

# BUas R&D



CREATING MEANINGFUL EXPERIENCES



Artificial  
Intelligence



Digital  
Realities



Experiences



Places  
and Flows



Sustainability  
Transitions



Breda  
University  
OF APPLIED SCIENCES



# Foreword



# Dear partners,

With this booklet, I am happy to guide you through the research and innovation vision of Breda University of Applied Sciences (BUas).

At BUas, we create a dynamic synergy between education, research, and society. **Our holistic approach sees education and Research & Development/Design (R&D) as equally important, mutually reinforcing, and interconnected functions** that contribute to industries, academia, government, and society at large. This integration aims to equip students with in-depth knowledge and strong human skills to thrive in a world of constant change. Our commitment drives us to address complex challenges and create innovative solutions for a better world.

Our R&D activities are structured around **five R&D core themes**. Each theme is closely aligned with major societal challenges and forms a key part of our institutional R&D agenda. To provide a clearer understanding, the next page presents a concise overview of our R&D themes.

At BUas, we foster a culture of innovation and collaboration. Our **high-end labs and studios** are at the heart of our R&D efforts, providing state-of-the-art facilities for students and researchers to push boundaries and explore new ideas. These include the Cradle, Experience Lab, Motion Capturing Studio, Photogrammetry Studio, Places and Flows Lab, TasteLab, XR Lab, and XR Stage.

In short, our research vision goes beyond knowledge creation – it is about **making a tangible impact on society**. Firmly rooted in Europe and guided by our professors, our research portfolio reflects this ambition. Through this booklet, we aim to demonstrate the impact of our work.

Together, and with your help, we are committed to shape a sustainable, inclusive, and innovative future.

Thank you for your valued engagement and commitment.

Warm regards,

**Dr Jorrit Snijder**  
**President of the Executive Board**  
Breda University of Applied Sciences







# Our R&D themes



### Artificial Intelligence

We use AI to transform education and research, while always prioritising ethics. Our work connects what students learn with what industry needs and what AI can do, in a way that is academically robust, socially responsible and globally relevant.



### Digital Realities

We are at the forefront of exploring technologies such as Virtual Reality (VR), Augmented Reality (AR), and other interactive technologies. Our research focuses on the creation, application, and experience of Digital Realities in ways that are sensible, meaningful, and responsible.



### Experiences

Recognising that experiences lie at the heart of many expert domains – including leisure, tourism, hospitality, games, and media – our research focuses on designing and evaluating high-quality experiences that promote well-being, sustainability, and social inclusion.



### Places and Flows

We focus on understanding and improving the interactions between physical places and the flows of people, goods, and information that connect them. Our aim is to develop attractive, accessible, and competitive places that enhance quality of life while managing flows sustainably.



### Sustainability Transitions

This theme focuses on developing pathways towards a low-carbon, well-being-oriented, and equitable economy. Our research supports industries in reshaping their models, structures, and processes to align with sustainability goals.

# Facts & Figures 2024





**Professorships**  
**13**



**Researchers**  
**163**



**Research Projects**  
**41**



**References in Media**  
**814**



**Publications**  
**292**



**Research Awards**  
**2**



**Volume of  
Research Funding (x € mln)**

<b>Government funding</b> (primary source of funding)	<b>3,223</b>
<b>External funders</b> (secondary sources of funding)	<b>3,476</b>
<b>Contract research</b> (tertiary sources of funding)	<b>1,036</b>
<b>Total</b>	<b>7,735</b>



**Acquiring Horizon Europe funding**

BUas is ranked third among other Dutch universities of applied sciences in acquiring Horizon Europe funding.



**Partner of a European  
University Alliance**



- > In 2024, BUas joined KreativEU, strengthening its European focus through close cooperation.
- > KreativEU unites 11 universities in strategic collaboration, creating a European university centred on Europe's cultural heritage through teaching, research, and knowledge-sharing.
- > A four-year grant was awarded by the European Commission.

TRANSVERSAL PROFESSORSHIP OF

# Applied Data Science and Artificial Intelligence



Artificial  
Intelligence

**Professor**  
Carlos Pereira Santos

**Research Topic**  
Data Science and AI

## Overview

This professorship inspires, educates, and researches a balanced approach to adopting AI within the BUas community. It focuses on fostering an understanding of AI technology while promoting its ethical and responsible use.

