



***European Association for higher educated Professional
Europäischer Verband für höher qualifizierte Berufsleute
Association Européenne des Professions Supérieures***

ORGANIZATION, GOALS AND NEED FOR ACTION

Urs Keller

President EURO-PROF

frmr GM & Rector ABB Technikerschule and Boardmember Konferenz höhere Fachschulen Technik

Vice Chairman SITECO (Association for Swiss International Technical Connection)

President SITELA (Swiss International Teaching Equipment and Learning Association)



EURO-PROF

European Association for higher educated Professionals
Europäischer Verband für höher qualifizierte Berufe
Association Européenne des Professions Supérieures

Urs Keller

19.04.2020 2018 all rights reserved



Euro-Prof :

- ✓ Is the umbrella organization for **higher VET in Europe**
- ✓ Represents the interest of the higher VET education institutions
- ✓ Promotes the attractiveness of the higher dVET
- ✓ Acts Door-opener for free movement within Europe
- ✓ Promotes cooperation within recognized VET schools in Europe

The purpose of the cooperative society is to represent the interests of **education providers and graduates** in the field of highly qualified non-academic professionals, in particular by promoting higher vocational education and training and international recognition of professional qualifications.

The association represents all higher qualified occupations in particular the **technology, business administration, health and social affairs.**

EURO-PROF History

since 1951 in Paris

FEANI

since 1997 in Brussels

Federation for Academic Engineers

since 1999

EURETA

Association for qualification of
higher educated Professionals

since 2012

EURO-PROF

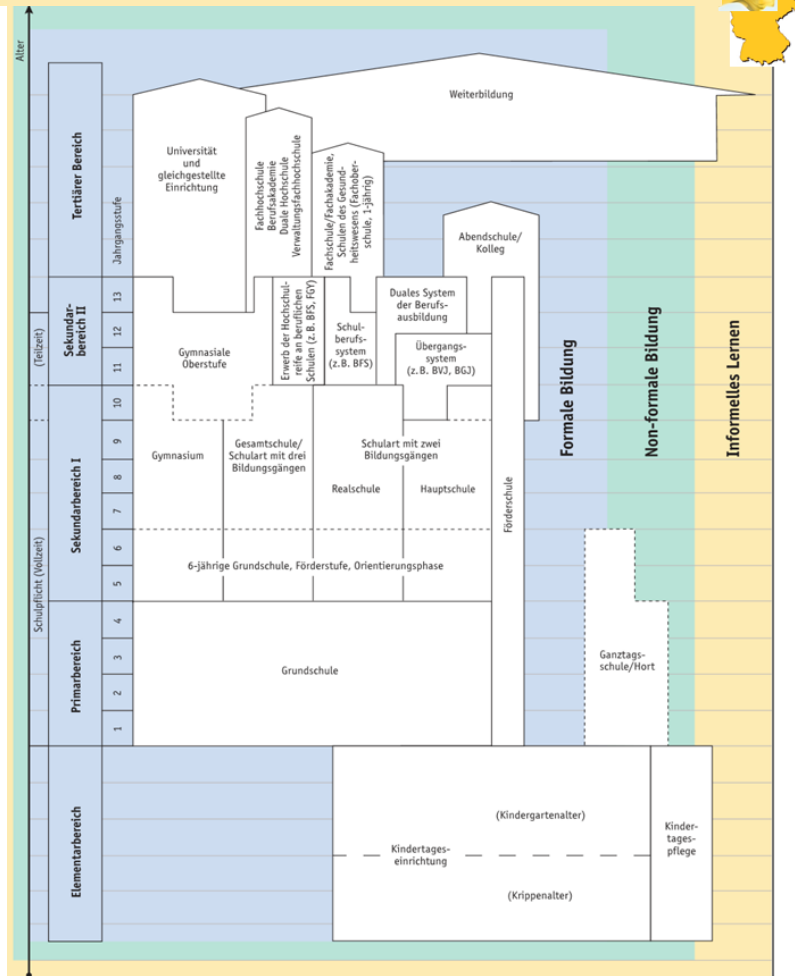
Association for higher educated Professionals
(Education, Schools and Politics)



