the website: <https://www.academyofunderstanding.com/circles>. Or contact Global Minds at Work at research.hmsm@zuyd.nl

GLOBAL MINDS @ WORK



Nine Zuyd Lecturers and researchers were trained to work with Diversity Cards, Şeydâ Buurman-Kutsal fourth from left.

Playing with Diversity: Using Diversity Cards in the Minor “Leading People and Culture”

Diversity is more than a buzzword, it is a reality in every workplace and community. For future leaders in hospitality and beyond, understanding diversity is essential for creating inclusive environments where people feel valued and respected. That’s why our minor Leading People and Culture doesn’t just teach theory, we give students practical tools to explore what diversity means in real life.

Today’s world is fast-changing and unpredictable, and leaders need to handle cultural diversity with empathy and confidence. At HMSM, the minor Leading People and Culture helps students develop these skills through a mix of theory and hands-on learning. The program looks at leadership, people, and culture in different settings, with a strong focus on hospitality, diversity, and creating value for multiple stakeholders. A key part of the minor is self-reflection and learning how leadership works in a changing world.

One of the highlights is the Diversity, Equity, and Inclusion (DEI) week, where students tackle important questions about fairness and belonging in organizations. DEI is not just a business topic, it is also a social issue that faces challenges in times of polarization. To make these discussions practical and engaging, we use the Diversity Cards, a tool created by Şeydâ Buurman-Kutsal and her team. The cards are based on the idea that aspects of identity (such as gender, ethnicity, social class, and worldview), interact and shape how people experience inclusion in teams and organizations.

The Diversity Cards cover eight dimensions of diversity and are printed in nine languages. Students work with these cards in guided activities, asking questions like: Which aspects of diversity affect team dynamics? How do our own identities influence how we lead? By “playing with diversity,” students discover both similarities and differences, and they learn to recognize unconscious biases and barriers.



Picture: Impression of the Caleidoscopia Diversity Card Game

A practical example from one session, students were asked to select cards that represent their own identity and then share why they chose them. This simple exercise sparked deeper conversations about social background, cultural norms, and personal experiences. For many, it was eye-opening to see how different dimensions, such as education, social class, or worldview, shape views on for example leadership. The activity helped students move beyond stereotypes and appreciate diversity as a strength rather than a challenge.

This method fits perfectly with our teaching approach grounded in what is referred to as 3C thinking (critical, creative, and collaborative). The cards create a safe space for conversations that can sometimes feel difficult. Students told us the exercise helped them see diversity not as a rule to follow, but as a source of creativity and strength. For future hospitality leaders, this mindset is vital, not only for managing diverse teams but also for creating inclusive guest experiences and workplace cultures.

The impact goes beyond the classroom. By using tools like the Diversity Cards, we show how research and practice come together to prepare graduates for leadership in a global, multicultural world. It also shows our commitment to making DEI part of education, so students can lead with integrity and empathy.

FUTURE OF FOOD



Impression: 3D Food Printing workshop at the Research & Education

3D Food Printing in Education: Shaping the Future of Food Through Innovation

Over the past year, the Research Centre Future of Food has continued to advance its work on 3D food printing (3DFP) in both research and education. Under the coordination and expertise of Maud Meijers, the centre translated scientific insights into inspiring and practical learning experiences for students, educators and external partners. As a result, 3DFP has taken on an increasingly prominent role within the curriculum, allowing students to explore what digital food design can mean for the future of hospitality. Building on earlier conceptual work, the centre further developed a structured approach to understanding the technological, nutritional and experiential

aspects of 3DFP. This framework guided the creation of new teaching activities in which students worked extensively with the Foodini printer. The Foodini is an extrusion-based system that transforms purees, gels, doughs and plant-based mixtures into edible forms. Through hands-on experimentation, students discovered how formulation influences the success of a print while also reflecting on how digital fabrication may shape future foodservice environments.

Two Community Involvement (ComIn) projects illustrated the broad potential of 3DFP in practice. One project, supervised by Maud Meijers, focused on

the development of customized nutrient gummies for basketball players. The student involved, Maciej Jagodziński, investigated different gelling agents, tested multiple recipes and ultimately produced a layered gummy that combined carbohydrates, electrolytes and other functional ingredients. The project demonstrated how 3DFP enables a degree of personalization and ingredient precision that traditional production methods do not easily offer. A second ComIn project, by Anna Linnert-Fuller, also guided by Maud Meijers, explored how 3DFP can enhance the visual appeal of texture modified meals for people with dysphagia. Using mashed potato purees, the student printed familiar shapes such as flowers, grapes and vegetables. A survey among participants revealed that color, recognizability and attractive design strongly influence willingness to try modified-texture foods. The project showed that 3DFP can play a meaningful role in improving appetite and mealtime enjoyment for individuals who rely on specially prepared meals. This work also supports a broader research collaboration in which Maud Meijers plays a central role, examining how 3D printed meals may benefit healthcare foodservice.

To make these insights widely accessible, Maud Meijers developed a new workshop titled The 3D Food Printing Pyramid of Gastronomy in Practice. The workshop

introduces participants to the principles of extrusion-based food printing, the science behind edible inks and the link between sensory expectations and eating experience.

Looking ahead, the Research Centre Future of Food will continue to advance its work in sensory design, personalized nutrition and multisensory experience development. The role of 3D food printing will grow further within both education and research, supported by new student projects, workshops and cross-disciplinary collaborations. A follow-up study, led by Maud Meijers, is currently underway in which chefs from several different types of restaurants are interviewed about their views on 3DFP in professional kitchens. As the centre continues to explore the future of digitally fabricated food, students are encouraged to experiment, question and imagine new applications. They learn how emerging technologies can support sustainable innovation in hospitality. Through this approach, the Research Centre Future of Food prepares the next generation of professionals to engage confidently with technological change and to contribute thoughtfully to the evolution of our food system.

FUTURE OF FOOD

Living Lab project on Food Culture: Exploring Taste, Memory and Cultural Connection Through Sensory Storytelling

The Living Lab collaboration between the research centres Future of Food and Global Minds at Work at HMSM was set out to design an interactive and immersive workshop in which the combined expertise of both lectorates and would emphasise HMSM's pioneering position in research on food, culture and social innovation

With this brief, researcher Ilonka Omta embarked on a research process to design and prototype a learning experience that investigates the act of tasting as a cultural practice shaped by memory, emotion and storytelling. Drawing on sensory ethnography and the UNESCO-inspired story-circle method, Ilonka created 'Liquid Culture: Sensorial Analysis & Cultural Memory'; a workshop in which participants are introduced into taste theory through structured aroma and flavour analysis exercises, followed by an exercise to experience the theory in practise. Participants share food memories and imaginative sensory associations through the structured 'story-sharing' method of story-circles.



Impressions of the Liquid Culture workshops by Ilonka Omta

The workshop has a dual function: it both generates research data on cultural taste narratives and demonstrates how sensory storytelling can enrich hospitality education, cultivate intercultural awareness, and contribute to meaningful, culturally grounded approaches to food experience design and hospitality innovation.

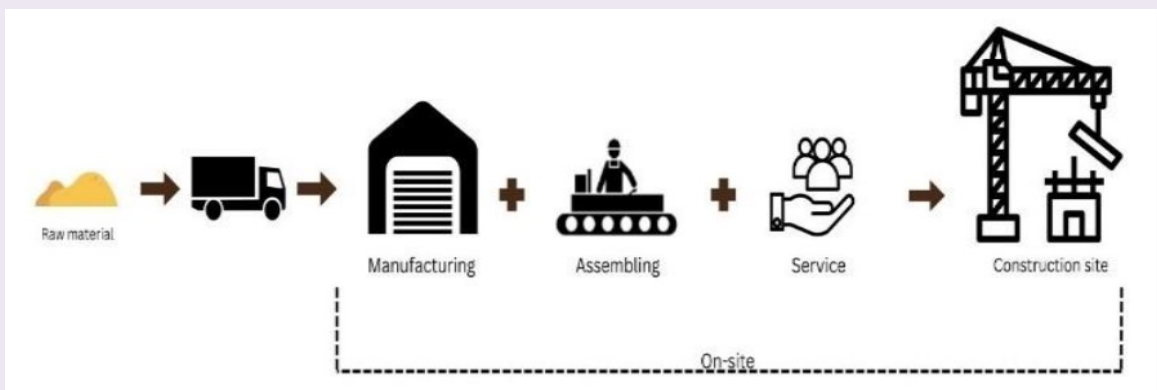
Looking ahead, the Living Lab is now examining pathways to integrate Liquid Culture into HMSM's Executive Education portfolio, as well as in future teaching modules and possible external collaborations. The project demonstrates how sensory storytelling and cultural taste research can enrich hospitality taste education and deepen intercultural competence at the same time.