## Key Areas

- > Conducting evidence-based research on AI impacts
- > Providing factual education and clear dissemination of AI information
- > Bridging gaps between awareness and advanced AI applications by fostering collaborations







# Featured Project | AVENUE

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## Timeline

February 2025 - January 2029

## Project Goal

Enhancing professional training and education in the European creative visual industry by fostering innovation, entrepreneurship, and sustainability through a pan-European network of Centres of Vocational Excellence.

## Project Description

- > This project boosts the European creative visual industry by aligning vocational education with industry needs.
- > Through research, innovative teaching methods, mobility, and Open Access training, it supports the shift from traditional arts education to market-driven skill development.
- > Active in five creative ecosystems, the project has already upskilled over 2,000 professionals and young talents, fostering cross-border collaboration and ensuring a competitive, sustainable, and future-ready workforce.

## Collaborating Partners

Five independent creative ecosystems across Europe:

- > Breda
- > Dublin
- > Turin
- > Viborg
- > Angoulême

## Funding Partner



Co-funded by  
the European Union

PROFESSORSHIP OF

# Creative and Entertainment Games



Digital  
Realities



Sustainability  
Transitions



Artificial  
Intelligence

**Professor**  
Mata Haggis-Burridge

**Research Topic**  
Content, Creation, and Cultural Context of  
Artistic/Entertainment Video Games

**Overview**  
This professorship generates knowledge for education,  
academia, and the commercial and artistic video game  
development industry.

**Key Areas**

- > Addressing under-researched aspects of the video game industry
- > Championing the intrinsic value of entertainment in society
- > Improving policy relating to creative and entertainment games





## Featured Project | **PANEURAMA**

### Timeline

September 2023 - September 2026

### Project Goal

PANEURAMA reduces mismatches between education and the needs of game, animation, and VFX industries, targeting soft skills, entrepreneurship and technology.

### Project Description

- > The project seeks to align education and training outcomes with the specific needs of the games, animation, and VFX industries. It promotes creativity, empowers talent, and shapes future opportunities for students and professionals.
- > PANEURAMA focuses on three key areas: soft skills and workplace culture, innovation and entrepreneurship, and adaptability to technological change.
- > Its aim is to establish a clear understanding of market needs and communicate in industry-relevant terms. By identifying gaps between current educational practices and sector expectations, the project equips learners with the skills and insights needed to meet evolving career demands.

### Collaborating Partners

- > The Animation Workshop  
– Viborg
- > Film Akademie
- > Baden-Württemberg
- > Université Paris 8
- > Creative Viborg
- > DIGIC
- > KHORA
- > Fortiche
- > Rise Visual Effects Studios
- > Qvisten Animation
- > CoFlow Visuals
- > Beyond Horizon

### Funding Partner



**Funded by**  
the European Union

PROFESSORSHIP OF  
**Digital Media Concepts**



Artificial  
Intelligence



Digital  
Realities



Experiences

**Professor**  
Marnix van Gisbergen

**Research Topic**  
Immersive Media Concepts (VR, MR, AR)

**Overview**  
This professorship supports organisations in developing and testing immersive media strategies and content, focusing on the added value of virtual humans and immersive technologies – such as virtual, augmented, and mixed reality – over traditional media.

**Key Areas**

- > Developing and testing immersive media concepts and virtual beings in media contexts
- > Studying how realism in immersive media and virtual beings affects experience and behaviour
- > Creating frameworks to help organisations engage audiences across media platforms







## Featured Project | RECOVERY

### Timeline

2018 - ongoing

### Project Goal

Developing and testing virtual humans and AR and VR therapy applications for the prevention and treatment of (alcohol) addiction.

### Project Description

- > New forms of care are essential, with a focus on prevention, relocation, and replacement – particularly for Alcohol Use Disorder (AUD), which accounts for over 5% of all illness and injury. Moreover, 47 to 75% of AUD patients relapse within one year after treatment.
- > This project aims to prevent unhealthy lifestyles linked to (alcohol) addiction by developing and testing AR/VR exposure therapy tools for both clinical treatment and prevention.
- > A key efficiency question is how realistic virtual worlds and virtual humans must be to support the reintegration of former AUD patients into society ('more people, fewer patients').

