

Revisiting polytechnic and vocational education ?

... Looking at the complex nature of diversified higher education systems and their relation with new challenges in science, technology and social change

Professional and vocational training and higher education as key factors of a competitiv region

- The perspektive of a „regional player“ in global competition -

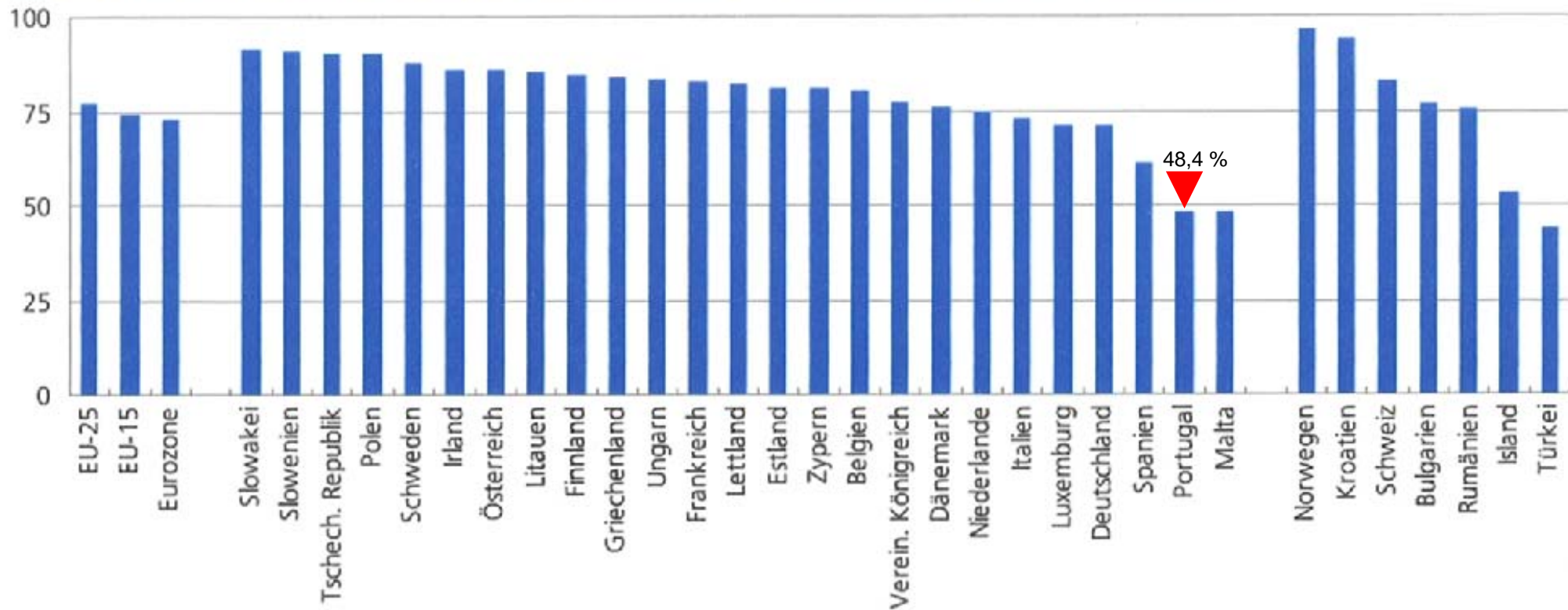
Julius von Ingelheim

Volkswagen Autoeuropa

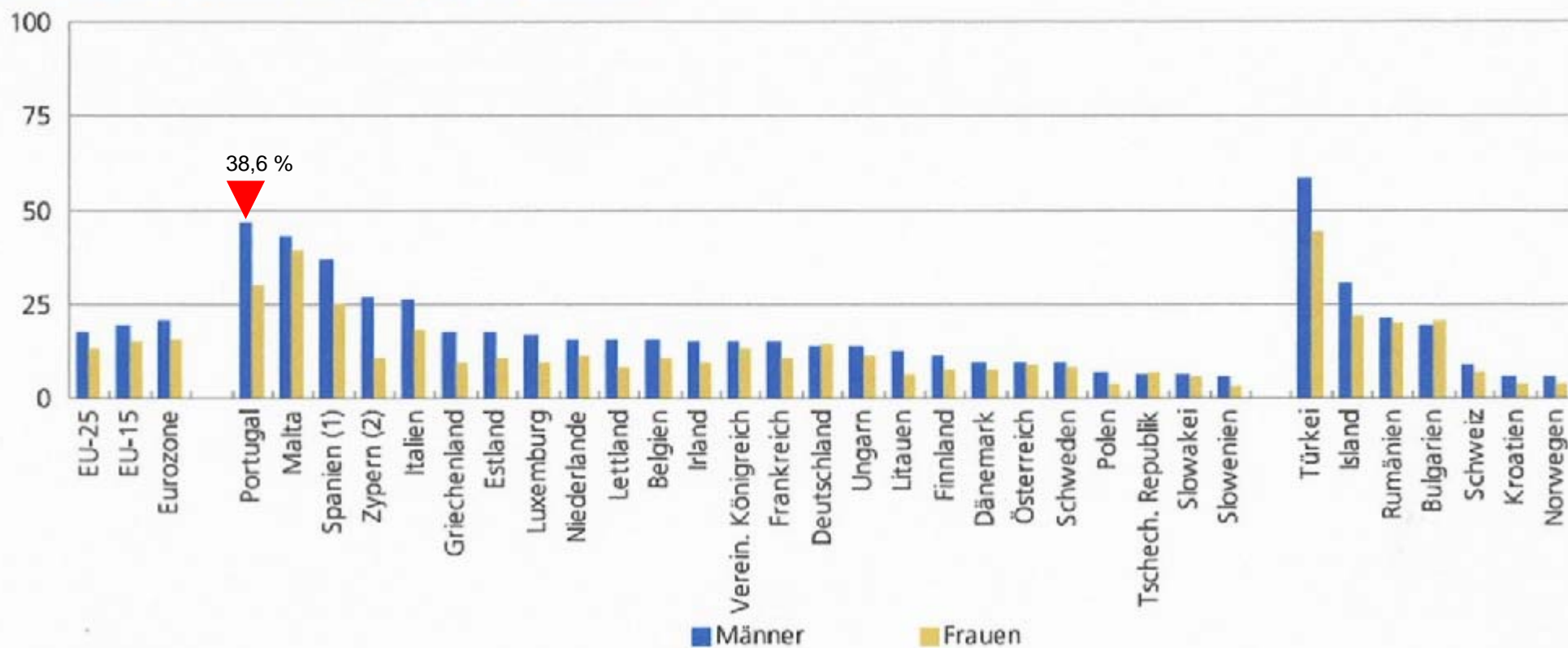
Ferdinand Schultz

ATEC – Training Academy

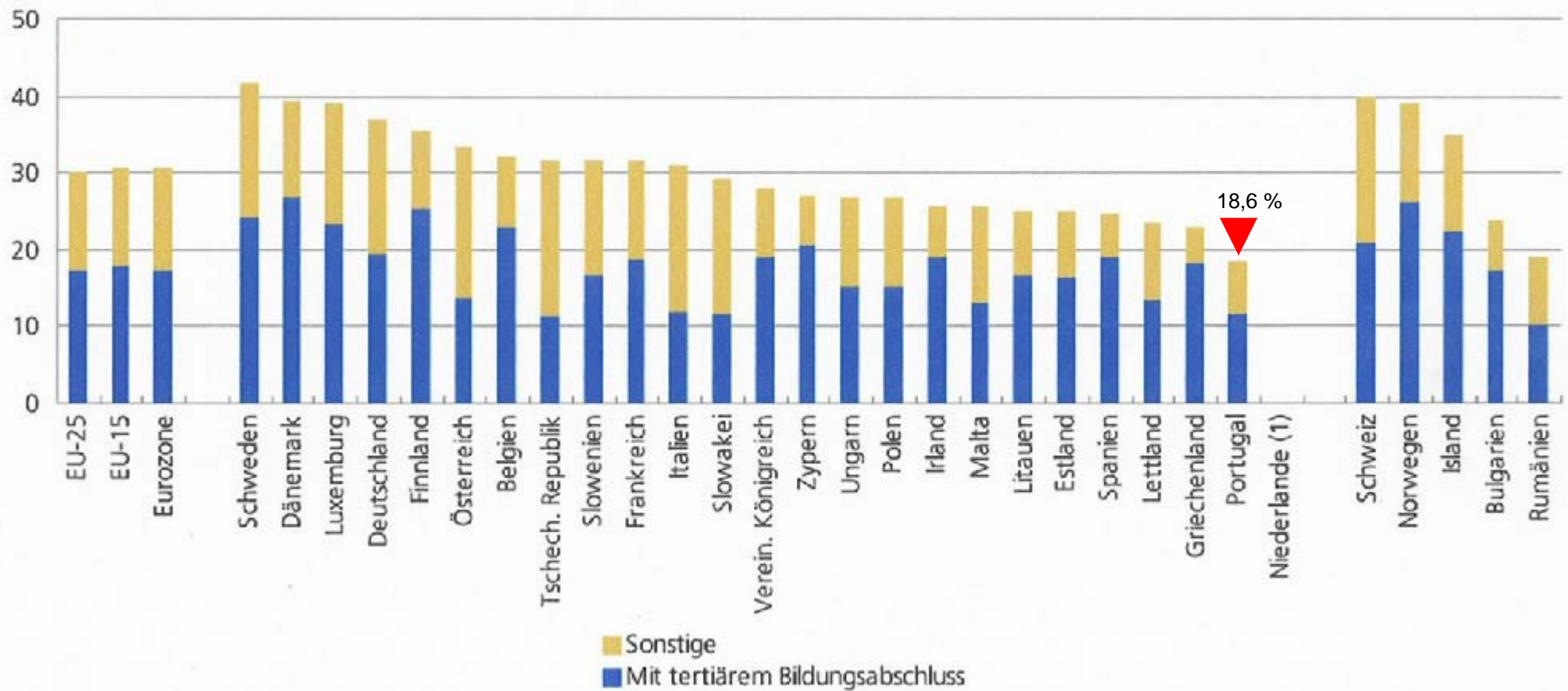
Youth education attainment level, Secondary school, 2005



