

# OK!Thermo

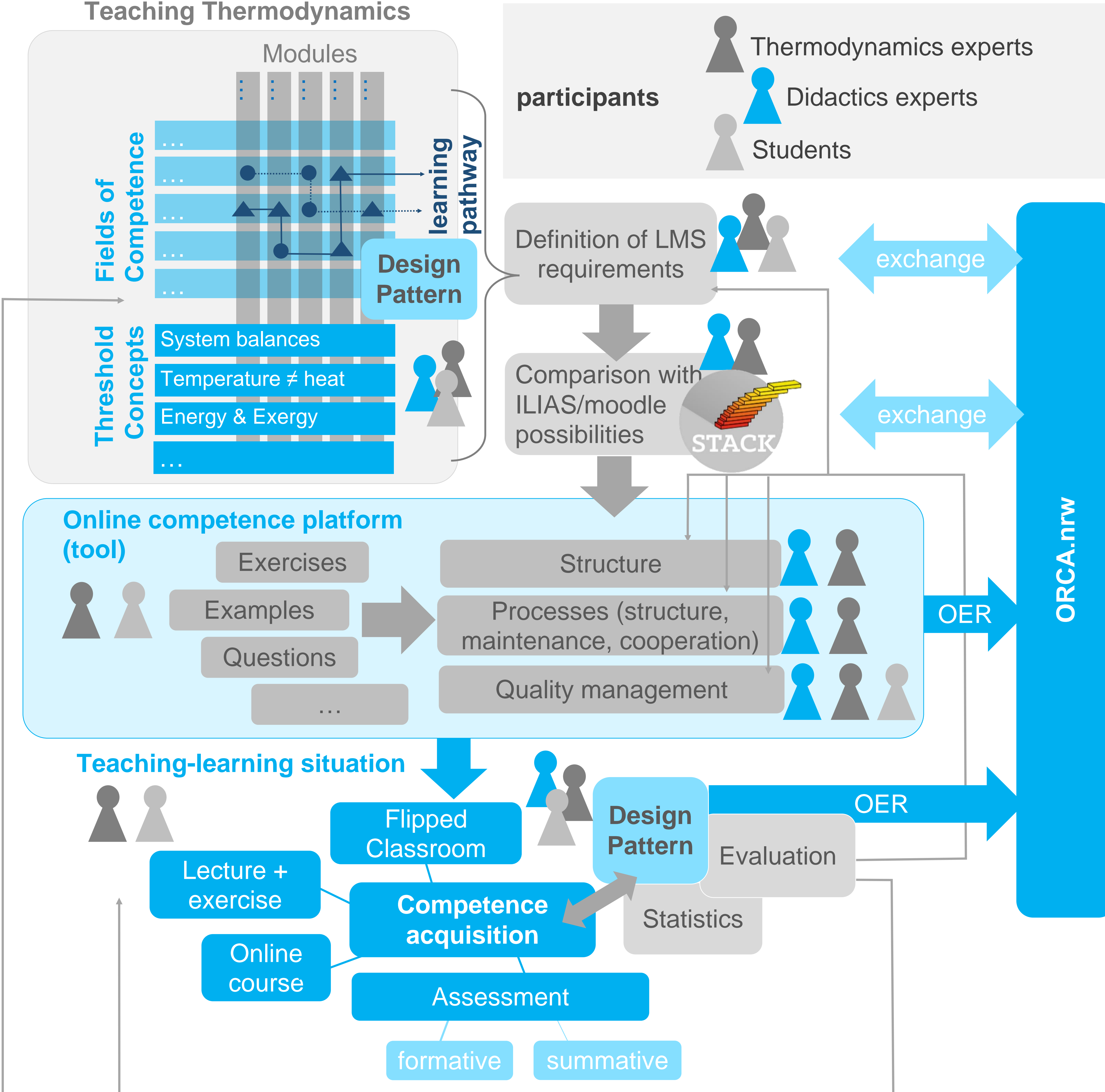
## Online-supported Competence Trainer for the STEM Basic Subject "Thermodynamics"

### Project presentation

- **Goal:** Implementation of a cross-institutional, LMS-independent collection of exercises
- **Focus on infrastructure:** Tools & best practice for networked collaboration within the specialist discipline
- **Focus on didactics:** Recognizing "bottlenecks" in the discipline and the resulting skills training



#### Teaching Thermodynamics



### Realisation



#### Infrastructure:

- Exercise/moodle platform defined: <https://hub.hs-duesseldorf.de/okthermo>
- Teamwork platform defined: Sciebo
- Implementation format defined:



- (STACK: moodle-ILIAS LMS compatibility)
- Assignment of "tags" for exercises defined (topic, level of difficulty, competence, etc.)
- Process for creating exercises defined and in test phase
- Testing the procedure for quality management & versioning
- To Do: Test collaboration when creating new exercises and using exercises in teaching across module boundaries

#### Didactics:

- "Teaching teams" formed
- "Bottlenecks" identified
- "Decoding the Disciplines" interviews carried out
- To Do: derive appropriate exercises
- To Do: Derive "Design Patterns"/ "Best Practice Examples" and make them available

### Success factors & challenges

#### Infrastructure:

- Support from ORCA.nrw in the desire for close exchange, collaborative definition of future users/user scenarios
- Technical solutions for cross-LMS collaboration (moodle/ILIAS) still a vision of the future. No established paths/structures for collaboration across university boundaries available.
- No cross-institutional LMS in the state of North Rhine Westphalia available with teacher and student access and/or coupled with local systems

#### Didactics:

- Diversity of the teaching/learning culture of the lecturers involved: The competence trainer should be suitable and useful for all purposes
- Cooperation in teaching within the discipline among colleagues is new territory and already a great benefit

### Evaluation

#### Infrastructure:

- Close exchange with ORCA network centres and office

#### Didactics:

- Evaluation of the decoding interviews with the support of university didactics at TH Köln
- Evaluation of the use of the competence trainer in teaching