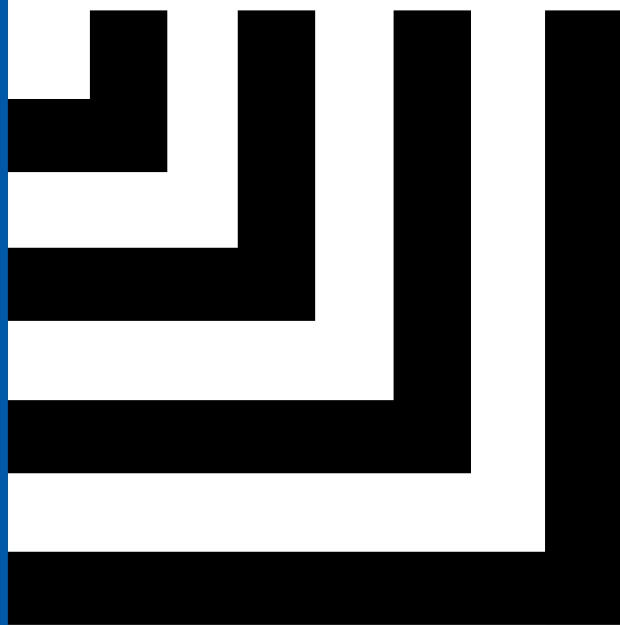


# Design-Based Education: what, why and how?

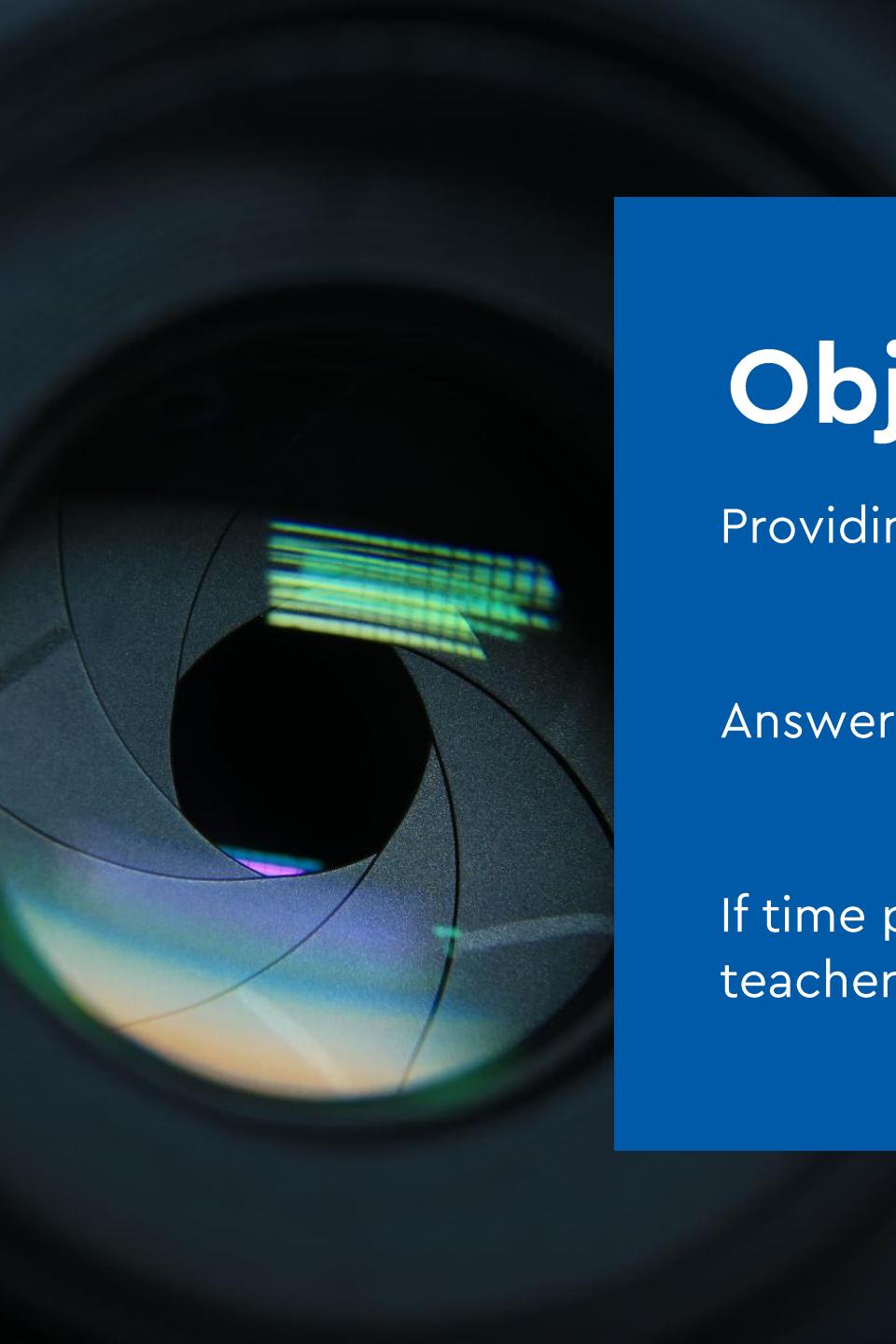
**Prof. Dr. Migchiel van Diggelen**





## Outline

- Welcome and objectives
- Question formulation
- DBE: history, future and why
- DBE: what?
- DBE: education and why?
- DBE: how?

