# Internationalisation of higher education as a driver for growth:

Opportunities to strengthen research-based education



# **About myself:**

- A product of internationalisation
- Senior Policy Advisor for UM Executive Board
- Independent HE expert



# Aims for today:

- Share inspirational empirical best-practices (reflected also in academic studies) about how to integrate research and education from one of the world's most international universities
- Provide an overview of important existing & new EU initiatives that support the internationalisation of Ukrainian universities

## Structure of today's seminar:

Part 1

• Internationalisation: what is it & why is it important? (5 min.)

Part 2

• **Key elements** that define a successful international university & prerequisites at the national level (5 min.)

Part 3

 Best-practices to integrate research and education from Maastricht University and beyond incl. Q&A (45 min.)

Part 4

• Important current **European & global initiatives** that offer opportunities for Ukrainian universities incl. Q&A (30 min.)

# Part I: Internationalisation: What is it & why is it important?

"Internationalisation is the <u>intentional process</u> of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, in order to <u>enhance the</u> <u>quality</u> of education and research <u>for all students and</u> <u>staff</u>, and to make a <u>meaningful contribution to society</u>."

(De Wit, 2015)

Internationalisation = a process
Internationality = the present state/degree of internationalisation

**Scope:** Whole array of activities that stimulate an international dimension:

- At the home university (inter alia IILO's, teaching methods and content, support services for students and researchers, virtual mobility, language learning, extracurricular activities such as buddy programmes etc.)
- and abroad (inter alia **student- and staff mobility, projects** and **branch campuses**)

# **Historical development:**

- University = "Made in Europe" (Bologna)
- Constitutio Habita ensuring free passage to traveling scholars, kicking off the mission to search for international collaboration
- Second and third wave of internationalisation after the end of the Second World War & Cold War, aided by global trade, EMI & technological advancement

Source: European Parliament, <u>2015</u>



# Why is internationalisation important:

- 1. A key means to enhance the <u>quality and competitiveness</u> of education & research (e.g. via improved learning outcomes, etc.). Measured by comparable objective criteria at the national & international level (e.g. <u>CeQuInt</u>), also integrated in the Bologna Process
- 2. Enable personal and professional development opportunities (Nuffic, <u>2024</u>) for the whole academic community (<u>inclusivity</u>). For example, training graduates for **a changing labour market** (e.g. intercultural and language skills)
- 3. Stimulate **regional & national development and competitiveness** via talent attraction & retention, as well as the up/re-skilling for socio-economic development, applied research & socio-economic spin-off impact (**societal impact**). Also, to tackle grand societal challenges that often do not stop at borders

But also key to fostering global cooperation and profiling (reputation/influence) via science diplomacy covering also cultural and economic spheres

# Internationalisation categories (Elinboe as cited in de Wit, 2010)

- 1. Internationalisation in and of **policy**
- 2. Involvement of **staff** in international activities
- 3. International curriculum
- 4. International **study opportunities** for students
- 5. Integration of international students and staff
- 6. International co-curricular units and activities

# Part II: Key elements that define a successful international university:

- Leadership, an inspirational long-term vision ensuring buy-in (e.g. Taras Shevchenko University, 2023; West Ukrainian University, 2023)
- A welcoming international environment for all, building on professional services across the board
- Having a strong international reputation, e.g. by being a niche institution and/or offering niche programs or approaches (attractiveness)
- Strategic planning, verifiable objectives and benchmarking (continuous reflection) → integrated quality assurance and room for curriculum, pedagogical and managerial innovations

