

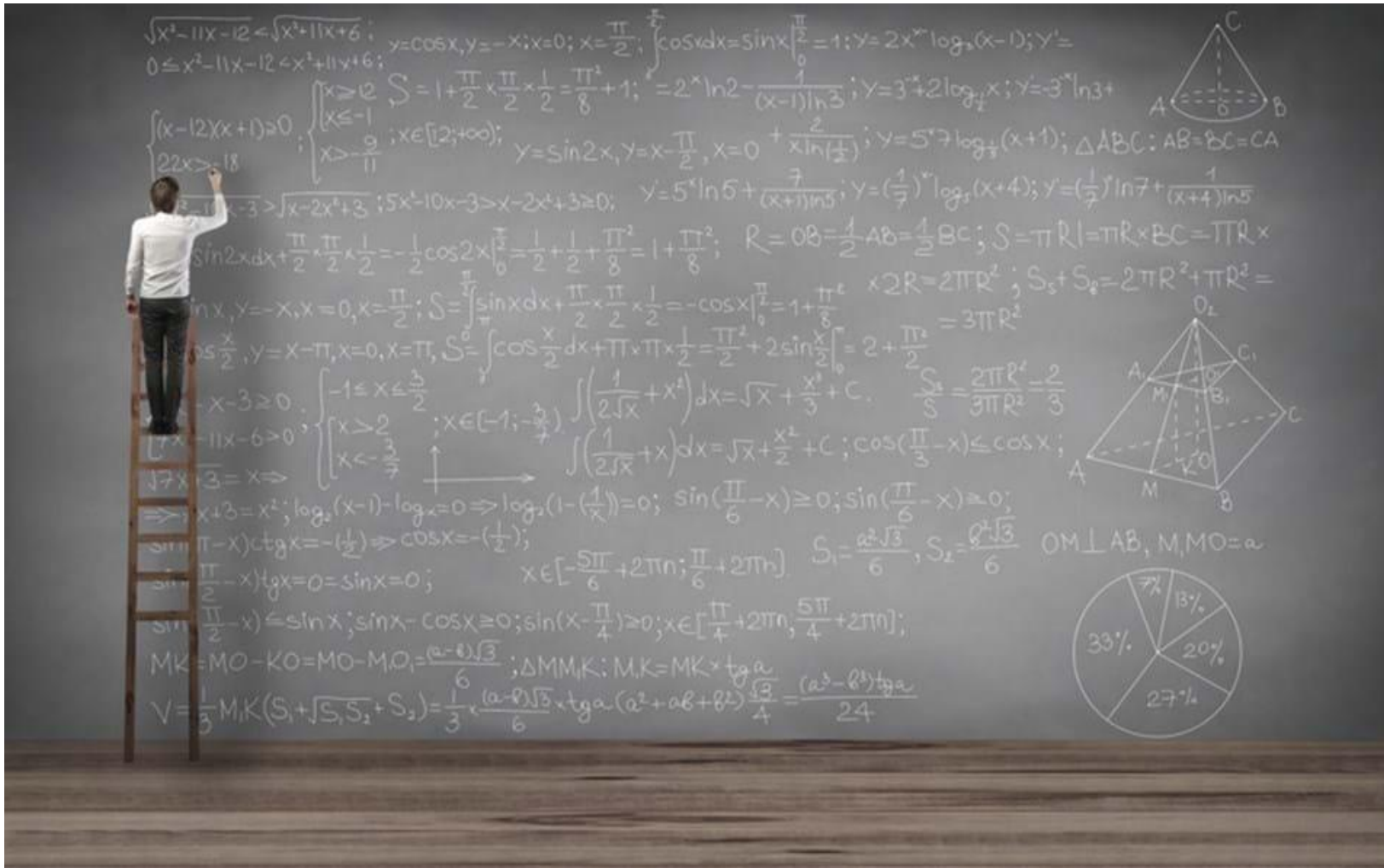


Digitalisation Strategies for Teaching and Beyond

Strategies Beyond Borders (HFD & DAAD)

