

# Study visit to Germany and France

## Meeting memos

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## **1 UAS Hannover**

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### **1.1 Teaching / training / learning / internship**

- Model is a consortium of university, company, vocation school, chamber of commerce
  - o Model has advisory board which has representatives from all early mentioned stakeholders + students' members
  - o As addition model also has student feedback advisory board
- 1.-4. semester: model 3 days company practice (Mon – Wed), 3 days university (Thu – Sat), work fulltime during semester break, integrated projects
- 5.-6. semester 5 days/wk studies, work fulltime during semester breaks, integrated projects
- 7. semester Bachelor's thesis
- During semester a student works 50h/wk (!)
- Company advertises the possibilities, searches and selects the students to dual studies
- University searches companies to consortium and also advertises the studies

### **1.2 Environment, facilities, processes**

- Two years a clear program in 3+3 model
- Non-dual students and dual students study at least partly in same groups
- Non-dual students also come to University on Saturdays sometimes
- There is a need for a coordinator. At HH Petra P. guides new companies to the system, takes care of contracts, gives guidance to students and companies, organizes, coordinates schedules etc
- Dual studies mean less need for laboratory space at university but need for classrooms is similar than non-dual
- Challenge is very high workload for students

### **1.3 Education contracting**

- Contracts between company and student. These have to be checked by university, especially for the first time



- Contract includes salaries, duties, vacations. I.e. everything what "normal" contract includes

- Contract can include guaranteed work after graduation or it may not. Depends from company.

## 1.4 Communication

- Advisory board is monitoring dual studies status once per semester, representatives from companies, students and university

- Student feedback meetings

- Small companies may have high expectations in the beginning, thus it is important to communicate with them what is realistic

## 1.5 Other point of views

Indicators: dual vs traditional

- Duration of studies 7,2 vs 9 semesters

- Success (graduation) rate >90% vs 60%

- Immediate employability of graduates 100% vs 80-90%

- Dual studies are very good for high potentials, who may not have possibility to study in traditional way (low income, etc.)

- If there is just one or very few big companies, model's learning content may be steered too much by companies

- very scientific and dual model is not fitting well

- Personnel resources are used as much as in traditional education

- University has rule that 10-20 % of education has to done by external experts.

Success factors:

- Students are carefully selected, constantly guided / supervised and educated by companies

- Close co-operation with industry

- Industrial partners act supportively and normatively

- Dual consortium assures stable conditions

- Improved learning when students can work in tasks directly related to their studies, connect theory to practice immediately

- Pitfall may rise if student is left alone. (risk especially when just 1 student is placed in company)

- Students will also have degree for craftsmanship (vrt. ammatillinen 2. asteen tutkinto)
- In HH more than 2/3 continue to Master level in some point
- Duall students are roughly 1 whole grade better than traditional students in averages
- Question: does Duall graduates have longer careers in company as an average than traditional graduates
- More support for students: company helps student as student would be typical worker and university helps student as student would be typical student (in problems).
- HH recommends that TUAS will not have the in the first starting group 40 students, it is a big group





- Volkswagen runs a VW akademi, including 700-800 young people, out of which 30-60 are dual students
- Students learn the Volkswagen way of working already during the studies, which has a great importance, they will understand processes, products and company better
- VW social branding
- Students are guaranteed a permanent job as a VW engineer after studies
- Model attracts high potentials that may have less strong financial situation
- Contract is done between employer and student: working hours, responsibilities, vacations, NDA
- According to law it is not possible to request student to continue working at VW eg. for two years after graduation
- A lot of coordination required with vocational schools, exams, timetables (lectures)
- There is a risk that the studies are too much based on a system of an individual company
- Students can be very young, and may have a lack of life experience
- Education is not scientific
- Students do not have possibilities to choose which courses they will study
- Some students start missing the student life that they cannot enjoy during the weekly 6-day dual studies. i.e. lack of student life
- Many students wish to continue to master studies and VW offers possibilities to that, students think that they cannot have good enough position with bachelor's degree only
- Salary >1000€/m
- Company have ROI back already during the studies

### 3 Continental

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Tania Trenk

- Continental gets “tailor made engineers”
- Salary appr 1000 €/m, full time job guarantee
- 18 places at Continental / year, 600 applicants. Typically 60 applicants for 1 open study place.
- Searching for applicants via: FB, fairs, web, newspapers
- Continental only takes students starting from the beginning, it is not possible to start “from the middle” of studies (eg coming from another company or university), group of students will stay together for four years and support each other, this improves quality and social interaction
- Continental organizes own training (vocational type) during the first years and the exams are organized by the Chamber of commerce
- Vocational training is catch-balling with university level studies.
- Pre-selection done based on grades from mathematical courses as well as motivation letter
- Selection process: online test for group of 10, short interview, assessment
- Continental can guide students that they did not select to eg. smaller companies
- Co-operational contract between university and company: company commits to giving project topics
- Companies will inform how many students they have chosen to dual studies, after that university will know how many non-dual students they can take in
- Continental offers possibilities for Master studies
- 10-20% of teaching given by outside teachers, eg. Saturday teaching
- University stays in contact with Alumni
- University teaches methods, companies teach tools eg. CAD
- Company “owns” the students
- Student must participate lectures, this is mentioned in contract
- Continental also includes international perspective to studies. They send these students to different countries to work in Continental branches

