





President Breda University of Applied Sciences Snijder.J@buas.nl





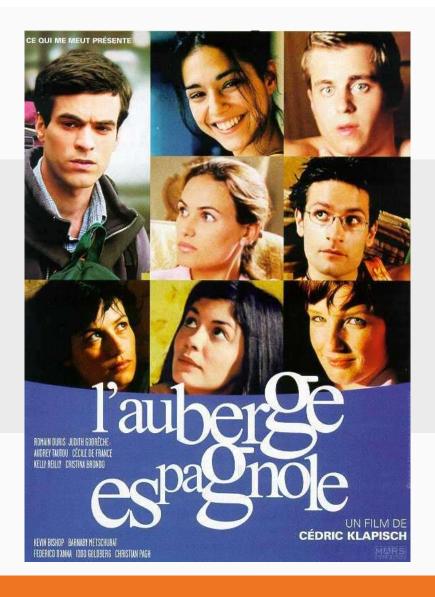
December 4, 2025



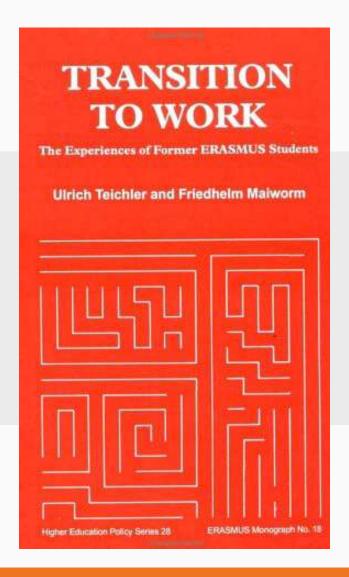






















AI Fast Development

You may live in interesting times...



May, 2022

A raccoon playing tennis at Wimbledon in the 1990s



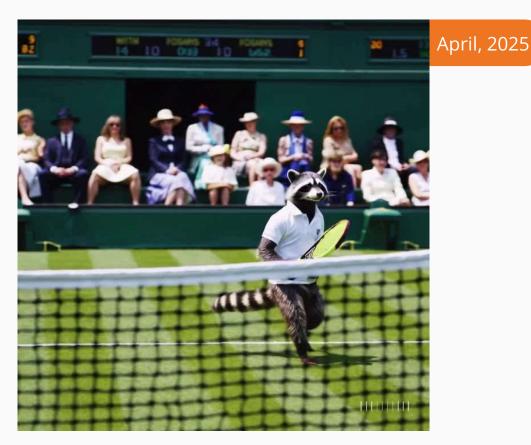
AI Fast Development

You may live in interesting times...



May, 2023

A raccoon playing tennis at Wimbledon in the 1990s





Al is a Tool

Artificial intelligence is proposing to significantly impact our lives!



- Academia
- Agriculture
- Manufacturing
- Engineering
- Transportation
- Retail & Consumer Market
- Energy & Smart Spaces
- Healthcare
- Media & Entertainment
- Sustainability





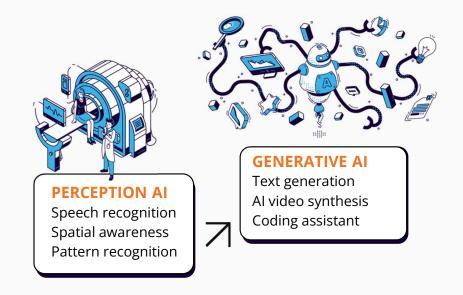
Artificial intelligence is proposing to significantly impact our lives!



Speech recognition Spatial awareness Pattern recognition

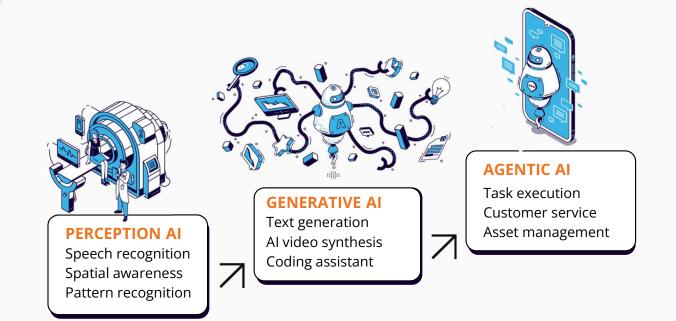


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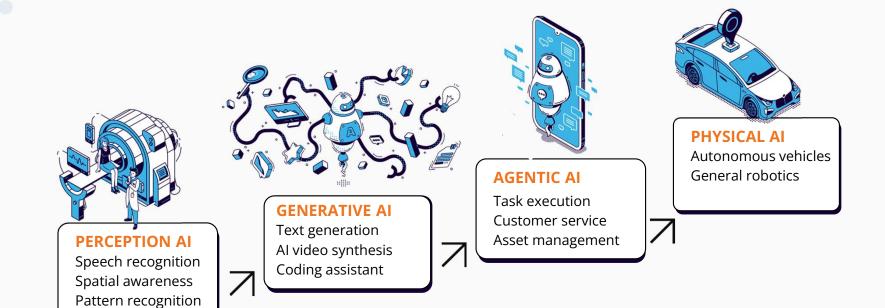


