

MINISTRY OF HUMAN CAPACITIES

Dual Higher Education in Hungary

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Higher Education in Hungary



Shortcomings in higher education

- Industrial companies in Hungary, especially automotive companies, expressly require *professionals having undergone practical training*.
- In other European countries (Germany, the Netherlands, etc.) the so-called cooperative training, or according to German terminology "dual" training, has been proved extremely successful.
- BA/BSc and MA/MSc courses in their present form do not provide sufficient opportunities for practical training (this is particularly true in case of university BA programs).
- *The number of trainers with industry experience* is very low in Hungarian higher education (as opposed to e.g. Germany where having a career in higher education after or in parallel to an industrial career is normal practice).
- The acquisition of *soft-skills* (leadership skills, coping skills, corporate culture, etc.) required by companies in addition to the well-established professional knowledge, is also problematic within higher education institutions .



Reforms in Hungarian Higher Education



Change of Pace in Higher Education

Guidelines for Performance Oriented Higher Education Development

The **Higher Education Strategy** of Hungary was approved by the Government in December 2014



"Paradigm shift in higher education"



Reforms in Hungarian Higher Education – the dual system

Dual tertiary degree programmes

This form of education complements university or college programmes. Students do 22-24 weeks of practical training a year at a company over the whole study programme.

The concerted schedule of theoretical and practical training is decided by the higher education institution (in consultation with the employer); **theory and practice are building on each other.** This is a fixed-term employment contract, where students receive a salary. Their net salary is equal to the minimum wage for the whole duration of their studies.

The **Dual Training Council** (DTC) involving representatives of ministries and chambers concerned was established with the task of developing the personal and infrastructural preconditions necessary for the students' effective and quality practical work at the company. DTC serves as a decision-making body on implementation issues.

In 2015, 30 different kinds of dual programmes were possible to launch in the fields of engineering, economics, informatics and agriculture. 19 HEIs launched 79 BSc programmes in dual form, involving 231 partner organizations (i.e. employers) and 450 students.



The industry's expectations:

- The strong *theoretical* knowledge acquired in academic semesters should be immediately put into practical use at the partner companies.
- The training period should not exceed 3 years (6 semesters) but the amount of work should be equal to the work necessary to obtain a BA/BSc degree (210 credits).
- In addition to the normal curriculum of the given discipline, students should also acquire theoretical knowledge on the *abilities and skills* to be deepened at the company.
- Students should gain *up-to-date* knowledge in the given field. The outstanding professionals of the field should take part in the training process.



Expectations and Commitments 2.

The industry's commitments:

- Clear, long-term commitment to the dual training system
- Industrial partners support professionally the theoretical part of the training at the university / college
- The selection process of students takes place at the company partner (before graduation, from age 17). Only the students chosen can apply to a dual programme (double filter)
- During the practical semesters the industrial partner ensures excellent conditions for the training
- The company fulfills the requirements of the educational institution and Hungarian Accreditation Committee (company is accredited by the institution and by the Accreditation Committee)



Expectations and Commitments 3.

The society's expectations:

- The knowledge of students participating in the study programmes shall meet the requirements of the companies while the students are employed, so the social return to education is significantly faster
- Dual education should respond significantly faster to labour market requirements than traditional studies
- Dual education is significantly cheaper for the society because of corporate participation
- The institutions should fulfil the demands of companies not participating in the dual system as well



Launching dual study programmes CAPAC CAPAC Under the Act on National Higher Education

- The modification of July 2014 of the Act on National Higher Education created an opportunity for introducing the "dual" form of education. The Act provided for the establisment of a Council for Dual Education, which
 - 1. accredits partner companies
 - 2. identifies fields where dual training makes sense and preconditions can be met, and authorizes the start of training
- Delegation of the members of the Council for Dual Education:
 - two members by the Minister responsible for education
 - two members by the Minister responsible for employment policy
 - one member by the Minister responsible for agricultural policy
 - one member by the Minister responsible for the supervision of state-owned assets
 - three members by the Hungarian Rectors' Conference
 - two members by the Hungarian Chamber of Commerce and Industry
 - one member by the Hungarian Chamber of Agriculture
 - one member by the Hungarian Chamber of Engineers



International experiences (primarily from Germany)