SUSTAINABLE INTERNATIONAL BUSINESS

BuildupSpeed: Construction Businesses in the Green & Digital Transitions



The research centers for Smart Urban Redesign (SURD) and Sustainable International Business (SIB) jointly developed knowledge about the development and implementation of the local pop-up factory (PuF) concept within the BuildupSpeed (BUPS) Project. The BUPS project is part of an EU LIFE funding scheme, serving as a think tank of knowledge, capacities, and opportunities, collected in a platform designed to stimulate collaboration between experts, test new methods with reduced risk, and position construction companies as active players in the green and digital transition.



The PUFs' Operational Framework

The BUPS project consists of two components: the Market Activation Platform (MAP) and Pop-up Factories (PUFs). The first is a digital hub that consolidates industrial solutions, technical data, and real-world case studies. For this part, International Business (IB) students in the minor 3.3 Applied Business

Sustainability at the International Business School Maastricht (IBSM), supervised by Dr. Norman Dytianquin and Dr. Nikos Kalogeras, conducted a PESTLE analysis. The second component is a modular, temporary, or semi-permanent production unit designed to operate near renovation sites. Their proximity allows for real-time

customization, reduces transportation needs, and promotes sustainability. Within BUPs, five distinct PUF scenarios were explored by IB students, ranging from mobile on-site units to regional district factories and service hubs. Each scenario offers a tailored approach to meet local renovation needs, regulatory conditions, and market maturity. By aligning industrial capabilities with specific project contexts, PUFs provide a transformative solution to scale up deep renovations across Europe.

The BUPs project includes five countries: the Netherlands, France, Austria, Italy, and Spain. The Dutch section features a pilot PUF to be installed in Heerlen, sponsored by Woonpunt, focusing on renovating and deeply retrofitting four buildings. The PUF will be centrally located within reach of these buildings. The homeowners' association will initiate the project, but ownership remains uncertain. It was suggested to contact the Dutch Chamber of Construction or an industry association of Dutch construction firms for potential collaboration. If successful, the project will be replicated in other Dutch cities, starting with Maastricht.

For the Dutch part, SURD outsourced the business aspect of the implementation plan to SIB. This involved preparing a Five Forces analysis that covers market demand, customer analysis, competitor analysis, and trends, including sections on the threat of substitutes for PUFs as sustainable solutions in the built industry and the threat of new entrants in the

residential segment where the Dutch pilot will be carried out. Another part of the implementation plan was the internal business analysis of the local PUF, which covers key elements of the business model, including the value proposition, value creation, value delivery, and value capture. The sections of the business model canvas were simplified and expanded to include the triple-layered business model canvas. It also detailed the capabilities required to upskill local PUF teams in traditional, technical, and soft skills, enabling them to effectively manage and operate a local PUF. Finally, the implementation plan incorporated a SWOT analysis that lists internal strengths and weaknesses, as well as external opportunities and threats, for both the Dutch construction sector and the local PUF located in Maastricht. A confrontation matrix was used to outline strategies that pair internal and external factors that the local PUF could utilize.

IB students who completed the IBSM's minor 3.3 presented their findings to SIB and SURD researchers and industry managers, highlighting increased awareness of energy-saving innovations that impact urban redesign efforts. Through the minor's evaluation, IB students noted that the elements of interdisciplinarity and experientially based learning enhanced their critical thinking, business problem-solving skills, and sustainability/circularity literacy.

SUSTAINABLE INTERNATIONAL BUSINESS

Sustainable International Business Education on Two Wheels and Beyond

The launch of the educational project Internationalisation by Bike, a unique cross-border learning experience connecting students from Zuyd University of Applied Sciences and TH Köln University (Germany). This initiative exemplifies whole-person learning, engaging the mind (critical thinking), heart (empathy and connection), and body (physical movement and embodied experience) to foster global competence close to home.

*Promotional flyer of the initiative
"Internationalisation by Bike"*



he course of a week, multicultural student teams cycle between the Netherlands and Germany, engaging with local SMEs on sustainability challenges. The journey includes bilingual collaboration, real-world problem solving, intercultural reflection, and community building through shared meals and outdoor activities. Students report feeling transformed—not just as learners, but as people.

Internationalisation by Bike provides a tangible response to the growing demand for accessible and meaningful internationalisation. This initiative reflects the values of the landmark Innovating Business Education for Responsible Global Minds (IBE-ReGLoMi / Erasmus+ capacity EU-funded project) led by the Sustainable International Business research center, along with the innovative pedagogical approach Student in the Lead (SiTL). This approach was founded,

introduced, and put into practice by the International (IBSM) Business School Maastricht: experiential, sustainable, and locally rooted. The initiative is now integrated into the curriculum at both institutions (Zuyd UAS and TH Köln) and serves as a model for others aiming to connect educational goals with global challenges through innovative, inclusive formats. Led by Dr. Jeanine Gregeresen-Hermans (SIB principal investigator) and Mrs. Moniek Compaan-Hurkens

(SIB researcher), this initiative was showcased at the EAIE 2025 Conference in Gothenburg as an exemplary case of integrating internationalization, sustainability, and student engagement into the core of higher education.



Participating IB Zuyd & TH Kolhn Students in Internationalisation by Bike



2

PROFESSIONAL PRACTICE

Overview

Professional Communication in a Digitalizing Society

The importance of communication skills in the future hospitality experience

When a renowned hotel chain decides to replace its traditional check-in desk with machines that allow guests to check in digitally, this has a significant impact. First and foremost, it affects guests, who have to get used to the welcome area's new lay-out and the new procedures they must follow. It also affects front office staff, who, by delegating some routine tasks to a machine, are on the one hand empowered to take a more active role in providing hospitality, but on the other hand also become responsible for troubleshooting technical issues. And perhaps, even the hotel's revenue could be impacted, provided that the new check-in procedure can entice guests to purchase additional services.

Bilderberg, which is part of the Event Hotels Group, launched its first self-check-in kiosks two years ago. To understand the impact of this innovation, they enlisted the help of the Hotel Management School Maastricht – and our Research Centre. As joint assignment providers, we enabled three HMSM student groups to investigate in their graduation projects how the introduction of such an

innovation changes the employee and guest experience, and to what extent it contributes to the hotel's long-term business objectives.

In the first project, which took place in the second semester of 2023-2024, the students investigated how frontline employees can effectively collaborate with digital technology in optimizing communication from the hotel to the guest. They did this by conducting a literature review, interviews with hospitality and AI experts, management interviews, employee surveys, mystery guest observations, and an AI-supported review analysis of guest feedback. The literature review explored trends in digitalization and required communication skills, while the interviews and observations identified communication touchpoints and improvement opportunities. The employee survey measured the self-perceived communicative and technological competence of employees. The outcomes of these investigations revealed that AI and digitalization can enhance communication by automating operational tasks, freeing frontline

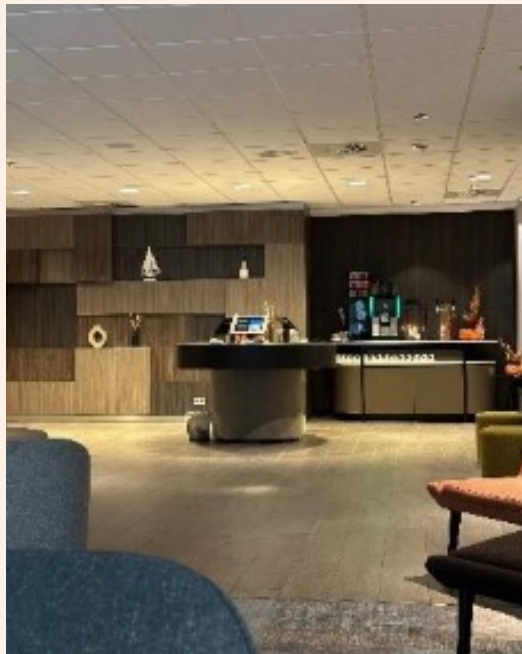
employees to focus on empathy and personal connection. Employees generally rated their communication skills high but showed varying confidence in technological competence, suggesting that targeted training could strengthen their digital readiness.