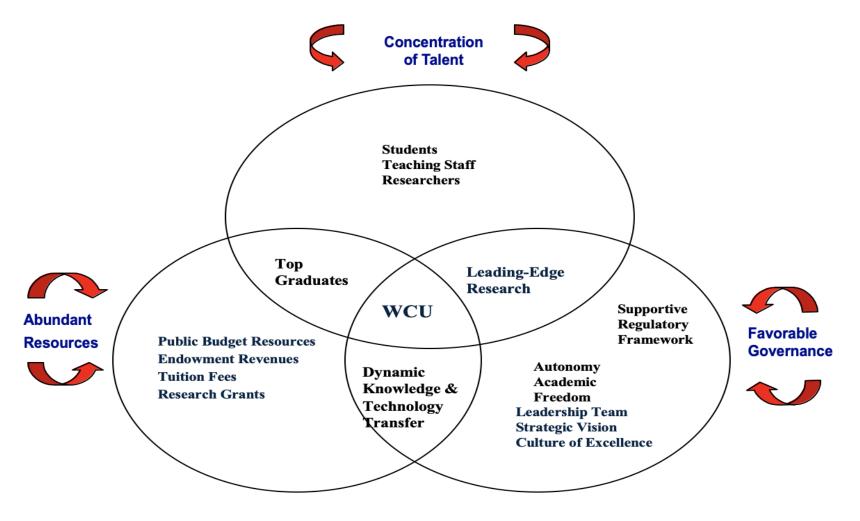
Source: Jamil Salmi, 2024



### With attention for...

- Findable support services and adept governance structure able to implement the goals set across the university (central & faculty-level)
- A portfolio of internationally oriented study and research programmes (at least partially based on EMI) with teaching staff trained to operate in an int. context, complemented by partners abroad for student-and staff exchange, project-based work and joint programmes
- A set of pioneers (education & research stars) that stimulate outward orientation
- Infrastructure to support the academic process (inter alia campus and digital facilities)
- Attention for the local culture, language & integration of (inter)nationals (e.g. first-generation students, alignment with high schools, etc.)

#### World class universities





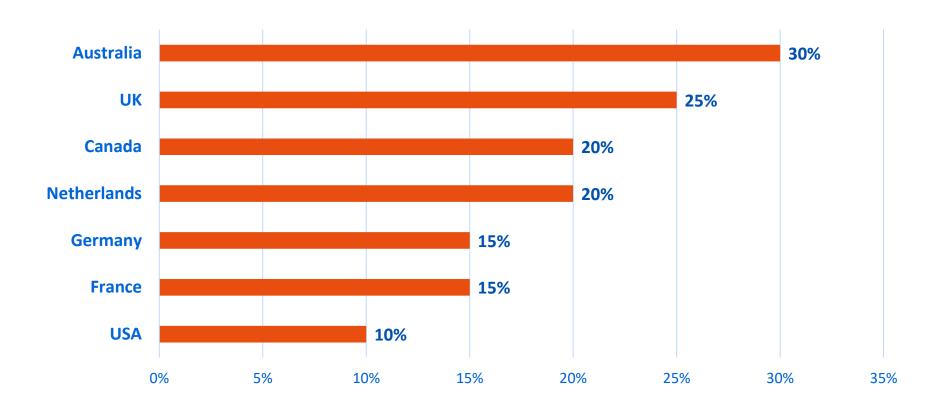
Source: Jamil Salmi,

2009

### Prerequisites at the national level

- A long-term **macro vision** developed with the HE sector in the form of a national internationalisation strategy (research & teaching universities) and **capacity** to implement reforms (e.g. legal flexibility, room for parallel language use, etc.) → what are strategic priorities, which investments are needed & how will actions be achieved & monitored (e.g. Ukraine <u>Strategic Action Plan 2027</u> for education)
- In the early stages of internationalisation a national branding/promotion strategy to attract student and staff (possibly including scholarships for bright minds) based on an attractive proposition (inter alia quality, affordability, prospects, environment). Where possible linked with diplomacy and based on a long-term approach
- Funding (e.g. excellence initiatives, quality and/or performance agreements) in addition to contract research and tuition fees, based on accountability → also important to retain talented national academics