### Collaborating Partners

- > Novadic-Kentron
- > Thalamusa
- > TU/e
- > Stichting Zwarte Gat
- > 4DR Studios
- > Psylaris
- > Verslavingskunde Nederland

### Funding Partners

- > Novadic-Kentron
- > Taskforce for Applied Research SIA (SPRONG)
- > NWO
- > Creative Europe
- > Stimuleringsfonds

PROFESSORSHIP OF

# Digital Transformation in Cultural Tourism



Digital  
Realities



Experiences



Places  
and Flows

## Professor

Jessika Weber-Sabil

## Research Topic

Application of Digital Realities in Cultural Tourism

## Overview

The professorship investigates the use of digital realities (AR, VR, MR) and participative techniques in cultural tourism. The ultimate goal is to revitalise public spaces, heritage sites, and tourism destinations by leveraging digital technologies.

## Key Areas

- > Bridging the digital skills gap among professionals in cultural tourism
- > Developing immersive digital experiences of cultural heritage
- > Applying digital technologies to drive societal change and address complex challenges
- > Shaping digital policy and fostering civic participation





# Featured Project | i-DEMO

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## Timeline

October 2024 - March 2027

## Project Goal

Equipping tourism professionals with game-based skills to boost innovation, destination appeal, and visitor engagement.

## Project Description

- > This project bridges an innovation gap in tourism by equipping professionals with game-based tools to attract and engage visitors.
- > It offers training, a toolkit, and a best practices map to support sustainable tourism, storytelling, and regional identity.
- > BUas contributes expertise in digital tourism and serious games. Activities include skills mapping, a game-based course, and a hackathon across eight destinations.
- > Project i-DEMO strengthens local tourism ecosystems, boosts employability, and aligns vocational education with market needs.

## Collaborating Partners

- > CTIMESIS SRL
- > La Rotta dei Fenici
- > Associazione Culturale Tuo Museo
- > Pafos Regional Board of Tourism
- > Hellenic Open University
- > ACIF-CCIM
- > Województwo Kujawsko-Pomorskie

## Funding Partner



Co-funded by  
the European Union

PROFESSORSHIP OF

# Leisure and Tourism Experiences



Digital  
Realities



Experiences



Places  
and Flows

## Professor

Marcel Bastiaansen

## Research Topic

Measurement and Design of  
Leisure and Tourism Experiences

## Overview

This professorship explores leisure, tourism, hospitality, and media experiences, with a focus on developing theoretical models and measuring the impact of experiences on cognition, emotions, behaviour, well-being, and quality of life.

## Key Areas

- > Exploring what makes experiences memorable, meaningful or transformative
- > Tracking experience data over time and space using positioning systems
- > Measuring experiences in both lab and real-world settings using neuroscience-based methods
- > Evidence-based experience design







## Featured Project | Enhancing Live Entertainment with Augmented Reality

### Timeline

2023 - 2024

### Project Goal

Investigating how pre-match augmented reality (AR) influences football fans' emotional responses and overall match experience.

### Project Description

- > This project bridges academic research and industry practice by examining the effects of an augmented reality (AR) intervention on football fans' emotional arousal and match evaluation.
- > A pre-match AR experience was developed, featuring interactive, life-sized player projections and match statistics. The study compared physiological and self-reported responses in two settings: the PSV stadium and a home-like environment at BUAs.
- > Results indicate that AR enhanced engagement at home but had limited impact in the stadium. The findings highlight how digital technologies can shape audience experiences, offering insights for the future of sports entertainment.

### Collaborating Partners

- > PSV Eindhoven
- > Dutch Rose Media
- > Effenaar

### Funding Partner

Taskforce for Applied Research  
SIA (KIEM GoCI)



PROFESSORSHIP OF

# Leisure in a Social Context



Experiences



Places  
and Flows

**Professor**  
Jörn Fricke

**Research Topic**  
Leisure in a Social Context

**Overview**  
This professorship explores the critical role of leisure and events in fostering cohesion within increasingly diverse social environments. It examines how leisure activities can increase well-being, bridge societal divides, promote dialogue, and contribute to inclusivity, helping to counteract social and political polarisation.