So far focused on D-A-CH but open for Europe

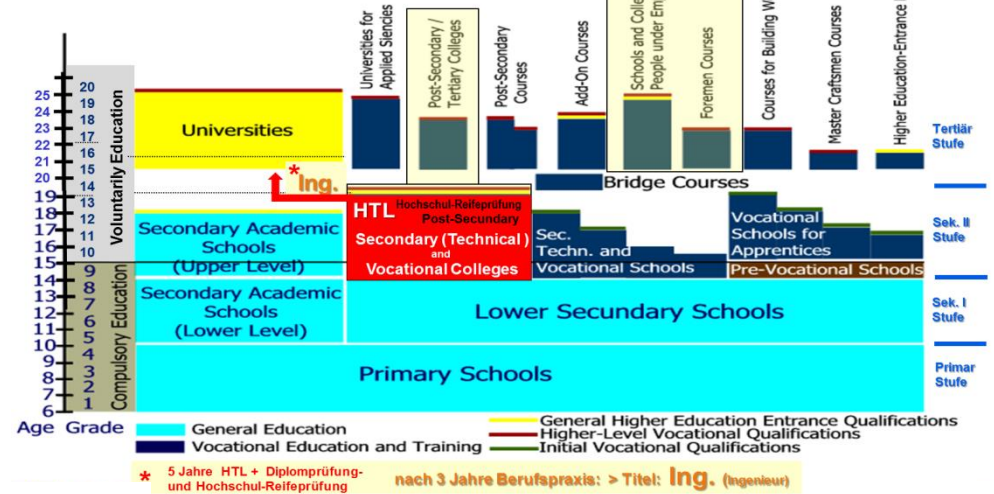
The Higher VET Education System in D – A – CH

Education system and learning worlds in Germany

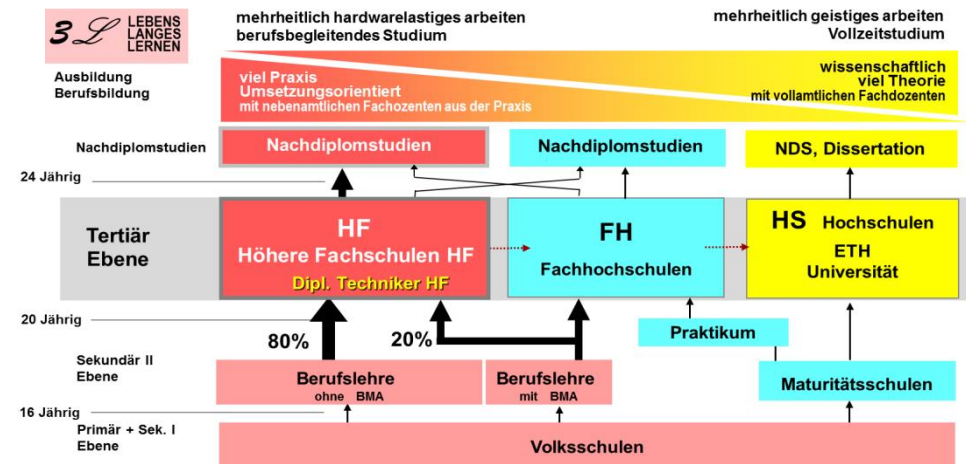


The Austrian Education System

Simplified Chart



Dipl. Techniker HF in the Swiss Higher VET system



EURO-PROF

European Association for higher educated Professionals
Europäischer Verband für höher qualifizierte Berufe
Association Européenne des Professions Supérieures

Urs Keller

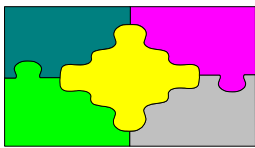
19.04.2020 2018 all rights reserved



In Europe exists Title Tsunami

Formation of Professional Qualifications
EU Directive 2005/36/EC Level d
EQF Level 6

