



DIE REGIERUNGSPRÄSIDENTIN

Multiplier Event

Interdisciplinary Teaching and Training 4.0

Welcome!

Interdisciplinary teaching of technical processes (variant design with 3D printing) in an ERP environment (SAP for Schools)

Agenda:

- 13:00 h: Start of the event + introduction of participants
- 13:30 h: Presentation of the INTENT project
- 13:45 h: Common learning situation for the training occupations industrial clerk and mechatronics technician
- 14:45 h: Break
- 15:00 h: Integration of technical and commercial processes in the classroom
+ Various workshops
- 16:45 h: Reflection and conclusion of the event



Presentation and expectations of the event

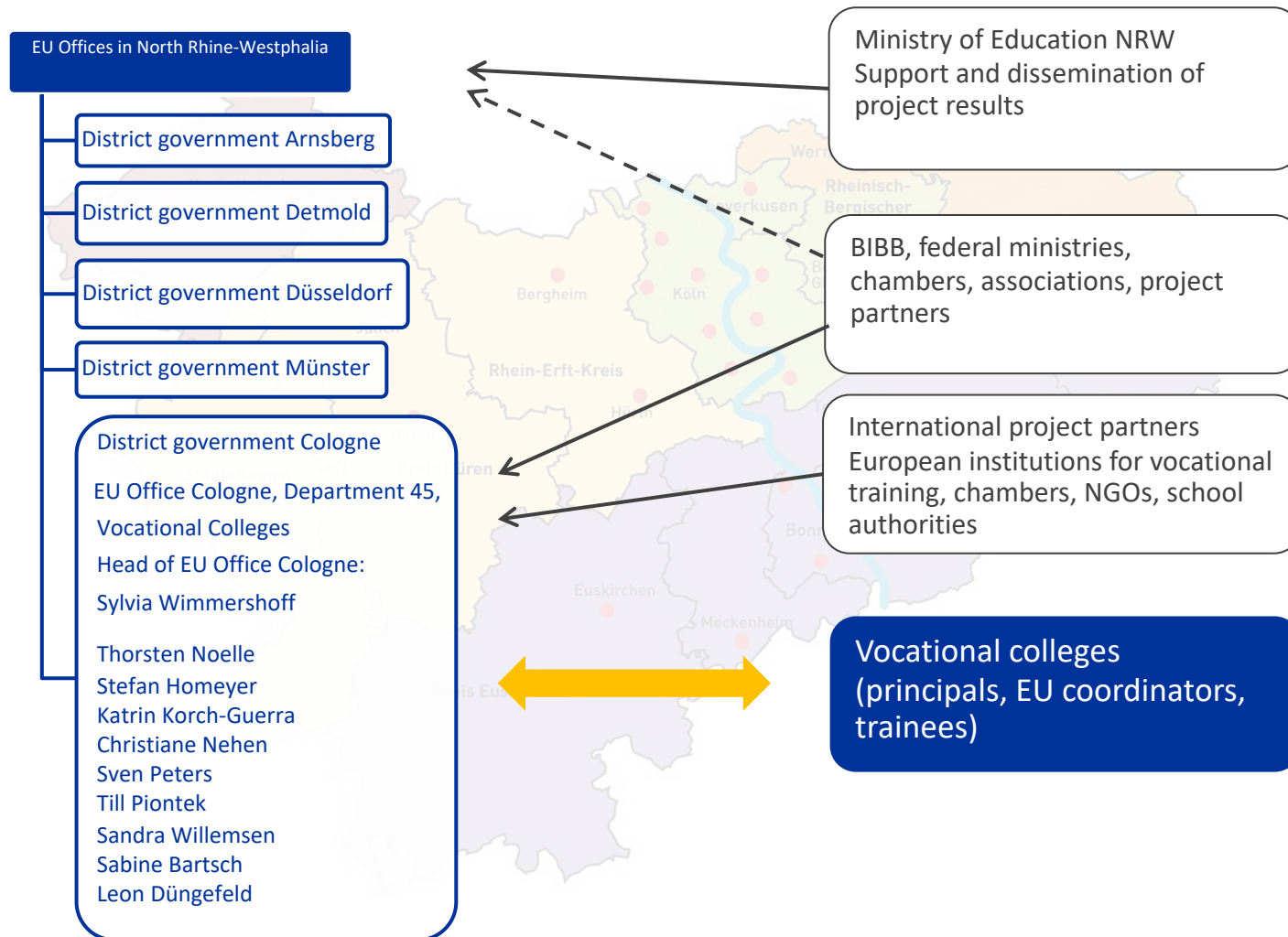


Presentation of the INTENT project in connection with the tasks of the EU office and the Erasmus + program.

Structure of the EU office



Networking of the EU office



Tasks of the EU Office Cologne

- information and advice on funding opportunities Erasmus +
- support for the development of an internationalization strategy at vocational colleges (Link 10%)
- networking among schools (EU coordinators' meetings) and in-service training on European topics in cooperation with department 46
- own mobility projects for students and teachers
- own projects on different topics of initial vocational training

Erasmus + Strategic Partnerships

Strategic partnerships in support of innovations are all about the development of new products, their implementation and the use of these products (in vocational education and training).

- digital education
- work-based learning
- inclusion / equal opportunities
- new skills for new jobs
- Green Economy
- raising the level of qualifications in general

Strategic partnership projects of the EU office

- 2013 - 2015 *Europe-wide comprehensible description of the "new" field of activity Building Systems Engineering (**IT:BSE**).*
- 2015 - 2017 *ECVET database to facilitate European mobilities (**THEME**).*
