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CURRENT INFLUENCES IN THE DEVELOPMENT OF FUTURE-ORIENTED FORESTRY PROGRAMS

The survival of Rottenburg University of Applied Sciences (HFR) was repeatedly questioned politically in the mid-1990 s. This had nothing to do with the fact that well-trained forestry academics were no longer needed, but had been triggered by fiscal policy savings. The applied Universities with forestry programs (five) and forestry faculties (four) in Germany are rather small and had no strong lobby like the forestry itself. Unlike some competitors, in this precarious situation, the universities did not opt for a change in their clear forestry profile, but for a broader, future-oriented understanding of modern forestry. For this purpose, they are orientated on the experience from their own past and the discipline, analyse the developments in the industries and sectors that are close to forestry and specifically sought strategic partnerships in order to be able to expand their own field of competence. Thus, the conviction for their own development process originated, that the forestry science has come in its history from the practice, passing a period influenced by knowledge of the general sciences. After that, the universities joined a phase of the development of forestry disciplines, and now they must turn back to the practice again. In this sense, a circle seems to close here and the universities have an additional, important task to deal with: more than before, in addition to teaching and research, the transfer of research results must also be put into practice. At the same time, the process of teaching has to be designed in such a way that it also provides continuous offers for job oriented training. Therefore, the universities must be the melting pot for all relevant influences from other sciences, which are and will be important for the forestry practice. This does not create a new profile, but a broader one. As a result, we are no longer training largely equal graduates, but forestry graduates with very individual strengths, attains, and profiles who fit like different keys into the various locks of practical challenges. This path helped the HFR to safeguard its future, to meet high demand among young students and to be recognized as the "smallest university of excellence" in Germany.

Keywords: forestry education; interdisciplinarity and intradisciplinarity; history of forestry; social responsibility and challenge; institutional profile building; individual profiling.

About me and my background. First, let me say a few short words about my background, so that you can better understand my opinions afterwards. I am a forest economist for more than 20 years at one of the nine universities in Germany offering forestry programs. For more than 17 years, as the Rector, I am also directly responsible for leading the university and constantly developing it.

Between 1990 and 2002 there were always considerations to close the university. This was not based on technical or forest considerations, but the motivation was a purely political – more precisely, a purely fiscal policy.

Since our university was very small and focused exclusively on forestry at that time, it was not in the focus of general political and social interest. And because forestry does not have a good lobby altogether or, to say it in other words, because the forestry sector doesn't realize a good lobbying-job in Germany, the closure of one or more forestry faculties seemed to be a good way to save money without being politically self-destructive.

It was therefore logical that the university could only be saved if it succeeded in further developing the forestry education and at the same time professionally diversifying the entire university.

In this period, which was difficult and stressful for all of us, the following aspects helped us to maintain and further develop the university as an independent entity:

1. The science policy in Germany is organized largely federally. That means, most of the responsibility lies not with the federal government in Berlin, but with the federal states. And these 16 states are quite in competition with each other. Of course, none of the state government wanted to close "their" forestry faculty first.
2. Rottenburg University is a university of applied sciences. Therefore, it has traditionally close and diverse contacts in professional practice. Such contacts helped a lot to strengthen our political standing.
3. Our university was quite international at the time and has so many opportunities to "think outside the box" and learn from others.

To say it in advance, we have managed to maintain university and develop it further. Between 2007 and 2016, we quadrupled the number of students and almost trebled the size of the professorial board. The first and the only study-program has now become eight courses of its own and three participations in offers from other universities.

Moreover, our total budget has grown from about 2.5 million euros per year to currently 12 million euros per

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year, of which, however, only about 3 million euros constitute state-guaranteed financing. More than 4.5 million euros of the budget are research funds and the rest are temporary special programs and different forms of third party donations.

How did and how do we organize (our) development? If education should enable learners to master their future responsibilities, then the training- and study-programs must always be ahead of their time. This is a particular challenge for those who are responsible in the educational institutions.