Reasons for establishing dual education

- The initiatior companies : Daimler-Benz, Bosch (1970)
- Alternative form of education which is *attractive* to both the students and the companies
- *Reducing time* spent in higher education (in addition to increasing workload!)
- Development of *flexible* forms of work in accordance to the demands of employers, which can respond to the requirements of the labor market within a short period of time
- Merging the knowledge of the companies and the higher education institutions in order to achieve a more efficient education at a higher level
- *Sharing the constantly increasing costs* of higher education between the state and the companies



The history of dual (co-operative) education CAPACITIES in Baden-Württemberg

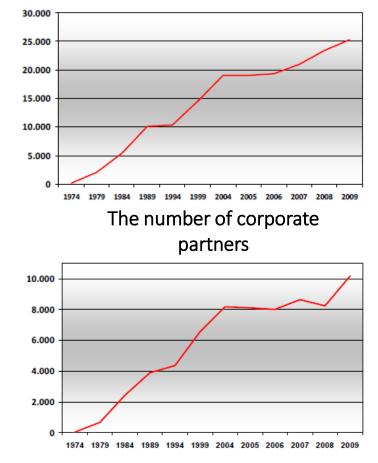
1974: The establishement of the "Berufsakademie Baden-Württemberg (BA)" University

1982: Structuring of the training is complete, the university operates eight institutions

1989: 15 years after its establishment, the institution has more than 10,000 students and more than 4000 partner companies

2006: The "Berufsakademie" form of education is transformed into the Bologna system

2009: The institution is officially renamed to "Duale Hochschule Baden-Württemberg (DHBW)"; the number of students exceeds 25,000, and the number of accredited corporate partners exceeds 10,000



Number of students



The basic principles of division of labour

Factual knowledge

University: theory knowledge Company: practical knowledge

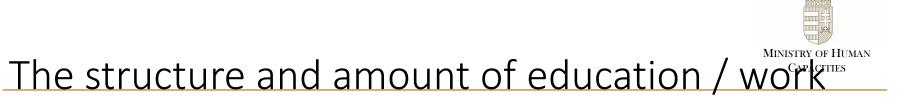
Methodological knowledge

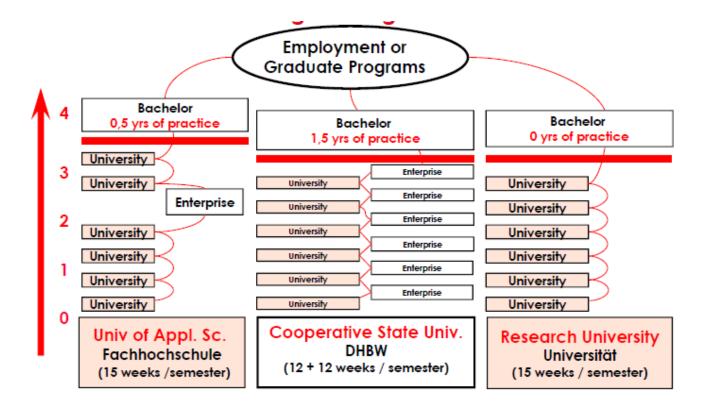
University: research, computation Company: project work

Professional qualification

Social skills

University: presentation techniques Company: negotiation techniques







Hungarian examples and first results



Dual education at the Pallasz Athéné University

- The vehicle engineering BSc programme has been first launched in dual form in September 2012 (in the predecessor institution, Kecskemét College).
- In 2016, the university has 175 students in these programmes and has cooperation agreements.

Dual studies are very attractive to students.







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Dual education – Szombathely, Zalaegerszeg^{APACITIES}



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Programajánló Zalasport Közélet Gazdaság Kultúra Bűnügy Egészség Tudomány Bulvár Archívum Hirdetések

Duális képzőközpontot hoznak létre

Részletek Készült: 2014. máj. 25. vasárnap, 17:14 Írta: AL Fotó: AL

A jól működő, vállalati igényekre épülő mérnökképzés érdekében a campus területén egy épületbe költöztetik a zalaegerszegi duális mérnökképzés egyes funkcióit. A létesítendő képzőközpont előnyeit 2014 őszétől élvezhetik a hallgatók – hangzott el beruházást ismertető sajtótájékoztatón.