In the second project, which took place in the first semester of 2024-2025, the next student group investigated how the communication process of a front office host can function optimally in a digitalized work environment, specifically in the context of the implementation of self-check-in kiosks at the Bilderberg Europa Hotel Scheveningen. Again, a mixed-methods approach was used, combining literature research, in-depth interviews, observations, review analysis, and a practical prototype test. The literature review provided the theoretical foundation for developing the interview and observation frameworks. Twelve interviews were conducted with hotel professionals, managers, and AI specialists. Observations were carried out across several sectors (healthcare, retail, aviation, and hospitality) to identify best practices in the implementation of self-service systems. In addition, 5,523 online hotel reviews were analyzed, and a prototype was tested at the Europa Hotel. The findings show that, despite increasing digitalization, human interaction remains essential. Front office hosts must possess

soft skills such as empathy, active listening, and flexibility, combined with digital literacy.

The third and final project is still ongoing – it will be finished by January 2026. In this project, the students are creating a valid and reliable instrument that other hotels within the Event Hotels Group can use to measure the effects of implementing self-check-in kiosks on indicators related to guest experience, employee satisfaction, and financial performance.

The outcomes of these three projects are not just relevant for the original assignment providers, but also for other hospitality organizations who are thinking about implementing a similar innovation. They offer evidence-based guidance on managing both human and technological aspects of digital transformation. The findings highlight that while self-check-in kiosks streamline operations, they also redefine employee roles and guest interactions. Understanding the balance between automation and personal service helps hospitality providers design processes that maintain human warmth while leveraging technology for efficiency. Moreover, the studies identify key competencies—such as digital literacy, empathy, and adaptability—that staff must develop to succeed in a hybrid service and communication environment.



*Bilderberg Europa Hotel Scheveningen
The welcome area including the self-check-in kiosks*

Professional Communication in a Digitalizing Society

Sharing knowledge about generative AI with non-standard target groups

When you work at a university of applied sciences, it's not surprising that your primary focus is on bachelor students and their development into competent young professionals. Yet, as a knowledge institution, Zuyd also has the responsibility to make expertise available to other societal stakeholders in the region.

With this social mission in mind, Mark Pluymaekers gave three lectures on generative AI to interested citizens in his hometown of Meerssen in 2024-2025. The first one took place in November 2024, when Mark was invited by the local Women's Guild to spend 2.5 hours (!) updating their members and other interested citizens on the history, applications, and societal impact of generative AI. It was a highly enjoyable, lively session which included many insightful questions and discussions. This prompted two attendees to ask Mark if he could deliver a similar presentation at two other events: the General Members' Meeting of the local political party Brug-M and a dinner meeting of the women's association Freya.

The attendees of these two meetings also showed great interest in the topic and appreciated the accessible way in which particularly the technical aspects of generative AI were explained. Many had already read about generative AI in the newspaper or experimented with it themselves, but they hadn't been informed about the backstory and the bigger picture yet. Where does generative AI come from, how is this reflected in the tasks it can and cannot handle, and which impact will its further development have on education, various professional fields, and society in general? This is a story that a practice-oriented institution like a university of applied sciences can convey like no other!



Mark Pluymaekers during his lecture for the Women's Guild in Meerssen

GLOBAL MINDS @ WORK

Hands on the learning with LEGO® SERIOUS PLAY®



First group of LEGO® SERIOUS PLAY® certified facilitators at Hotel Management School Maastricht

At Global Minds @ Work, we believe in hands on and engaging learning activities with social impact. Therefore, we heavily invested in training our researchers and lecturers from HMSM and International Business and Communication to become LSP facilitators. In this article, we describe the LSP method and its affordances and showcase a number of LSP events we hosted.

The LEGO® SERIOUS PLAY® (LSP) method is a facilitated, hands-on approach to creative thinking, collaborative problem-solving and learning that uses working with LEGO bricks as a medium. In a typical

LSP workshop participants respond to a question or challenge given by a facilitator, build a three-dimensional model using LEGO bricks (often metaphorically), then tell a story about their model, and finally engage in group reflection around what they built. The method was originally developed for strategy and organisational use in the mid-1990s at the Lego Group and partner institutions, and has since been adapted in educational, research and professional development contexts.

What is the method?

At its core LSP moves beyond traditional brainstorming or flip-charts by inviting

every participant to build a tangible object embodying their thinking, then tell the story behind it, and finally share and reflect in the group. This structure helps elevate often tacit or implicit knowledge into visible form and invites multiple perspectives. Studies found that the method is particularly useful for cross-disciplinary teams, because by using “boundary objects” (the bricks and models) the barriers of jargon and expertise are lowered and participants can externalise ideas more explicitly.

Why does LSP foster deep learning?

It draws on constructivist and constructionist learning theory— the idea that learners actively build knowledge by making things, not just passively receiving information.

LSP uses embodied cognition and multisensory engagement: the act of physically manipulating bricks brings motor, spatial, visual and narrative processes together, which helps memory, meaning-making and deeper engagement.

Moreover, the method facilitates metaphorical thinking and externalisation of tacit knowledge. By asking “what does your model represent?” participants articulate their implicit perspectives; this strengthens internalisation and shared understanding. For example, research shows LSP enabled students to externalise ideas and internalise new knowledge more effectively.

Finally, LSP promotes equitable participation: every participant builds and speaks; this helps draw out voices that might otherwise stay silent in standard discussion formats. The method thus fosters psychological safety and inclusive dialogue.



Example of a Lego build

Why is the LSP method so useful for professionals?

For professionals working in teams, managing change, strategy, complex problems or innovation, LSP offers several pragmatic benefits. First of all, it supports complex problem-solving: Many professional challenges are “wicked” (cross-disciplinary, ambiguous, dynamic). Because LSP uses metaphor, model-building, and dialogue, it helps teams surface complexity, align on meaning and explore scenarios in a shared way.

Moreover, it aids strategy-making and alignment. In organisations, LSP can help visualise visions, stakeholder relationships and future. This supports shared understanding and commitment.

LSP supports collaboration, communication and creativity: Because everyone builds, tells and reflects, team members engage differently than in a conventional meeting. Creativity is sparked, different perspectives emerge, and communication improves.

On top of that, the method enhances engagement and learning: Professionals often don't like passive seminars. LSP offers

an active, enjoyable, immersive format that can increase motivation, bring new energy, and embed learning more deeply.

In sum, the LEGO SERIOUS PLAY method is a rich blend of theory and practice: grounded in educational science (constructivism, constructionism, experiential learning, embodied cognition) and designed for professional settings where deep learning, shared insight and collaborative problem-solving matter. For professionals, it offers a way to move beyond bullet-point presentations and meetings into immersive, participative, and meaningful engagement.



Second group of LEGO® SERIOUS PLAY® certified facilitators of Hotel Management School Maastricht and International Business and Communication (Zuyd UAS)



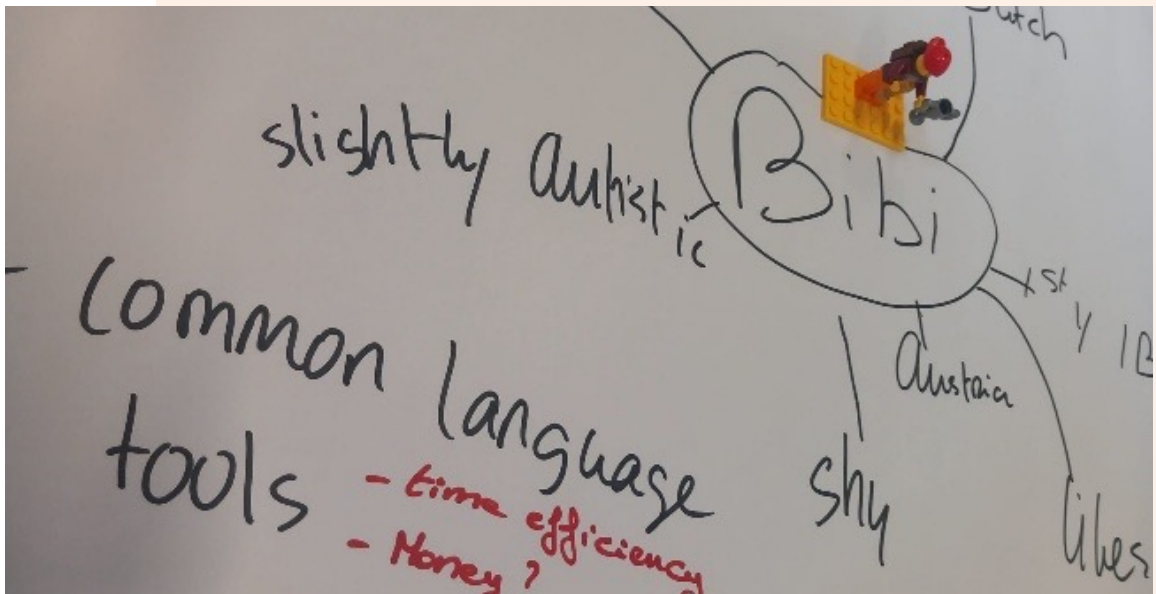
Showcase: Developing Life Long Learning with LEGO® SERIOUS PLAY® at Business Studies Zuyd

Global Minds @ Work facilitated a session with the team of the Business Studies Academy at Zuyd UAS. The team wanted to develop the framework for their contribution to Zuyd's Life Long Learning programme. In a highly dynamic and profound two hour session, the participants built their most impressive learning experience. This provided the foundation on which they were able to derive the conditions for effective life long learning that they could apply in their program.