In the ongoing and further development of study programs the forecast horizon is between three and ten years: after three or four years, the graduates of the degree programs enter the labour market and approximately the first ten years of their employment is terminated by they expect to be the generation that is "up to date" in terms of their level of education.

For the further development of our study programs, we basically use the following three:

1. We try to identify long-term developments by looking back to the past.
2. We try to identify current and probable developments in the industries that are directly related to us.
3. We integrate new aspects, new techniques and developments that we can't (fast enough) do by ourselves by cooperating with others who can do it better.

A look back. The history of forestry education in Europe has always been closely related to the development of forestry practice, and to the changes in state forestry organizations in particular. For many years, forest education was closely linked to the development of the relatively few forestry faculties and the impulses emanating from these faculties in most European countries.

At least indirectly, the universities influenced the target systems of state forest ownership and state forestry policy and its practical implementation. This can be demonstrated at least since 1713 and the work of Hanss Carl von Carlowitz, whose first definition of the sustainability had a direct impact on the practice and training of young foresters.

In the following decades, a similar practical effect emanated from the so-called "forest classics" – the "fathers of the discipline", to which, for example, Heinrich Cotta (1763-1844), Georg Ludwig Hartig (1764-1837), Friedrich Wilhelm Leopold Pfeil (1783-1859), Carl Justus Heyer (1797-1856), Johann Christian Hundeshagen (1783-1834) and Gottlob König (1779-1849) are counted.

All of them, with their reflections and publications, have shaped forestry practice and forestry education in a very direct way. Until the middle of the 19th century, this direct connection between theory and application has given rise to forestry disciplines such as silviculture, forest management, forest economics, etc. and compared to most other scientific disciplines, forestry remained highly application-oriented.

While the research in other sciences has been increasingly theoretical, forest sciences have been interested for a long time in bringing their ideas directly "to the ground" (in both senses of the word). For a long time, only medical science had a similarly high practical relevance.

Probably because of certain rules in the "Scientific Community", even forest sciences in the classical universities have made up for this development and have increasingly moved away from (their) application practice. Fo-

rest scientists no longer come from practice but from the very high-level basic-research-sector.

Parallel to this decoupling, the interactions between forestry practice and the surrounding areas of competence (nature conservation, timber industry, regenerative energies, etc.) have become increasingly intensive.

This also means that new insights from other industries and lower or higher neighbours in the value chain, as well as technical advances and other innovations, will have a faster and more significant impact on forestry.

In order to be able to benefit from these effects, foresters must pay more attention to developments that take place around them. It needs to involve others, from outside the classical forest-sector in its work and development. Forestry must and can find new strategic partners and be interested in such neighbouring regions of the economy.

Thus, at least since the 1960s – maybe beginning after the World war 2 – we have integrated not only the internal development of the forestry discipline but also important impulses from outside into the discipline.

The transfer. Now we have to ask ourselves whether we can organize such a transfer in the future much better and how we can integrate this into our study programs.

I am firmly convinced that after the phases of the "Fathers" and the disciplines in forestry now we are in the epoch of transfer.

In many European countries, in addition to teaching and classical research, great importance is paid to the so-called knowledge transfer. In Germany, for example, the framework conditions for cooperation between universities and business enterprises are being improved and simplified.

Well-organized transfer is an important requirement for forestry to meet the great demands that society places on it. These social expectations are increasing. The reasons are as follows:

- climate change and its consequences;
- the need to find and realize new energy supply concepts;
- the unchecked growth of the world population;
- the noticeable shortage of water as a vital resource.