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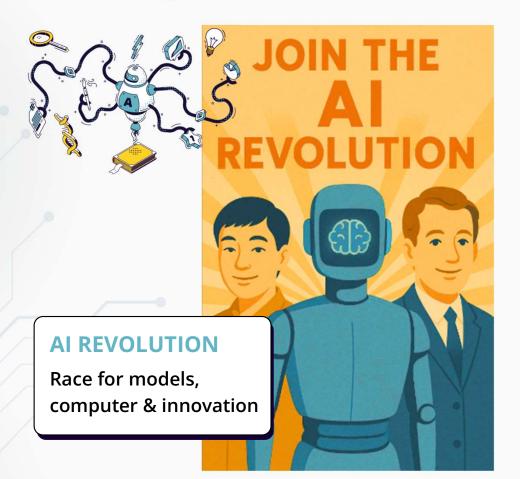
Artificial intelligence is proposing to significantly impact our lives!







BIGGER, FASTER, BETTER...







BIGGER, FASTER, BETTER...



AI ARMS RACE

Unscrupulous market, political & power driven...





Impacts

- How AI will transform us, is yet to be determined.
- Al's ripple effects redefine our own future.
- We create our tools, our tools redefine who we are.



Knowledge & Skills



Autonomy





Social connections





Individuality



Breda University of Applied Sciences





Breda, the Netherlands Since **1966**

7.089 Students

- 1.822 International students (26%)
- 103 Countries of origin





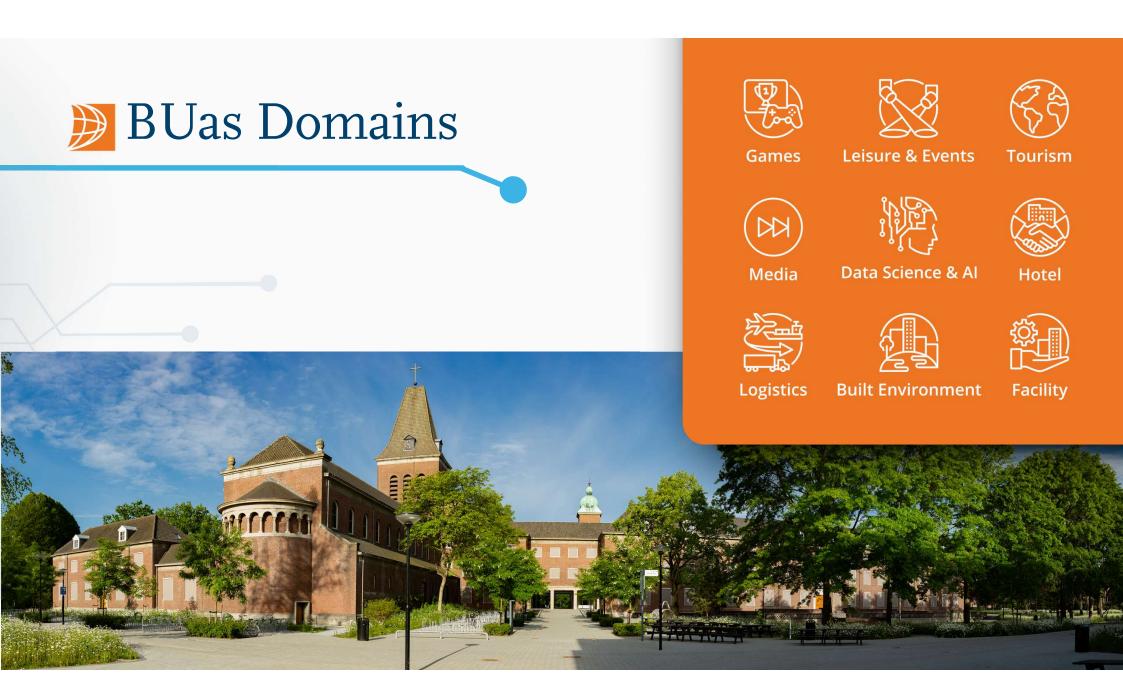
885 Employees

• 182 International employees (21%)



[BUas student data, October 2023]





From Practice to Framework

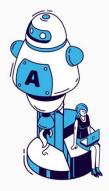
The BUas Story



Not a top-down model



Developed through iteration, reflection, and collaboration



Focus on human behavior: "Al changes how people work"



Cross-functional teamwork

"We didn't approach AI from a technical-rational concept; we approached it from the idea that it changes people's behavior."



Ambition

"BUas is a frontrunner in leveraging and maintaining AI as a transformative tool in education, operations and research, while keeping ethical considerations at the forefront."