## 4 Aschaffenburg



Melissa Storm, Rauni Jaskari, Janne Siivonen and Tero Reunanen at UAS Aschaffenburg  
Photo: Ludger Schneider-Störmann

### 4.1 Teaching/training/learning/internship

- In Aschaffenburg, vocational studies are not part of the engineering studies, business yes (eg. banking)
- Model studying + working, student works 1 month in spring break, 2 months in summer break, practical semester = 5th semester and 7th semester student does the bachelor thesis to company
- Dual students and non-dual students study together in same group
- If student stops dual studies, he/she may continue with non-dual students
- Students don't have vacation a lot during studies
- Students will have 2 X more training in companies than traditional students
- Currently 30 students/year in dual programs
- In Bavaria it is very strictly issued that university is defining the content of studies

## **4.2 Environment, facilities, processes**

- Bavarian program introduced in hochschule-dual.de
- Student applies both to company (first) and (then) to university
- Company selection process can be very long
- Only few companies advertise dual studies in their own web pages
- Students have to present at classes.
- University is not giving exact definition what students should do in companies but “typical work for engineer”
- Education is provided together with traditional students. No extra or different classes.

## **4.3 Partnership between university and companies**

- A PR-event for companies last year, 40-50 companies participated
- 50-60 companies currently involved in dual studies, some of these have had 1 student only
- In general not very close relationships with companies currently, but 10 companies are in more close co-operation
- No long-term partnerships, but some companies have participated several years in the program
- Biggest number has been 5 students in one company at a time
- Small companies may take 1 student every four years

## **4.4 Education contracting**

- Contract between company and student, university will check the contract
- No contracts between university and company
- According to contract, student will commit to studies, if no progress, tuition fees can be collected back
- Student's salary is salary + tuition fee
- Can not request student to continue working in the company after graduation
- According to law, salary should be min in the same level as apprenticeship salary 700-800€.
- Contract says that company must pay the salary for the months the student is working in the company, but in practice companies also pay for all months
- Financial difficulties of the company may mean the contract will be cancelled



- If company terminates contract, student can continue in traditional model

#### **4.5 Communication**

- Melissa Storm coordinates and guides companies and students
- Currently dual program is not well known among students
- University is not in contact with company during studies if everything goes normally

#### **4.6 Other**

- Very useful material was got in the meeting (brochures, guidelines etc.)

## **5 ESTA Belfort**

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### **5.1 Environment, facilities, processes**

- ESTA is a private university grounded 30 years ago. It has two locations Lyon and Belfort it was founded by industry around Belfort and it is funded by city, students, and regional funding. It has totally 280 students at the moment. Target to reach 100 students yearly. Belfort there are working 10 teachers and 6 administrative persons.
- ESTA provides only education for bachelor level.
- Family style University where students are required to stay as they would be working.
- Every months 8. Day there is a business dress day for students.
- Studies last 5 years which 2 years are more technically oriented and last three years more related the company placements.

### **5.2. Teaching/training/learning/internship**

- Study program is designed to last totally 5 years
- Vacations is scheduled to summer between July and August.
- First two years more technical and then placements in companies and studies following topics.
- During the semester there are studies from different areas as: Production, Sales, International Placements, Marketing, Final Sales Engineering and thesis. After studies students gets placed to companies doing same as they studied earlier.
- Mandatory lectures 2700 hours and each semester 650 hours on each topic.
- University is giving support for students to company internships i.e. telephones, traveling, it..
- Internships is many times prepared by the university, Job Teaser Fairs.

### **5.3. Partnership between university and companies**

- ESTA is doing co-operation with many companies in the area of Belfort.
- Co-operation is mostly in the field of education, placements and other co-operation. ESTA is having visiting lecturers. Targeting to have a few lectures / course. Placements (students working/studying in a company) were another key are of co-operation. Third key area was the events arranged twice a year with the companies for example a Job Teaser Fair for students to apply for internship or a job.

#### **5.4. Education contracting and placement process**

- University will select the applicant for studies
  - o A-level normally required from past studies.
  - o Language exam in French and English
  - o Interview -> why applied to studies motivation
  - o Written exam
  - o 10min presentation
- Contract between company and student, university will check the contract
- Intensive co-operation with technical University of Belfort. Lecturers, Facilities.
- Usually, companies offer the placement offers to students and university.

#### **5.5 Communication**

- Angélique coordinates and guides companies and students
- Platform developed to help the management of studies and administration.

## **6 ALTRAN**

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- Student from ESTA 2001
- Sales engineering service / Industry 4.0
- Visiting lecturer at ESTA
- Opinion that by studying this ways gets more analytical skills, technical understanding, problem solving



Seatings, Interiors and Clean Mobility

- Co-operation company with deep co-operation:

- o Lecturing
- o Study projects in many areas
- o Internships

- Also visited the company when they started study project with students.

## 9 GE Power

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Vincent Sekura, Magali Iwasinta

- Student from ESTA
- Internships 3+2 each year
- Benefits compared to university more practical
- Career fairs present and looking for young talents and school visits
- They benefit having students from ESTA: they have understanding many areas within the company due their earlier internships in different dept.

## To be clarified

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- Applicant possibilities
  - Open university route
  - Vocational school
  - Upper secondary school
  - Other?
  - Can Finnish university have funding for some students from:
    - ELY
    - TE-centre
    - Pension organizations
    - Other