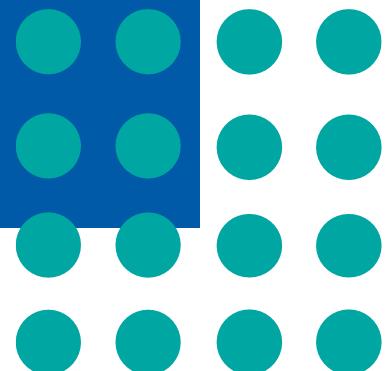


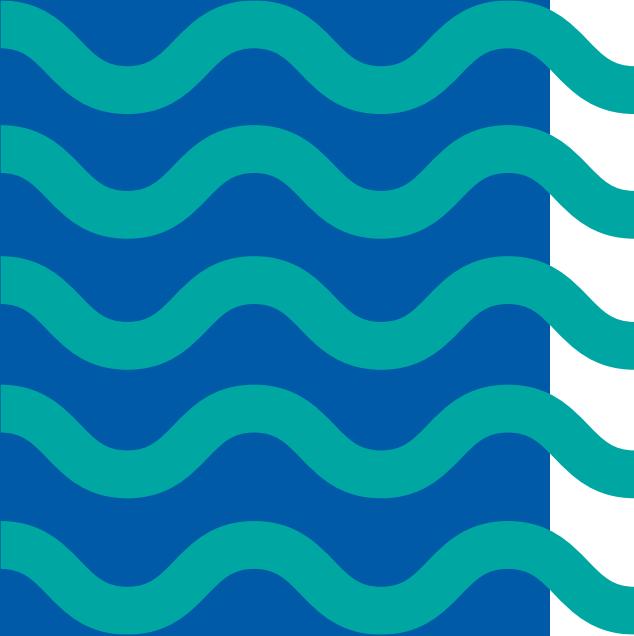
# Objectives

Providing insight in what DBE entails

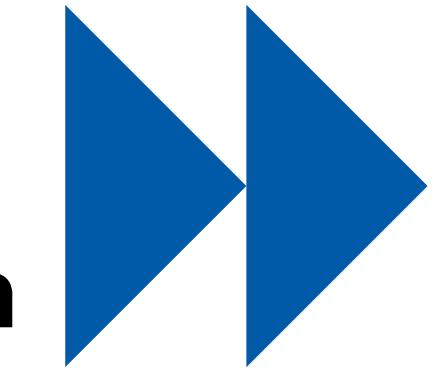
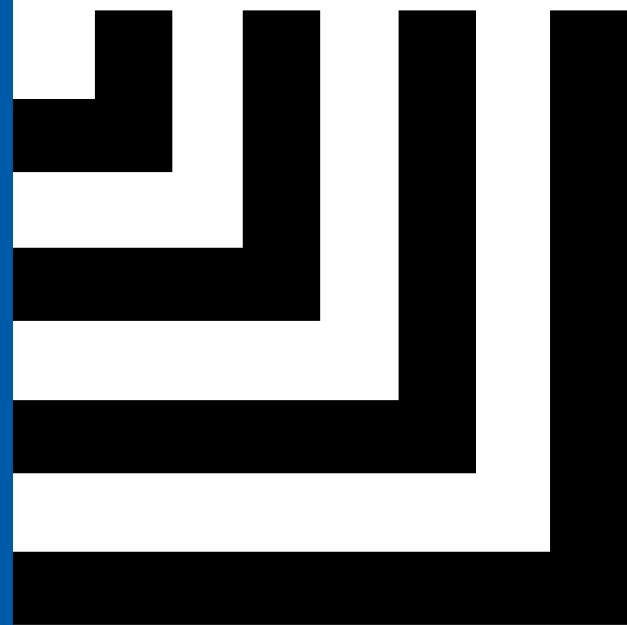
Answering your questions

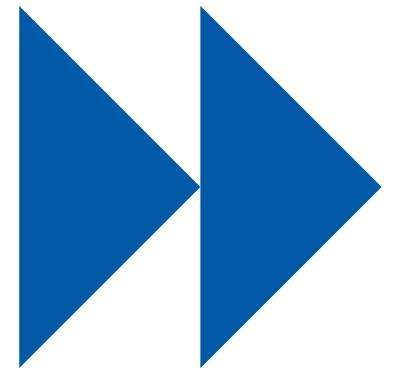
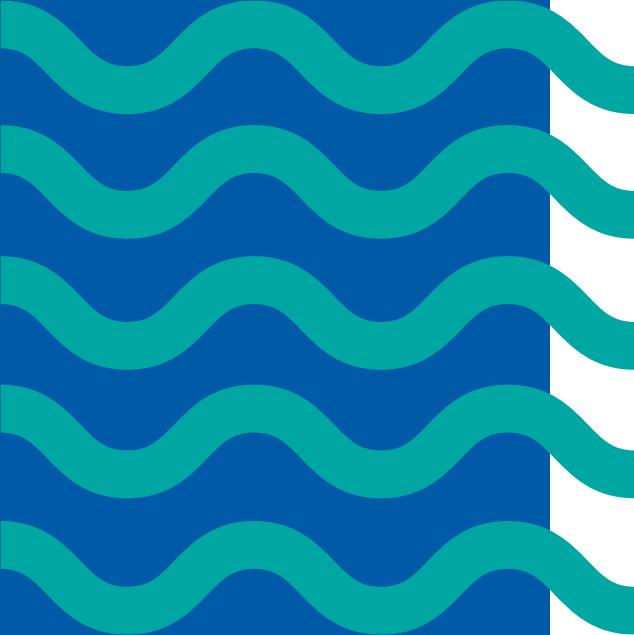
If time permits: providing insight in what DBE asks from a teacher



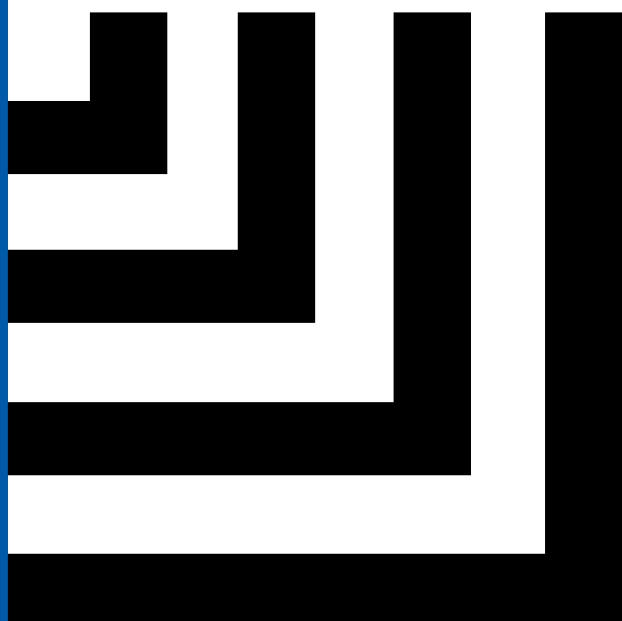


**Type in the chatbox: which question you would like to have answered in this workshop?**





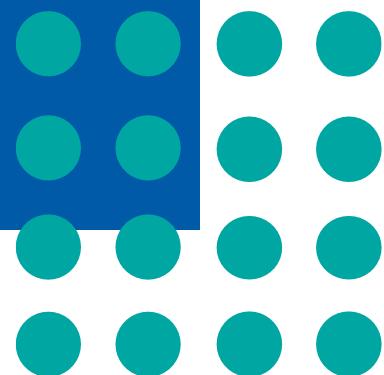
# DBE: history, futur and why?