Education

Leading in Al in the domains



Operations

Human-centered, balancing efficiency with empathy & accountability



Research

Integrating AI in research & innovation focusing on educational goals and industry needs

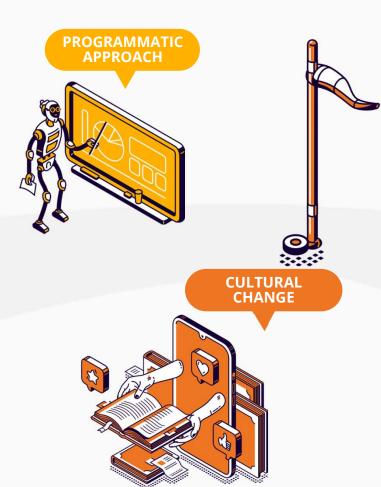




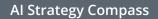








Springael, I. (2025). AISC - AI Strategy Compass: A strategic change approach for comprehensive AI implementation in higher education



Urgency

Creating Shared Purpose - Not Panic



Beyond crisis framing



Build a collective sense of "Why now?"



Aligning external demands with internal aspirations



Moving from 'we must keep up' to 'we can lead'



Al Strategy Compass

Ambition & Strategy

From Vision to Strategic Direction



Rooted in institutional values



Measurable goals



Coherent across short and long-term plans



Key insight:

Ambition without strategy = aspiration Strategy without ambition = directionless





Al Strategy



MEANINGFUL A ENDEAVOURS

Ambition

BUas is a frontrunner in leveraging and maintaining Al as a transformative tool in education, operations, and associated industry and research domains while keeping ethical considerations at the forefront.



Focus

Education

Leading in Al in the domains.

Operations

Human-centred, balancing efficiency with empathy and accountability.

Research & Innovation

Integrating Al in research and innovation focusing on educational goals and industry needs.



Strategy

- Vision & Goals
- Talent & Development
- Curriculum Development & Assessment
- Al in Operations
- Infrastructure & Resources
- Data Governance & Ethics
- Research & Innovation



Goal

Integrating AI into all parts of the organisation promises to prepare students better for the future job market and also enhances possible cost savings within operations. By strategically leveraging AI, the institute can innovate in new ways that will bring quality, value and operational efficiency.







Al Strategy Compass

Al Pioneer Team

The 'AI Translators'



Cross-domain coalition

- not only technical experts



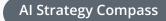
Bridge between:

- Technical possibilities
- Educational values
- Organisational strategy

Distributed leadership model
"Let the people with knowledge lead"







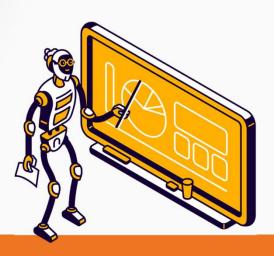
Al Pioneer Team 1.0 & 2.0







AI Ethics Policy



Al Ethics Policy





Personal Responsibility

At BUas, we believe in the autonomy of the individual and their ability to choose responsibly when and how to use Al. We also expect and trust that the BUas community critically reflects on the use and application of AI technologies.

Before using AI, we expect individuals to think carefully, thoughtfully, and emphatically about the aim and consequences. All of this in concert with, amongst others, the values listed below and BUas' strategic goals. This personal responsibility, and therefore accountability, requires people to thoroughly assess the best course of action within the context in which they operate.

It requires individuals to weigh the benefits and drawbacks that the use of Al technology may produce. Am I using the right tool for the right purpose, process or outcome? Is it necessary, or merely convenient? Does it benefit the development of the student and/or colleague? Am I sharing private information?

Remember that by using this technology, some ethical dilemmas may arise and lead to negative effects, such as bias. These considerations help in determining which effects are acceptable for those involved and for BUas as an organisation.

VALUES



EQUAL ACCESS

We ensure that all individuals involved have equal access to Al platforms formally adopted or required within teams or groups.





Any Artificial Intelligence developed and used must be transparent regarding the model it employs and/or the sourcing of its data. Moreover, decision-making involving Al must be transparent.

One must consider both the advantages and potential disadvantages of AI systems in use. These should not disadvantage or harm any individual or group.



Autonomy is a crucial factor. There must be a human in control and responsible when autonomous systems are at play.

Fundamental Rules



Al cannot be adopted in a way that undermines the autonomy of individuals actions.

Individuals will always be held responsible for the use of Al-generated output.

Organisational Duties



- · Create a critical assessment of AI system purchases or in-
- Adhere to the data governance policy, which must be
- · Acknowledge and maintain the value of critical thinking and
- · Dedicate ourselves to promoting sustainable AI practices.
- Continuously develop and improve educational materials and training on (responsible) Al practices for students and colleagues to help them develop and
- · Acknowledge and maintain the value of autonomous thinking and learning in curricula, research, and operations.





Vision on teaching and learning with AI



Integration principle

These four pillars work together to create a learning environment where Al is not just a technological addition, but a fundamental enabler for deeper learning, human development and societal impact.