## Key Areas

- Understanding the role of leisure in reducing societal fragmentation
- Exploring leisure as a (strategic) tool to foster Diversity & Inclusion, participation, and cultural exchange
- Researching the impact of events and public spaces on social cohesion





## Featured Project | Energy from the Bottom Up

### Timeline

2025 - 2028

### Project Goal

Fostering individual and collective ownership to boost prosperity by empowering local communities and retaining knowledge and influence regionally.

### Project Description

- > The project is driving change in West-Brabant by turning disengagement into active community participation. It empowers local people, reducing top-down control and recognising grassroots strengths.
- > Backed by the Regio Deal, it supports community-led initiatives across the region, well beyond Breda, using experimental methods and tailored tools.
- > By openly sharing insights, the project rebuilds trust and strengthens ties between residents, businesses, and authorities – driving inclusive prosperity through real community empowerment.

### Collaborating Partners

- > Avans
- > Municipality of Breda
- > Urban Living Lab Breda

### Funding Partner

Regio West-Brabant



PROFESSORSHIP OF

# Serious Games, Innovation and Society



Artificial  
Intelligence



Digital  
Realities



Experiences



Places  
and Flows



Sustainability  
Transitions

**Professor**  
Igor Mayer

**Research Topic**  
Playful Organisations and Learning Systems

## Overview

This professorship focuses on serious games for professional learning, team performance, organisational change, and the management of complex systems. It involves game design, evaluation, case studies, and field labs. The research also explores the use of virtual humans for learning and digital twins for spatial planning.

## Key Areas

- > Design and innovation in serious games and extended realities
- > Collaboration with national and international Research and Development consortia
- > Contribution to policy and practice across various sectors







# Featured Project | MSP Challenge

## Timeline

2016 - 2019

## Project Goal

Supporting communication and learning in Marine and Maritime Spatial Planning (MSP) through the use of game technology and role-play.

## Project Description

- > Human activities at sea – such as wind farming, shipping, and fishing – often conflict and impact the marine environment. The Maritime Spatial Planning (MSP) Challenge supports decision-makers, stakeholders, and students in managing maritime resources.
- > BUAs developed a Simulation Platform using game technology and real-world geodata to enhance learning and communication in marine planning.
- > Sea basin models, including the North Sea and Baltic Sea, have been applied in workshops, conferences, education, and stakeholder engagement. The tool ultimately supports marine ecosystem protection while promoting efficient and sustainable use of sea space.

## Funding Partners

- > The Dutch, Scottish and German national governments' MSP authorities
- > The Dutch national DigiShape innovation platform
- > Horizon 2020 (Ecosope and ILIAD projects)
- > Different schemes of the European Union:
  - European Regional Development Fund (NorthSEE Interreg North Sea Region and Baltic LINES Interreg Baltic Sea Region projects)
  - European Maritime and Fisheries Fund (SIMCelt and MSP-MED projects)
  - Erasmus+ (SP-MSP and Knowledge Flows strategic partnership projects)



Co-funded by  
the European Union

# PROFESSORSHIP OF Smart Cities and Logistics



Artificial  
Intelligence



Places  
and Flows



Sustainability  
Transitions

**Professor**  
Hans Quak

**Research Topic**  
City Logistics Innovations  
for Smarter and Sustainable Cities

**Overview**  
This professorship focuses on urban logistics,  
aiming to support cities and businesses in  
the transition to zero-emissions logistics  
and the development of smart city logistics.

## Key Areas

- > Integrating logistics operations with other urban systems
- > Visualising the impact of logistics on the urban environment
- > Collaborating with diverse stakeholders to achieve sustainable city logistics





## Featured Project | DISCO

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### Timeline

May 2023 - November 2026

### Project Goal

Tackling the challenges of last-mile delivery by leveraging city logistics data to optimise operations.