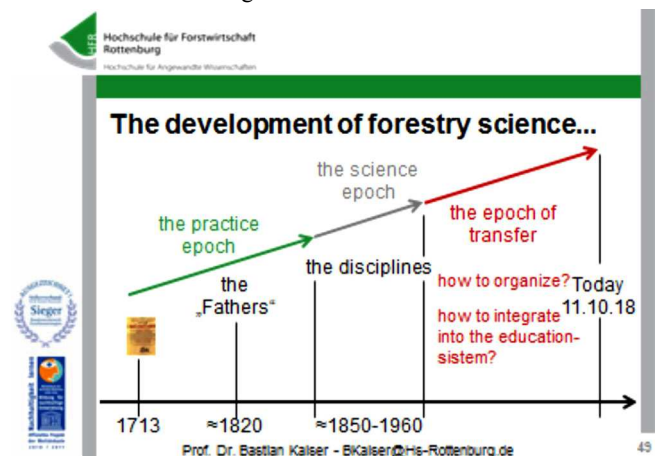


Fig. 1. From the early beginning to the epoch of transfer

Now we have to organize this phase. We need to find ways to integrate the knowledge of other disciplines and economic sectors into forestry and education.

I am also convinced that Technical Universities and Universities of Applied Sciences have advantages here: more and more often because of the pressing global challenges, there is a need for quick solutions to current issues and

less and less for the development of new theories a few years or decades will be effective.

What does this mean for the educational goal in the universities? In former days, it used to be relatively clear and easy for forestry faculties to train young people for a clearly defined and narrowly defined job profile. Mostly everyone spoke of the district-forester. The job of the later forest colleagues was as clearly described as a keyhole. Our job was to educate enough young people to work just like the right key in that given lock.

Today, forestry must help solve many of problems that didn't play any role and require a high degree of specialization before. The universities have to make offers to many other industries and face many new expectations from politics and society.

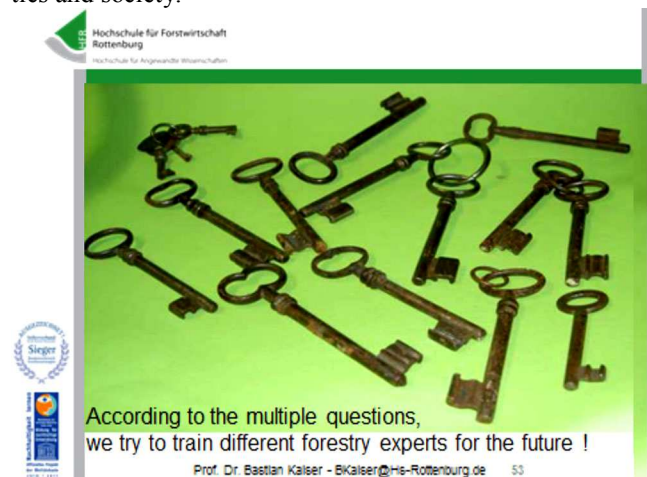


Fig. 2. Different experts are needed

Therefore, today we have to create many different keys that fit in many different locks. So our degree programs need to provide enough space and time for each one to speci-

alize themselves in order to be able to handle the forestry tasks that require specialization in the future.