Participants at the LSP workshop for Zuyd Business Studies

Showcase: Diversity and Inclusion build with LEGO® at Zuyd

To address tensions surrounding international student participation in Zuyd's participation council (CMR), GM@W facilitated a D&I Build session focusing on inclusion and belonging. Participants created LEGO® mini-figures representing diverse identities, including language proficiency, neurodivergency, reading abilities, and cultural competence, each with personal strengths and vulnerabilities. Working in small groups, participants explored which figures would face the greatest challenges in the Zuyd community and developed equitable practices to support their meaningful participation in the CMR. The groups exchanged their work, building on each other's insights before collectively identifying actions to reduce institutional barriers. The methodology's power lay in its emotional distance: by discussing fictional figures rather than personal experiences, participants engaged more openly with sensitive topics. This led to concrete improvement strategies and revealed previously unrecognized challenges facing diverse community members. The D&I Build approach ensured universal participation; everyone built, everyone spoke through their mini-figure, and everyone contributed equally, showing how simple tools can support all voices be heard in ways that traditional discussions often fail to achieve.



D&I build activity with LEGO® mini-figures

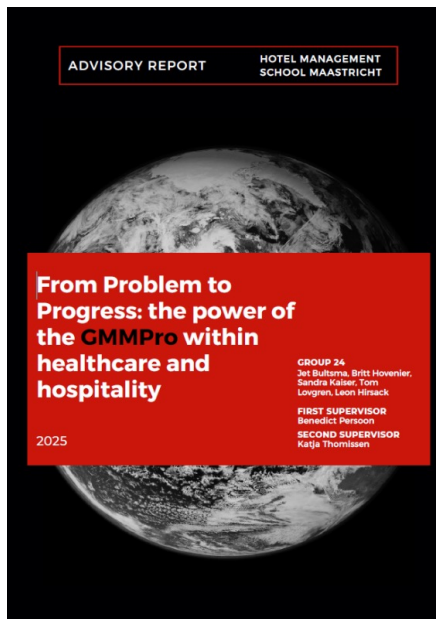


Participants at the D&I with LEGO® mini-figures activity

Are you interested in an activity with LEGO® SERIOUS PLAY® for your team or organisation?
Please get in touch with Lyvie Schoenmaeckers via research.hmsm@zuyd.nl

GLOBAL MINDS @ WORK

Global Mind Monitor Pro: Preparing Professionals for a Diverse World



The hospitality, and other sectors are becoming increasingly global, with teams and clients from diverse cultural backgrounds. This reality demands strong cultural awareness, adaptability, and empathy. To address these needs, we initiated a graduation project for our 4th year students. The goal: explore how the Global Mind Monitor (GMM), originally designed for education, can evolve into a professional tool for industry use.

The context.

During the first semester of the graduation year, students work on a team project that focuses on solving real management problems. They analyze the issue, consult relevant sources, and conduct practice-based research to develop recommendations for an actual client. This project encourages independent work and requires students to act as consultants, applying knowledge and skills gained in earlier courses.

Why this project?

Globalization impacts every level of hospitality and healthcare. Interviews conducted by the students with managers and professionals revealed that cultural competence directly influences guest satisfaction, patient trust, and team performance. The challenge for the students was to adapt the GMM for professional environments. Next to Global Minds @ Work, the students collaborated closely with our field partner ETIL.

What did it deliver?

The student consultancy team conducted extensive research, supported by ETIL and researchers of GM@W. The outcome is a clear roadmap for developing GMMPro, including a 7-step strategy:

- Build a core model focusing on cultural awareness, adaptability, & emotional intelligence.
- Add sector-specific modules for hospitality and healthcare.
- Integrate training and support packages so organizations can act on the results.
- Launch pilot programs to test usability and impact.
- Offer flexible pricing models to fit different budgets.
- Develop targeted marketing strategies for each sector.
- Create a community feedback platform for continuous improvement.

Next steps

The next phase is to develop a prototype and run pilots with selected hospitality and healthcare partners. These pilots will test usability, language accessibility, and practical integration into workflows like onboarding and team development. ETIL will play a key role in implementation and, while the lectorate ensures research-based quality and training.

One important next step in this process was the SLIM subsidy that was granted to two workfield partners: Oostwegel Collection (Hotel chain) and De Vrienden (restaurant). Together with ETIL and GM@W, the GMMPro will be further developed, tested, and validated. The SLIM subsidy will provide the companies with the financial resources to conduct a company scan, investigate the skills and learning needs among employees, and develop with our research center and school, courses that will be of added value for the employees and the companies.

This project shows how practice-based research connects education with industry challenges. By combining academic insights with real-world needs, we prepare graduates, and their future employers, for success in a multicultural, fast-changing world. And we take it a step further. The outcomes of the student project helped us in shaping the application for the SLIM subsidy, preparing ourselves for further growth.

FUTURE OF FOOD

Extended Reality for Plastic Reduction in Hospitality Kitchens



Overview immersive XR environment hosting the co-creative session

How can digital technology help hospitality kitchens reduce single-use plastics without disrupting their everyday flow? That simple question became the starting point for the CELTH project “Extended Reality for Single-Use Plastics Reduction in Hospitality”. The initiative brought together researchers and students from NHL Stenden, Zuyd University of Applied Sciences, and Breda University of Applied Sciences, together with small hospitality firms from across Friesland, Limburg, and North Brabant. Together, we explored whether immersive technology could help kitchens see their plastic use differently — and, more importantly, act on it.

Rethinking Plastics through Immersion

Single-use plastics (SUPs) remain one of the most stubborn environmental challenges of our current times. In the hospitality and food context, their use is deeply woven into everyday routines: cling film to wrap food, gloves for hygiene, vacuum bags for storage. These materials make kitchen life easier, faster, and safer — but they also make change difficult. Small hospitality firms in particular often want to do better but struggle to find realistic ways to reduce plastics without losing efficiency.

That’s where our experiment with Extended Reality (XR) came in. At the

Food Experience Lab of Zuyd University of Applied Sciences, we used a multi-camera setup to record daily kitchen operations and turned them into an immersive XR co-creation environment. This virtual representation was projected inside a CAVE — a room-sized XR environment where participants could “step inside” and experience one of their own kitchens from the outside.

From Observation to Co-creation

The project started with a detailed inventory of plastics used in small hospitality kitchens. We then invited entrepreneurs to discuss these findings and recorded real kitchen activities to capture how, when, and why plastics were used. The footage became the central material for a co-creation session at Hotel Management School Maastricht, Zuyd. Sixteen participants — from chefs and lecturers to students and sustainability experts — gathered inside the XR environment to reflect, discuss, and design new practices together.

The reactions were striking. Some were surprised, others slightly uncomfortable, seeing their own work from an entirely new perspective. The experience sparked honest conversations about why we use so much plastic, how hygiene rules are sometimes over-interpreted, and what could realistically change tomorrow. Instead of talking about sustainability in abstract terms, the group could literally “see and feel” the issue around them.

What We Learned

From those discussions, three focus points for plastics emerged: cling film, disposable gloves, and plastic containers. These items were everywhere — often used out of habit rather than necessity. The group came up with practical short-term alternatives such as reusable lids, paper wrapping, and clearer kitchen procedures for glove use. Medium-term ideas focused on awareness and education: integrating plastic reduction into hospitality training, visualising waste flows in kitchens, and creating small competitions to nudge behaviour change.