### Project Description

- > Urban congestion increasingly disrupts last-mile delivery, driving inefficiency and cost. This project seeks to boost efficiency, lower costs, and foster sustainable urban logistics for cleaner cities.
- > BUAs contributed by researching city logistics data to optimise delivery operations through traffic pattern analysis, predictive demand forecasting, and real-time rerouting.
- > Results showed that data-driven logistics enhance delivery performance, ease congestion, and improve urban mobility.
- > The project also examined the 'Physical Internet', demonstrating its potential to revolutionise urban logistics through interconnected infrastructure, enabling smarter goods movement within and between cities.

### Collaborating Partners

There are 47 partners in total, including municipalities, technology providers, research organisations, and universities.

### Funding Partner

European Climate, Infrastructure and Environment Executive Agency (CINEA)



**Funded by  
the European Union**



# PROFESSORSHIP OF **Storytelling**



Digital  
Realities



Experiences

**Professor**  
Moniek Hover

**Research Topic**  
Storytelling Research and Design

**Overview**  
The professorship aims to design memorable and meaningful experiences for the leisure, tourism and hospitality industry by using storytelling principles. This involves creating story-based concepts and storylines that evoke emotions and connect with people's values and lives.

## **Key Areas**

- > On-site and online storytelling for museums, attractions, cities, nature areas, and regions
- > Story-based cycling and hiking routes
- > Interactive digital heritage experiences





## Featured Project | Where Brabant Meets the Kempen

### Timeline

April 2024 - March 2027

### Project Goal

Bringing new life to the historic Bels Lijntje, connecting local attractions, and boosting sustainable tourism in the region.

### Project Description

- > The Kempen region's rich history and tourism potential are not yet fully tapped, limiting both cultural and economic growth.
- > BUAs supported the revival of the Bels Lijntje, the historic railway line between Tilburg (NL) and Turnhout (BE), by researching local stories, conducting interviews with residents, and analysing the tourism and recreation landscape.
- > This work helped strengthen tourism infrastructure, connect cultural narratives, and unlock opportunities for sustainable regional development.

### Collaborating Partners

- > APB Toerisme  
Provincie Antwerpen
- > Various municipalities
- > Thomas More  
Mechelen-Antwerpen

### Funding Partner

Interreg Vlaanderen – Nederland

**Interreg**  
Vlaanderen-Nederland



Gefinancierd door  
de Europese Unie



PROFESSORSHIP OF  
**Sustainability, Tourism  
and Transport**



Experiences



Places  
and Flows



Sustainability  
Transitions

**Professor**  
Nina Nesterova

**Research Topic**  
Transition to Sustainable Tourism and Leisure Mobility

**Overview**  
The professorship is committed to advancing the transition towards sustainable tourism and leisure mobility by reducing the climate footprint of these sectors.

**Key Areas**

- > Reimagining the tourism and leisure mobility system
- > Navigating the tourism and leisure mobility transition
- > Transforming tourism and leisure mobility





## Featured Project | MONA

### Timeline

July 2023 - December 2027

### Project Goal

Fostering sustainable tourism in and around nature areas in North-West Europe (NWE).

### Project Description

- > Nature areas in North-West Europe are under growing pressure from increasing visitor numbers, resulting in environmental degradation, rising costs, and social exclusion due to car dependency.
- > The MONA project encourages a shift to sustainable travel through inclusive routing and stakeholder engagement.
- > BUAs contributed with a multidisciplinary approach, combining expertise in sustainability, tourism, transport, and urban mobility.
- > The research supports more sustainable tourism through improved transport options, inclusive access, and behavioural nudges, helping to reduce environmental and social impacts. The findings underscore the need for balanced, sustainable, and socially inclusive tourism solutions.

### Collaborating Partners

- > VisitBrabant
- > POLIS
- > KU Leuven
- > Various nature parks and tourism organisations

### Funding Partner

Interreg North-West Europe



# TRANSVERSAL PROFESSORSHIP OF **Sustainability Transitions**



Sustainability  
Transitions

**Professor**  
Frans Melissen

**Research Topic**  
Sustainability Transitions

**Overview**  
This professorship supports professionals, companies, and organisations in identifying and implementing sustainability transition pathways. It focuses on moving towards a socio-economic system that operates within planetary boundaries, promotes well-being, and safeguards social justice.