#### **Countries with the largest proportion of int. students:**





Source: Jamil Salmi, 2024

### **Interesting case studies:**

Country	Target	Strategy	Key elements
Malaysia	250.000 int. students by 2025	Malaysia Education Blueprint 2015- 2025	<ul> <li>More EMI study programmes/courses</li> <li>Branch campus policies</li> <li>Improving ranking position</li> <li>Enhance brand visibility emphasizing quality + affordability</li> </ul>
Japan	<ul> <li>400.000 int. students by 2033</li> <li>500.000 outbound students (exchange &amp; degree)</li> </ul>	J-MIRAI strategy 2023-2033	<ul> <li>More EMI courses also at high-school level</li> <li>More exchange &amp; joint programme partnerships</li> <li>Easing visa regulations</li> <li>Adjusting academic calendars</li> </ul>
Germany	Become one of the top 5 target destinations for int. students by 2025	Internationalisation Strategy for Higher Education 2024-2034  DAAD strategy 2025	<ul> <li>More EMI study programmes/courses</li> <li>Accelerated visa procedures</li> <li>Enhance brand visibility</li> <li>Ensuring affordable accommodation</li> </ul>
France	• 500.000 int. students by 2027	Bienvenue en France 2019-2027	<ul> <li>More combined EMI/French study programmes/courses</li> <li>Expansion of scholarships</li> <li>More exchange &amp; joint programme partnerships</li> <li>Easing visa regulations</li> <li>Quality label</li> </ul>



# Comparing performance-based excellence initiatives:

- China: Developing flagship universities, flexible funding, rankings as KPI
- France: Encouraging mergers/alliances, project-focused, attention for infrastructure
- Germany: Attracting top scientific talent, layered approach (graduate school, university & cluster)
- Japan: Developing world class research universities, focus on governance reform & young researchers
- Spain: Focus on teaching & research, strengthening of ecosystems and environment
- **Netherlands:** Focus on teaching, staff professionalization & student contact

**Bottom-line:** All aimed at attracting top-talent & enhance national prestige via ranking positions, but possible pitfall of increasing the gap among universities



#### But...

- With increasing restrictions in some top destination countries, non-traditional countries (Europe, Asia) are gaining popularity
- Balancing quality, career prospects & affordability
- Importance of post-study work visa

# International students apply to record number of global destinations

International students are applying to more institutions and countries than ever before, with a shift towards non-traditional destinations and more affordable options, a new agent survey has found

Source: INTO, <u>2024</u>

Maastricht University

Australia introduces cap on international students

27 August 2024

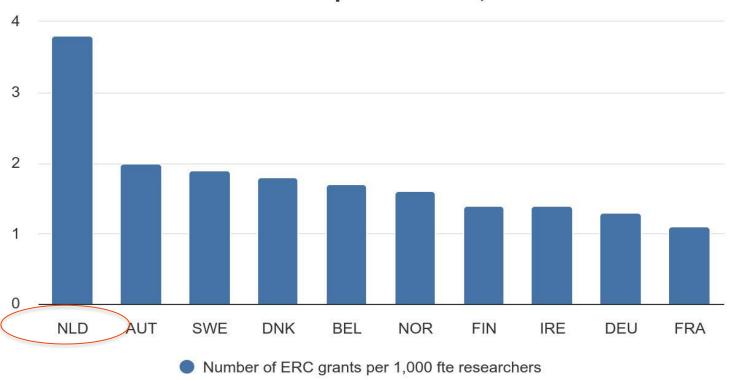
Tiffanie Turnbull BBC News Sydney

Drop in foreign student visas worrying for UK universities

BREAKING: Canada further limits international student numbers

# **Small countries with high impact**

Countries with most ERC-grants per 1,000 fte researchers active in the public sector, 2021





# ERC Grants per 1 million inhabitants (2007-2019)

Country	Number of ERC Grants	Population	Ratio ERC Grants / Log Pop	Rank
United Kingdom	891	67.886	486.4	1
Germany	710	83.149	369.8	2
Netherlands	439	17.425	353.7	3
France	582	67.076	318.6	4
Israel	300	9.093	312.9	5
Switzerland	289	8.570	309.8	6
Belgium	185	11.516	174.3	7
Sweden	166	10.333	163.7	8
Spain	250	47.007	149.5	9
Austria	139	8.903	146.4	10
Italy	245	60.317	137.6	11
Denmark	97	5.827	126.7	12
Finland	80	5.527	107.7	13
Norway	55	5.368	75.4	14
Ireland	59	6.197	74.5	15
Hungary	29	9.773	29.3	16
Greece	24	10.760	23.3	17
Czech Rep.	18	10.650	17.5	18
Poland	23	38.386	14.5	19
Turkey	12	83.155	6.3	20

Part III: Best-practices to integrate research and education from Maastricht University and beyond incl. Q&A (45 min.)