For the long term, the ambition grew bigger. Participants discussed how supplier contracts could include sustainability clauses, how universities could act as testing grounds for new materials, and how collaboration between suppliers, chefs, and researchers could lead to new packaging standards.

Looking Ahead

A month later, the team presented these outcomes at NHL Stenden in Leeuwarden. Additional chefs, lecturers, and researchers joined the conversation, validating the findings and exploring next steps. Visits to the Circular Plastics Lab showed how materials research could connect directly to hospitality practice. Everyone agreed: real progress will require collaboration across the entire supply chain — from the producer who wraps the goods to the cook who opens the package.

FUTURE OF FOOD

Protein Transition in Foodservice: Towards Better Plant-Based Experiences



The protein transition continues to reshape the foodservice landscape, driven by growing societal interest in sustainability, health and responsible consumption. Within this transition, foodservice providers are increasingly expected to offer plant-based dishes that do more than simply replace meat or dairy. They must deliver an eating experience that matches consumer expectations for taste, texture and quality. At the Research Centre Future of Food, this challenge is central to our work, particularly in the projects and activities led by Maud Meijers.

One example is the development of a new practice-based research project that focuses on improving the sensory quality of plant-based ice cream. Many

plant-based frozen desserts still fall short in terms of flavor and mouthfeel, which limits their acceptance among guests in restaurants and hospitality settings. The project investigates how clean-label, minimally processed ingredients can be used to create plant-based ice creams that feel familiar and indulgent, while supporting the broader protein transition. By combining structured prototype development with sensory evaluation, the project aims to generate practical insights that foodservice professionals can apply directly in their operations.

The relevance of this topic was further reinforced during Maud Meijers' visit to the Food Structure and Functionality Forum conference in Bruges in 2024. The

conference highlighted how ingredient interactions, processing conditions and food structure strongly influence the eating experience of (plant-based) food products.

Through its work on the protein transition, the Research Centre Future of Food contributes to a future in which plant-based

options in foodservice are appealing, high quality and widely accessible. By combining applied research, professional engagement and science-based education, we help strengthen the role of hospitality in shaping a more sustainable and enjoyable food system.



Impressions from the Food Structure and Functionality Forum

SUSTAINABLE INTERNATIONAL BUSINESS

Supply-Demand Match for SMEs in the Used Clothing Market

The KIEM ARTce project, “Action Research on Second-hand Clothing Issues,” relied on a commitment between Zuyd University of Applied Sciences and Utrecht University of Applied Sciences to foster sustainability and encourage the exchange of second-hand clothing among people. It also aligns with the circular economy concept, aiming to extend the product lifecycle and minimize waste. By giving clothes a second life, this initiative has the potential to disrupt the fast fashion model. Yet, the specific project focused on how SMEs (second-hand clothing stores) in Europe can overcome barriers related to the supply-demand mismatch.

In response to this challenge, SIB researchers (Mr. Glenn Bouwens, Mr. Jules Verheesen, Dr. Norman Dytianquin, and Dr. Nikos Kalogeras) first conducted a qualitative study to explore a) how second-hand clothing stores use tracking systems for clothing items, and b) how clothing items with long residence times in these stores can be reused. Subsequently, a quantitative study (online survey) was carried out to identify the drivers of consumers’ purchase intentions for second-hand clothing. Specifically, 30 expert interviews were conducted across Europe to examine the duration of items in the inventory of second-hand stores and the tracking systems used. Next, to identify ways to reuse clothing items with extended residence times, managers from Swapshop, a second-hand clothing store, and Sympany, a textile and fabric collection organization, were interviewed. Both companies are well-established and

operate in the Netherlands. Finally, using a sample of 1205 European consumers, this study examined consumer attitudes and risk perceptions regarding second-hand clothes.



The Swap Shop

Key findings suggest that specific features of tracking systems, including predictive analytics and customer engagement tools, can further enhance revenue and extend inventory longevity. Additionally, corrective measures such as adjusting stock levels, improving demand forecasting, and offering discounts on older stock can enhance overall turnover rates and reduce inventory stagnation. The criteria for accepting clothing items in second-hand stores should be based on condition, style, material, and fabric, as well as the variety of styles and consumer appeal. Further, clothing items with long residence times in second-hand stores can be further reused through upcycling strategies. For example, Sympany is a major player in textile collection and reuse, processing approximately 15 million kilograms of clothing annually through municipal collection bins. Seventy percent (70%) of these textiles have reuse potential, highlighting the importance of

extending product lifespan over recycling, as recycling requires more energy and is less sustainable. Finally, the results of the large-scale consumer survey indicate that consumers' values (emotional, social, environmental) and risk perceptions (pricing, functionality, aesthetics, sanitary) strongly influence their purchase intentions for second-hand clothing. Thus, the "self-placement" and the promotional campaigns of SMEs in the second-hand clothing markets could capitalize on these product intrinsic and extrinsic cues.

Understanding these targeted actions can be especially helpful for smaller second-hand clothing retailers, enabling them to strike a balance between operational efficiency, sustainability, and consumer demand. SIB plans to organize an event with second-hand store owners and managers to further discuss these actions, which could improve their supply-demand matching.



Example of a textile recycling container

SUSTAINABLE INTERNATIONAL BUSINESS



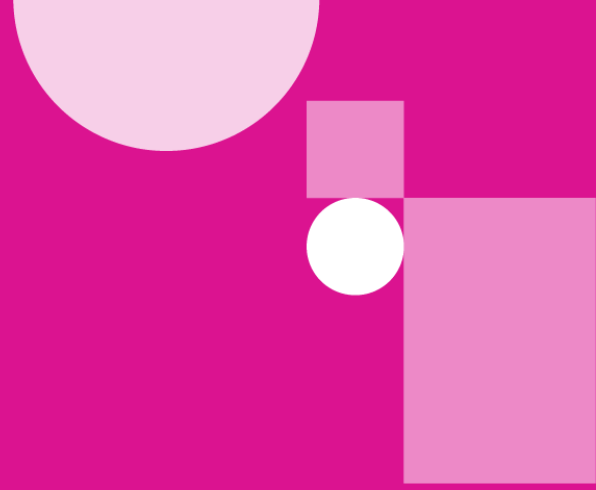
Suggested Urban Design of Qeske Maastricht location

Stichting Qeske Maastricht: A Sustainable Parking Lot Business Challenge

Stichting Qeske Maastricht (QM), a non-profit start-up and SMEs ecosystem supported by the city hall council of Maastricht, seeks to transform its 55-space parking lot into a sustainable and financially viable asset. Dr. Nikos Kalogeras (SIB Chair), Dr. Burak Can (Maastricht University & Qeske Maastricht chair), and the IB students (Mr. George Bachtis, Mr. Damyan Fasulkov, Mr. Thomas Ntinelis, and Mr. Vito Reale) conducted a feasibility study to develop a smart parking business model that aligns with QM's sustainability goals while ensuring long-term revenue generation.

The study's main findings highlight four key areas of development and implementation. First, the integration of EV charging stations, solar-powered lighting, and green landscaping to enhance the environmental benefits of the parking lot. Second, the adoption of smart technology through automated access control, real-time monitoring, and a mobile app for efficient management. Third, a dynamic pricing and revenue streams framework including flexible tariff structures, partnerships with local businesses, and advertising opportunities to maximize financial returns. And finally, a financial viability plan that estimates an initial investment of €50,000, with projected annual revenue of up to €198,925 and a return on investment (ROI) of 120% within two years.

Additionally, a detailed implementation plan for 2024-2026 was developed. Phase 1 involves completing the feasibility study and engaging key stakeholders. Phase 2 will include activities such as fundraising, procurement, and infrastructure installation. In Phase 3, a soft launch will occur, along with monitoring and scaling efforts. Overall, the project aims to improve community accessibility, enhance security, promote sustainable transportation, and generate revenue to support QM's entrepreneurial initiatives.



KNOWLEDGE DOMAIN

Overview

Professional Communication in a Digitalizing Society

Can AI generate useful feedback on oral and written communication products?



Katrin Büttgen

Anna Krispin and Katrin Büttgen are both PhD candidates at our Research Centre. While Anna's research focuses on the use of Virtual Reality for training oral communication skills, Katrin investigates how generative AI can be effectively integrated in writing instruction. Despite their different research topics, they share an interest in the quality and of AI-generated feedback on communication products created by students. During the European Conference of the Association for Business Communication (ABC) in Bergen last June, they presented the outcomes of some pilot studies on AI-generated feedback. Below, they talk about the experience of presenting at an international conference – and what it is like to have a fellow traveler on their PhD journey.