## **Key Areas**

- > Constructive dialogue as a means to speed up sustainability transitions
- > Cooperation mechanisms and behavioural interventions
- > Experimentation with and exploration of new sustainability insights



# Featured Project | Hospitable Transitions

## Timeline

2025 - 2029

## Project Goal

Accelerating sustainability transitions in the hospitality sector through systemic, collaborative innovation.

## Project Description

- > Hospitable Transitions is driving sustainable innovation in leisure, tourism and hospitality.
- > By connecting universities, businesses, and community organisations, the project tackles major challenges like climate neutrality, broad prosperity, healthier regions, and regenerative growth.
- > The goal is to build a strong, future-ready hospitality sector that helps shape a more sustainable and inclusive Netherlands.

## Collaborating Partners

- > NHL Stenden University of Applied Sciences (ETFI)
- > Inholland University of Applied Sciences
- > HZ University of Applied Sciences

## Funding Partner

Taskforce for Applied Research  
SIA (SPRONG subsidy programme)



PROFESSORSHIP OF

# Tourism Impacts on Society



Places  
and Flows



Sustainability  
Transitions

## Professor

Jeroen Klijs

## Research Topic

The Impacts of Tourism on Society

## Overview

This professorship empowers tourism professionals to create and assess interventions that boost tourism's social and economic impacts – enhancing visitor experiences, residents' quality of life, and working conditions in tourism destinations.

## Key Areas

- > Impact measurement: Understanding tourism's social and economic impacts
- > Destination interventions: From infrastructure and attractions to communication, events, and smart tech
- > Success conditions: Key factors that make interventions effective and sustainable







## Featured Project | SmartCulTour

### Timeline

2020 - 2023

### Project Goal

Developing new definitions and frameworks for cultural tourism as a driver of sustainable development, measuring sustainability impacts, engaging stakeholders, and designing trial interventions within community-led Living Labs.

### Project Description

- > The SmartCulTour project addressed the challenge of making cultural tourism a driver of sustainable development.
- > BUAs contributed by developing definitions, frameworks, and tools to measure sustainability and engage stakeholders. BUAs applied quantitative methods, a literature review, case study analysis, art-based methods and serious games.
- > Findings showed that cultural tourism can support sustainable growth through innovative interventions in community-led Living Labs, helping regions balance tourism with cultural and environmental preservation.

### Collaborating Partners

- > KU Leuven
- > University of Split
- > University of Lapland
- > MODUL
- > University of Vienna
- > Ca'Foscari Università di Venezia
- > UNESCO
- > CIHEAM
- > Toerisme Vlaanderen
- > Quantitas

### Funding Partner



Funded by  
the European Union

PROFESSORSHIP OF

# Urban Mobility Planning



Places  
and Flows



Experiences



Sustainability  
Transitions

## Professor

Paul van de Coevering

## Research Topic

Interaction between Built Environment and Mobility

## Overview

Contributing to accessible, inclusive, and liveable urban areas by integrating mobility and land use planning. The focus is on optimising multimodal accessibility, enhancing spatial quality, and advancing the transition to sustainable mobility.

## Key Areas

- > Enhancing integration of built environment and transportation
- > Translating big data into policy-relevant information
- > Applying behavioural theory to support sustainable mobility transitions





## Featured Project | **LEVERAGE**

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### Timeline

January 2024 - October 2027

### Project Goal

Exploring and enhancing the potential of Light Electric Vehicles (LEVs) for the mobility transition.

### Project Description

- > LEVERAGE explores how light electric vehicles (LEVs) can support sustainable urban mobility.
- > While LEVs offer reduced congestion and emissions, concerns remain around safety, public space use, and the displacement of active travel.
- > The project helps governments and stakeholders address these challenges by identifying barriers and drivers, improving integration with public transport, reducing safety risks, and shaping policy frameworks to strengthen LEVs' role in the mobility system.
- > Methods include BIG-data analyses with shared mobility and public transport data, advanced traffic safety experiments, as well as surveys and focus groups.