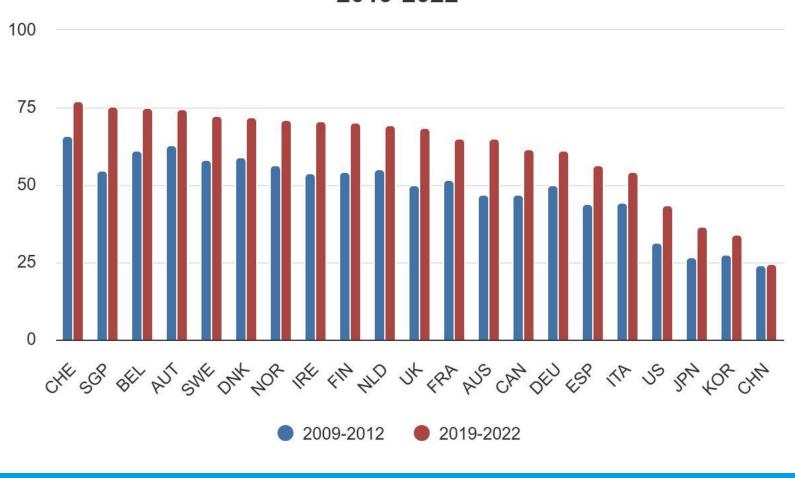
# Internationalisation of education & research expanding globally

- Increase in double and joint degrees in all three cycles (e.g. European Universities)
- International Classroom integrating local, regional and cross-border issues in curricula
- Increase in international co-publications
- Ambition to integrate research more into education (European University Association,
   2016)

Often embedded in national internationalisation strategies emphasizing leading edge research (slide 12) as a way to drive broad prosperity



# International co-publications as share of all publications, 2019-2022





# The research-education (teaching & learning) nexus, under-explored potential?

- Research and education (teaching) still often seen as distinct fields/missions
- Humboldt's vision: research at the core Students as learning researchers
- Different gradations of interconnection:
  - From research-led (students learning about research findings and using literature)
  - To research-based learning (students learning as researchers, with curricula based on inquiry covering selecting research literature, performing experiments and analysing data)
- Research-based learning increasingly part of educational methods (transmitting & creating knowledge), also beyond research universities
- Ample benefits incl. critical thinking, problem-solving skills, student-teacher (as active researchers) collaboration (Obwegeser & Papadopoulos, 2016)

### As well as:

- Benefits for deep learning
- Teaching and research quality enhanced (e.g. teachers reflecting on their own work)
- Generating excitement, also for researcher staff teaching
- Strengthening the identity of universities as unique places to gain research experience
- Nurturing research talent across education cycles (relevant for the Ukraine Strategy 2027 to harness innovation & entrepreneurship)