<i>Country</i>	<i>National Title</i>	.
Belgium	gegradueerde/gradu�	
Denmark	Videreg�ende tekniker – Bygningskonstrukt�r	
Estonia	To be decided	
Finland	Teknikko (Teknisk Ingenj�r/Technician Engineer)	
Germany	Staatlich gepr�fter Techniker (FS)	
Hungary	To be decided	
Italy	Perito Industriale laureato iscritto all'albo professionale	
Lithuania	To be decided	
Malta	To be decided	
Norway	Possibly Fagtekniker, but to be agreed	
�sterreich	HTL graduate (5 years VET training in accordance with EU Directive 2005/36 / EC Level d) after 3 years of engineering professional experience> > Ingenieur HTL	
Portugal	To be decided	
Sweden	Ingenj�r/H�gskoleingenj�r (120 po�ng) Ingenj�r/H�gskoleingenj�r (80 po�ng)	
Switzerland	dipl. Techniker HF / Registration Swiss Reg. C	
United Kingdom	Incorporated Engineer	



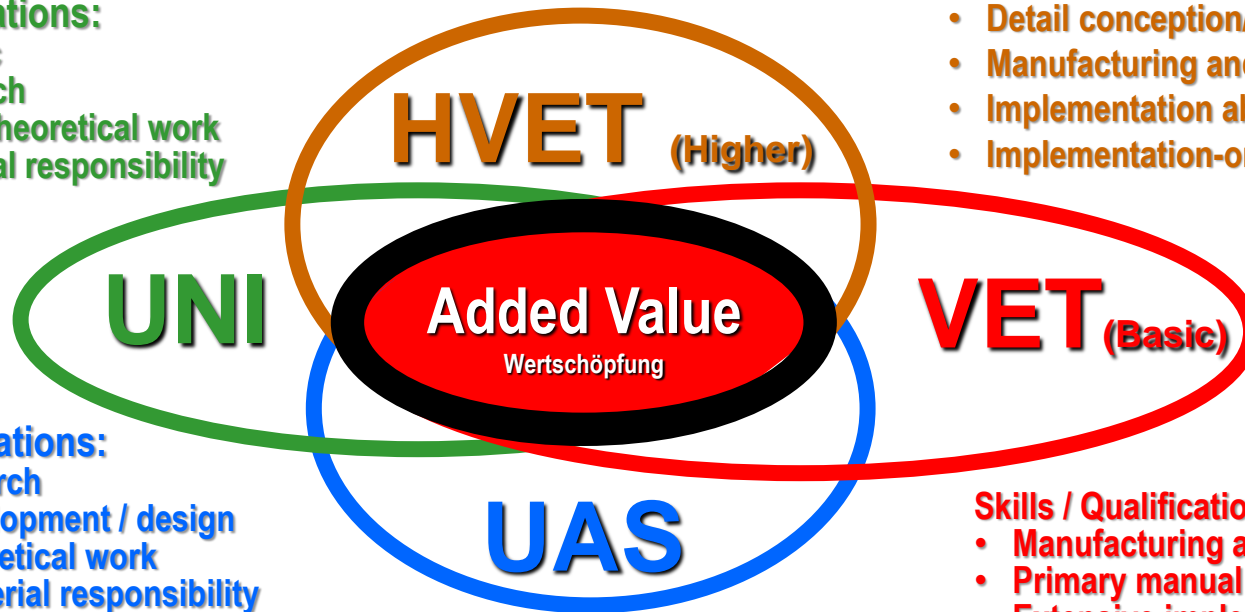
Complementation - Model

Skills / Qualifications:

- Basic scientific
- Applied research
- Very complex theoretical work
- High managerial responsibility

Skills / Qualifications:

- Applied Research
- Complex development / design
- Complex theoretical work
- Higher managerial responsibility



Skills / Qualifications:

- Detail conception/realization
- Manufacturing and service processes
- Implementation ability
- Implementation-oriented leadership

Skills / Qualifications:

- Manufacturing and service work
- Primary manual work
- Extensive implementation skills

