



Approaches in adapting training programmes towards requirements of Digitalization / Industry 4.0 in selected occupations in Vietnam

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Background

Challenge:

- Industry 4.0 impacts on the global economy and trade behavior
- Industry 4.0 leads to new requirements regarding the workforce
- The new requirements lead to the need for an adaptation of (future) workers qualifications
- Close cooperation between the business sector (demand) and TVET institutes/TVET system (supply) is needed

Objective

In the frame of GIZ TVET Programmes and Development Partnerships with the Private Sector (DPPs), LILAMA 2 International Technology College is supported to offer:

- initial training programmes fulfill requirement of I 4.0
- demand-oriented short-term training courses on sophisticated digitalization knowledge and I 4.0 competences for:
 - skilled workers, technicians and engineers of the industry
 - teachers of other TVET institutes and in-company trainers of partner companies

Approach

Cooperation with the Industry in:

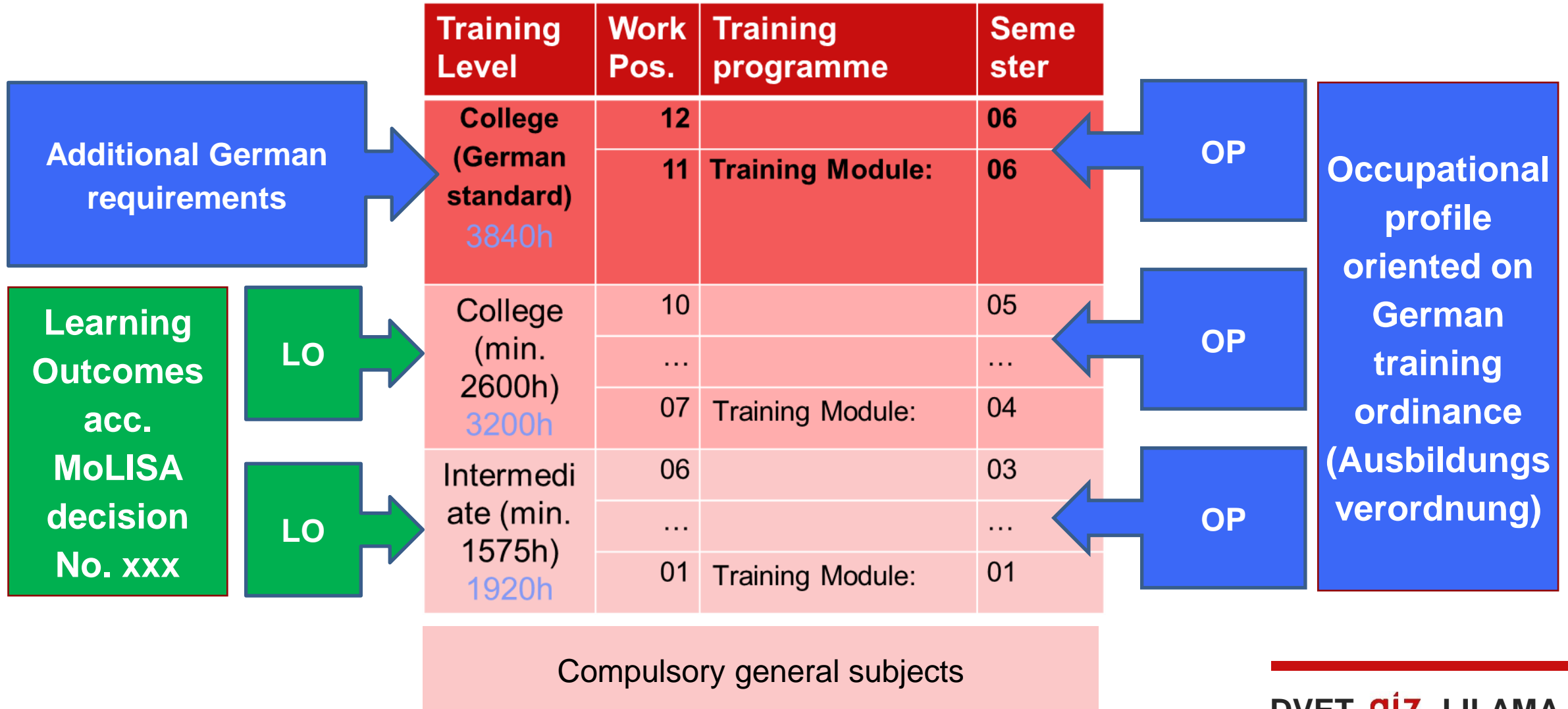
- technical and didactical further training for teaching staff acc. to requirement of I 4.0/ digitalisation
- adapting modular training programmes to the requirements of I 4.0 oriented on German training and examination standard:
Mechatronics | Industrial Electronics | Metal Cutting | Construction Mechanics
- updating and upgrading training equipment towards I 4.0
- implementing adapted training programmes (incl. assessment and examinations)

Capacity development of TVET teachers and in-company trainers

- Innovative teaching and learning for industrial changes due to I 4.0
- Curriculum design for I 4.0 work processes.
- I 4.0 related technical further trainings for teachers and in-company trainers, e.g:
 - application of CPSi4.0 and WEBserver function
 - object oriented programming
 - advanced DIN/ISO Programming and Operation of CNC - Turning and Milling
- Didactical and (e)-pedagogy further training for teachers and in-company trainers