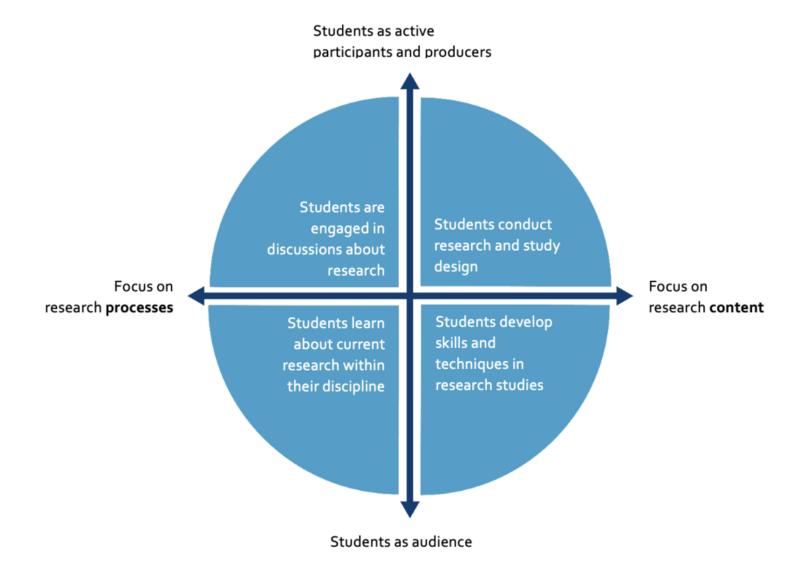
# **Setting the stage - Key concepts:**

- The Research-education nexus can be achieved via:
  - Learning from research (e.g. acquiring knowledge from literature)
  - Learning about performing research (gaining knowledge of research methods and techniques via courses)
  - Learning through research (actively performing research)
- Also framed as Research-led, Research-intensive/oriented and Research-based education

**Content** (audience) versus **process** (participants)



**Sources:** Healey, 2005; Van der Rijst et al., <u>2017</u>; Dekker & Walsarie Wolff, 2016



"Research led curricula ensure that what students learn clearly reflects current and ongoing research in their discipline, possibly including research done by staff teaching them. The focus in research-oriented curricula is on developing students' knowledge of and ability to carry out the research methodologies and methods appropriate to their discipline(s) or profession. Research-based curricula aims at ensuring that as much as possible the student learns in research and or inquiry mode" (Healey, et al., 2014, 42).

Research-based curricula is preferred because "universities should treat learning as not yet wholly solved problems and hence always being in research mode" (Healey and Jenkins, 2009, p. 3)



"The teaching-research nexus can be seen as a continuum with no relationship between teaching and research with students as consumers at one end and a full relationship with students as producers at the other. Research-based teaching gives the strongest relationship." (Dekker & Walsarie Wolff, 2016, p. 3)

This on the level of an educational unit (lecture, working group meeting) and each course, curriculum, and the university

## **Examples:**

### Bachelors in Molecular Science & Technology at Leiden University (year 1):

Under the supervision of a researcher (often a postdoc) students take part in ongoing research in the faculty. They participate in carrying out experiments in small groups in the research institutes, gaining an overview of what scientific research is and who are involved. The course is completed with a poster presentation at a local conference specially organised around this course in which the results are exchanged among students and staff. Already in their first-year students are spread over research teams. In Fall students follow an introductory course to prepare them for participation in the research groups. During Winter and Spring, the work in the institutes takes place for two days a week.

#### Masters in Media Technology (year 1):

In this course, **principles of scientific research** are explained and illustrated. There are examples of good science on questions which are directly imaginable for everyone. And there are examples of good studies on the basis of clearly understandable methods to anyone. Topics covered in the course are 'principles of science', organisation of the scientific world, scientific publications, creative and unconventional research. Student participation is high, with many activating tasks and a research project. Seven lectures are combined with student presentations and projects. Participants must conduct a research project and write a scientific paper.

#### Bachelors in Dutch history at Leiden University (year 2):

In their first year, students start their methodical training in the conduct of historical research in the course Historical Practice. Emphasis is put on the critical use of different types of source materials. Students' research skills are further developed in their sophomore year by conducting small scale studies. The historical issues and debates in the studies of the sophomores are closely linked with the research of the staff. The interaction between staff and students and the emphasis ensures that the students peruse the recent developments in the different research areas. The ongoing research of teachers is made visible in thematic lectures.

