

# Your Partner for Technical Education

| School | Vocational Training | University | Further Training

**Christiani**



est.1931





## Speaker

Kevin Wäschebach

Director Christiani Academy

[kevin.waeschebach@christiani.de](mailto:kevin.waeschebach@christiani.de)

Christiani

Akademie

01

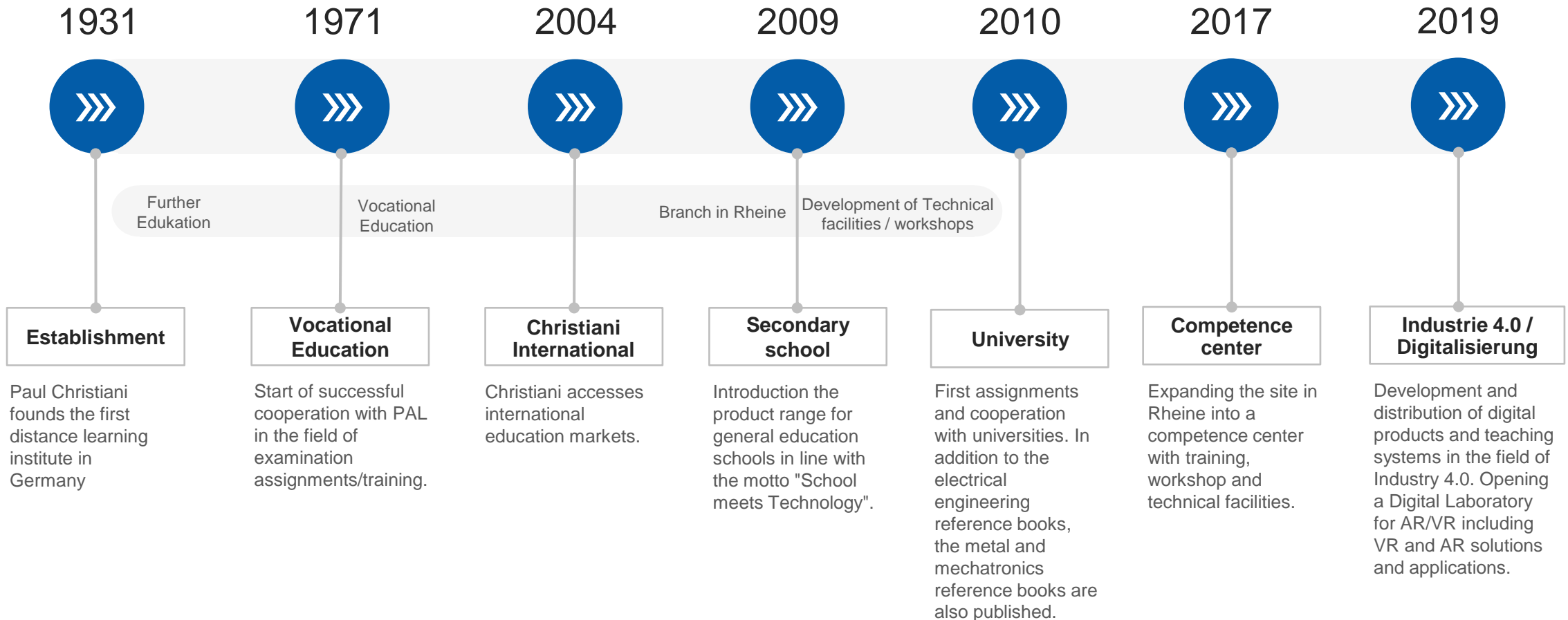
## Christiani Ltd

1. History Page 4
2. Education Partner for Technical Education Page 5

02

## Digital Transformation of vocational education and training facing the challenge and utilizing the opportunities

1. Keyword digitization Page 6 – 7
2. Training Progress Page 8
3. Christiani Solution Trainings and Qualification Concept Page 9 – 10
4. Didactic process Page 11 – 12
5. XR Lab Page 13
6. Multi-user solution Page 14 – 15