What was the main takeaway message of the research you presented at ABC?

Anna: "In my research on the characteristics of AI-generated feedback on presentation content, I analyzed the feedback that ChatGPT provided on students' and entrepreneurs' presentations. The findings showed that AI-generated feedback tends to focus more on praise rather than on identifying specific areas for improvement. Additionally, the analysis demonstrated that when presentations were provided in text form, the feedback was generally more accurate." Katrin: "If we as lecturers

want our students to write ethically and thoughtfully while using AI tools, we need to redesign our assignments to focus more on writing process, authorship, and reflection. That means giving students clear guidance on when, how, and why to use AI. As well as scaffolds that require reflection and revision. Because writing is not just about producing text: it's identity work. As one of my students said, 'The sentence was good, but it didn't sound like me.' AI can generate arguments and structure, but not ownership."

What did you think of the atmosphere during the presentation session?

Katrin: "The overall atmosphere at ABC was honestly outstanding – and I don't say that lightly. Everything was so thoughtfully organized, from the setting and structure to the content and the catering. By the time our session came around, most participants had already seen a lot of each other's work. That actually made the vibe feel quite familiar and collegial." Anna agrees: "I also really appreciated having 20 minutes for the presentation and 10 minutes for Q&A, which is more time than most conferences typically allow. It really gave us the chance to connect with the audience and have some meaningful discussions."

Did you receive any useful questions or suggestions from audience members?

Anna: "Definitely! Meaningful discussions always help me make progress in my research. I'd say that the audience's questions highlighted the novelty and relevance of my work. I mainly used the insights they shared to sharpen the focus of my PhD over the summer break." Katrin: "A lot of the questions in our session also revolved around identity and authorship and I realised that even though I talk about those concepts, I haven't really explored them in sufficient depth yet. So that's definitely something I'll take away with me and think about more carefully."

How did you help each other in preparing for your respective presentations?

Katrin: "I had prepared the session structure in advance, and before we left

for the conference, we had a rehearsal and feedback session at our research centre.

The afternoon before our session, Anna and I went to each other's hotel rooms and rehearsed, just 10 to 15 minutes each, so we had already delivered our talks out loud in front of someone."

Anna: "Indeed, we supported each other throughout the preparation process: finding opportunities for data collection, practicing our presentations together, and giving feedback on our slides. This made me feel well-prepared and it also created a nice sense of teamwork during the session itself. Plus, having a hiking buddy to explore the mountains of Bergen made the experience even more memorable."

Katrin: "Yes, straight afterwards we went for a walk in the beautiful surroundings of Bergen, up Mount Floyen. Or, as we would say in German: Erst die Arbeit, dann das Vergnügen."

What is the main advantage of having a fellow PhD candidate in the Research Centre?

Anna: "Having a fellow PhD candidate at the Research Centre is a huge advantage. Whether it's sharing literature, exchanging tips on data analysis, or practical advice like organizing EndNote, we really support each other through all the ups and downs of PhD life. It's nice to have someone who's going through the same process." Katrin: "Absolutely! Anna and I really click, which is honestly just a joy. We encourage each other, challenge each other when needed, and celebrate the small wins along the way. It's also the little things — those easy moments of mutual companionship, like:

‘Oh yes, I’ve been there too’ or ‘That took me forever as well.’ I really admire how open and honest Anna is about the fact that things don’t always go as planned in a PhD. Hearing that from someone else makes it easier not to feel like a failure when something doesn’t work out right away.”



Anna Krispin delivering her presentation at the ABC Conference

Professional Communication in a Digitalizing Society

Machine Translation in the Workplace

Whereas machine translation (MT) technologies were once primarily used by professional translators, they are now increasingly integrated into the daily workflows of other professionals as well. For example, legal professionals use MT to get the gist of patent documents published in foreign languages, while health professionals have conversations with patients via translation apps on their mobile phones.

Although using MT seems easy, using it effectively and responsibly requires some thought. This is one of the reasons why many scholars argue in favor of training professionals outside the language industry in MT literacy. But before we can support these non-traditional users in developing their MT literacy, we first need to know how they actually use MT in their daily work. This was the rationale behind a study that we carried out together with Lettie Dorst (Leiden University) and reported in an article that was published in *Global Advances in Business Communication* in November 2024.

By conducting a survey and a focus group, we discovered that professionals who use MT follow a decision-making process that includes a number of shared elements (see the figure below), regardless of the professional, linguistic or communicative context they find themselves in. In each phase, multiple considerations are relevant for making an informed decision on whether and how to use MT, or how to mitigate the negative effects that using MT may have on the quality of communication. By making these phases and considerations explicit, we aim to help professionals become more proficient and critical users of machine translation technology, also if they have never received any formal training on this topic.



Common phases in the decision-making process of professionals using machine translation

GLOBAL MINDS @ WORK

Exploring Intercultural Competence in Higher Education: Interview with PHD candidate Albert Mhangami

Albert Mhangami is lecturer at Hotel Management School Maastricht and a PhD candidate at the Global Minds Research Center, part of a joint project between Zuyd University of Applied Sciences and Erasmus University Rotterdam. His work aims to provide quantitative assessments of how experiences and interventions shape intercultural competence development before, during and after higher education. In other words, he studies how people learn to engage effectively with people from different cultural backgrounds—and what educational institutions can do to support that process.



*The PhD project team from left to right.
Prof. Jeroen Jansz, Dr. Joep Hofhuis, Albert
Mhangami, Prof. Ankie Hoefnagels, Dr. Joris
Boonen- 22/11/2024]*

The “Why”

When asked why he chose to dedicate his PhD research to intercultural competence, Albert Mhangami has a clear answer “Its increasingly harder to get people from different backgrounds and values to sit at the same table. This is more than just a problem for hospitality, it is a defining failing of the 21st century.” he explains. “We have invested a tremendous number of resources and research into internationalization of higher education and have faced even stronger push-back from polarized contemporary society. My research seeks to empirically engage this push-back and validate the work done before us. My research hopes to show—through data—why intercultural competence is not only a moral

value but a measurable, professional skill.” The PhD project, Students for the World – Intercultural Competence Development and Higher Education Interventions, explores how students’ earlier life experiences, parental influences, and educational environments affect their ability to work and learn across cultures. His first paper, What Students Bring: Comparing Intercultural Competencies of Entry-Level University Students, is currently under review for publication.

The “What”

At the research center, Albert spends three days a week working with the Global Mind Monitor (GMM) dataset—a rich, longitudinal collection of student data on intercultural learning. Using quantitative and mixed-method approaches, he analyzes how interventions such as study abroad programs or internationalization at home initiatives influence students’ intercultural growth. “We want to know which of our students’ experiences and backgrounds make a difference in our intercultural competencies before they even enter a classroom, and ultimately what interventions help” he notes. “Do young people become more openminded, adaptable, or empathic because of them—or are we just assuming they do?”

Albert’s second paper, now in progress, investigates these educational interventions more directly. Later stages of the project will follow graduates into the workplace, asking whether intercultural learning in higher education translates into professional intercultural competence. “Ultimately,” Albert says, “I want to connect educational strategies to real-world outcomes. Do these experiences shape where graduates work, who they work with, and how they collaborate?”

The “How”

In addition to his research, Albert lectures two days a week at the Hotel Management School Maastricht (HMSM) campus. Many students know him as an instructor for Module 4, a research skills course with intercultural and international market foci. But he also supervises final thesis projects (Modules 13|14), operations management internships (Modules 15|16), and works as an academic success coach.



*Albert Mhangami with a Final Year Project (M13|14)
team he was supervising- 18/06/2025*

His teaching and research inform one another closely. “When I supervise students,” he explains, “I see firsthand how intercultural competence plays out in teams, projects, and internships. Those experiences shape my research questions.” His lectures often blend theory with reflection, such as a recent session for the Horizons Minor on the concept of empathy, using art, multimedia, and interactive case studies to explore how students make empathic decisions.



Albert Mhangami conducting a lecture on Empathy for the Horizon's Minor 23/09/25

Engagement and Impact

Albert's research extends beyond academia. Over the summer of 2025, he presented his work at the joint conference of the International Academy for Intercultural Research (IAIR) and the International Association for Cross-Cultural Psychology (IACCP) in Brisbane, Australia. “It was an incredible experience,” he recalls. “Presenting to researchers from around the world gave me perspective on how alive the conversation remains and how urgent our research is.”