- 2017-2019 *Working World 4.0 Learning Modules for Industry and Trade (**VET 4.0**)*
- 2019 - 2021 ***INTENT 4.0***
- 2020-2023 *Structural improvement of the transition of newly immigrated young people to dual vocational training (**EQUITY**).*

Intent – Interdisciplinary Teaching and Training in the Working World 4.0

<https://www.euges-cologne-projects.eu/Projekte/INTENT-4-0>

- Erasmus + partnership project with 7 European partners from 5 countries
- project duration 01/11/2019 - 30/04/2022
- 5 project meetings; 5 national multiplier events; one summer school

Products:

- approximately 15 tools and methods for interdisciplinary teaching and learning.
- 1 Escape Room for (international) cooperation
- 3 modules for interdisciplinary teaching

Significance of interdisciplinary learning

Interdisciplinary work processes are gaining in importance in the course of the digital transformation and are a prerequisite for innovative business development for companies.



Develop teaching sequences that prepare students for the requirements of the digital transformation.



In concrete terms, the focus is on the changing requirements for action from operational practice at the interface between the industrial-technical and commercial areas.

Key performance indicator systems are becoming increasingly dynamic due to the availability of larger amounts of data.



Greater analysis and abstraction capabilities (data analytics) are needed, for example, to organize feeds into ERP systems.



Mutual understanding in the work process becomes more important (terminology, work objects, actions)



Question: What does an industrial clerk need to know about technology and vice versa (basic knowledge)?

Develop instructional sequences for the area of digital transformation in which professional action processes incorporate industrial-technical and commercial-administrative aspects.



Interdisciplinary learning situation of the Hans-Böckler-Berufskolleg and the vocational college Deutzer Freiheit