# History

- A merger organisation: NHL Stenden
- Building on what is known: creating new traditions
- Frontrunner in theory and practice
- Anticipating the future: transition proof education





# Anticipating trends in society

**Digital Transformation**

**Sustainability**

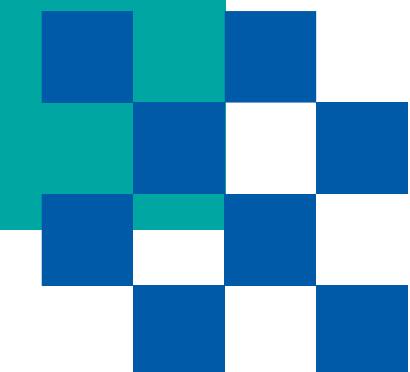
**Demographic Changes**

**Glocalism and connectivism**

**Broad prosperity**

**Knowledge and information widely available**

....



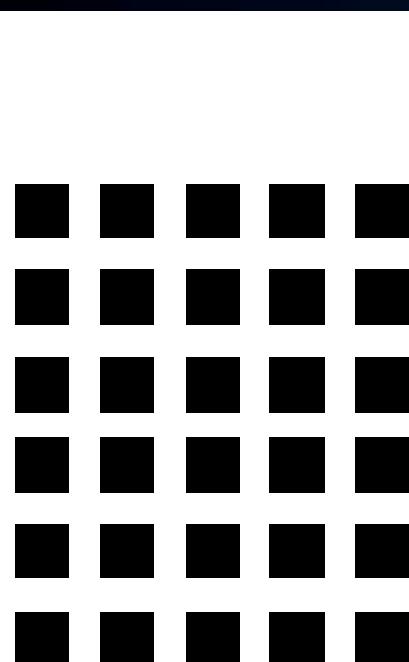


# Industry 4.0 vs Industry 5.0

## Industry 4.0 vs. Industry 5.0

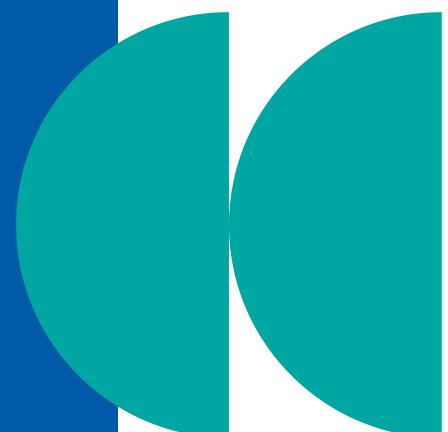
Industry 4.0	Industry 5.0
Smart automation	Human-machine collaboration
Focus on efficiency	Focus on customization and creativity
AI-driven decision-making	Human-centered innovation
Optimizing productivity	Sustainability and ethics

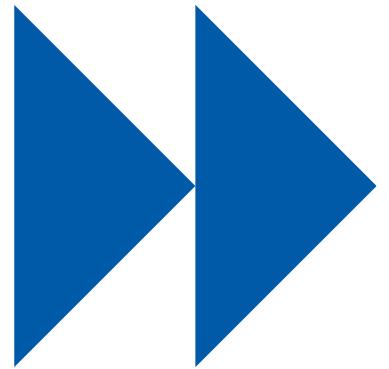
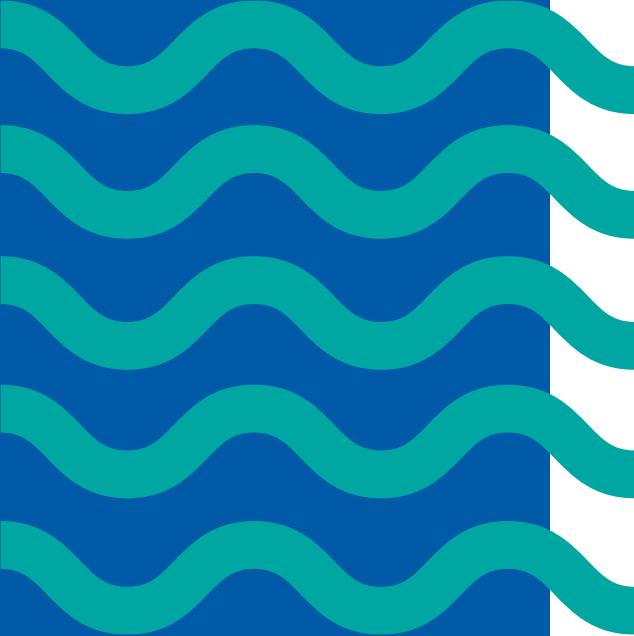
<https://research-and-innovation.ec.europa.eu/research-area/industrial-research-and-innovation/industry-50>



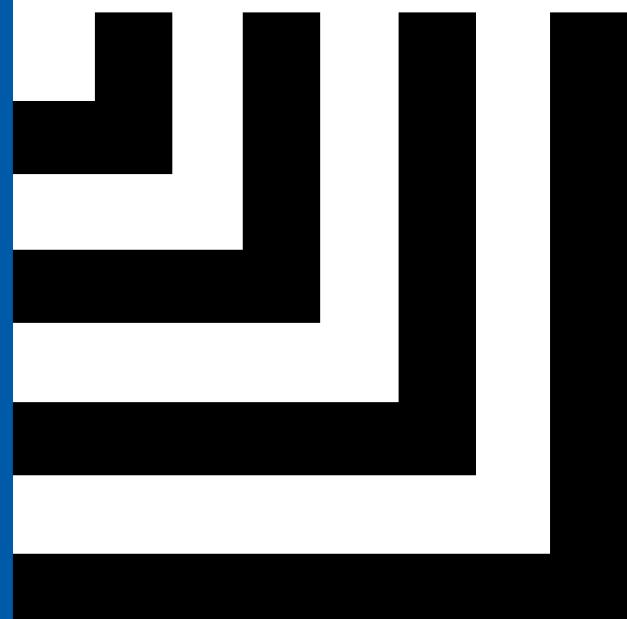
# Historical perspective

- From problem-based learning to design-based learning
- Various concepts prevalent; project, challenge, design..
- NHL Stenden; Design-Based Education – concept





# DBE: what?



# DBE facets

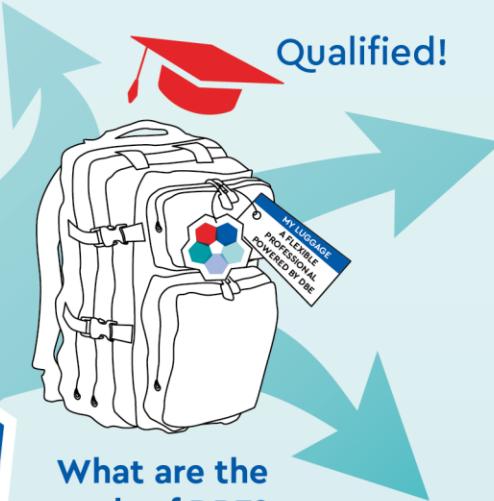
# Design Based Education

DBE is a contemporary educational concept developed by NHL Stenden. Programmes have been implementing DBE since the merger in 2018.