Zalaegerszegnek fontos a vállalati igényekre épülő mérnökképzés

Balaicz Zoltán alpolgármester felidézte, hogy a 2000-ben elfogadott felsőoktatási koncepcióban határozták meg a bővítés irányait, mivel akkor még csak a pénzügyi és számviteli valamint egészségügyi főiskola működött a városban. Megkeresték a helyi, megyei és régióbeli cégeket és vállalatokat, melyeknek vezetői mérnőkhiányra panaszkodtak. A szakembergényre reagálva 2001-ben kezdték meg az akkredítációs anyag kidolgozását, melyet követően 2002 szeptemberében elindúlhatott a harmadik egyetemi, főiskolai képzés, a gépészmérnőkképzés Zalaegerszegen, ami 2004-ben mechatronikai szakirányal bővítt.

Gyutai Csaba polgármester azzal folytatta, most egy újabb fejiődési állomáshoz érkeztek, melynek fontos elvárása, hogy a zalaegerszegi műszaki felsőoktatás megfeleljen a vállalati, piaci igényeknek. A hosszú távú vállalati együttműködésekre fókuszálva 2012 öszén formálisan is elindították a duális mérnökképzést, ami egyedúlálló, Zalaegerszegi mellett csak Kecskeméten van az országban. A város, valamint a képzést támogató két alapítvány kötelezettséget vállalt továbbfejlesztésében, ezért elhatározták, a campus területén duális képzőközpontot hoznak létre egy használaton kívűli épületben, melyre az önkormányzat használati jogot kért. Az átalakításra több tízmillió forintot, míg az eszközbeszerzésre több száz milliót költenek, hogy reményeik szerint 2014 őszére már minden rendelkezésre álljon a duális mérnökképzéshez. A helyi mérnökképzés fejlesztésének fontos mérföldköve a képzőközpont, ahol az ország más együtt kívánnak dolgozni, hangsúlyozat a polgármester.

Nagy András, a Zalaegerszeg Felsőfokú Oktatásáért Közalapítvány kuratóriumi elnöke úgy vélekedett, a képzőközpont egyaránt teret

BPW-Hungária: gőzerővel dolgozunk a szombathelyi duális képzés beindításán

Szerző: autopro.hu // 2014.10.26. 06:50

-K A nyugati határszél egyik legjelentősebb járműipari beszállítója komoly iŋi létszámbővítésbe fogott. A jelentős szakértelmet és megfelelő stratégiát kívánó folyamatról, s ahhoz kapcsolódva a helyi gépészmérnök képzés kialakításáról a vállalat személyügyi vezetőjével, Novák Tiborral beszélgettünk.

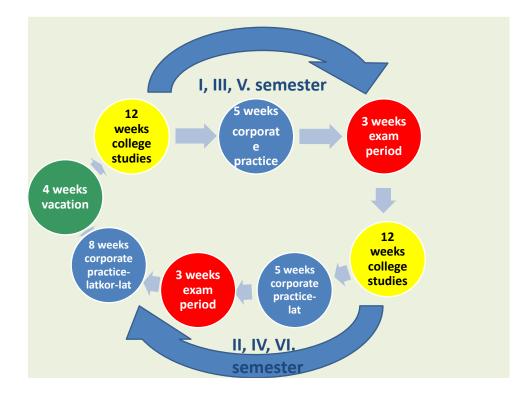
Áprilisban jelentős mértékű létszámbővítési tervet jelentettek be. Hogyan halad a toborzás, mi jelenti a legnagyobb kihívást ezen a téren?

– A BPW-Hungária Kft. közel 4 milliárd forint összköltségű beruházással 11 ezer négyzetméteres vállalati logisztikai központot épít fel. A beruházás megvalósítása a tervek szerint halad, így tartható a 2015-ös határidő. Az 1,6 milliárd forintos támogatást biztosító uniós pályázatban vállalt létszámbővülést folyamatosan, az ütemtervnek megfelelően teljesítjük, a teljes dolgozói állománybővülést 2015-re realizáljuk. A legnehezebb a mérnöki munkakörökben megtalálni a megfelelő német nyelvtudással és szakmai tapasztalattal rendelkező gépészmérnök és logisztikai mérnök végzettségű szakembereket.