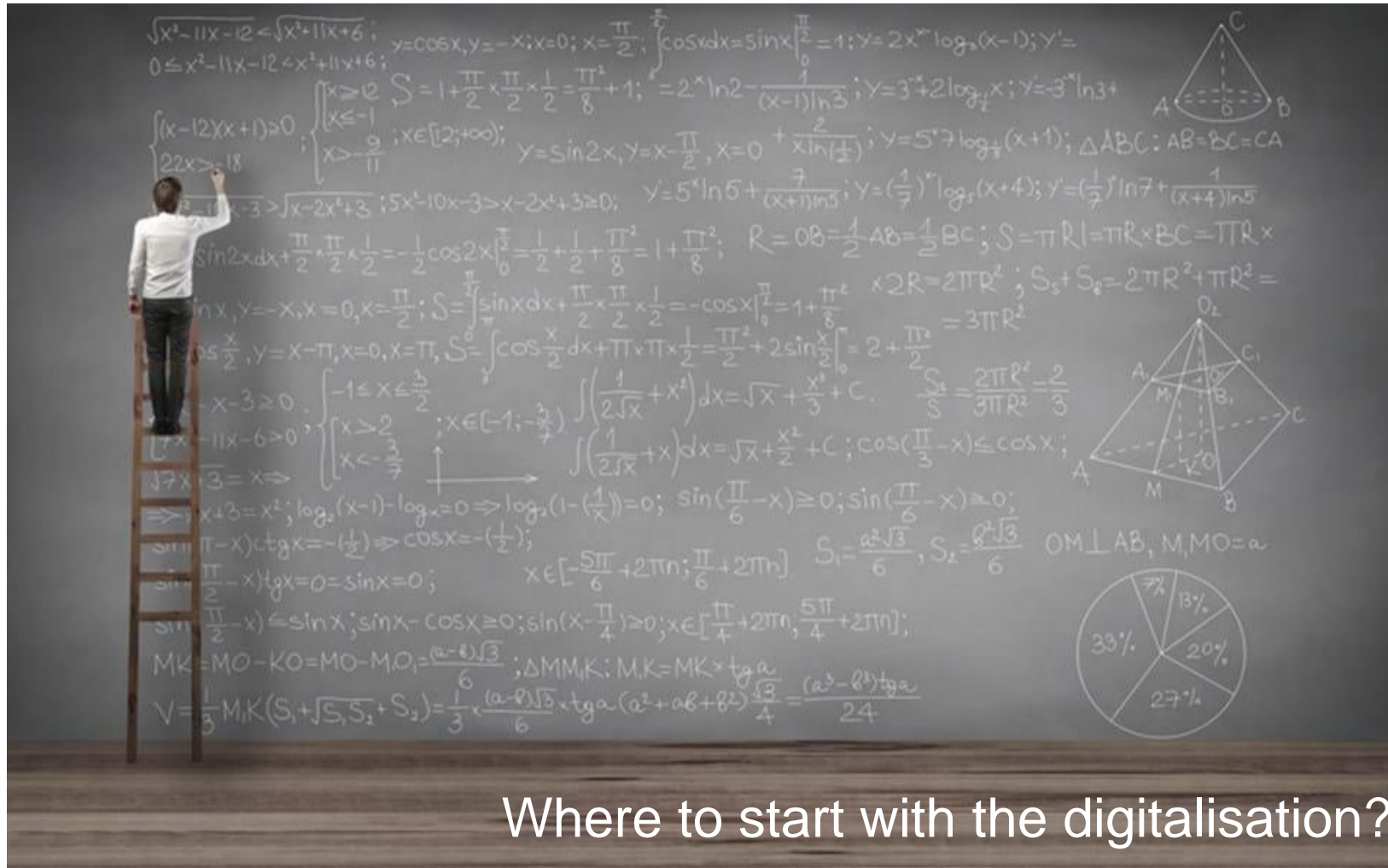
Prof. Dr. Aloys Krieg, Berlin, December 10, 2019

Challenges in the Digitalisation of Teaching



<https://www.shutterstock.com/de/image-photo/boy-standing-on-staircase-writing-wall-283901402>

Challenges in the Digitalisation of Teaching



<https://www.shutterstock.com/de/image-photo/boy-standing-on-staircase-writing-wall-283901402>

RWTH Digitalisation Strategy for Teaching

Phase 1
2014 – 2017

Phase 2
2018 – 2023

RWTH Digitalisation Strategy for Teaching

Phase 1
2014 – 2017

Phase 2
2018 – 2023

- Funds for the faculties to test teaching, learning and examination formats
- Expansion of internal services to support the process of digitalisation of teaching
- Independent decisions of the faculties as to which formats or methods they want to use

Development of an enabling culture for the digitalisation of teaching

Vision Statement

RWTH Aachen is committed to excellence in teaching. The use of digital technologies is firmly anchored in its teaching strategy in order to help students developing their full potential and specific skills as effectively as possible.