# Education Partner for Technical Education

## Professional teaching equipment, teaching systems and learning concepts for technical education

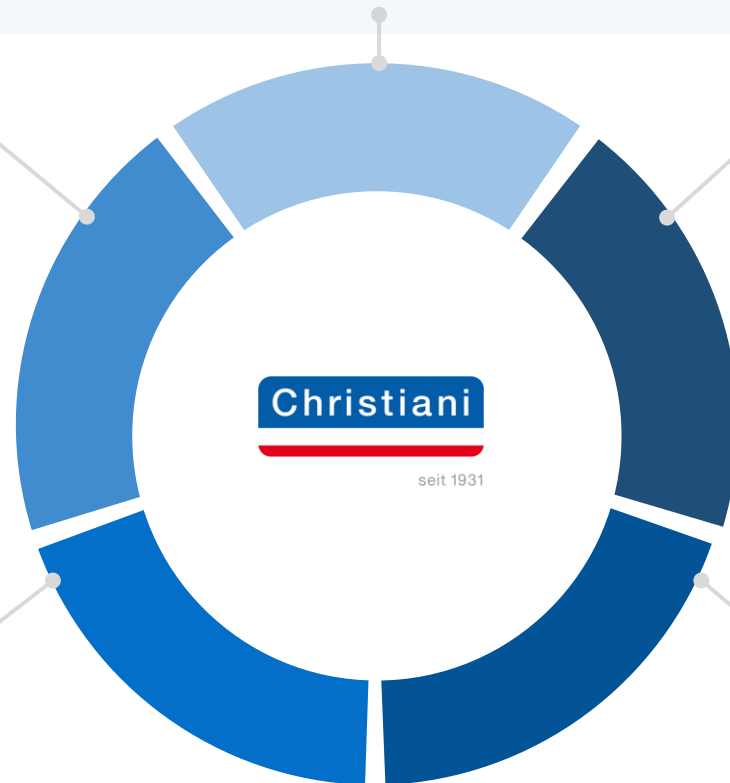
- Development of innovative teaching equipment and systems
- Professional implementation in teaching and learning concepts
- For electrical, metal and other technical industries

### Partner for the complete education chain

- Kindergarten
- Secondary school
- Vocational education
- University
- Further education

### Education as an export driver

- Training made in Germany
- International distributor network
- Train-the-trainer
- Consulting Service



### Theory and practice connected

- Product development in cooperation with leading manufacturers
- Teaching systems in connection with didactic materials
- Development of new media
- Development of laboratories and training facilities / workshops

### Consulting and service

- Personal advice
- Own sales team with technical know-how
- Committed partner for companies, associations, organizations and educational institutions

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

---

The keyword digitization is also on everyone's mind in vocational education and training, but what is actually meant by digital transformation?

01

Is it about the change in production processes that should be reflected in the training regulations for the occupations concerned?

03

Is it about the question of which professions will disappear from the scene and which will develop because of digitization?

02

Is it about learning with digital media, such as learning apps in vocational schools and virtual reality goggles in the training workshop?

04

....

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

---

In fact, the two pillars training and didactic process will determine the challenges and opportunities of the whole digitization process within the TVET sector.

**01**

### Training process

1. Specify Digital Transformation Technologies
2. Qualification of teaching and training personnel
3. Reinforce cooperation within and between learning centres

**02**

### Didactic process

1. Ensure digital competence for all young people
2. Enabling the development of new knowledge
3. Reinforce competences that are difficult to replace by machines
4. Reinforce lifelong learning

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

### Training process

01

1. Specify Digital Transformation Technologies in order to determine the competences
2. Qualification of teaching and training personnel
3. Reinforce cooperation within and between learning centres and institutions

1. Big Data And Real-Time Analytics
2. Internet Of Things And 5G
3. Mobile Applications
4. **Virtual Reality**
5. Artificial Intelligence And Machine Learning
6. Digital Twin
7. ...

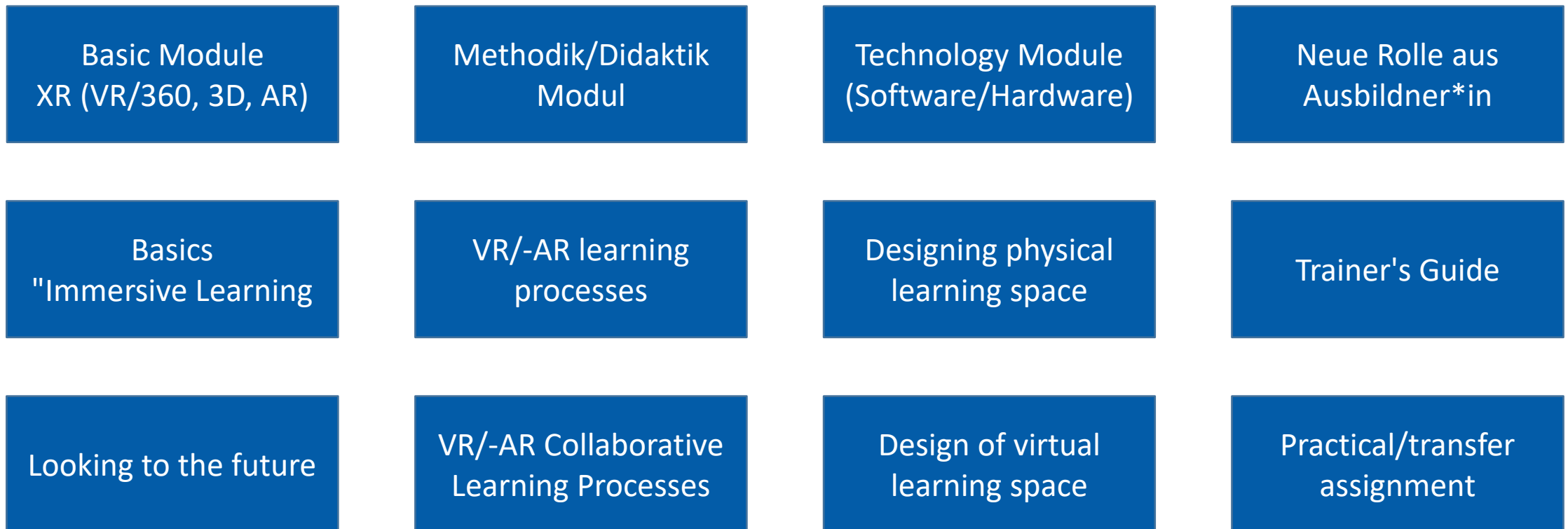
One of the most important aspects of innovation change is training personnel. Regardless of the technologies mentioned above, it is essential that training personnel are trained at the very beginning of the entire process. After all, the teachers, trainers and instructors are the instigators and drivers of the entire process.

