

# Welten Institute

Research Centre for Teaching,  
Learning and Technology

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**Onderzoekscentrum voor leren, doceren en technologie**

**Open Universiteit**



# What do we do and how?

- **Innovation of Higher Education** at the OU and in the Netherlands
- The Research Centre in Europe for Teaching, Learning and Technology focusses on the core business of the OU that is Open Education
- Visitation in 2013 with 4.5 and 5 for highest scientific impact and quality
- New Research Program in 2014, updated in 2016 starting from strategic challenges of the OU, the Netherlands, Europe and beyond

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# Research Portfolio

- Differentiation in revenue streams
  - 1<sup>st</sup> focus on strategic cooperation for impact (VSNU) and OU added core value (5 FTE)
  - 2<sup>nd</sup> additional and seed funding for upcoming topics national and international funding (2015 = 1.7 mil)
  - 3<sup>rd</sup> products and educational services, (2013= 600k)
- Innovation Roadmap differentiation
  - Short Term (MOOC, LA, Teacher Professionalisation)
  - Mid Term (Advanced Assessment Technology)
  - Long Term (Sensor-based and ubiquitous computing)

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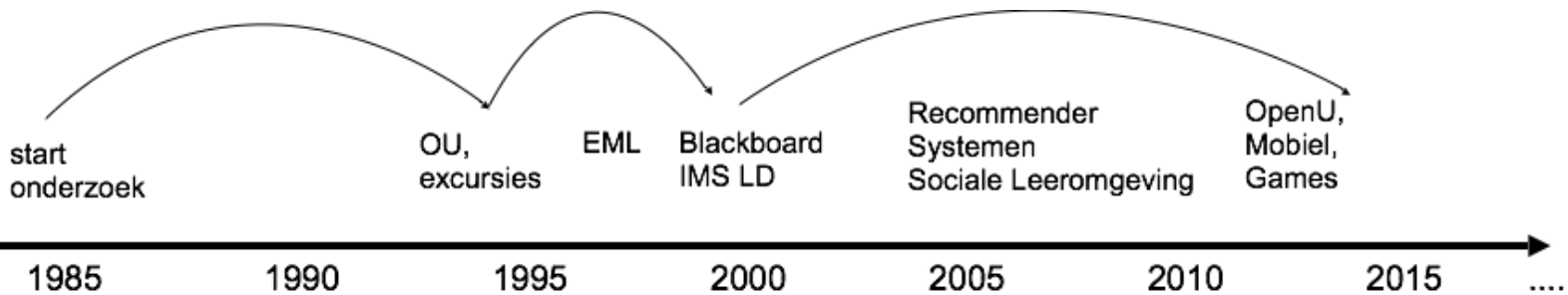
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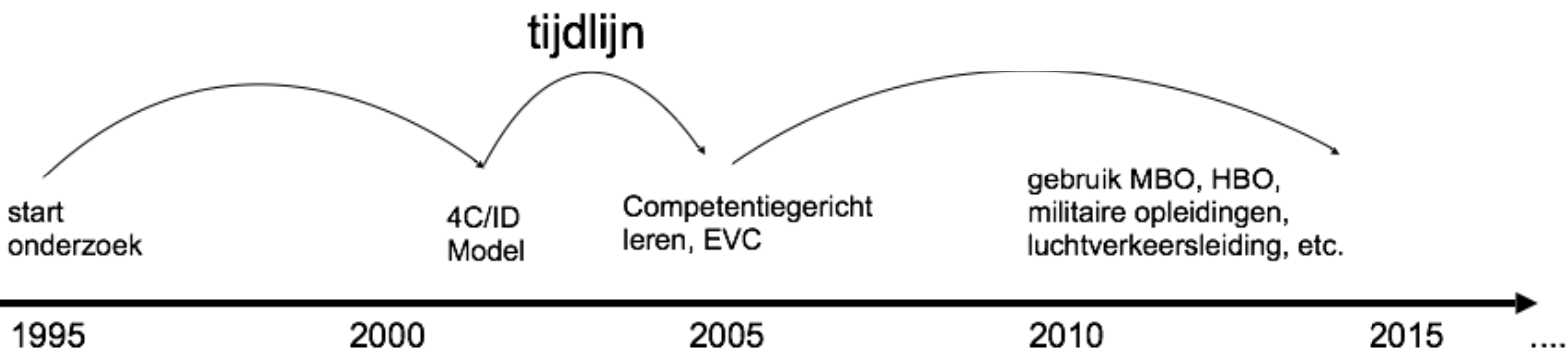