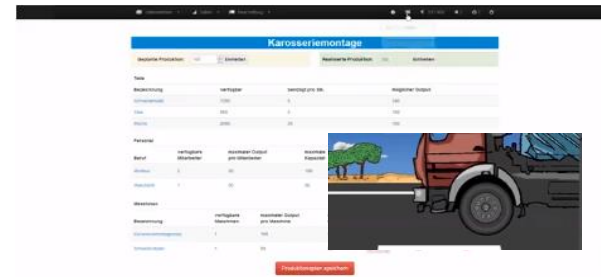
Vision Statement

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RWTH, 2017

Blended learning offers:

- Interactive Learning Platforms
- Teaching and Learning Videos
- Flipped or Inverted Classrooms
- MOOCs
- Serious Games
- Virtual Labs, Simulations, and Augmented Reality
- Learning Applications
- Electronic Assessments
- User Generated Content



transAction, example of a serious game



Screenshot of peer-to-peer learning application on carpal tunnel syndrome

Phase 1
2014 – 2017

Phase 2
2018 – 2023

- Budget of EUR 6 million by the Rectorate to support blended learning projects in the faculties and for internal teaching service providers
- Involvement of the various groups within RWTH for discussions and consensual agreement
- Definition of 8 concrete goals and 27 action items in categories such as *enabling culture or teaching, learning and examination formats*

The overriding goal of the digitalisation strategy is to create optimal conditions for excellent teaching and learning at RWTH in the long term.