Source: Rijst et al. 2017,

p.22

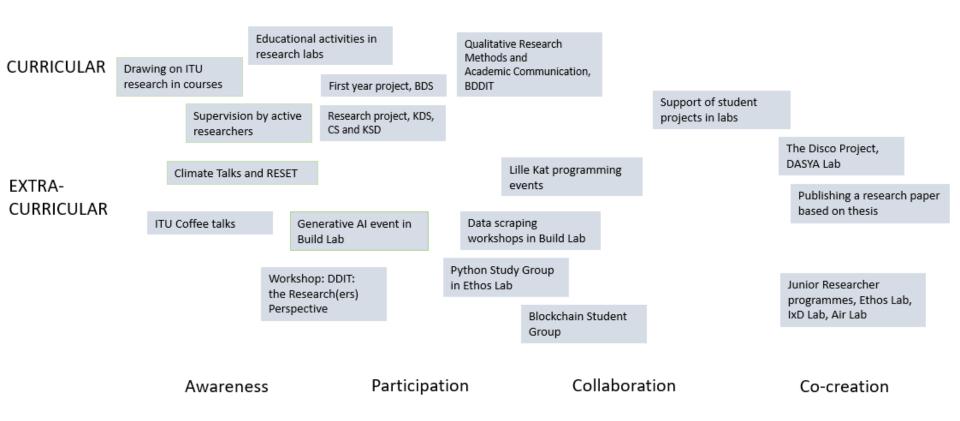


## Types of research-based activities:

- Course-embedded research (experiments, projects, debates)
- Theses (incl. honours trajectories)
- Competitions
- "It is also about making university research better and not just the student" (University College London Connected Curriculum, 2017)

# **IT University Copenhagen:**

### Examples of research-based learning at ITU





## Other examples:

- Ubremen (Germany): <a href="https://www.uni-bremen.de/en/studies/lehre-studium/developing-a-teaching-profile/research-based-learning">https://www.uni-bremen.de/en/studies/lehre-studium/developing-a-teaching-profile/research-based-learning</a>
- Ualberta (Canada): <a href="https://www.ualberta.ca/en/experiential-learning/research-based-learning.html">https://www.ualberta.ca/en/experiential-learning/research-based-learning.html</a>
- LeuphanaU (Germany): <a href="https://www.leuphana.de/en/teaching/design/conceptualise/research-based-teaching-and-learning.html">https://www.leuphana.de/en/teaching/design/conceptualise/research-based-teaching-and-learning.html</a>
- Heidelberg (Germany): <a href="https://www.uni-heidelberg.de/en/research/research-profile/research-based-teaching-and-learning">https://www.uni-heidelberg.de/en/research/research-profile/research-based-teaching-and-learning</a>
- UPF (Spain): <a href="https://www.upf.edu/en/web/eines-tic-docencia/aprenentatge-basat-en-recerca-abr-en-recerca-abr-">https://www.upf.edu/en/web/eines-tic-docencia/aprenentatge-basat-en-recerca-abr-</a>
- TecMonterrey (Mexico): <a href="https://observatory.tec.mx/edu-bits-2/research-based-learning/">https://observatory.tec.mx/edu-bits-2/research-based-learning/</a>

### **Key perequisites:**

- Embeddedness in curricula
- Linked to other learning processes
- Attention for "authentic/real-world assessment" and formative and summative approaches
- Mentorship/coaching/advising by teachers
- Quality control and feedback loop
- University culture

### How to start integrate research into education

- Have students read and critically reflect on (new) cutting-edge research literature → flipped classroom (preparation for in-class discussion) → Ukraine Strategy 2027, p. 29 (scientific oriented learning)
- Stimulate **interaction between researchers and students** in the classroom (e.g. workshops)
- Incorporate research processes (e.g. small-scale assignments/projects and theses → linked to real-world problems and the labour market)

- Studies show benefits of early involvement in research (e.g. pre/undergraduate level)
- Research assignments as academically challenging
- Ensure "constructive friction" between research autonomy & support
- Funding incentives (e.g. performance agreements including research activityas stipulated in Ukrainian 2024 HE reform)



# **Maastricht University**

- A European leader in problem-based learning (PBL)
- Trailblazer in reforming academic assessment
   (competition in time allocation between teaching and research excellence)