Early School Leavers, Lower Secondary School, 2005



Human resources working in science and technology, 2004



Training Academy

VOLKSWAGEN
Autoeuropa



SIEMENS

BOSCH

AHK

**“A project to create excellence in training
and organizational development”**

Mission



“To develop and improve competencies through training and qualification of people/human capital, using advanced methods and equipment, with the objective of exceeding market expectations.”

“To contribute to the enrichment of the country, harnessing the growth of people and organizations.”

Vision



“To attain excellence in the areas of training and consulting, always bearing social and environmental responsibilities in mind.”

ATEC Facilities

ATEC Palmela



Space of 9800 m²

**11 Workshops
18 Laboratories
11 Theory rooms**



ATEC Porto



Space of 900 m²

**3 Workshops
5 Laboratories
3 Theory rooms**



Young People Training



Technical Training



Quality & Methods



**Behavioural Courses and
Specific Development**

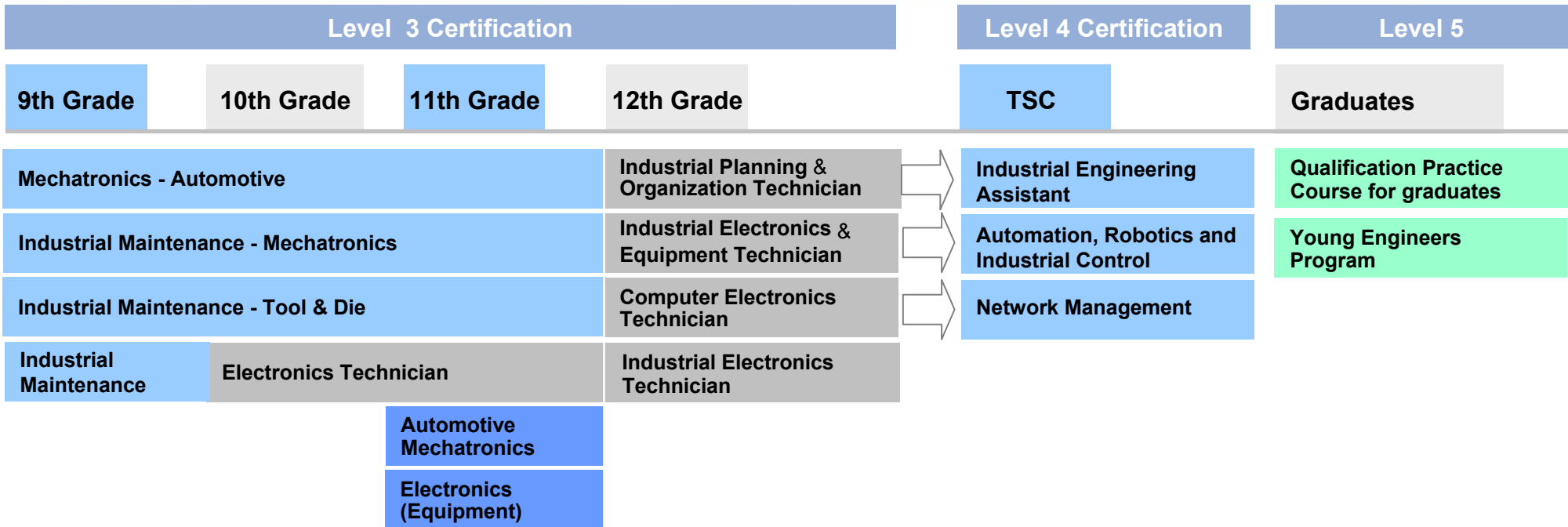


Consulting

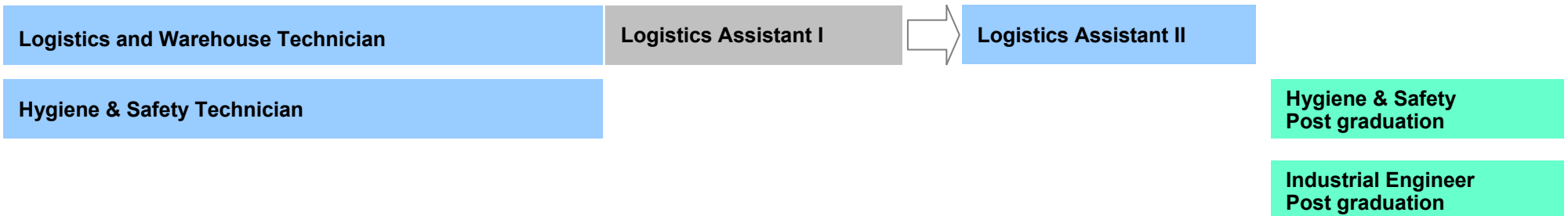


ATEC FORUM

Apprenticeship Level 3 and 4



ATEC New Courses in Development and Certification



ATEC Level 3 and Level 4 Courses



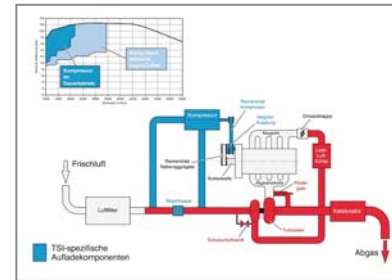
Teamwork



Industrial Standards



Visualisation



Order & Cleaness



Training on the Job



Value Added



Mobility



Electronic Training EOS

Volkswagen Training Center
Germany

Train the Trainer



Volkswagen Autoeuropa / ATEC
Palmela

Employee
Training

Vocational
Training



Training Excellence



Competencies



Networking Academy



ePLAN®



Quality



Partner



VOLKSWAGEN Coaching



Institut Produktionstechnik und Automatisierung



Audi Akademie



LEAN MANAGEMENT INSTITUT



ISEL INSTITUTO SUPERIOR DE ENGENHARIA DE LISBOA



UNIVERSIDADE NOVA DE LISBOA



UNIVERSIDADE DE COIMBRA



aicep Portugal Global



IAPMEI Parcerias para o Crescimento



INSTITUTO DO EMPREGO E FORMAÇÃO PROFISSIONAL, I.P.

2 months

12 months

6 months

Contracting

**Diagnostic/
Assessment**

**Kick-off &
Integration
Program**

**Rotation in Areas
alternating with Training