Digitalisation is not the only Challenge and it's not just about Teaching

Internationalisation



Teaching

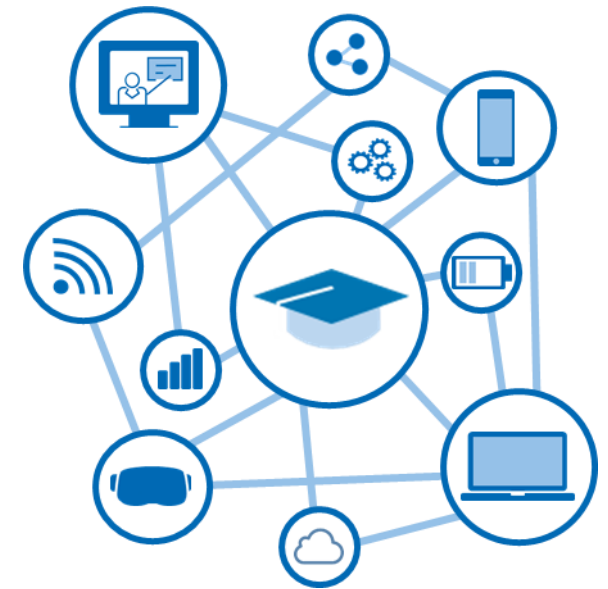


**University
(Administration)**

Research

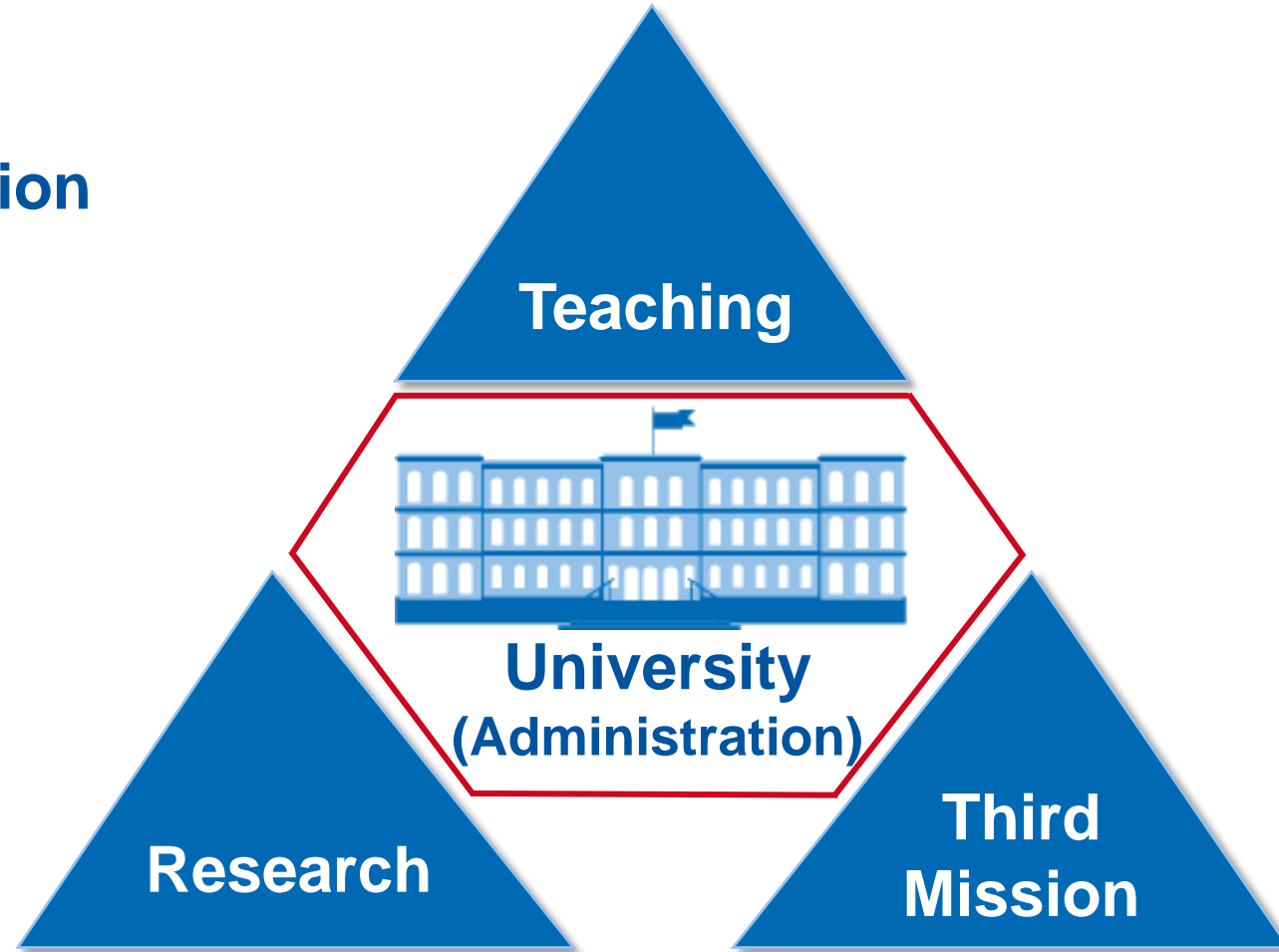
**Third
Mission**

Digitalisation

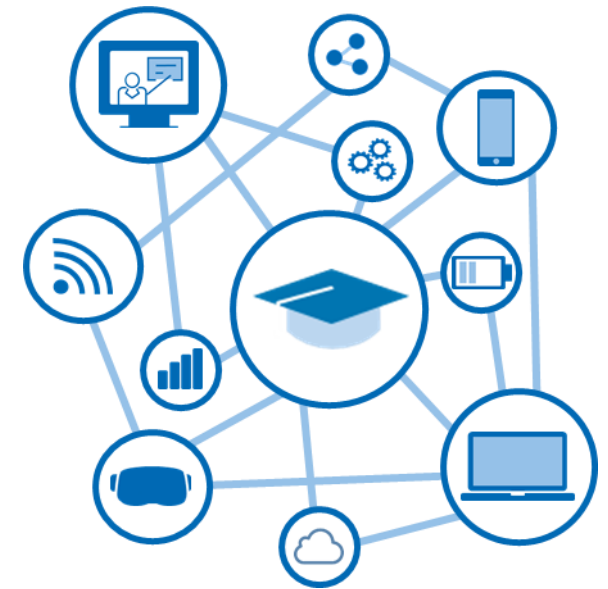


Digitalisation is not the only Challenge and it's not just about Teaching

Internationalisation

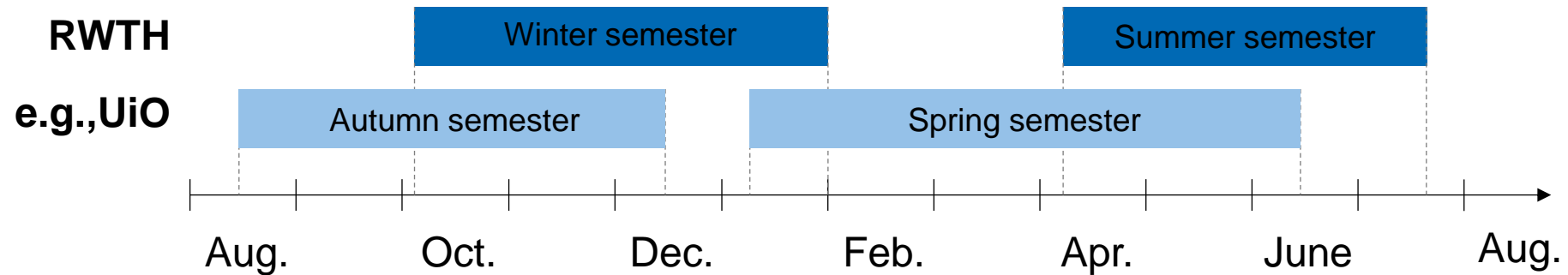


Digitalisation



Addressing Internationalisation through Digitalisation

One challenge of internationalisation: Shifted semester periods



Using digitalisation approaches to address these challenges, e.g.:

- Offer blended learning formats for students to attend lectures without being physically present
- Provide electronic assessments that enable students to take exams at any location
- Accelerate the recognition process of modules through tailor-made software use

Challenges of the Recognition Process as one Exemplary Administrative Process



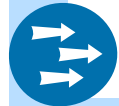