Engineering - / Innovation Process

Research

Basic Research
Key Technologies

Development

Applied Research
Complex Conception

Conception/Construction

Detail Design
Production Preparation

Realisation / Support

Production / Commissioning
After sale Services / Maintenance

UNI = TU

Bachelor / Master
Dipl. Ing ETH

UAS = FH

Bachelor / Master
Dipl. Ing. FH

HVET = higher

Dipl. TechnikerIn HF

VET = Basic

Eidg. Fähigkeitszeugnis

UNI = HS = Hochschule / University

UAS = FH = Fachhochschule / University of Applied Sciences

HVET = Higher VET = HF = Höhere Fachschule / Academy / higher Education

VET = Vocational Education and Training = BG = Berufliche Grundbildung / Apprenticeship



Parts of the Company

**Production
After Sale Services & Maintenance**

Research & Development

Product Manufacturing, Detail Design, Production Process
Engineering and Planning, Equipment Commissioning,
Maintenance, Production Processes optimizing and leading
requires Practical Knowledge and experience in the production

Development of Products
Products Creation and optimation
Requires Knowledge of the Theory and experience
in R&D **PhD = EQF Level 8**

Leadership in the production

24 Years **EQF Level 6**

**Higher Education
Extended Vocational Training**

20 Years **EQF Level 4**

Apprenticeship

16 Years **Professional Education VET**

Passage
possible

Bachelor =EQF Level 6. Master = EQF Level 7

Study at a University

Matura / Baccalaureate

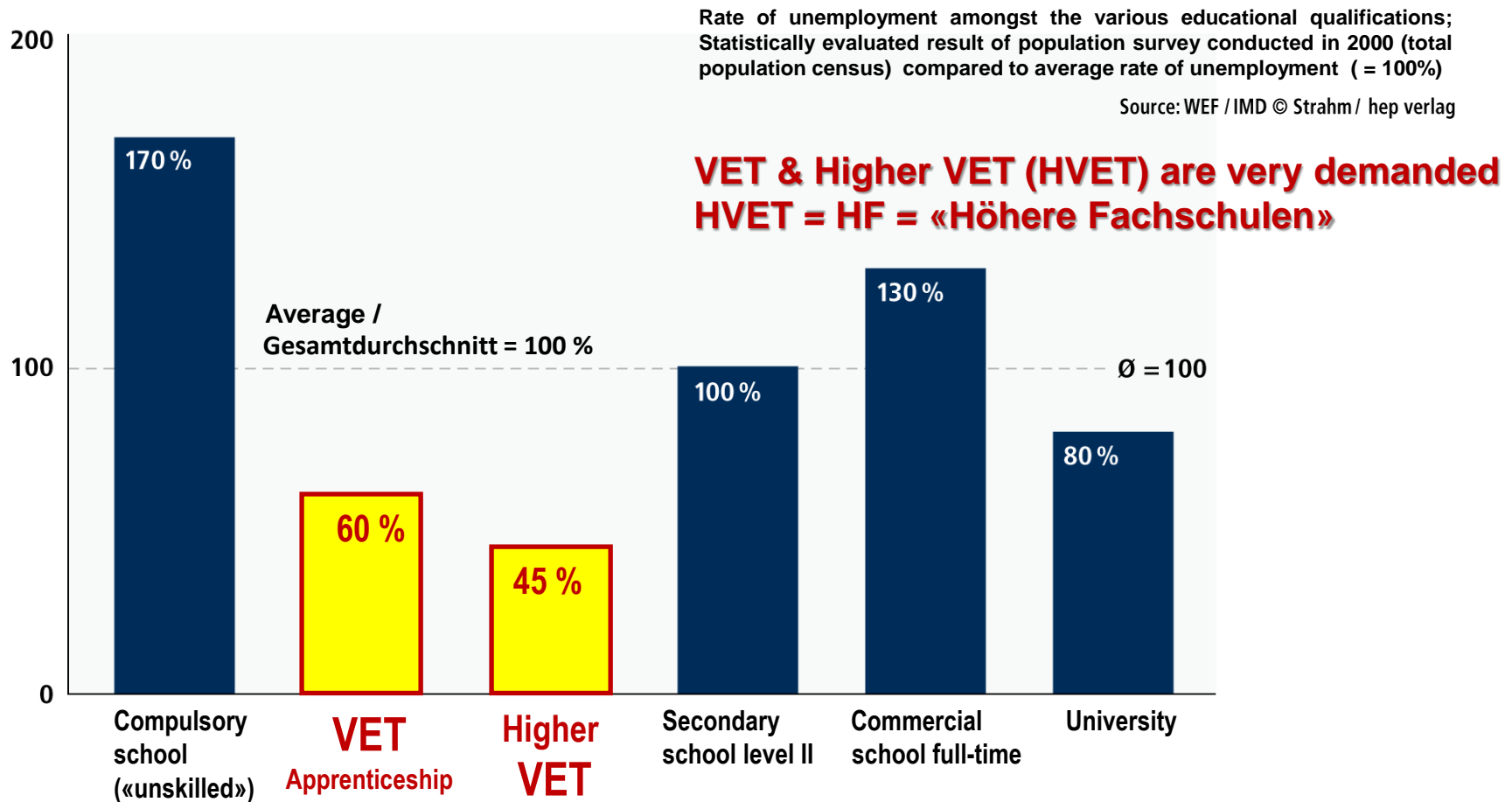
Academic Education

Basic Education / Elementary School (Primary & Sec. I, 9 – 10 years)



Labour market - needs

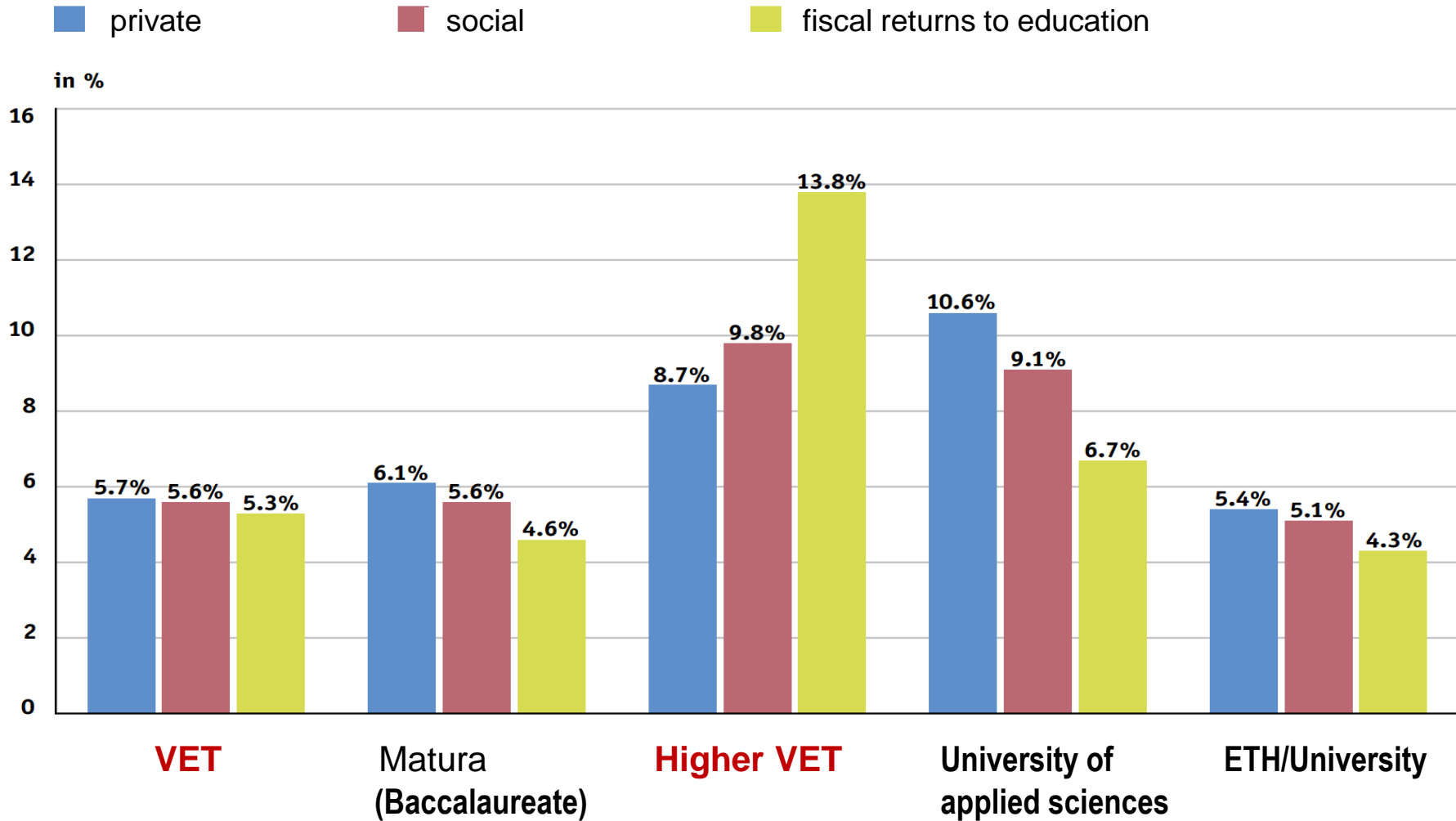
Unemployment quota based on educational status