## What are the characteristics of DBE?

DBE consists of 5 related facets and some specific educational choices.

- Learning outcomes with room for personalisation;
- Coherent modules (units) of 15 or 30 ECTS;
- Working a lot on practical issues and professional products;
- Frequent feedback and less assessments.



## What are the goals of DBE?

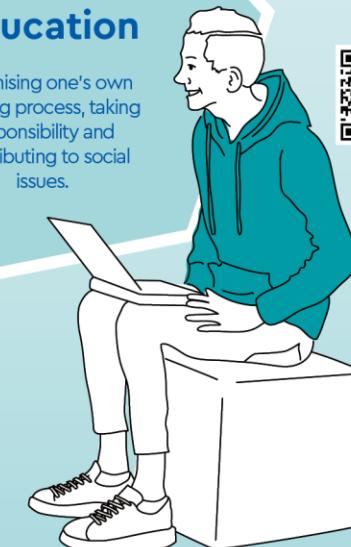
What are the goals of DBE? We want to educate inquisitive, critical, innovative, reflective and self-aware professionals who collaborate beyond the boundaries of their own discipline.

Who are able to find solutions to complex problems and contribute to regional and international transformational challenges.



## Know more?

- DBE SharePoint



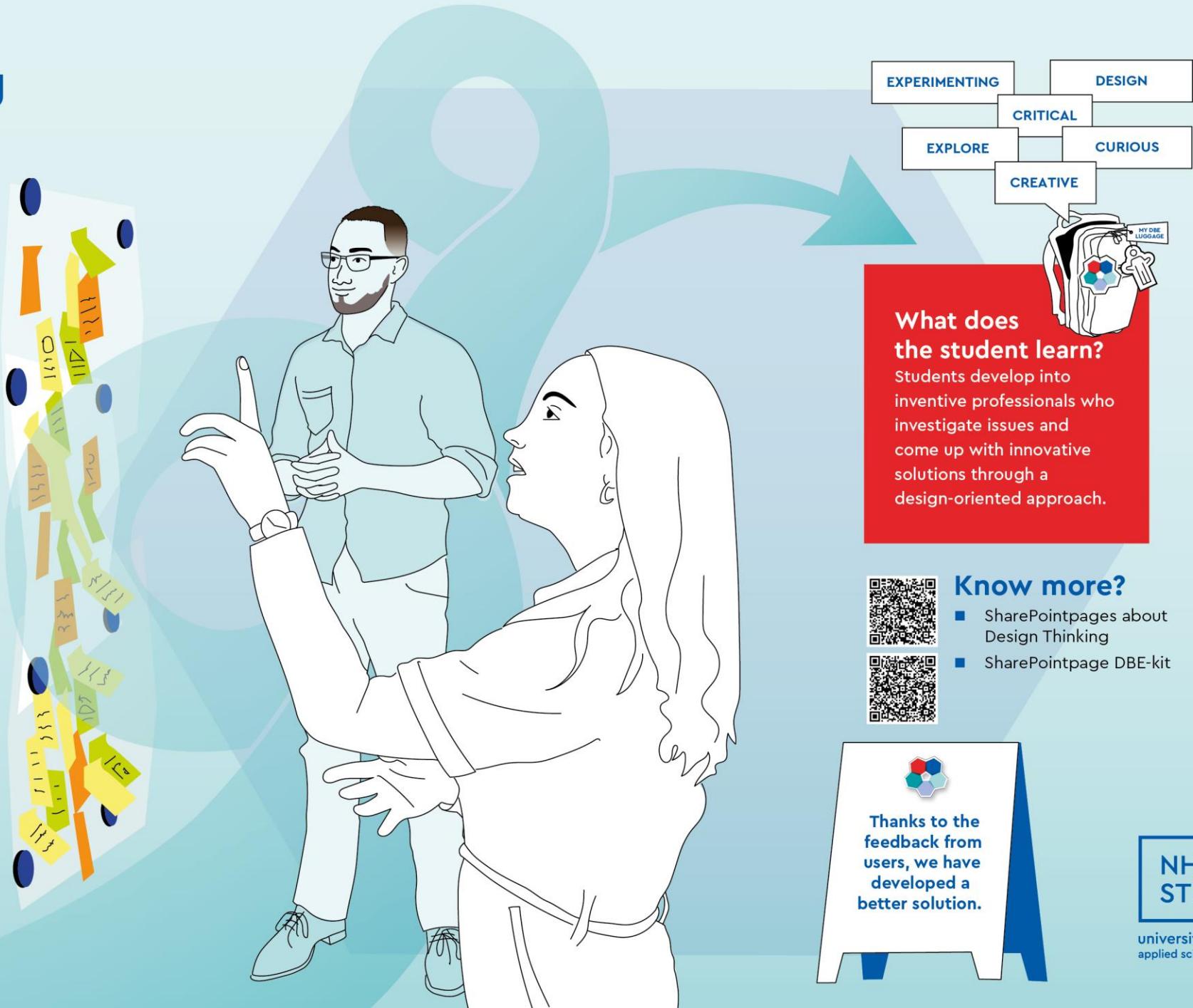
# Design thinking

## Why do we want it?

The world around us faces many complex challenges where a design-oriented approach helps in finding possible solutions.

## What do we do?

- Students dive into increasingly complex real-life issues;
- Students empathise, design solutions and try them out;
- Students use existing knowledge and justify their choices;
- We offer space to experiment and learn from experiences.



## What does the student learn?

Students develop into inventive professionals who investigate issues and come up with innovative solutions through a design-oriented approach.



## Know more?

- SharePoint pages about Design Thinking
- SharePointpage DBE-kit



Thanks to the feedback from users, we have developed a better solution.

# Multidisciplinary Collaboration

## Why do we want it?

Constructive cooperation between various parties and disciplines is needed to invent solutions to complex challenges.

## What do we do?

- Students work on real-life issues and professional products;
- Students work together with students from other programmes;
- Students look at an issue from various perspectives;
- We work together in ateliers and learn from each other.