Our promise

Through this integrated approach, we prepare students and staff not only to use Al effectively, but to lead responsibly within their professional domains.



The student as Al-informed professional

Our students develop critical Al literacy through explicit training and real-world application in their domains. They recognise that strong domain expertise is key to using AI effectively. They maintain autonomy in their Al journey by understanding how to make informed decisions about AI and the subsequent consequences of their choices. Students graduate as adaptive AI practitioners commitment to continuous learning, equipped to evolve alongside rapidly advancing technologies and thrive in fast-evolving industries.

The lecturer as
Al-informed mentor

Our lecturers are supported by comprehensive training and resources. Through mandatory AI courses and ongoing professional development, our lecturers guide students in the responsible and effective use of AI.

They create learning

They create learning experiences where Al supports pedagogical goals and maintains academic integrity without replacing human connection. They facilitate and support students' transformative learning processes.

The professional who integrates Al for social impact Evidence-informed
Al integration as guiding principle

We educate students to become professionals who develop and implement ethical-by-design and sustainable-by-design Al while engaging in critical dialogue about societal implications and collective action to address complex challenges.

Through real-world projects with industry partners and practical challenges, focusing on societal issues, students learn to balance technical capabilities with ethical implications. Preparing them to shape an Al future that respects European values and cultural diversity while meeting industry demands.

Our Al education uses transparent frameworks and comprehensive support systems. We provide everyone with free and thus equal access to high performing tools that are safe and privacy protecting. We create evidence-informed approaches for our unique context that ensures quality, transparency, and academic integrity while preparing students for future careers.

"Students choose responsibly when and how to use AI, thinking critically about the capabilities and limitations of AI in their contexts." "Lecturers are confident in using Al to enhance teaching and learning while maintaining human connection and critical thinking as our subject experts." "Graduates who advocate for ethical and sustainable-by-design Al while maintaining industry readiness." "Clear guidelines and transparent communication ensure students & staff understand when, how, and why Al is used."



Al Usage Guidelines



Al Usage Guidelines

These guidelines provide the institutional clarity our community has been seeking. They bridge the gap between our strategic AI vision and daily operational needs, ensuring consistent and responsible AI application across all academic and operational domains.

The guidelines operationalise the core values established in our Al Ethics Policy: Equal Access, Transparency, Fairness, and Human Agency.



ACADEMIC INTEGRITY AND INAPPROPRIATE USE PROCEDURES

"If AI can trivially solve an assignment, the assignment is th problem and AI detection tools are unreliable, so assessmen redesign is advisable."

This means

- If a student can easily get Al to do the entire assignment with minimal effort, then the assignment itself is poorly designed - not the student's fault for using Al.
- We can't depend on technology to catch Al use because these tools don't work well enough.
 Instead of trying to police Al use, we should redesign our assignments to be Al-resistant or Al-intervated.

PROVIDING FEEDBACK AND ASSESSMENT

'Al can be used to support the assessment process and enhance feedback quality, though it requires a well-designed educational and assessment process from the start and there must always be a human in the loop. The lecturer remains fully responsible for the final assessment.'



This means

- Al is allowed as a tool to help with grading and giving feedback to students.
- Al can help provide more detailed, timely, or personalized feedback than might be possible manually.
- You can't just throw AI at a poorly designed assessment and expect good results the foundation must be solid first.
- Al cannot make final decisions about grades or student performance humans must review and approve.
- . Even if Al helps with feedback, the teacher is still accountable for all grading decisions.



DATA UPLOAD GUIDELINES

With Claude you are able to upload your data in a safe manner, when using any other Al solution, do not upload privacyprotected or any sensitive data without the tool being checked by the advisory committee.'

his means:

- Claude has been vetted and approved for handling BUas' data safely.
- By 'any other Al solution', we mean any tool other than Claude.
- Student information, grades, personal data, internal documents or privacyprotected data should not be shared.

New Al tools must be security-reviewed before sensitive data can be used with them.

GUIDELINES FOR VARIOUS AI PLATFORMS

'Claude is our main LLM platform. If other Al solutions are needed, go to the Al Advisory Committee/Al Pioneer team. If there are neternatives, and the proposed solution is in line with our privacy, risk and data safety policies, the Committee will give positive advice to the MT member or director who is responsible for making the final decision. Blus can only be held responsible for Al tools that are approved as compliant by the advisory committee.'

This means:

- This is BUas' officially approved and preferred Al tool.
- . Don't just start using random Al tools get approval first.
- The committee evaluates data security, potential problems, and whether Claude could do the job instead.
- Local leadership has final say on what tools their academy uses and pays for.
- The institution only provides support, takes liability, and ensures compliance for officially approved tools - if you use unauthorized Al tools, BUas cannot be held responsible.

NOTE

1) When we refer to "Cleade", we mean its access through your BUas email, with Single Sign-On (SSO). 2) Thisse guidelines undergo regular review to ensure approved took continue to meet our standards. Employees are responsible for staying informed of any changes.