Albert Mhangami presenting his research at the Joint IAIR and IACCP conference in Brisbane 30/06/20 & Picture 2: Albert Mhangami and other PhD candidates sit with IAIR President Prod. Saba Safdar 02/07/2025

His engagement with the IAIR resulted in him being nominated for the IAIR Newsletter committee and a researcher and contributor on the Japan Intercultural Institute's Deep Culture Podcast

Locally, he also contributes to conversations on internationalization and community engagement, such as his recent participation in a panel hosted by Maastricht University Graduate School on internationalization & local engagement. A panel alongside professors and government officials. Every other Friday, Albert meets with his PhD committee at Erasmus University Rotterdam to exchange research strategies with peers working on similar themes.

Albert's research also is immediately applied to industry with the Global Minds at Work research center's consultancy. The research center aims to conduct workshops and trainings on intercultural competency and awareness in the hotel industry. Currently, this is done at Pillows Hotels, a high-luxury hotel brand. Albert alongside his supervisor and head of the research center Prof. Ankie Hoefnagels trains staff on the theory and pragmatic dimensions of intercultural awareness in intercultural service encounters.



Dr. Ankie Hoefnagels and Albert Mhangami outside Pillows Grand Boutique Hotel Ter Borch where they conducted a training 04/06/2025

GLOBAL MINDS @ WORK



Esther Sarphatie with HMSM Dean Bas Vogelsangs, her supervisory team, workfield partners and advisory board at the Kick off on 14 February 2025

The Professional Doctorate program: meet candidate Esther Sarphatie

Following the development of Professional Doctorate (PD) programs in various countries around the world, the Netherlands has introduced its own national pilot to meet the growing demand for 'researching professionals'—highly qualified individuals capable of addressing complex, practice-based challenges through applied research and design. In 2023, Dutch Universities of Applied Sciences launched this pilot in close collaboration with the Ministry of Education, Culture and Science. 25 universities are now involved across seven professional domains, one of which is Leisure, Tourism and Hospitality. The PD is designed to offer a practice-oriented doctoral route that complements traditional PhD programs by focusing on the generation of new knowledge through professional practice.

In December 2024, Esther Sarphatie started her PD project titled 'The added value of hospitality in the social domain.' This project is a collaboration between Global Minds at Work and Zuyd's Social Work research centre, headed by Professor Maja Rocak. Workfield partners are Movisie, Vereniging Nederlandse Gemeenten and LBH Hotels. Esther took a Bachelor from Hotel Management School Maastricht and a Master of Anthropology from Amsterdam University. She is a seasoned professional in the public domain and has worked for VNG (the Vereniging Nederlandse Gemeenten) for more than 20 years. In her work, she combines her hospitality DNA with her professional experience to create interventions, tools and spaces that will support municipalities in providing hospitable support to citizens in vulnerable situations. We wish Esther every bit of luck in this pioneering project!

FUTURE OF FOOD

Crafting Ethically Meaningful Experiences: Towards Experiential CSR

This year, the Research Centre Future of Food at Hotel Management School Maastricht achieved an important milestone with the publication of the article “Crafting Ethically Meaningful Experiences: Towards Experiential CSR” in the leading academic journal *Tourism Management*. This study, authored by Henri Kuokkanen and Ksenia Kirillova (Institut Lyfe, France), Danny Han and Malu Boerwinkel (Zuyd University of Applied Sciences, the Netherlands), marks a significant advancement in understanding how ethical and sustainable principles can be embedded within the design of hospitality experiences.

From communicating responsibility to experiencing it

Corporate Social Responsibility (CSR) has long been part of hospitality practice, yet its impact on customer engagement and business performance remains limited, especially when confined to traditional sustainability communication. This research proposes an alternative approach: experiential CSR, where responsibility and purpose are not merely communicated but experienced through carefully designed encounters.

The study introduces and empirically tests the concept of Ethically Meaningful Experiences (EME), which are hospitality experiences that allow guests to feel

part of something good and purposeful, without invoking the usual feelings of sacrifice or moral duty. Drawing on theories of emotional and intuitive decision making such as Haidt’s Social Intuitionist Model, the research explores which experiential design elements enable guests to perceive an experience as ethically meaningful.

Two design components proved particularly influential: social connection and information transparency. Genuine human connection, in this case between the guests and the serving staff, was found to be the strongest driver of ethical meaning and positive emotions, while transparency about sustainable permaculture sourcing and production of the ingredients reinforced this effect. Together, these elements show how hospitality can move beyond informing guests about sustainability to allowing them to feel it.

A first experimental study in experiential CSR

This project represents the first experimental investigation of ethically meaningful experiences within hospitality and tourism. Conducted through a close collaboration between Institut Lyfe and the Research Centre Future of Food, the study combined qualitative exploration with an immersive experimental design.

In the second phase of the research, the experiment was conducted in the Food Experience Lab's Immersive C.A.V.E. at Hotel Management School Maastricht, and Extended Reality (XR) facility that enabled the creation of an immersive dining environment. Participants were welcomed into a 270° projection space that replicated a restaurant setting, where the surrounding visuals alternated between two distinct environments depending on the experimental condition: a neutral restaurant interior and a lush permaculture garden representing the transparent sourcing of ingredients.

More than 200 participants took part in this controlled yet realistic restaurant experience, which was designed to test two key experiential conditions: information transparency and social connection. Transparency was manipulated through both visual and narrative cues. In the high-transparency condition, guests were informed about the origins and planetary benefits of the dish they were served: a nettle soup made with ingredients sourced from permaculture practices, and this information was reinforced by the projected visuals of the garden itself. In the low-transparency condition, participants received only basic menu information, without references to sourcing or sustainability.

Social connection, on the other hand, was established through the style of service interaction. In the high-connection

condition, the server engaged with guests in a warm, personal, and story-driven manner, designed to foster empathy and a sense of shared purpose. In the low-connection condition, the interaction remained polite but minimal and transactional.

To ensure realism and consistency across all conditions, the role of the server was performed by our talented colleague, Tessa Hoebers-Aten. Her convincing performance and precision in following pre-written carefully scripted dialogues ensured that while the delivery remained true to the experimental design, it still felt authentic and emotionally engaging to participants.

The findings were clear: when guests felt genuine social connection, their experiences were perceived as more ethical, meaningful, and emotionally positive. Transparency about the sustainable permaculture sources of the ingredients alone did not have the same effect, but when combined with connection, it amplified trust and authenticity. These results provide the first empirical evidence that ethical meaningfulness can be designed into hospitality experiences.

Contributing to Sustainable Food Experience Innovation

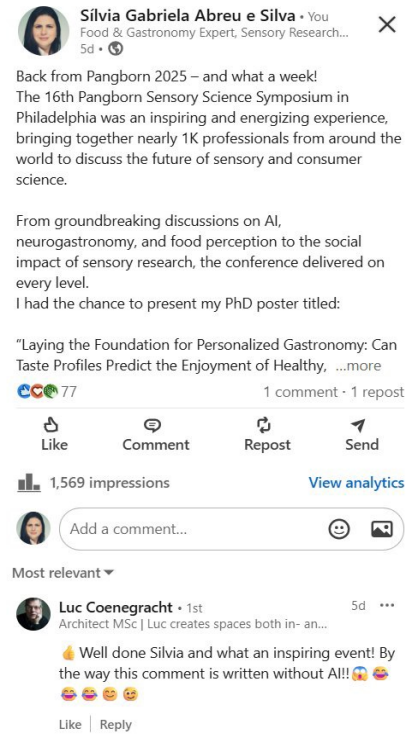
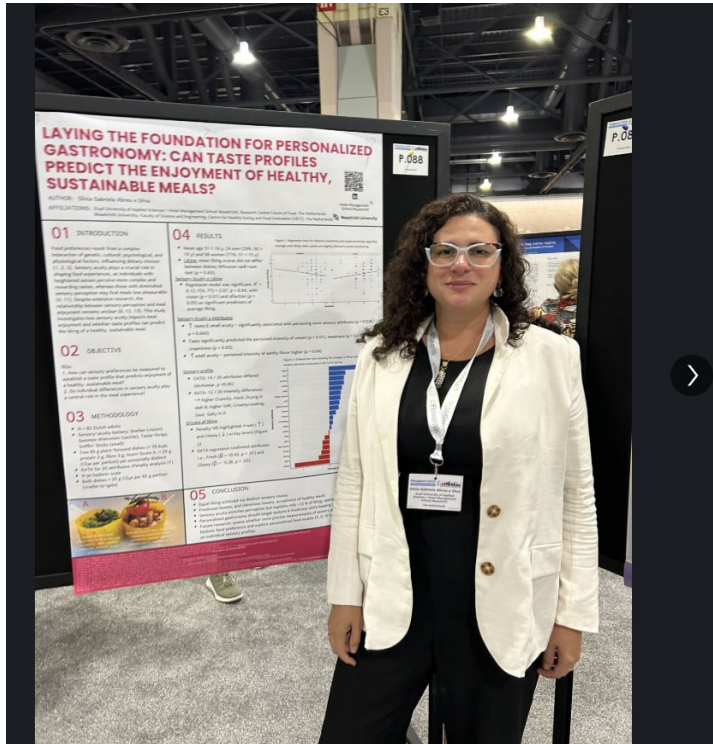
This research directly advances the centre's strategic line Sustainable Food Experience Innovation, exploring how sustainability and ethics can be translated into engaging, value-driven hospitality experiences. By