# Personal Leadership

## Why do we want it?

Our dynamic society increasingly requires professionals who know how to hold their own, take responsibility and be proactive.

## What do we do?

- Students learn more and more about their own qualities and beliefs;
- Students formulate learning goals and make choices in their (study) career;
- Students ask for feedback and receive appropriate coaching;
- We offer students choices and pay attention to personal and professional development.



# Sustainable Education

## Why do we want it?

The many challenges and changes in the world require adaptive professionals who contribute to society and continue to develop.

## What do we do?

- Students organise their own learning, reflect on experiences and utilise feedback;
- Teachers encourage the development of learning skills and deep learning;
- Students work on actual and meaningful issues;
- We contribute to the United Nations' sustainability goals.



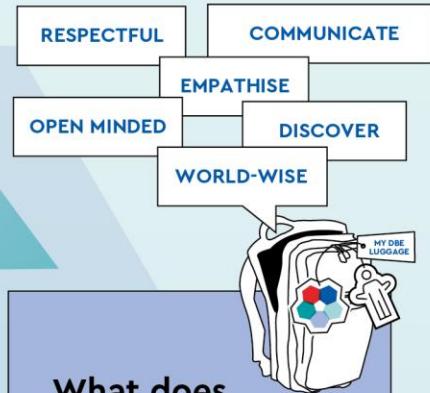
# International & Intercultural

## Why do we want it?

The working environment is increasingly international and intercultural, where it is important to be open to other views and make use of diversity.

## What do we do?

- Students work on international and/or intercultural issues;
- Students are open to other perspectives, norms and values;
- Students acquire international and/or intercultural experiences;
- We create a safe learning environment where there is room for differences and diversity is benefited from.



## What does the student learn?

Students develop into global citizens who respect others, other cultures and views and can cope in a variety of situations.



## Know more?

- SharePoint pages about International & Intercultural

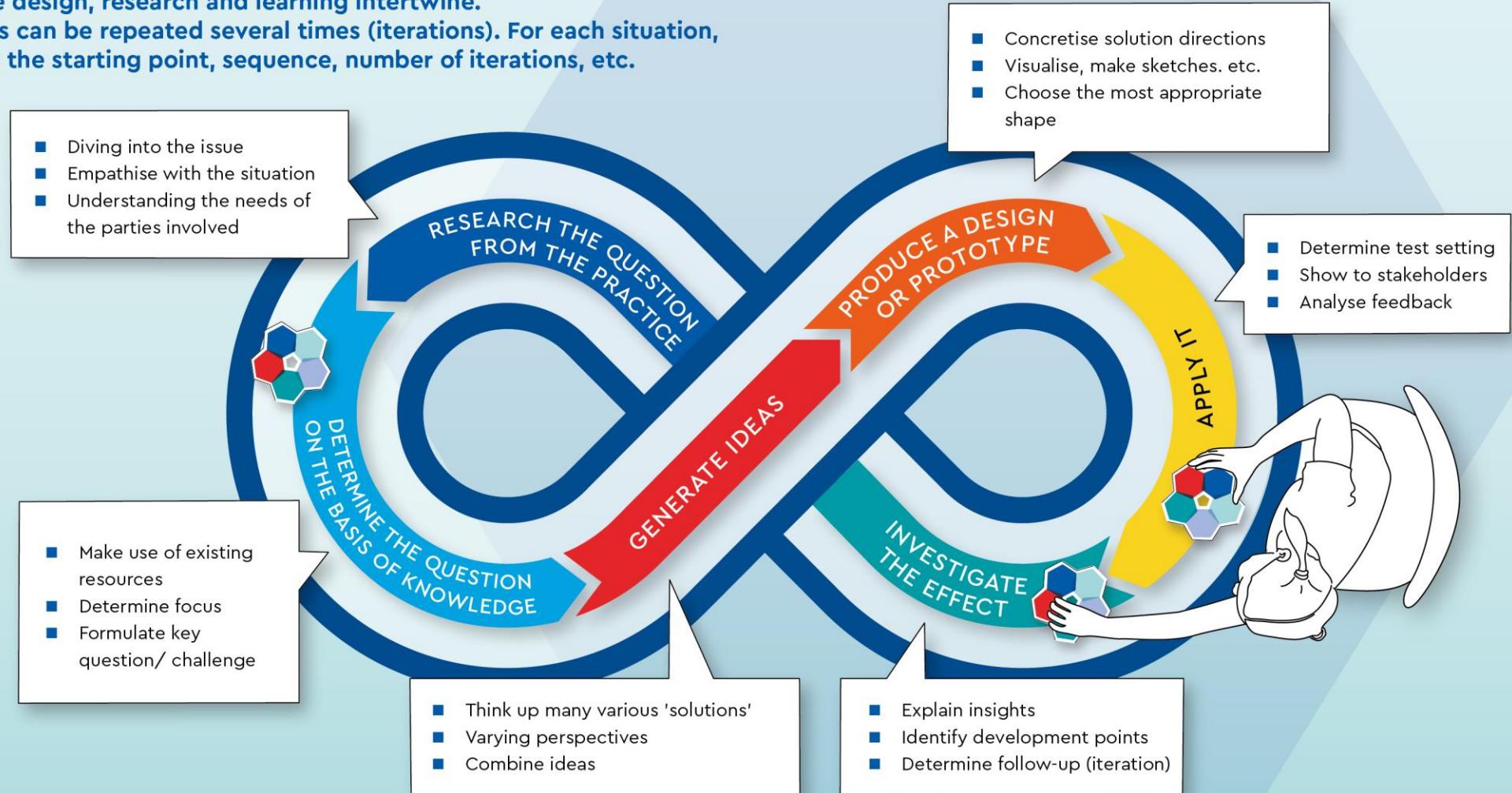


By working with students from different backgrounds, I learned a lot about myself.

# Phases of DBE

Inspired by various models of Design Thinking, we have developed phases of DBE where design, research and learning intertwine.

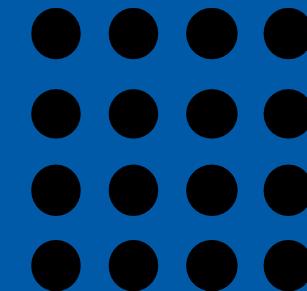
The phases can be repeated several times (iterations). For each situation, determine the starting point, sequence, number of iterations, etc.