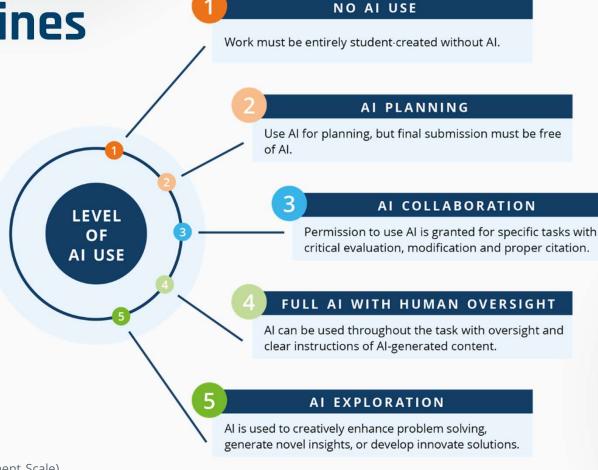
Student AI Guidelines

Levels of AI Use

What are these levels?

The five levels define the extent of Al integration into academic tasks, ensuring clarity on the conditions of Al use—whether it is permitted, in what form, and to what end.

- From v.1 to v.2.
- This is not a programme level tool.
- Each level is suited to different practical or cognitive skills.

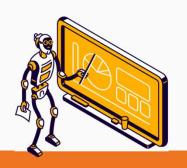




This scale is based on AIAS (AI in Assessment Scale) as could be found on www.leonfurze.com



Assessment Framework



AI IN THE CURRICULUM AT

LEARNING OUTCOMES

Course-specific ILO's + AI specific ILO's

- · Identify skills that AI enhances rather than replaces
- · Integrate both technical AI competencies and ethical considerations
- Ensure outcomes reflect real-world AI applications

Verify achievement of intended competencies

Define what to teach WITH and WITHOUT AI

LEARNING ASSESSMENT

The TWO-LANE APPROACH

- · Choose assessment methods that align with AIAS levels
- · Balance Al-assisted and Al-free assessments to validate full spectrum of student capabilities
- · Maintain the integrity and credibility of BUas qualifications.

LEARNING ACTIVITIES

With the AI ASSESSMENT SCALE (AIAs)

- Match AIAs levels to specific ILO's
- Design activities that develop critical Al evaluation skills
- · Provide sufficient scaffolding when introducing AI tools
- · No Al? Set students up for success and ensure activity design is Al-resilient.

Select methods that validate authentic learning

EDUCA FOOR STATE WORLDAI

WITANGING

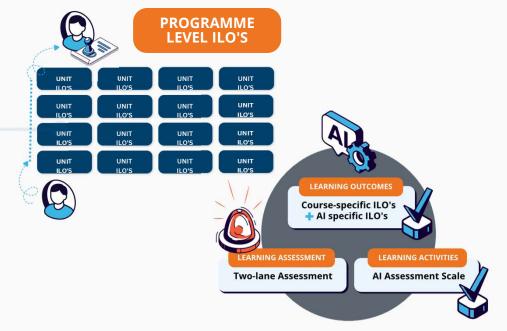


Al-integrated and Al-proof assessment

AI has disrupted traditional assessment

• This isn't about compliance, it's about empowerment through transparency.

How can we confidently state that our graduates possess the competencies their diploma promises?



IMPLEMENTATION

Step 1: Mapping



Action: Map where your ILO's are currently being assessed. This means creating an overview of your entire curriculum - which unit ILOs exist and where they are tested.

Programme level

Output: Assessment landscape overview - you can see the whole picture

Step 2: Lane determination

Action: For each indicator or phase, determine: Is this Lane 1 (must be done without AI) or Lane 2 (can/should be done with AI)?

Output: Strategic lane allocation - you know which competencies require independent demonstration

Step 3: Design

Action: Create your ideal assessment architecture. Don't just map what exists - design what SHOULD exist. Where do Lane 1 and Lane 2 belong in your programme?

Output: Target state model - the vision of how assessment should work

Step 4: Gap Analysis

Action: Compare your current situation (as-is) with your ideal (to-be). Identify where gaps exist and what needs to change.

Output: Implementation priorities - you know what to tackle first.

Unit level

Step 5: Concrete design

Action: Teachers work together within their 15 EC unit to design the actual Lane 1 and Lane 2 assessments. This is where strategy becomes concrete reality.

Output: Assessment specifications - actual assessments designed per unit

Step 6: Transparency

Action: Document and communicate clearly: What AI use is permitted, prohibited, and required in each assessment? Make this transparent for both students AND faculty.

Output: Transparency framework - everyone knows the rules

Step 7: Team Alignment

Action: Ensure all teachers within a unit work together to maintain consistent lane choices and standards. This cannot be done by individual teachers working alone.

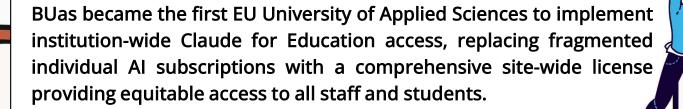
Output: Shared standards - consistent approach across the unit.