#### Room for everyone's talent

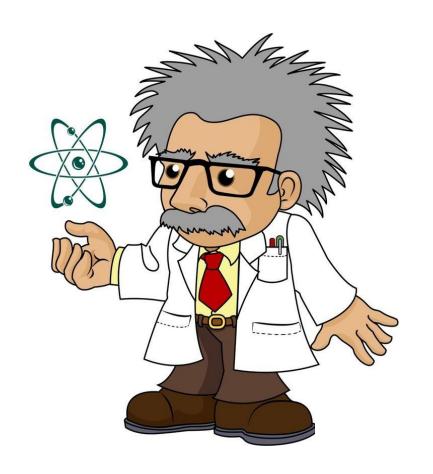
towards a new balance in the recognition and rewards of academics



Room for everyone's talent, <u>2019</u>



## Addressing the imbalanced reality (or vice-versa)



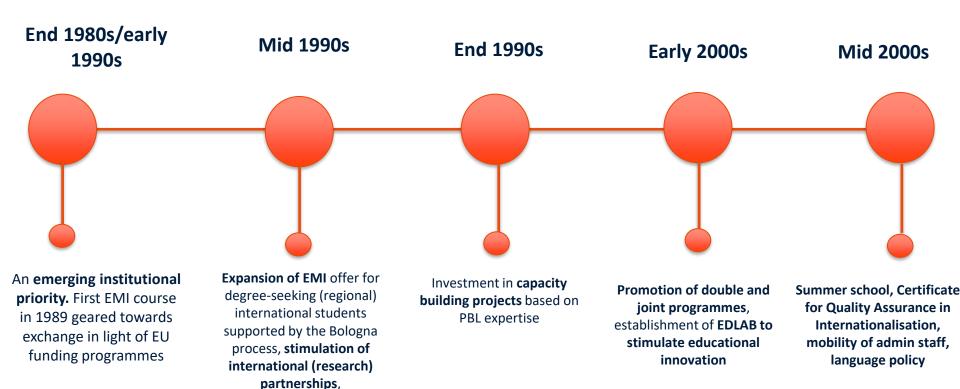




- The most international university of the Netherlands, based on PBL teaching
   & educational innovation, accessible high-quality
- Founded with a strong social mission following the closure of the coal mining industry, achieved partly by becoming a leader and shaper of internationalisation policies
- Young and dynamic, able to respond to new developments combining topdown & bottom-up processes. Example: Europe's top-scoring European University alliance YUFE
- The only Dutch university with the CeQuInt accreditation

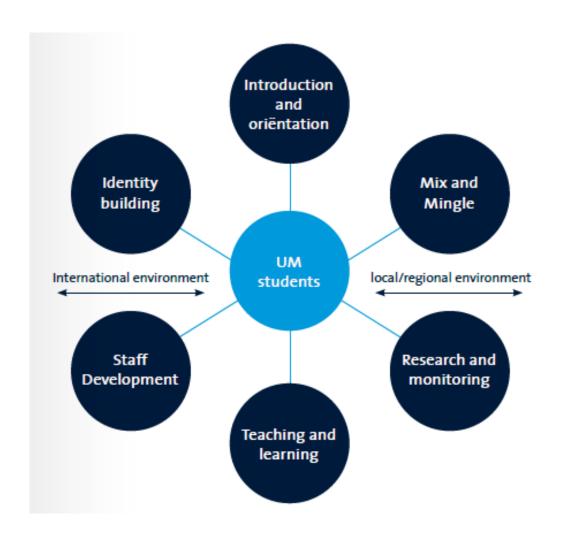


#### Maastricht University - How did we get there:





professionalization of services



## Problem-based learning: Integrating research & education

- Constructive, collaborative, self-directed (curiosity based), and contextual
- Small class size encouraging interaction and reflection
- Active tutoring both as guides/instructors and research models based on a step-by-step approach
- The use of real-life case studies
- Regular assessment (formative)
- Overarching research skills (res. design, data collection and analysis) as learning objectives (UM, 2017, p. 4)
- Students trained to have an open attitude towards new subjects