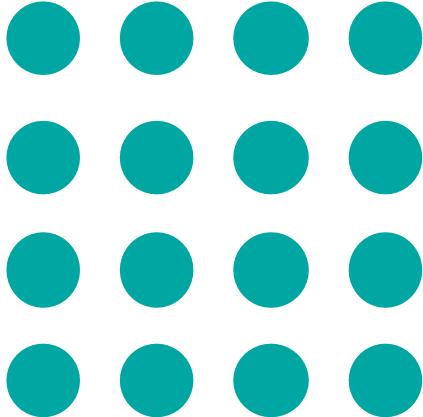
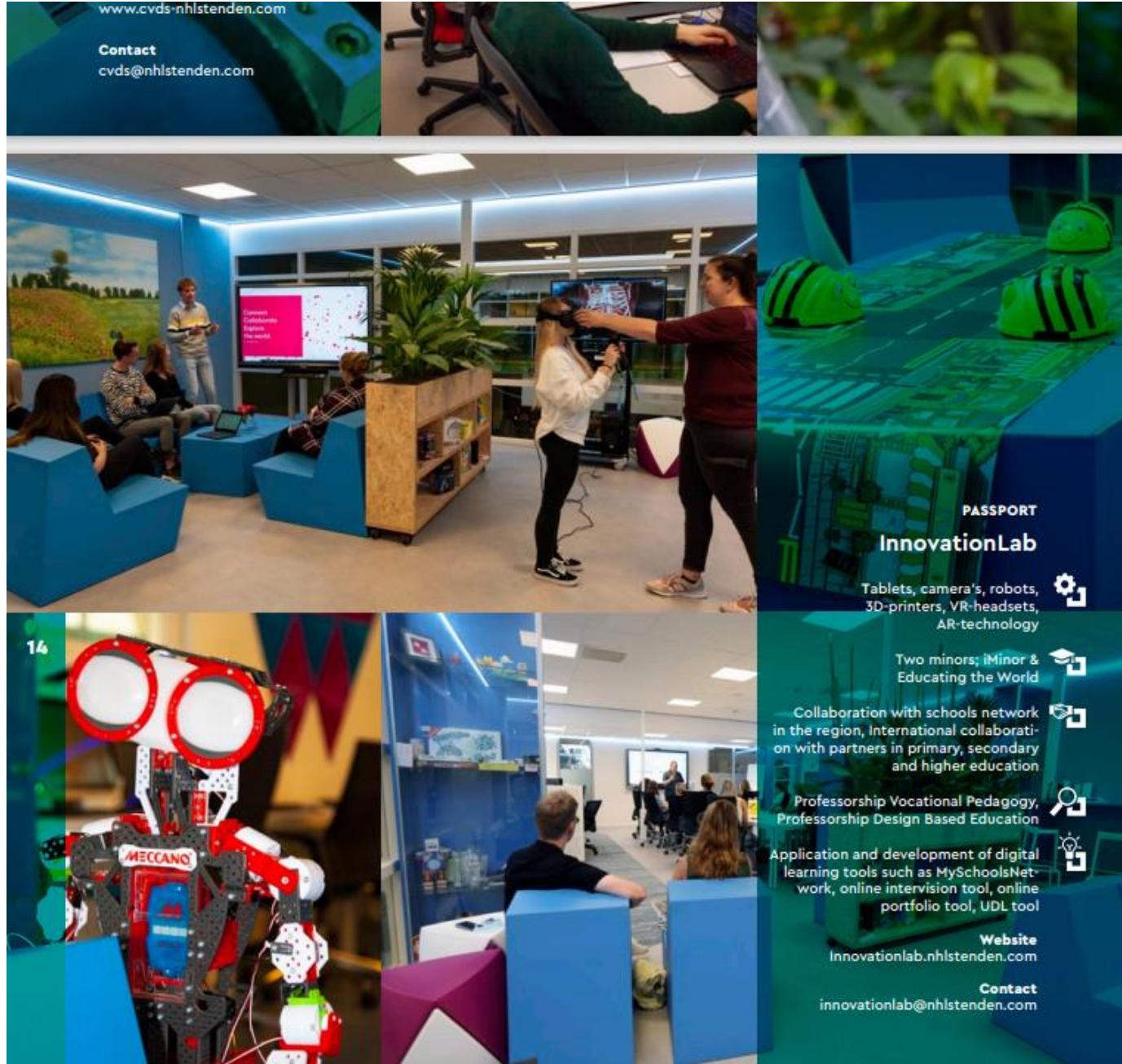
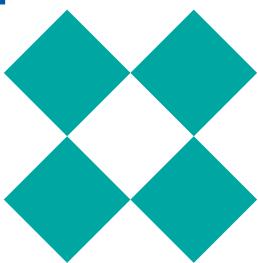
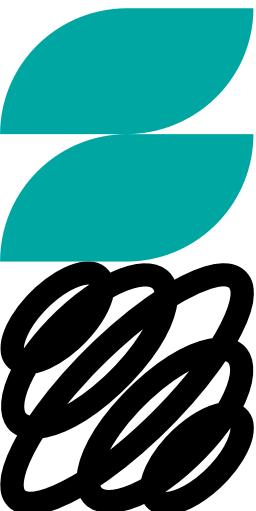


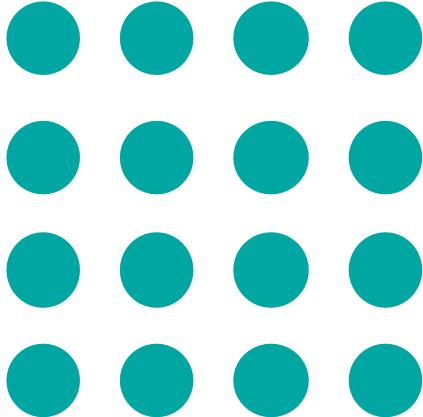
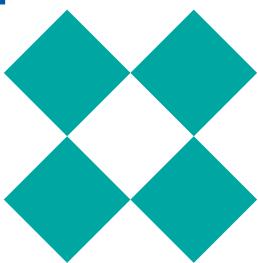
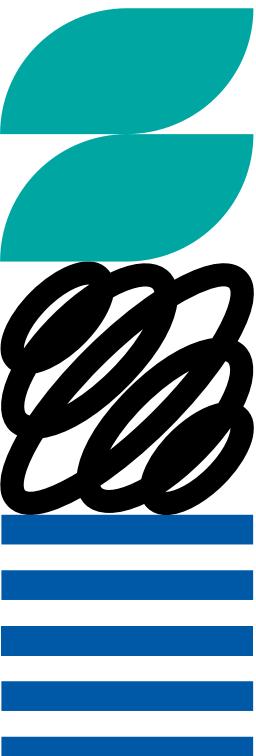