Private, Social and Fiscal Returns to Education

Quelle: Wolter, Weber; BFS /Die Volkswirtschaft

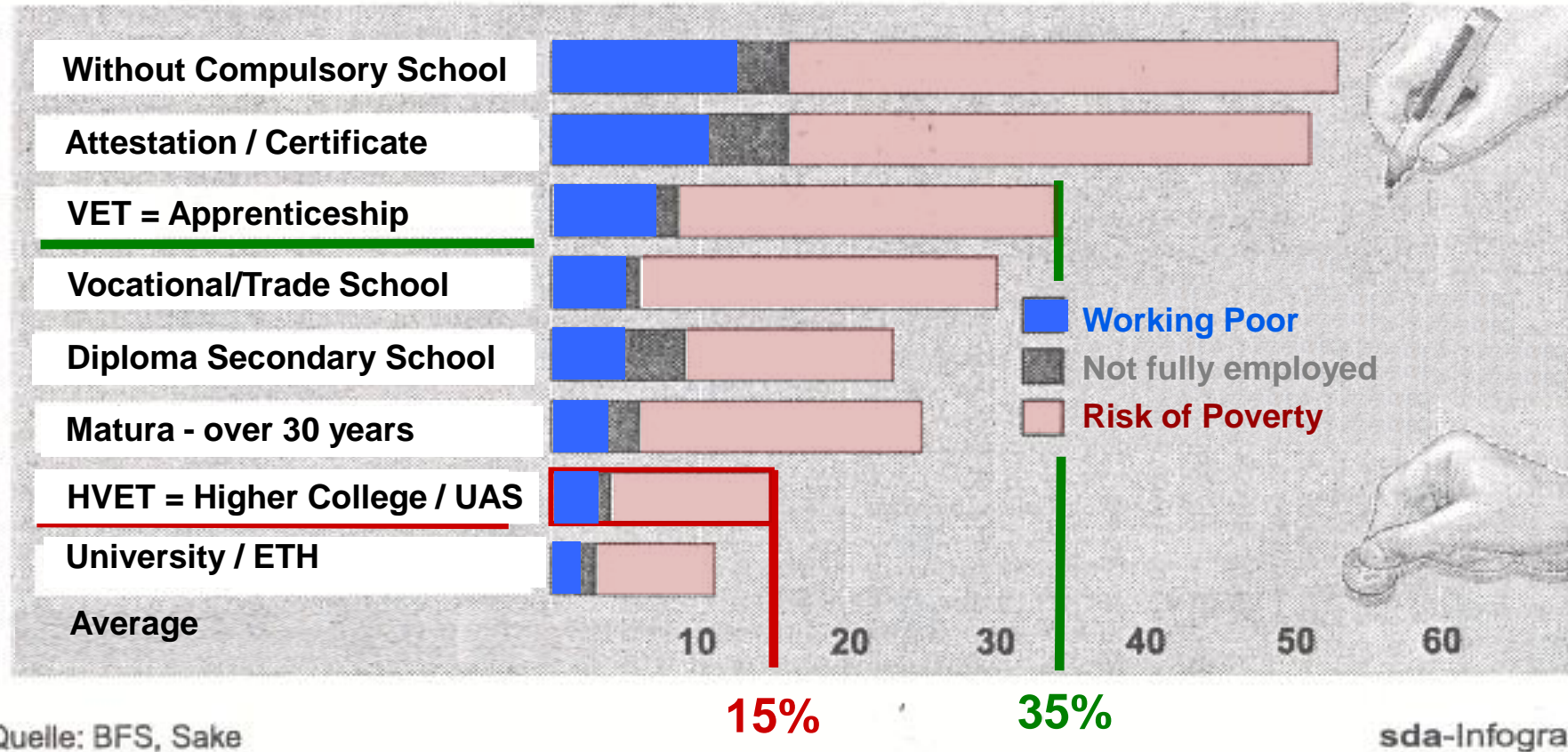


Small school bag = big risk of poverty

The lower the education, the higher the risk of poverty

Level of education and poverty hazard

in % of the population



For a better future ***With the right education policy - poverty can be reduced***

Impressions



Impressions of the technical Higher VET in Germany, Austria and Switzerland → D - A - CH



EURO-PROF

European Association for higher educated Professionals
Europäischer Verband für höher qualifizierte Berufe
Association Européenne des Professions Supérieures

Urs Keller

19.04.2020 2018 all rights reserved



ERASMUS+ Projects

equal
class

EQUAL-CLASS

AGREEMENT NUMBER - LLP-LDV-TOI-12-AT-0014
PROJECT NUMBER - 2012-1-AT1-LEO05-06968



Reality Check I: Remote Labs Analytical report, Version 1 (draft)

Work package 5



Teaching Concept with RemoteLabs

<http://www.equal-class-efg.eu/results/remote-laboratories/>

This example shows an educational setting with remote workstations on PLC (programmable logic controller) control technology.



Classroom learning:

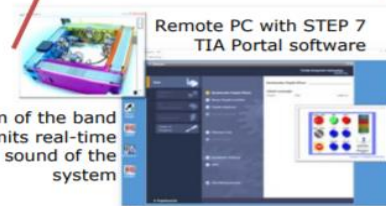
Learners in control engineering classes enhance their knowledge through operating in a real laboratory environment.



Student PC with free CEyeClon viewer software

Learners work in the classroom:

Learners operate a remote laboratory workstation in real-time using a PC: The student's PC functions as screen and keyboard of the remote PC. A camera image of the remote system is transferred to the screen of the student featuring synchronous sound. This function only requires the free CEyeClon viewer software and any Windows-compatible operating system.



Remote PC with STEP 7 TIA Portal software

Live stream of the band model transmits real-time image and sound of the system

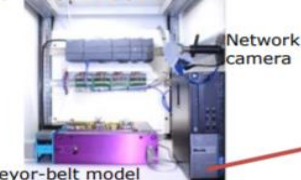
Easy access via Internet:

The viewer software provides access to the workstation and shows it in a media and working window.

Every workstation is physically built up

Remote workstations can be used in real working life. This shows a mechatronic band circulation with a pneumatic transport unit for logistics.

S7 1200 PLC



Real conveyor-belt model



Remote workstations in a rack system

Remote workstations can be centrally set up and maintained. Regardless of the actual distance, learners have the opportunity to operate these workstations.



EURO-PROF


European Association for higher educated Professionals
Europäischer Verband für höher qualifizierte Berufe
Association Européenne des Professions Supérieures


Urs Keller

19.04.2020 2018 all rights reserved



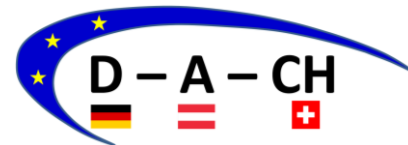
European Platform for Professional Engineering