Dual education – schedule



Students study and work, during the entire period of the study programmes:

- half of the programme duration at the higher education institution
- half of the programme duration at the company



Student motivation

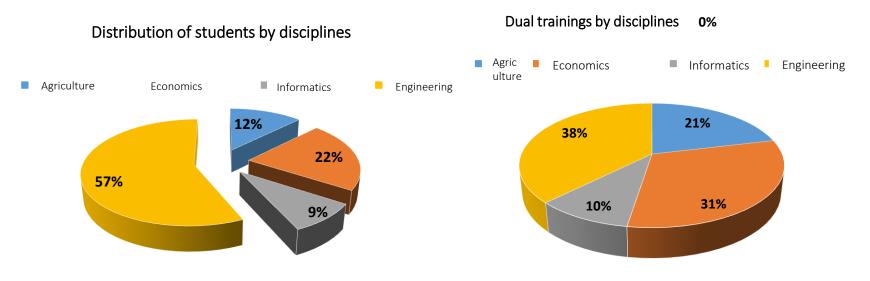
- In the short term: internship experience, shorter term before getting employment because of the shorter but more intensive training and learning about modern technology
- In the long term: significantly better employment

opportunities in the labour market

Dual Education – Practice Oriented Training 2015



- In September 2015, **19 higher education institutions** launched **30 various types of BSc programs**, in cooperation with almost **200 firms**; **440 students** could start their studies in dual form.
- The introducing of dual training seems especially successful on STEM fields;
- More than 57 % of the so-called dual students start their studies on engineering programs.





Results

- Students enrolled in dual study programmes earned more credits and were more succesful at both companies and higher education institutions than their peers, and therefore the avarage of their accumulate credit were higher.
- Compared the weighted averages of the two semesters of the first year, we find that students in dual study programmes reached an average of grades approximately 0.4 higher than the average of their peers at the vehicles engineering faculty, while in the second semester this advantage was nearly 0.7.
- Practically there are no drop-outs (one student continued studies abroad).
- Students are educated according to the model curriculum and complete the programme within 7 semesters.

DUALISDIPLOMA.HU Webpage of the dual education system



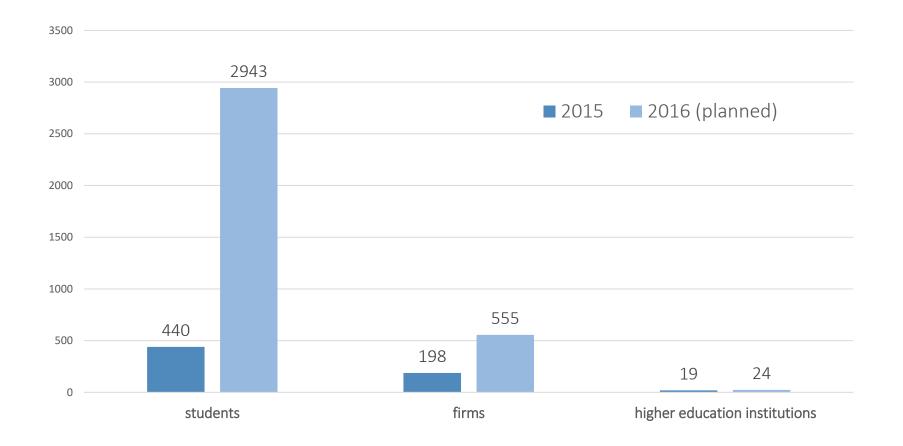


AMIT TUDNI ÉRDEMES

Itt megtalálható minden információ, amit a duális képzésről tudni kell és érdemes. A duális képzésről menüpontban összegyűjtöttünk minden tapasztalatot, jogszabályt és dokumentumot. A felvételizők tájékozódhatnak a képzés részleteiről és a jelentkezés módjáról,

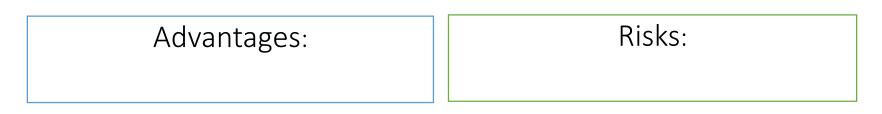
The dual education system <u>Results of the academic years of 2015/16</u> and 2016/17







Observations



- Co-operation between sectors
- Coherence between educational outcomes and economic demands
- Moderates labour-shortage problems
- More intense learning experience for students
- Realistic perceptions on employment opportunities
- Salary a motivating factor (even if not the most important)

- The dual education system is not a "cure-all"
- Specialties of the Hungarian dual training model
- In certain fields there's limited experience on practicability
- Partner organizations of different size and type



The first graduates in dual higher education system <u>College of Kecskemét - 2016</u>





Thank you for your attention!