Adapting training programmes towards I 4.0

Structure of German standard and demand-oriented modular training programmes



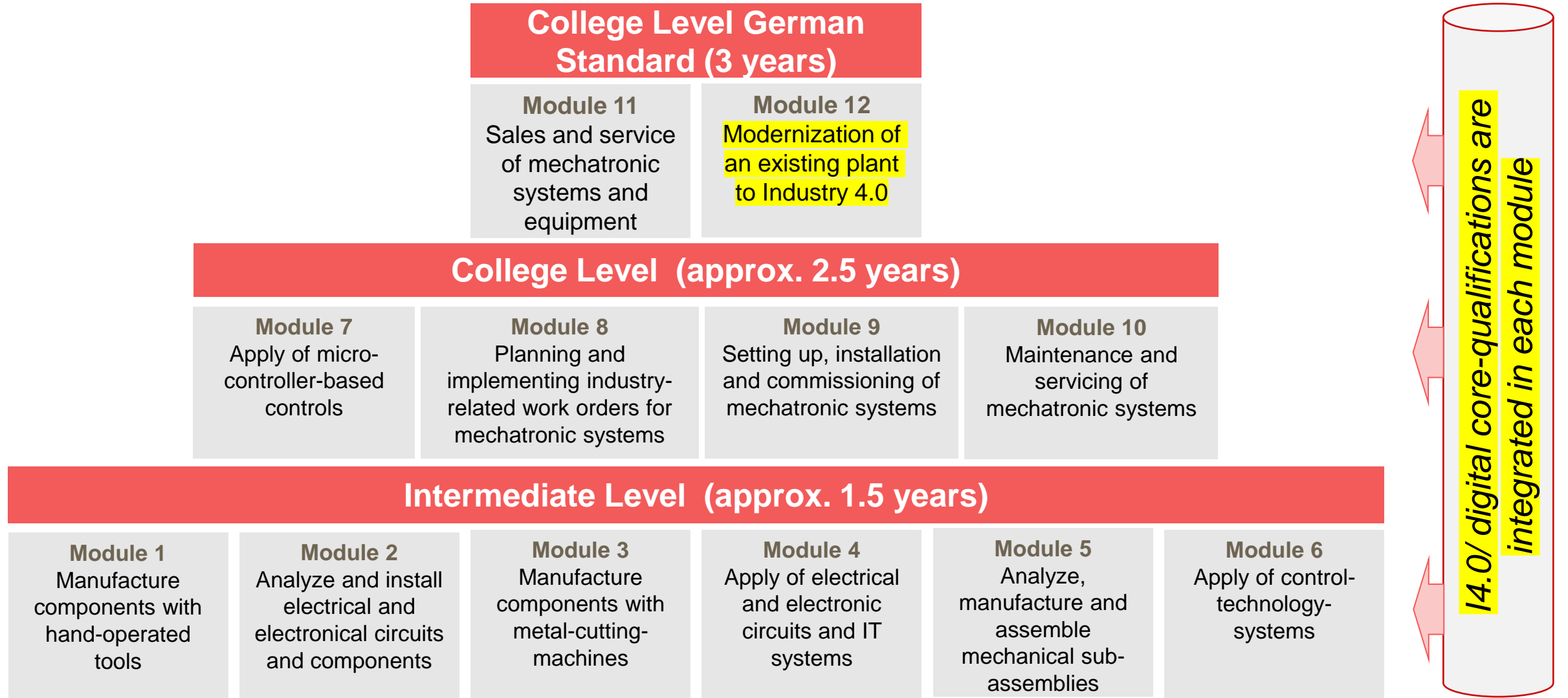
Adapting training programmes towards I 4.0

Characteristics of German standard and demand-oriented modular training programmes

Digitalisation and Industry 4.0 aspects included	✓
Green TVET and work safety integrated in each module	✓
Gender and inclusion aspects considered	✓
Flexibility and permeability of the training programmes	✓
Applicable for short-term training courses	✓

Adapting training programmes towards I 4.0

Example: Mechatronics



Upgrading training equipment towards I 4.0



Provided CPSi4.0 training station, acquired in the frame of the DPP “Integrating requirements of Industry 4.0 into TVET” with Bosch-Rexroth AG

Upgrading training equipment towards I 4.0



Designed and installed by LILAMA 2 teachers: Practical model of multi-purpose intelligent electricity with IoT application, integrated with renewable electricity for remote controlling and monitoring

Implementing German standard oriented training programmes

- ✓ Training programmes (confirmed as equivalent to German standard by the HWK Erfurt, Germany) are being offered at LILAMA 2 in cooperation with its partner companies:
 - **Mechatronics**
 - **Industrial Electronics**
 - **Metal Cutting**
 - **Construction Mechanics**

- ✓ Partner companies: **Schaeffler, Ishisei, Thuan Hai, Martech Boiler, Sang Tao, QH Plus**

- ✓ **139** graduates since 2016

- ✓ **304** trainees are being trained in 3-year training programmes

Thank you very much
for your attention