 EURO-PROF		
Technologist Assoc.EurEta	Ing.EurEta	
Dublin	Sydney	
Engineering Technician	Incorporated Engineer	
VET Deutsche Handwerkmeister Berufliche Grundbildung	BP/FA HFP in CH	Higher VET Academy, Fachschulen, HF, HTL Staatl. geprüfter Techniker Dipl. Techniker HF Berufsakademien HTL+ 3 J Berufspraxis >> Ing. Polytechnik Bachelor
Non-University - intellectual Levels Practical Engineers Highschool		
Level of BP and HFP are very different depend on the subject possibly with ECVET/ECTS models to be determined		USA + EU + CH Trend Bachelor Professional
ISCED 3a	ISCED 4	ISCED 5b → 5
Secondary II Level	Post-Secondary Level	Tertiary Level
level c		level d
level 3-5		Level 5-6
2 – 3		3 - 4
60 "ECTS"		180 "ECTS"

FEANI 		Registering Body
EURING		Verbandstitel
	Washington	Accord
	Chartered Engineer	Anglo-saxon
UAS / FH University of Applied Sciences	University TU / Hochschulen	Study Program Switzerland Germany Austria
University / Academic - Levels		EURO-PROF, EurEta/FEANI
Bachelor	Master	Bologna-Model
ISCED 5a	ISCED 6	ISCED 97 / 2011
Tertiary Level	Tertiary Level	Education Level
level d	level e	EU-Directive 2005/36/EC
level 6-7	level 7-8	EQF Brussels, 8.7.2005 SEC(2005) 957
3 - 4	min. 5	Formation/Years
180-240 ECTS	min. 240 ECTS	ECTS / ECVET

Current Situation

- **Higher VET (HVET) is well established national in the D-A-CH countries**
- **The Higher VET complements the Universities and Basic VET (EQF-Level4)**
- **However, HVET still has to be positioned much better and more uniform/clear**
 - It must become much more attractive – – all over Europe
 - It needs clear regulations or we risk arbitrariness and title tsumanis in HVET
 - We risk further academization and a shortage of skilled workers in Europe
 - Schools have too few professionally qualified lecturers (IT, Design, Electr, ...)
- **We need a strong and more professional organization representing our national and international HVET interests and more support by the EU**
The human and financial resources at Euro-Prof are very limited
- **Euro-Prof is concentrating on the higher professional education in the D-A-CH countries but is interested to open its activities in other EU countries with strong partnership**



EURO-PROF

European Association for higher educated Professionals
Europäischer Verband für höher qualifizierte Berufe
Association Européenne des Professions Supérieures

Urs Keller

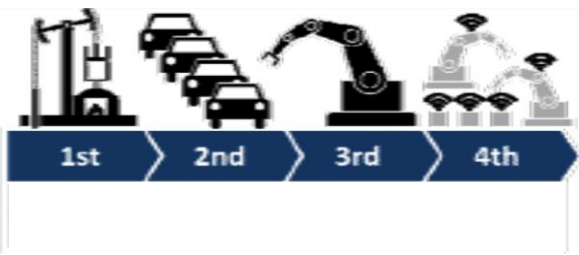
19.04.2020 2018 all rights reserved



Euro-Prof needs your support for:



- **Better positioning of higher vocational education and training = Higher VET** (attractiveness / decline in registrations, UAS/FH competition, differentiation)
- **Avoiding over-academicization-HVET is 1st Choice and 1st Chance (Reputation)**
 - Increasing the attractiveness of HVET → **more HVET graduates in EU-countries**
 - Promote awareness of Euro-Prof and Higher VET
 - Coordination and support of national and international projects to promote the positioning of HVET
- **Sharpening of the HVET profile** -better awareness and promotion -title questions such as “Bachelor Professional” in Bavaria/DE, “Ing. HTL»in AT & «Dipl. HF» in CH
- **NQF / EQF, accreditation and mutual recognition of study programs & schools**
- **Tertiary Higher VET with “ECTS” Credit-System & Diploma Supplement**
- **Internationalization of qualifications / “EU-Titles”, recognitions and accreditation**
- **Search and support for EU Projects / ERASMUS+ (Digitalization / Digital Skills)**
- **Euro-Prof can actively participate in the European Higher VET policy and to make Euro-Prof more professional**



THANK YOU

- **Contact-Person:** Urs Keller, Euro-Prof President
Email: urs.r.keller@gmail.com
Mobile phone: +41-79-401 00 10
- **Further Details see** <https://www.euro-prof.net/>