AI Tools

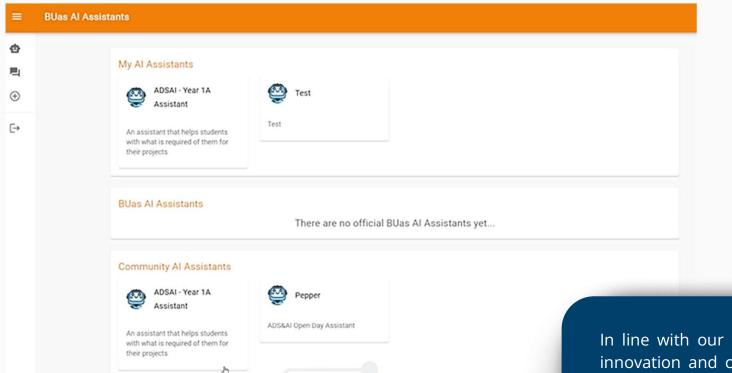


DID YOU KNOW?





AI Experiments





In line with our commitment to fostering innovation and collaboration, BUas offers grants for Al Experiments!





Operations use cases



P&O AI for recruitment

 Experiments with the use of Claude to rank candidates who applied for a position and to make a first selection based on their profile and criteria given to Claude.



ER&IM Policy Advice

 The team of Policy Advisors within BUas is now using Claude to create complex policy advice documentations.



MC&S

- Exploring with Claude ways to translate complex documents in Dutch to English and vice-versa.
- Creating chatbot for prospective students.



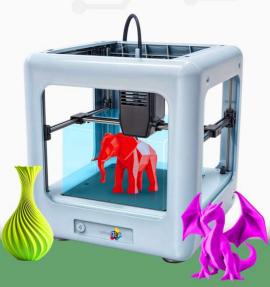
Service Desk

 We have now build an internal chatbot with the 10 most frequently asked questions to service desk to ease the burden of answering repetitively - which is now working perfectly fine and we are seeking the best location to place it for people to interact with it.









The Al Makerspace serves as an innovation hub for students, lecturers, and researchers to prototype and demonstrate robotics and Al projects before scaling them into larger institutional initiatives.



Mandatory AI Training for all staff

Our Al Training Team:



Training Overview

Three themes within the AI modular training:

- Al Literacy
- Al Ethics
- Al Pedagogy



28 Intended learning outcomes (ILOs) related to areas of the TPACK model.



edubadges available to staff to motivate and reward Al training completion.



ILOs set cross three competency levels (Fundamental, Advanced and Expert).

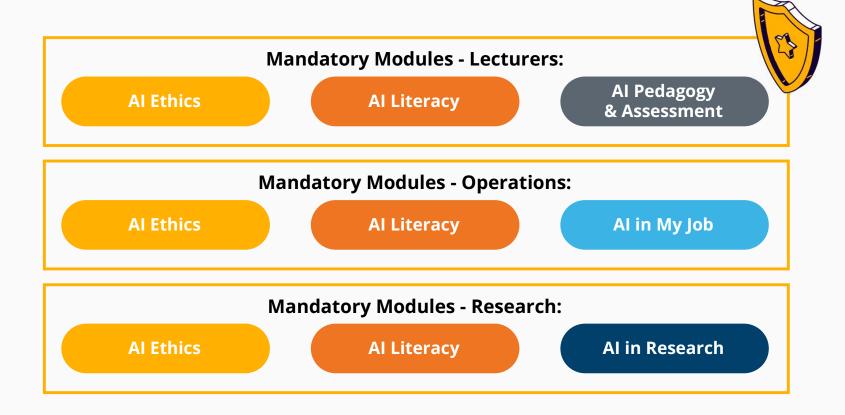


Unique modules offered for research and operations staff.





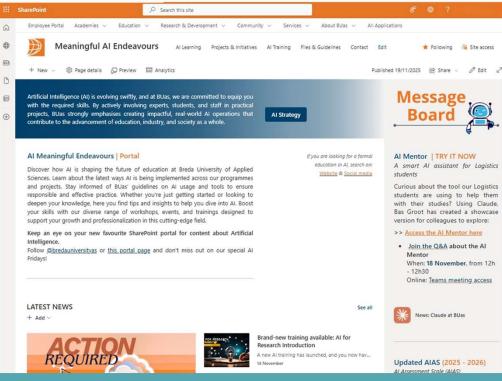
AI Advanced Courses





Internal & External Communication





★ Following 🔏 Site access

Al Mentor | TRY IT NOW

A smart AI assistant for Logistics

Curious about the tool our Logistics students are using to help them with their studies? Using Claude, Bas Groot has created a showcase version for colleagues to explore:

>> Access the Al Mentor here

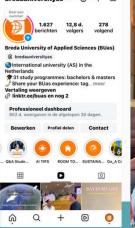
. Join the Q&A about the Al Mentor

When: 18 November, from 12h

Online: Teams meeting access

Updated AIAS (2025 - 2026)

Instagram





Keynotes







Showcasing BUas' Leadership in AI at the 2nd Annual Teaching and Learning with AI Conference

In September, Breda University of Applied Sciences (BUas) proudly

'Why We Need to Adapt AI Use in Our Curriculum'

Breda University of Applied Sciences (BUas) is at the forefront of integrating artificial intelligence (AI) into education, equipping students



Students Francisco Ribeiro Mansilha and Lea Banovac use AI to detect brain tumors

As third-year Applied Data Science & Al students at Breda University of Applied Sciences (BUas), Francisco Ribeiro Mansilha and Lea Banovac

Student work



In this first edition of our 'Lecturer in the Spotlight' series, we are highlighting Myrthe Buckens, a lecturer in the Applied Data Science

Expertise Stories

Buckens

https://datascience-ai.buas.nl/

Focus 2026

Phase 1: 2023 - 2025

Foundation-Building

Infrastructure & Policies
Platform & Tools
Awareness Training



Meaningful Engagement

Human Readiness Development



Phase 2: 2026 - 2028

Human Readiness

Genuine Al Engagement Culture Transformation Human Development





Research

Projects & initiatives

• Expert Team of Researchers & Developers

Areas:

- Digital Twins and 3D Worlds
- Augmented Reality & GIS Mapping
- ► Computer Vision & Autonomous Robotics
- Large Language Models
- Linked with Multiple EU Funded Projects

INDUSTRY-FOCUSED

INNOVATION

SOLUTIONS



Transversal Professor in **Applied Data Science & Al**

































To Look Forward to









19-20 October, 2026 BUas Campus Breda, Netherlands

Teaching and Learning with AI in Europe

Our goal is to establish cross-border collaboration in Europe to share ideas, best practices, and innovations in Al in higher education.







EU Digital Sovereignty

Digital Autonomy Gap in Europe

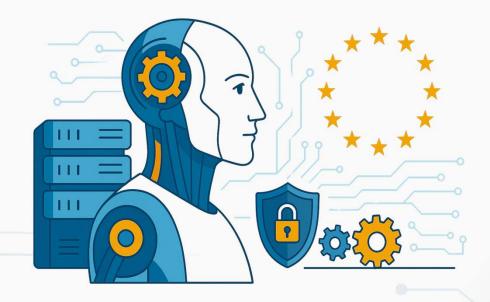
European institutions increasingly rely on non-European technology solutions, creating dependencies that compromise data sovereignty and technological self-determination.

Developing Europe's own secure, integrated research platforms enhances digital autonomy, resilience, and aligns with public innovation values.

Contributes directly to Europe's strategic goal of technological sovereignty, ensuring control over research data and processes.

Opportunity for Innovation

A collaborative, Europe-based AI research platform strengthens the innovation ecosystem, benefiting universities, public institutions, and European companies through shared resources and secure, ethical technological advancement.



[globaleurope.eu]

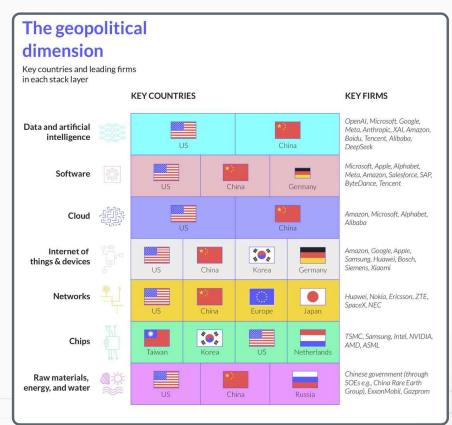


Geopolitical Dimension

Threats

- Security & Critical Infrastructure Protection
- Legal & Jurisdictional Vulnerabilities
- Economic Competitiveness
- Democratic Governance & Values
- Geopolitical & Strategic Resilience Autonomy

Who controls the elements that shapes society?



[globaleurope.eu]



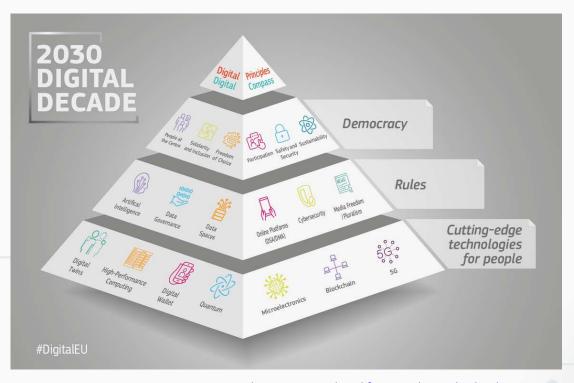
Al Status

Europe's Digital Decade: Targets for 2030



EU is focusing on 2030 Digital Decade, and announced 1,910 measures worth €288.6 billion.