Non-transparent and often informal approval and recognition procedures



Relatively low degree of digitalisation (with deflections)



Study achievements are usually only available as physical paper documents



Students must submit documents explicitly as paper receipts/scans



Different processing steps, guidelines and implementations



Recognitions and admissions as heterogeneous processes among the faculties

MyScore Project - Participating RWTH Institutions

Mobility System Cooperation in Higher Education (MyScore)

Project coordination :

International Office

Participating degree programmes:

Institute of Mineral
Resources Engineering (MRE)

European Mining Course (M.Sc.)

Lehr- und Forschungsgebiet
Ingenieurhydrologie (LFI)

Sustainable Management –
Water and Energy (M.Sc.)

Fachgruppe
Physik

Physics (M.Sc.)

Supporting institutions:

Medien für die Lehre (MfL)

IT Center (ITC)

Existing Blended Learning Offers and Support Tools at RWTH

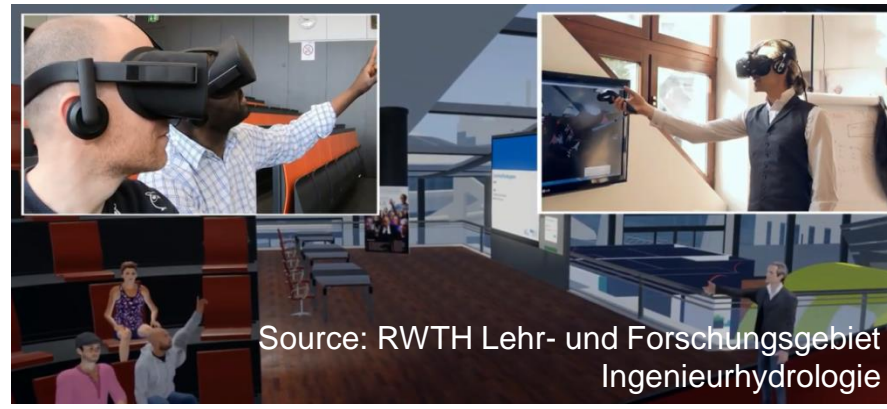
Within the scope of the MyScore project further enlargements will be made of:

MRE – VR Mine:



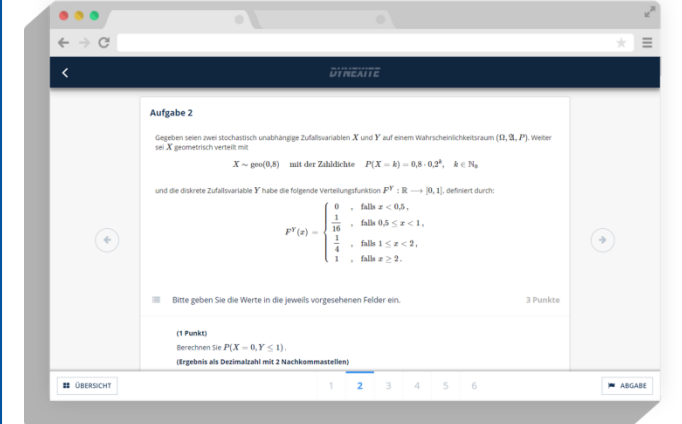
Source: RWTH Institute of Mineral Resources Engineering

LFI – Avatar based Teaching:



Source: RWTH Lehr- und Forschungsgebiet Ingenieurhydrologie

MfL – Dynexite:



Source: RWTH Medien für die Lehre

EMREX Software Solution for the Digital Exchange of Student Data



Solution for the electronic exchange of student documents

- Independent decentralized network for the exchange of performance certificates
- Students initiate and control the secure and digital transmission of their credentials
- Components: Student Mobility Plugin (SMP), National Contact Points (NCP), Registry (EMREG)



Status of usage:

Productive in Scandinavia and the Netherlands with links and many natural partners



Flexibility of the infrastructure:

User-centered approach enables use in Credit Mobility and Degree Mobility areas



DSGVO Conformity:

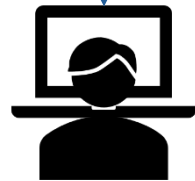
Performance records are retrieved and forwarded by owners (students)

Implementation of EMREX at RWTH

RWTH Aachen



EMREX Client (SMP)



Answer

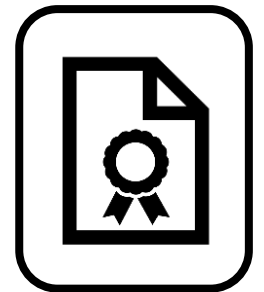
Request

NCP

Retrieval

Result

NTNU Trondheim



Development of a Web-based Recognition Tool

Web-based Tool

Digital application



Digital pre-audit and digital application for module recognition

Digital support of administrative processes



Management of applications in web tool with status display of processing and database functions

Provision of information



Integration of handouts and information material for students and university staff

Benefits for students, university administration and examination committees

Development of Prototype to Support the Digitalisation of the Recognition Process

Results of the pilot as part of the PIM program funded by BMBF

inside-studix @ HT Berlin

http://www.inside-studix.ht-berlin.com

inside studix @HT

Lernvereinbarung

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Weiter

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inside studix @HT

Lernvereinbarung

Marie Schmidt

Vorgeschlagenes Mobilitätsprogramm

Tabelle A: Studienplan Gastuniversität		ECTS	Tabelle B: Studienplan Heimatuniversität		ECTS
Modultitel OS	Sozialpsychologi 1	7	Modultitel	Sozialpsychologie	6
Modultitel EN	Social Psychology 1		Modul-ID	DERWTH100700	
Modul-ID	102876				
Modultitel OS	Kognitive Mönstre	6	Modultitel	Muster im kognitiven Verhalten	10
Modultitel EN	Cognitive Patterns		Modul-ID	DERWTH120800	
Modul-ID	103215				
Modultitel OS	Atferdsstudie	5			
Modultitel EN	Behavioural Study				
Modul-ID	103220				
Modultitel OS	Avansert Sosialpsykologi	11	Modultitel	Einführung in die Sozialpsychologie	5
Modultitel EN	Advanced Social Psychology		Modul-ID	DERWTH130222	
Modul-ID	104900		Modultitel	Vertiefung in Sozialpsychologie	7
			Modul-ID	DERWTH149776	
Total ECTS Gastuniversität		29	Total ECTS Heimatuniversität		28

Neues Modul

Zurück Weiter



Thank you very much for your attention.