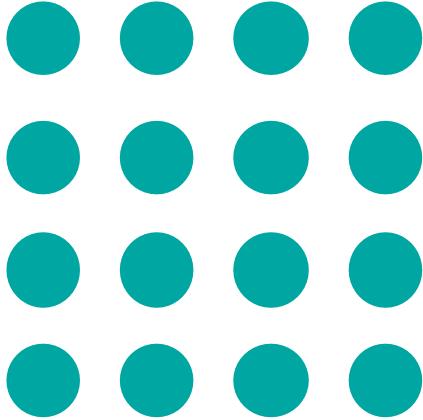
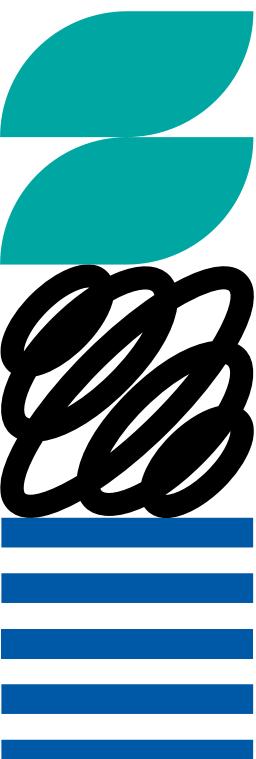
NHL  
STENDEN

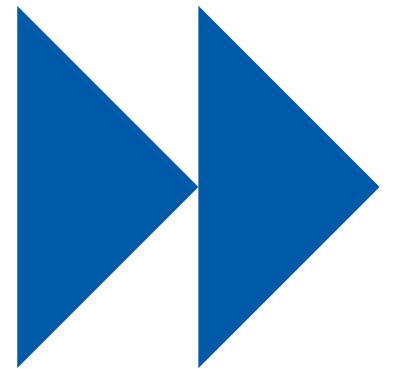
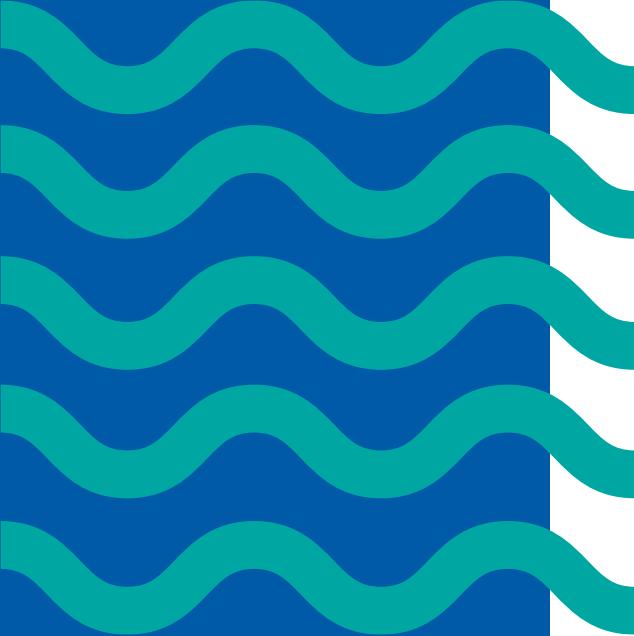
# Ateliers











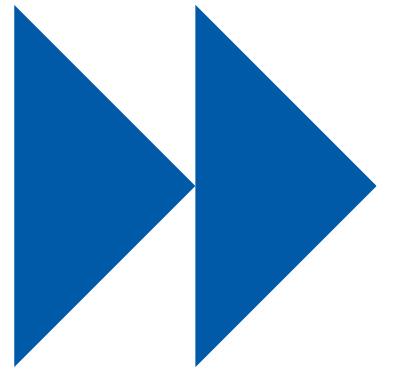
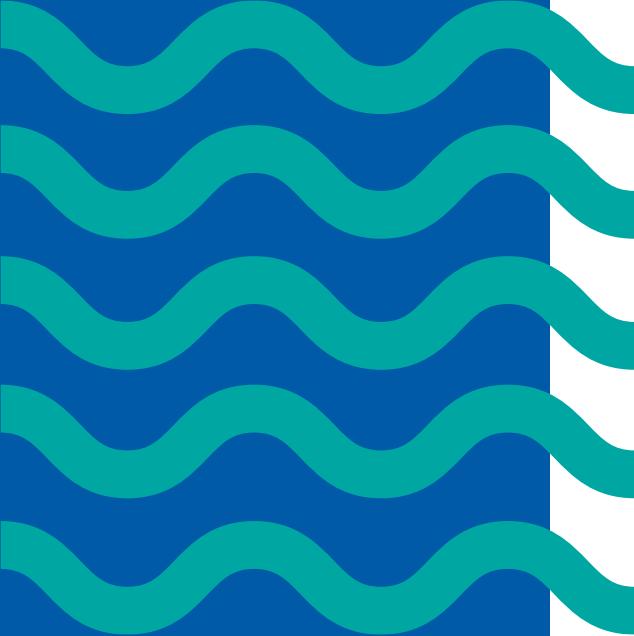
# DBE: why?



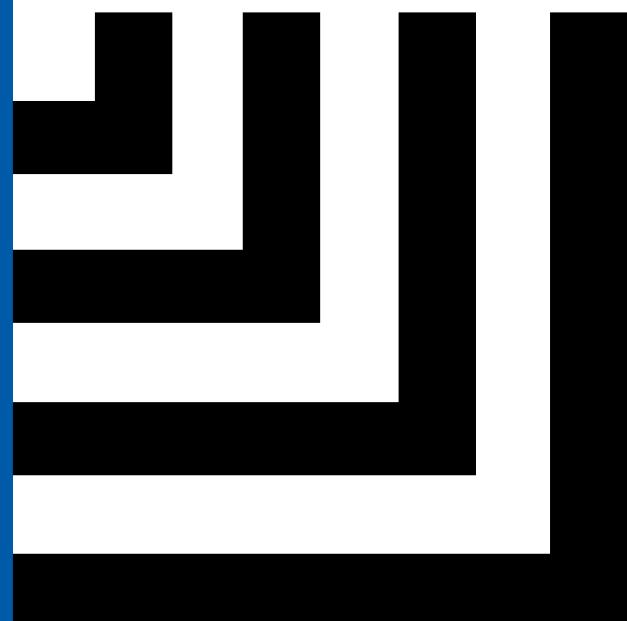


# Why?

- Future: Every professional is a designer
- Embedded in recent ideas on learning and instruction
- Stronger connections with practice
  - Addresses intrinsic motivation
  - Activating
  - Meaningful and deep learning
  - Better transfer to other situations?