### **Best-practice**

- Maastricht Research Based Learning, (MaRBLe) → excellence programme for talented and motivated 3rd year bachelor students
- Available at all faculties





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**Source:** UM EDLAB, 2017



- Stimulating undergraduate research important to enhance students' understanding of research in practice. Community-based research can add meaning
- 4C/ID-model (van Merriënboer, 1997):
  - Learning tasks (e.g. searching for literature) both routine and non-routine
  - Supportive information
  - Procedural information
  - Part-task practice
- Depart from final research competencies (e.g. problem definition/defining a research question, selection of relevant material, critical reflection/analysis, academic writing/presenting results, and the application of research methods, but also multi and interdisciplinarity)

#### **Mentimeter Poll:**

Please use: <a href="https://www.menti.com/alea1jyjbrkx">https://www.menti.com/alea1jyjbrkx</a>



Part IV: Important current European universities incl. Q&A (30 min.)	& global initiatives that of	fer opportunities for Ukrainian

## **Point of departure**

- EU candidate status
- Potential Erasmus+ Programme Country status
- Association to Horizon Europe
- Other initiatives (EIC, EIT, ERC4Ukraine, Horizon4Ukraine, national initiatives etc.)
- **European University Initiative** (35 out of 65 include Ukrainian partners)

## **Concrete opportunities:**

- Horizon Proposal Writing Camps
- Engaging students and researchers in **EIT** (e.g. EIT Campus, EIT Jumpstarter, EIT Higher Education Initiative etc.) → Ukraine successful
- <u>EIC4Ukraine</u> start-up and SME support (deadline November 2025)
- COST programme research networking
- Research-based learning via Erasmus+ (students, staff and cooperation projects) → restore balance and achieve brain gain
- Jean Monnet Actions (Ukraine very successful 35 projects in 2025)
- Curriculum reform via Erasmus+ (e.g. Alliances for Innovation, Cooperation Partnerships), infrastructure enhancement



## EC proposal for new Horizon Europe programme 2028-2034

- Doubling of the budget, spread over four pillars → room for "moonshot projects" (clean energy, quantum etc.)
- European Competitiveness Fund (pillar 2) next to basic research
- Horizon office in Ukraine disseminating funding calls (deep tech, health etc.) and providing support with proposals

#### **Erasmus+**

- Student and staff mobility (including doctoral mobility and BIPs)
- Erasmus Mundus
- Etwinning
- Cooperation projects

Upcoming deadlines in early 2026

- But also.. Consider European quality labels such as CeQuInt
- Invest in quality assurance (Ukrainian Quality Assurance Forum)
- Enhance visibility at international conferences (UNESCO World Higher Education Conference, EAIE, APAIE, NAFSA, ICERI, CHEA etc.)
- Work towards deep/strategic partnerships inside and outside of the EU



- Develop joint programmes (e.g. Erasmus Mundus Joint Masters and beyond)
- Modernise curriculum (e.g. student-centred) and strengthen EMI (e.g. <u>BIHSENA project</u> with National University Kiyiv- Mohyla Academy)
- Performance-based funding for internationalisation & international bench-marking

# Points of attention in the Strategy for the Higher Education Development in Ukraine

- STEM and computer science
- Study + work
- Importance of third mission
- New study programmes addressing societal needs/shortages (mental health,
   EU studies/integration, cyber security)
- Return of talent
- Competitive funding for research

In due time, invest in the improvement of the Study in Ukraine campaign

#### Possible additional focus areas

- Mobilising the diaspora
- International co-publications, also via deep partnerships
- EMI at different levels

### **Inspiration:**

 Nanyang Technical University (Singapore) – partnering with industry and foreign institutions → towards knowledge economy



- Chinese University Hong Kong (Hong Kong)
- → becoming a regional research hub





With deep respect for your resilience..

Thank you for your attention!

Any questions?

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