1.14% of EU GDP



Towards a sovereign digital future – the Netherlands in Europe

<u>Digital Strategy 2030</u>



Some numbers

	United States	European Union	China
2013-2024 Total Investment	\$3-4 trillion	\$0.8-1 trillion	\$1.5-2 trillion
Current Compute Global Share	74%	4.8%	14%
Predicted 2025 Annual Investment	\$450-500 billion	~\$20-30 billion	~\$80-120 billion
Approach	Private sector-led, massive scale	Regulatory-led, fragmented investment	State-directed industrial policy
Concentration	Extreme - 8 companies capex invest \$371B	Dispersed across 27 countries	Coordinated nationally
2025 Per capita Investment	(335M) \$1 300 - \$1 500	(450M) \$44 - \$66	(1.4B) \$57 - \$86



Digital Gap Analysis

The biggest gap isn't infrastructure

It's the execution gap between regulatory ambition and operational capability.

Europe has the policies but lacks:

- Sufficient capital deployment.
- Competitive alternatives to US hyperscaler companies. (Microsoft, Amazon, Google)
- Adequate know-how.







Data Sovereignty & Governance



Strategy

All data is valuable to improve systems, train models, simulate. European data is irreplaceable - maintain sovereign control while using hyperscaler infrastructure strategically. Build data as your competitive moat.



- **Data Inventory & Classification** by audit and classify what data you have and where it lives.
- Storage strategy for sensitive data, build with portability and exit strategy.
- Clear policies: Access, retention, sharing, incident response.
- Compliance: GDPR, Al Act, NIS2, regular audits and penetration testing.



Al Literacy & Workforce Transformation

Strategy

Europe's biggest gap isn't capital - it's people. Transform your workforce into Al-native talent through systematic, comprehensive upskilling. Create competitive advantage through organizational capability, not just technology.

- Assessment: understand the current Al knowledge, and define a strategy.
- Leadership & Culture: hands-on executive AI training, not PowerPoint.
- Change management: Address fears, celebrate wins, create safety and career progression.
- Structured Training Programs:
 - Level 1 (90% target): Basic Al awareness ethics, capabilities, limitations.
 - Level 2 (60% target): Applied tools ChatGPT, Copilot, role-specific Al.
 - Level 3 (30% target): Power users advanced prompting, workflow automation.
 - Level 4 (5-10% target): Specialists ML engineering, deployment, research.





Compliance & Trustworthy Al

Strategy

Turn EU regulation from burden into competitive advantage. Build trust, transparency, and ethical AI systems that become market differentiators and trade barriers protecting European markets. Be compliance-first, then export that expertise globally.

- Al Governance Office: Establish cross-functional team for Legal, IT, Ethics, Risk, Business.
- Risk classification: Map all AI to AI Act categories (unacceptable/high/limited/minimal risk).
- **Technical Implementation for Trustworthy AI:** Documentation & traceability (AI system registry, model cards, audit trails).
- Compliance Implementation: Al Act, NIS2, ISO/IEC 42001, EUCS Level High.
- Organizational Processes with human oversight.
- External Positioning & Market Advantage: "Trustworthy AI".



Experimentation, Applied & Efficient Al

Strategy

Systematic experimentation beats analysis paralysis. Allocate and encourage rapid AI experiments. Focus on efficient, sustainable AI that delivers ROI without hyperscale infrastructure. Learn by doing, fail fast, scale winners.

- Identification of opportunities and ROI, listen to your staff, understand pains.
- Rapid prototyping: quick cycles, expect 70% "failure"rate, 3-6 month then kill or scale.
- R&D/Al Garage/Innovation Lab: Safe sandboxes, no ROI required for experiments, track learnings.
- Partnership Models: Industry consortia, University partnerships & innovation challenges.
- Link and scale up using National and EU Funding.



Strategic Partnerships & EU Funding

Strategy

Master the art of funding capture and strategic partnerships. Stack multiple funding sources, participate in multi-country projects, align with policy priorities. Make use of € 288,6 bi Digital Decade budget.

- Stack Multiple Funding Sources: Horizon, Digital Europe, EU Social Fund, National Funds.
- Align with EU Policy Priorities: Sustainability, Skills development, Strategic autonomy, SMEs.
- Collaborate in International cooperation, and partnerships.
- Build reusable partnerships: Academic, industry, public sector mix.
- Exploit knowledge transfer and commercialization pathways.



Vertical AI Solutions

Strategy

Build industry-specific AI that hyperscalers won't. Partner within verticals to create specialized solutions for "too small" markets.

- European industrial companies understand European industrial needs.
- Industry-Specific Vertical Solutions: Domain specific.
- Build Consortia Within Verticals.
- Develop clear stack components: Don't build entire hyperscaler, but missing pieces.
- Open Source Strategy: Build on European Al: Mistral, Aleph Alpha, open LLMs.
- Values alignment: Sustainability, equity, privacy by design.





Thank You!

Al Buas website