The digital transformation forces companies as well as training institutions to change the system. In terms of vocational training, it is enormously important that vocational schools, training centres or company training centres introduce the same standard in order to standardize.



## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

### Schooling and training in the VR area – Christiani Solution Trainings and Qualification Concept



## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities



### XR (VR/AR) Experience Day

- Knowledge and Understanding: XR/Digital Reality as an umbrella term for 360° movies/photo / VR / AR / MR

### Immersive Learning Day

- Recognize and understand fields of application in different educational and training areas and will be able to identify and derive first steps for your own AR/VR projects.

### VR Collaboration Expert

- The use of virtual multi-user environments in virtual reality (VR). New solutions require an expansion of the competencies of trainers, coaches and facilitators

### VR/AR Learning Architect/Designer

- Understand the added value and benefits of VR/AR in learning
- Know and be able to apply holistic teaching/learning concepts in the environment of VR/AR

### VR Trainer

- Role of the trainers
- Integration into blended learning processes (incl. VR Collaboration)
- Design of the physical/virtual learning space (incl. VR Collaboration)

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

### Didactic process

1. **Information and data literacy:** To articulate information needs, to locate and retrieve digital data, information, and content.
2. **Communication and collaboration:** To interact, communicate and collaborate through digital technologies
3. **Digital content creation:** To create and edit digital content to improve and integrate information
4. **Safety:** To protect devices, content, personal data, and privacy in digital environments.
5. **Problem solving in digital environments:** To use digital tools to innovate processes and products

The technology and its content, the training staff must be trained in hardware and software and how to teach the content, for example, when working in virtual space.

02

1. **Ensure digital competence for all young people**
2. **Enabling the development of new knowledge**
3. Reinforce competences that are difficult to replace by machines
4. Reinforce lifelong learning

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

### Didactic process

1. Content creation
2. Technical management
3. Sensitivity
4. Communication
5. Strategy
6. Creativity

- Sustainability of the learning environment is a critical issue and the growing demand for lifelong learning.
- Start with basic, learning platforms, digital classrooms, Video conference tools, networks...

02

1. Ensure digital competence for all young people
2. Enabling the development of new knowledge
- 3. Reinforce competences that are difficult to replace by machines**
- 4. Reinforce lifelong learning**

Source: Source: Digital Competence Framework 2.0

## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

Enabling the development of new knowledge -  
**XR Lab** and Christiani Multi-user solution

### The XR Lab...

... provides your company/organization the opportunity to test training concepts and content in virtual reality and augmented reality applications

### In the XR Lab...

... you can not only use existing VR/AR/360° learning applications, but also create your own learning content.

As an experience and learning space for immersive learning, new potentials arise for teachers and learners that contribute significantly to learning success and motivation.



## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

Enabling the development of new knowledge -  
XR Lab and Christiani **Multi-user solution**

Multiuser VR applications provide shared experiences where users can communicate and interact in the same virtual space

During an ongoing multi-user VR session, the participants can move freely in the virtual scenery, talk to each other, listen to the explanations of an expert person, work together on a virtual object or interact alone or in groups



## Digital Transformation of vocational education and training - facing the challenge and utilizing the opportunities

Enabling the development of new knowledge - XR Lab and Christiani **Multi-user solution**



# Thank you for your attention

Kevin Wäschebach  
Director Christiani Academy

[kevin.waeschebach@christiani.de](mailto:kevin.waeschebach@christiani.de)