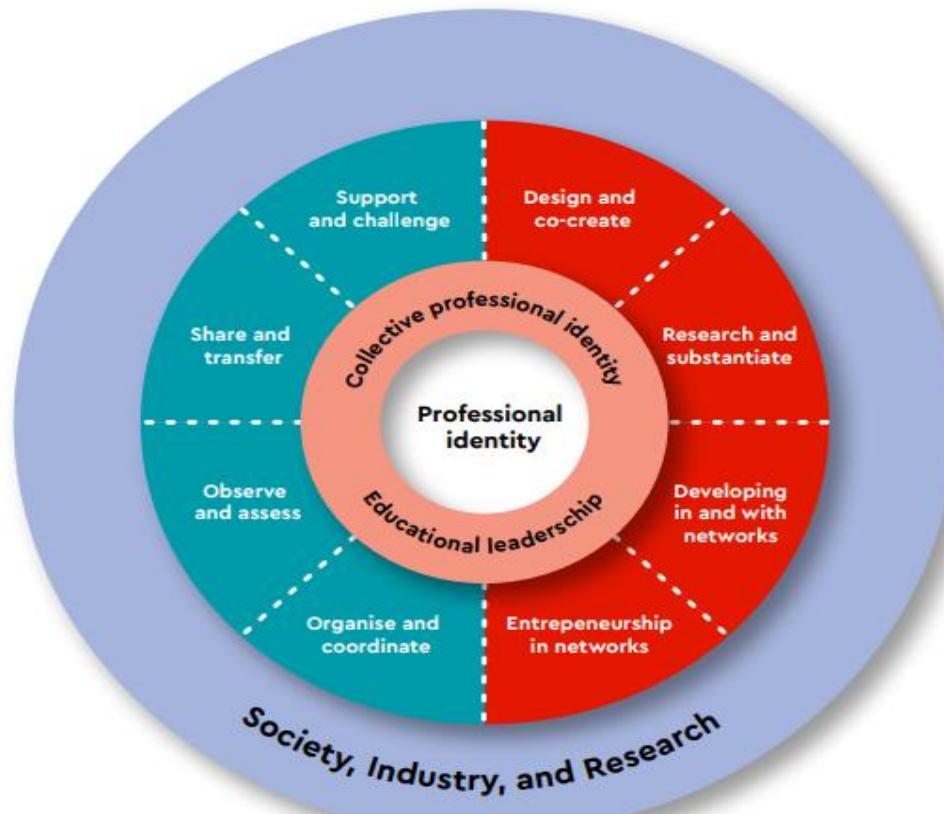
# DBE: how?



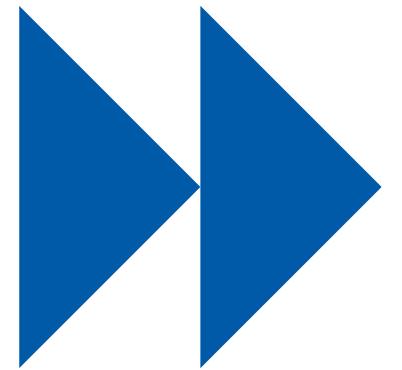
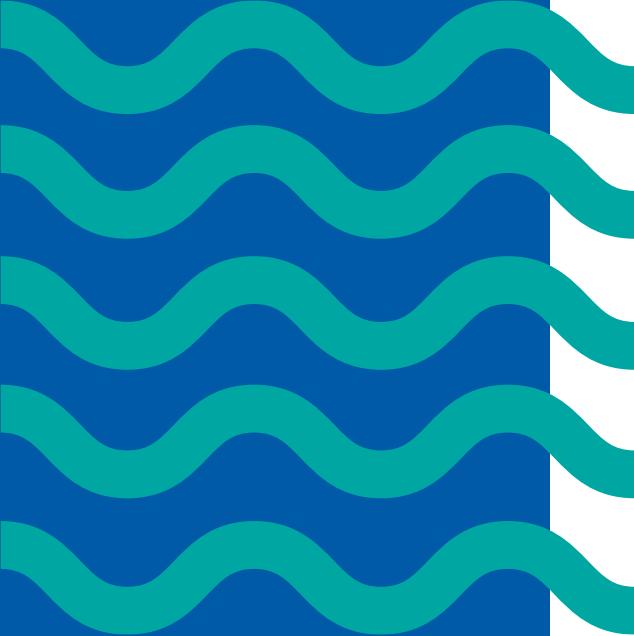
NHL  
STENDEN

## DBE team model Tasks and activities

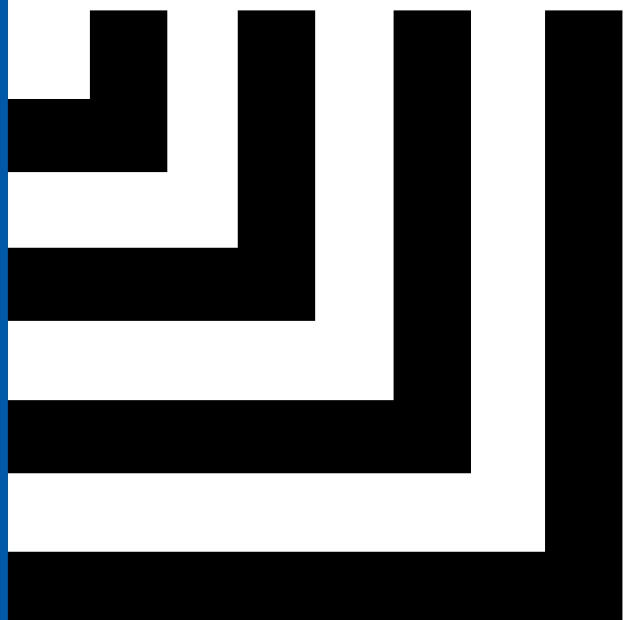
<b>Blue</b> impact on society, industry, and research
<b>Green</b> execution of education
<b>Red</b> innovation of education
<b>Orange</b> learning with - and from - each other

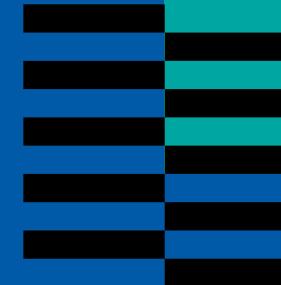


Assen and Van Diggelen, 2023



**Answering  
your questions**





Thank you for your attention!