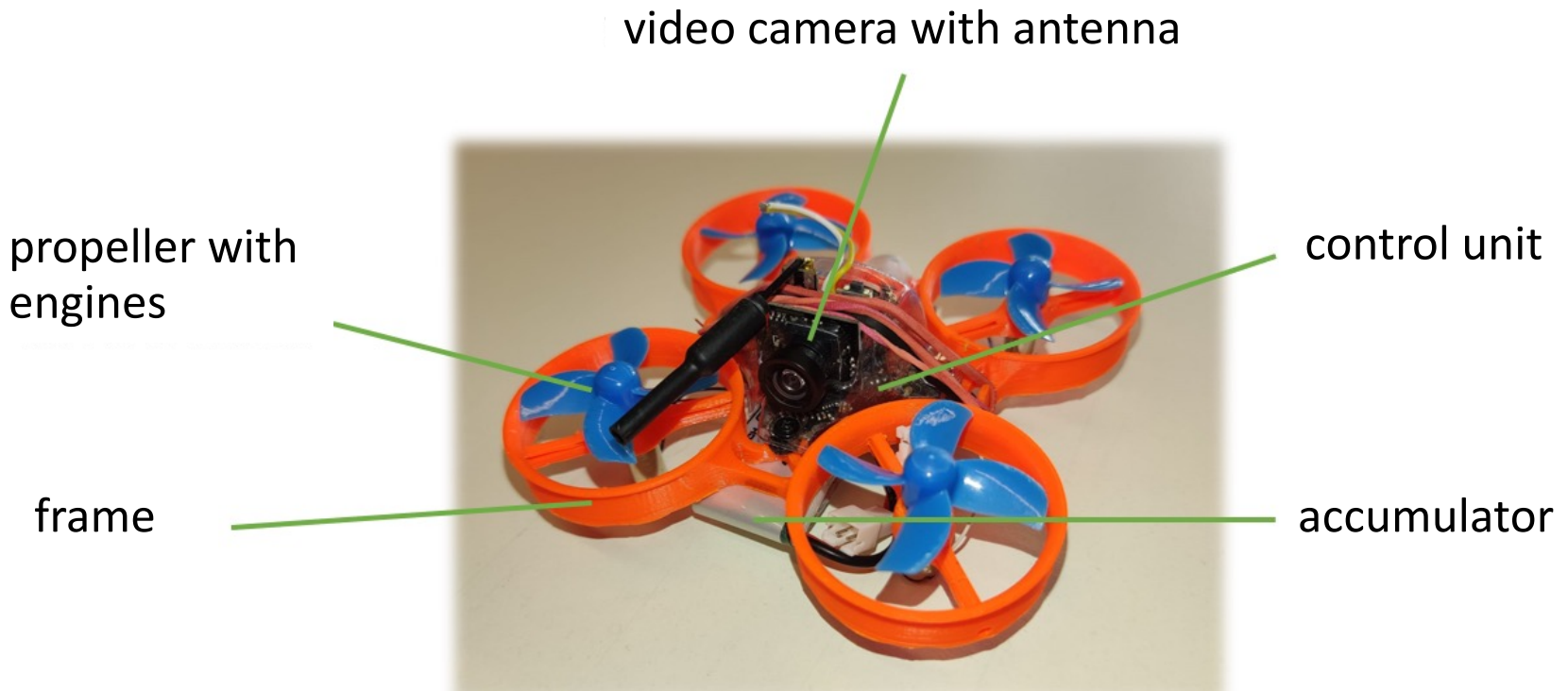
- industrial clerks of the BKDF (upper school 3rd block)
- subject: Information Management
- learning situation consisting of five modules
- SAP for Schools
- 3D printing

- goal: Students understand the importance of interdisciplinary work along the supply chain.
- "Why should I care what they do on the shop floor?"
- learning support: Quadcopter



learning support: Quadcopter

Quadcopter assembly



Content overview

- **description product quadcopter**
 - **Structure, function (VR goggles, control system, components of the copter)**
- **manufacturing process of the frame of the quadcopter**
 - **Design process, 3D printing, equipment for manufacturing**

Optional:

- *alternative assemblies*
 - *suggestions for alternative implementation of technologies*
- *learning situations for Industry 4.0 Contents*



Video

Digital Gallery Walk

- one poster per module
- student feedback
- additional teaching material
- files in chat
- 20 min.





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questions?

questions

questions

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Integration of technical and commercial processes in the classroom

Workshops



Reflection of the event



Partners



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