revealing how guests intuitively evaluate ethical meaning, the study offers practical insights for designing food and service encounters that inspire both enjoyment and reflection.

It also contributes to international discussions on responsible consumption, demonstrating that ethical engagement can be nurtured through positive emotions and authentic human connection rather than guilt or rational persuasion. In doing so, it bridges scientific inquiry with practice, providing hospitality professionals with concrete pathways to create experiences that are both commercially viable and socially meaningful.

The project reflects the collaborative and interdisciplinary ethos of the Research Centre Future of Food, bringing together expertise in ethics, experience design, psychology, and hospitality management from Institut Lyfe (France) and Zuyd University of Applied Sciences (Netherlands). This partnership reinforces the centre's position as a European hub for experimental and applied research on sustainable hospitality and food experiences.

FUTURE OF FOOD



Silvia Abreu e Silva presenting her poster at Pangborn 2025

Laying the Foundation for Personalized Gastronomy: Can Taste Profiles Predict the Enjoyment of Healthy, Sustainable Meals?

What makes a healthy meal truly enjoyable? This question guided the first study in Silvia's PhD on Personalized Gastronomy. Conducted with 82 Dutch consumers, the study explored how differences in sensory acuity—our ability to see, taste, smell and feel—affect the perception and liking of two healthy, plant-forward dishes. Participants first completed a sensory-acuity screening, followed by a tasting session comparing two nutritionally balanced meals: a "soft" vegetable dish and a "crispy" variant. Using Check-All-That-Apply (CATA) and Rate-All-That-Apply (RATA) methods, participants described 20 taste and texture attributes, rated their intensities, and gave overall liking scores.

Results showed that both dishes were equally liked ($\approx 6.3/9$), yet their sensory profiles differed significantly. Fourteen of twenty attributes were perceived differently, confirming that subtle changes in texture or mouthfeel can transform a meal's identity.

Freshness and sweetness increased enjoyment, while chewiness reduced it—clear design cues for creating healthier dishes that people truly want to eat. Interestingly, visual acuity correlated positively with liking, suggesting that presentation matters as much as flavour.

The findings bridge sensory science, sustainability, and education, showing students and chefs how sensory profiling can guide creative yet evidence-based menu design. The study also models experiential learning: HMSM students engaged in data collection, sensory evaluation, and communication of results—translating research into practice.

SUSTAINABLE INTERNATIONAL BUSINESS

Empowering Educators for Curriculum Transformation: The IBE-ReGloMi CPD Programme



Interview with Dr. Jeanine Gregersen-Hermans (principal investigator of the research center for Sustainable International Business, International Business School Maastricht, Zuyd University of Applied Sciences) on how to empower educators for curriculum transformation. This work was presented in the EAIA 2025 conference.

How do Higher Education Institutions (HEIs) respond to global challenges?

Higher education institutions are increasingly innovating their curricula to prepare graduates for a world defined by sustainability challenges, global interdependence, and the need for social innovation. While international accreditation frameworks and institutional strategies provide direction, meaningful curriculum transformation depends on the educators who bring these visions to life. Recognising this, the Erasmus+ project Innovating Business Education for Responsible Global Minds (IBE-ReGloMi) developed a Continuing Professional Development (CPD) programme to empower lecturers as agents of change.

Why Continuing Professional Development (CPD) matters?

Recent research highlights that CPD is more than just technical training—it is a transformative process deeply tied to professional identity and institutional culture. Effective CPD fosters reflective practice, values-driven engagement, and collaborative learning. It needs to create spaces for dialogue and experimentation, enabling educators to challenge traditional paradigms and embed sustainability, ethics, and global competencies into their teaching. For business education, this means moving beyond incremental adjustments to embrace systemic change aligned with the UN Sustainable Development Goals (SDGs).

What are the design principles and process of IBE-ReGloMi's CPD programme?

The IBE-ReGloMi CPD programme was built on three pedagogical pillars:

- **Snowballing:** Training frontrunner educators to cascade learning within their institutions, amplifying impact through peer-led dissemination.
- **Andragogy:** Grounding learning in participants' experience and ensuring relevance to their daily teaching contexts.
- **Dialogue and Co-creation:** Facilitating critical conversations and collaborative design to foster ownership and contextual adaptation.

Developed through an iterative, co-creative process among five European partner institutions, the programme comprises six modular sessions. Each module addresses a key dimension of curriculum innovation—from student partnership and stakeholder dialogue to designing courses that integrate ethics, internationalisation, and accreditation standards. Modules were intentionally concise (60 minutes) to respect time constraints while maintaining depth through reflective and interactive activities.

How do IBE ReGloMi's concepts translate into practice?

A cornerstone of the programme was the transnational Train-the-Trainer event, which brought together educators from diverse disciplinary backgrounds. This format enabled participants to experience all six modules, engage in peer learning, and prepare to facilitate CPD within their own institutions. By positioning educators as catalysts for change, the programme leveraged collegial networks to embed graduate attributes—such as sustainability literacy, intercultural competence, and ethical reasoning—into business curricula. Together with Mrs. Moniek Compaan (SIB researcher), Mrs. Gaby Gijsberts (SIB researcher), and Mrs. Manon Niesten (IB/Zuyd Programme manager) led that activity on behalf of the European consortium, SIB research center, and International Business School Maastricht (IBSM) at Zuyd University of Applied Sciences.



CPD training session in IBSM/Zuyd UAS
(May, 2025)

SUSTAINABLE INTERNATIONAL BUSINESS

Circular Economy Implementation in Hospitality SMEs in Limburg



Mrs. Gaby Gijsbert (SIB researcher), Dr. Iyene Nkanta (University of the West of Scotland, United Kingdom, UK), and Dr. Nikos Kalogeras (SIB Chair) presented the results of the project "Driving Sustainability: Circular Economy Implementation in Hospitality SMEs in Limburg" in the 6th Symposium on Circular Economy and Sustainability (CEST), which was held last June (17-19) in Alexandroupolis, Greece.

Recognizing that the hospitality sector, especially small and medium-sized businesses (SMEs), plays a vital role in tackling global environmental issues, including climate change, resource depletion, and waste generation, this study focused on the adoption of circular economy (CE) practices among SMEs in Limburg's hospitality industry in the Netherlands. The region, known for its thriving tourism and culinary heritage, presents unique opportunities for implementing sustainable business models that prioritize resource optimization, material circularity, and waste reduction. Using a mixed-methods approach, findings revealed that while awareness of CE concepts is growing, there is significant variation in the level of adoption across businesses. Resource optimization, waste reduction, and digital integration are among the most promising areas for

improvement. However, many SMEs require additional support in the form of policy incentives, access to funding, and tailored training programs to fully embrace circular practices.

This research provides a framework specifically designed to incorporate CE principles into the daily operations of hospitality SMEs, addressing their unique challenges and harnessing their potential for sustainable growth. It also assesses the environmental and economic benefits of CE implementation, demonstrating how these practices can reduce waste, lower costs, and enhance business competitiveness. Recommendations for local policymakers and industry leaders include targeted financial incentives, better access to digital tools, and collaborative initiatives to promote a circular economy mindset.

Would you like to see a full overview of all the contributions of PROCODIS, Global Minds @ Work, Future of Food and Sustainable International Business?

Take a look at our output overview!