### Collaborating Partners

- > HAN University of Applied Sciences
- > TU/e
- > Various knowledge institutions
- > Private parties
- > Governmental institutions

### Funding Partner

Taskforce for Applied Research SIA (RAAK-PRO subsidy programme)





# Centres of Expertise



BUas is a partner in several national and international centres of expertise, collaborating in research and knowledge sharing, to contribute to shaping a better world.

## An overview of our Centres of Expertise



### **CELTH**

Promoting public-private partnerships between higher education and industry partners in the field of leisure, tourism and hospitality.



### **LCB**

Bringing business, education, government and research together to create logistics innovations for today and tomorrow.



### **THE-ICE**

Global organisation for expertise, accreditation and quality enhancement in tourism, hospitality, events, and culinary arts education.



### **WLO**

Global network of leisure expertise organisations founded on the belief that well-selected leisure experiences improve quality of life for all.



### **KennisDC Logistiek**

Higher education, research and industry cooperating in Greening Corridors, Liveable Cities Logistics, Healthcare Logistics, and Circularity & Sustainability.



# R&D Facilities



In all our domains of expertise, boundaries are constantly pushed, and our researchers and students never stop searching for new ideas and technologies that can change the world. In our high-end labs and studios, we conduct R&D and provide our students with a unique set of skills for life to keep up in a continuously changing world.

## Our Labs and Studios

### Cradle

In this lab, students and researchers design and create the next generation of digital realities. Projects include the integration of geodata and big data, simulations with AI, advanced game technology, motion capture suits, VR/AR.

### Experience Lab

This is a state-of-the-art experience research and design facility. It houses equipment for measuring emotions and experiences directly from the body and the brain, using psycho-physiological and neuroscience techniques.

### Motion Capturing Studio

In this studio, students and staff can work with state-of-the-art MoCap technology such as gloves, full body suits, and high-fidelity camera tracking for media products such as games, films, and advertising.

### Photogrammetry Studio

The Photogrammetry Studio allows students and staff to scan humans and objects in 3D. The studio consists of 33 individual cameras with custom software which capture every single detail. The custom pipeline has an easy workflow and produces quick results.

### Places and Flows Lab

The Tangible Landscape set-up in the lab combines a physical model with digital tools, letting users shape terrain by hand to simulate processes like water flow, flooding, vegetation impact, or urban planning using GRASS GIS and Blender.

### TasteLab

The TasteLab is a physical space where students, researchers and industry partners of BUas can create new food concepts and experiences that can be tested and measured in a controlled environment.

### XR (Extended Reality) Lab

This lab is dedicated to the research and development of Extended Reality (XR) experiences, which includes Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR).

### XR (Extended Reality) Stage

BUas is the first university of applied sciences in Europe to have a full-fledged Extended Reality (XR) stage with LED screen available for its students. The giant LED screen can display real-time content.

If you are interested in working with us or would like more info about these facilities, please send an email to [research@buas.nl](mailto:research@buas.nl).



# References



## Marine Spatial Planning

"Collaborating with BUAs on marine spatial planning has been a highly rewarding experience. BUAs brings outstanding professionalism, in-depth expertise, and a strong applied focus that significantly enhanced the quality and impact of our joint work in the Northern Mozambique Channel region.

Their team combines academic rigour with practical insight, contributing valuable knowledge to sustainable ocean governance. We were particularly pleased when the team introduced delegates to creative pathways, i.e., through board games, which enabled better and faster understanding of the concept of MSP. We greatly value this partnership and look forward to future collaborations."

*Team WWF Southwest Indian Ocean*



## Brabantse Belevingsroutes

"Our collaboration with BUAs on the Brabantse Belevingsroutes has been both professional and inspiring. BUAs brought valuable expertise in storytelling, visitor experience, and destination development, helping us shape and promote routes that reflect the unique identity of Brabant.

Their structured and creative approach has made a real impact, and we greatly value their contribution to putting Brabant on the map. We look forward to continuing this strong partnership."

*Brabant Partners*

# How can we help?

Get in touch with us by contacting our BUas Research Policy Advisors via  
**research@buas.nl**

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CREATING MEANINGFUL EXPERIENCES