Modules at ATEC**

**Projects in
Plant Areas**

**Follow-up
Diagnostic**

IT (Microsoft Excel, Microsoft Powerpoint)

Languages (German, English for Specific Purposes)

Methods and Quality (Basic Quality Tools, ISO TS for Auditors, EFQM, Lean Production-Tools, TOPS 8 D, FMEA, KVP2, Poka Yoke, 5 S's, TPM, Production System, Project Management)

Behavioural (Communication, Presentation Techniques, Effective Meetings, Customer Orientation, Teamwork, Leadership, Time-, Stress-, Conflict Management Negotiation Techniques, Emotional Intelligence)

- Professional qualification proactively orientated to the needs of industry
- Focus of universities to bachelor & master and research activities with strong focus on the enrichment of strategic important areas of the country
- Post secondary courses between universities, companies/training centers
- Level 4 courses at polytechnics and professional training centers
- Level 3 courses in companies and professional training centers
- Bachelor courses of polytechnics in cooperation with companies / training centers with innovative combinations (apprenticeship/technician & bachelor; ...)
- Strong investments in more market driven professional training centers to support specially SME's
- SME's have to be opened for more engagement in vocational training

- Raise the level of continuous training focused on trainers and methods
- Regular Exchange of best standards and continuous improvement in vocational training and higher education
- Specific development programs of vocational training experts (trainer) needed
- Cooperation between companies / training centers and educational system
- First priority in school system on highest quality (language, science, maths, ...), best results (PISA) and social skills (teamwork, communication, behaviour, ...)
- Passways for potential school drop outs (intelligence, interests, ...) into modular vocational training of different qualification levels
- Support of low income families for education of kids
- Recognition of “on the job” and “of the job” qualifications



EMPLOYMENT - QUALITY - PRODUCTIVITY