References

- Kaiser, B. (1999). Forst- und Holzwirtschaft – eine Einschätzung der derzeitigen Marktverhältnisse. Vortrag im Rahmen einer Fortbildung für Forstfachkräfte an der Lehranstalt für Forstwirtschaft der Landwirtschaftskammer Schleswig-Holstein am 25.10.99, Bad Segeberg. *Publizierte Grundlage des Vortrages siehe Holz-Zentralblatt*, Nr. 104–107.
- Kaiser, B. (1999). Kundenpflege oder Subventionen? *Dreiteiliger Aufsatz zur Lage der Starkholz-säger im Holz-Zentralblatt*, Nr. 104, 105, 106 und 107. (jeweils Seite 3)
- Kaiser, B. (2000). Kooperation statt Wettbewerb bis in den Ruin. *Aufsatz im Holz-Zentralblatt*, Nr. 47/48, 654–656.
- Kaiser, B. (2001). Mehr Kundennähe mit weniger Förstern und weniger Sägewerken? – Gedanken zu marktpolitischen Entwicklungen in Forst- und Holzwirtschaft. In: *Holz-Zentralblatt*, Nr. 123, 1523 p.
- Kaiser, B. (2005). Vom Push zum Pull – Der Perspektivewechsel in der Wertschöpfungskette von Forst- und Holzwirtschaft. In: *Schweizerische Zeitschrift für Forstwesen*, 8/05, 269–273
- Kaiser, B. (2010). Gedanken zur Internationalität der Forstwirtschaft – oder: Der brave Mann denkt an sich, selbst zuletzt. In: *proWald*, Deutscher Forstverein (Hrsg.), Heft Januar 2010, 4–5
- Kaiser, B. (2013). Wie nachhaltig ist die forstliche Nachhaltigkeit? – Gedanken zu einem hehren Ziel. In: *proWald*, Deutscher Forstverein (Hrsg.), Heft November 2013, 8–11
- Schmithüsen F., Kaiser, B., et al. (2003). *Unternehmerisches Handeln in der Wald- und Holzwirtschaft. Betriebswirtschaftliche Grundlagen und Managementprozesse*. dbv-Verlag Gernsbach, 551 Seiten.
- Schmithüsen, F., & Kaiser, B., et al., (2013). *Entrepreneurship and Management in Forestry and Wood Processing – Principles of Business Economics and Management Processes*, 496 p. Text, Figures and Tables; Routledge Verlag, London, Explorations in Environmental Economics, Hardback Edition.
- Schmithüsen, F., Kaiser, B., et al. (2009). *Unternehmerisches Handeln in der Wald- und Holzwirtschaft. Betriebswirtschaftliche Grundlagen und Managementprozesse*. 2., aktualisierte und erweiterte Auflage. dbv-Verlag Gernsbach. 610 Seiten.

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ВПЛИВ СУЧАСНИХ ВИКЛИКІВ НА РОЗРОБЛЕННЯ ПЕРСПЕКТИВНИХ ОСВІТНИХ ПРОГРАМ ЛІСОВОГО ГОСПОДАРСТВА

Вживання Роттенбурзького університету прикладних наук (РУПН) неодноразово було сумнівним політично в середині 90-х років ХХ століття. Це було зумовлено політикою економії бюджетних коштів, і не пов'язано з тим, що більше не потрібні добре підготовлені науковці у галузі лісівництва. Університети прикладних наук, у яких пропонують програми з лісівництва (п'ять) та лісгосподарські факультети (чотири) у Німеччині, є досить малими і не мають, як і лісове господарство, сильного лобі. На відміну від деяких конкурентів, у цій нестабільній ситуації РУПН обрав не зміни у своєму чіткому лісівничому профілі, а ширше, орієнтоване на майбутнє, розуміння сучасного лісового господарства. Для цього орієнтувалися на досвід власного минулого та дисципліни, проаналізували розвиток галузей і секторів, які близькі до лісового господарства і цілеспрямовано шукали стратегічне партнерство, щоб мати змогу розширювати власну сферу компетенції. Отже, у власному процесі розвитку виникла переконаність у тому, що лісівництво історично походить з практики, пройшовши період, який зазнав впливу знання прикладних наук. Потім Університет вступив у фазу розвитку лісівничих дисциплін і тепер вони знову повинні повернутися до практики. У цьому сенсі здається, що коло замикається тут, і університети мають справитися з додатковим, важливим завданням, тобто більш ніж раніше, на додаток до викладання і науково-дослідної роботи, результати досліджень також повинні здійснюватися на практиці. Водночас навчання повинні здійснюватися так, щоб воно також забезпечувало безперервні пропозиції для навчання в роботі, і університети повинні бути осередком для всіх відповідних впливів інших наук, які є і будуть важливими для лісгосподарської практики. Це створює не новий, а ширший профіль. Як наслідок, більше не навчаємо рівнозначних випускників, а випускників лісівництва з дуже індивідуальними спроможностями, досягненнями і рисами, які підходять як різні ключі в різні замки практичних завдань. Цей шлях допоміг РУПН зберегти своє майбутнє, задовольнити високий попит серед молодих студентів і бути визнаним як "найменший університет передового досвіду" в Німеччині.

Ключові слова: лісівнича освіта; міждисциплінарність та інтрадисциплінарність; історія лісівництва; соціальна відповідальність та завдання; створення інституційного профілю; індивідуальне профілювання.