# A long term perspective ...

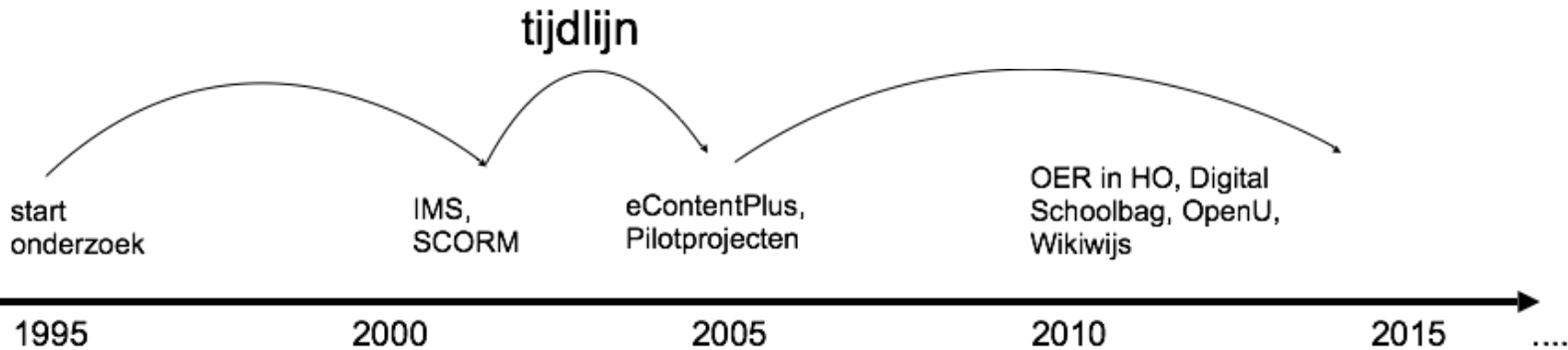
## Digital environment



## Complex skills



## Digital content



Welten Institute Management

FB,  
van den Broek

FEEEL

TELI

T2

Theme 1: Biopsychology and Learning

Theme 1:  
New Learning Experiences

Theme 1:  
Expertise Development

Theme 2: Serious Gaming

Theme 2:  
Seamless Learning Design

Theme 2:  
Career Development

Theme 3: Expertise Development

Theme 3:  
Open Learning Analytics

Theme 3: Motivation

Theme 4: Assessment

Theme 4: Open Education

Theme 4: School Organisation and Learning Networks

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## Research for better online learning

- **Mobile** and **ubiquitous** learning: we apply mobile learning in different applications domains: culture, science, logistics, health. Wearables and Augmented Reality are new developments.
- **Game**-based learning and Gamification principles: We are currently leading the biggest European project on gamification.
- Learning **networks** and MOOCs: We coordinate the biggest Dutch project on research accompanying MOOC developments with a standardized evaluation framework.
- Learning **Analytics**: We use big data coming from all levels of tracks of the learning process. We recently have won research rewards at LAK 16.

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## A holistic view on online learning

- **Individual:** We research into bio-psychological and biographical variables of the learner and do this in long-term studies. We also want to better understand what real life-long learning is.
- **Assessment:** New forms of assessment are key to future training and learning solutions considering the investment and its potential.
- **Expertise:** We have a long standing tradition in the use of new media for expertise development and instructional design of new media and curricular structures.
- **Organisational Change:** Agile learning and "The new School": We work within and together with our main stakeholders = teachers and learners. We start from their complex problems

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## Conclusions

- We are in the middle of a transition to digital learning and teaching, we have to manage this change and research the potential, risks, and opportunities.
- We believe in open innovation and search out opportunities to apply research to real world problems with application contexts.
- We follow an evidence based approach and do descriptive research, design-based research, qualitative and quantitative studies and also treatment interaction studies.

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