



Hochschulforschung | Higher Education Research

HOFO Working Paper Series: IFF_hofo.00.001

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(2000)**

Latecomers in vocational higher education: Austria, Finland, Italy

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Abstract

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Key Words

Higher education policy; vocational sector, Austria, Finland, Italy

Schlagworte

Hochschulpolitik; Fachhochschulen; Österreich, Finnland, Italien

Context Information

Forthcoming in Higher Education Policy

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Pfeffer, Thomas / Unger, Martin / Hölttä, Seppo / Malkki, Pertti /
Boffo, Stefano / Finocchietti, Giovanni (2000)

Latecomers in vocational higher education: Austria, Finland, Italy
HOFO Working Paper Series 00.001

Vienna, IFF (Faculty for Interdisciplinary Studies)

http://www.iff.ac.at/hofo/WP/IFF_hofo.00.001_Pfeffer_latecomers.pdf

Latecomers in vocational higher education: Austria, Finland, Italy

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Abstract

In this article the late establishment of vocationally oriented degree programmes in Austria, Finland and Italy is discussed. Based on descriptions of the situation in each of these three countries some common features, the main differences, and first experiences will be compared. The comparative analyses are focused on the historic preconditions for the development of vocational sectors in higher education, the organisational characteristics of these vocational sectors as compared to university structures, as well as the main outcomes of their introduction. This leads to concluding remarks through which we try to demonstrate that the new vocational sectors did not only add new types of facilities to already existing ones, but that they have been pioneers of change with a strong impact on the entire higher education system.

Introduction

The higher education systems of Austria, Finland and Italy are very similar in one important point: contrary to other OECD countries (for example, Germany, Netherlands, United Kingdom) they lacked a separate sector for vocational education in their higher education system for a very long time. Only in the early 1990s this situation changed. Italy introduced in 1990 the *Diploma Universitario* (DU), Finland in 1991 the *Ammattikorkeakoulu* (AMK), and Austria in 1993 the *Fachhochschulen* (FHS).

The most important element of these new sectors is the fact, that they are all based on the introduction of a new type of degree, that was designed as a clear alternative to traditional

university degrees. Vocationally oriented degree programmes are supposed to be equal, but different from university programmes.

With a minimum nominal length of three years at least, governments tried to give the new degrees more or less equal status with university degrees. Compared to shorter post-secondary programmes, this is a clear improvement of status, which puts the new degrees on the level of higher education.

On the other hand, these new degrees differ from university degrees with respect of their clear focus on vocational education. Admittedly, university programmes like Medicine, Law, Dentistry or Engineering exist, which are ultimate preconditions for an occupation in the related professional fields, and therefore seem to be vocational as well. But being part of the traditional degree structure of the universities, these programmes tend to be academically driven, often avoiding to distinguish scientific and vocational goals in their educational profiles. In contrast to that, the new degree programmes are supposed to put their main emphasis on vocational aspects.

Three examples concerning the late establishment of vocationally oriented degree programmes

Austria

In the late 1960s, Austria set up new institutions of post-secondary education with clear vocational profiles, the academies (*Akademien*), which focused either on the training of teachers for primary and general secondary schools, or on the training of social workers. Since their programmes were too short then¹ and their organisation is very much alike upper secondary schools, the academies never have been regarded as higher education institutions. Plans to use this new type of post-secondary, vocational institution for technical subjects initially existed, but were abandoned rapidly. This abrupt halt for a further development of the academies served various group interests and was based on the widely spread misjudgement to underestimate the general need for expansion in post-secondary education (Pechar 1990).

In 1970, a new government came into power, that strongly emphasised higher education as a field of policy. Apart from the Art Colleges, all existing higher education institutions were integrated into a more or less unified university system. This unified system was reformed fundamentally. The former, non-university institutions, which are located in the fields of engineering, economics and agriculture, experienced a strong academic drift. In 1975, when an OECD review raised the question, if Austria should expand its non-university sector, the government took the view, that universities are fit enough to offer a variety of curricula (OECD 1976) and assumed, that many tasks of a non-university sector could be fulfilled by the upper secondary vocational schools (*Berufsbildende Höhere Schulen, BHS*) as

¹ In the beginning, they had a minimum duration of about two years. In the meantime, they last four years.

well. Therefore, the universities had to deal with the major part of the massification process of post-secondary education during the 1970s and 1980s.

At the end of the 1980s, the Austrian opinion had changed very much. Without many serious alternatives for postsecondary education, the centralised university system in Austria stood alone in the task to absorb growing numbers of students. While the demand for qualified staff grew and the types of qualification changed with increasing speed, it became obvious, that the universities were neither able nor willing to satisfy the needs for vocational education. The Austrian approach towards the European Union and the participation in comparative studies (e.g.: Lassnigg and Pechar 1988) made it easier for policy makers to learn that other countries successfully had developed large and effective non-university branches in their higher education systems.

These changes in attitude and knowledge on other systems opened a window of opportunity for setting up a second vocational sector. In 1989, a new minister of science was appointed who very soon took this chance. In 1990, the governmental coalition, formed by the Socialist and the Conservative Party, agreed upon the plan to establish a new vocational oriented branch as a part of the higher education system.² After additional years of discussion, the FHS Studies Act passed parliament in spring 1993.

The new FHS Studies Act only gave a rough, legal framework to regulate the foundation and accreditation of a new kind of vocationally oriented degree programme. Contrary to the university sector, where the only legal form of institution was that of a dependent, subordinated state agency, every independent institution with full legal personality (for example a company or an association) can apply for the allowance to provide FHS programmes. Instead of taking the initiative itself, the federal government follows a bottom-up approach and encourages other actors, even private ones, to develop programmes on their own. In most cases, different local and regional actors are involved in the foundation of an institution offering FHS programmes, for example the regional government, a town, (regional) social partners or private firms.

FHS programmes are financed through a mixed form of funding. The federal government pays 90% of the so-called standard-costs per study place (= estimated costs, based on model calculations) for a contracted number of students per degree programme. The difference to the actual costs has to be funded by the providing institution out of other sources.

For the overall co-ordination of the FHS sector, a clear distinction between political and academic decisions has been made. While the government is responsible for political decisions (e.g. on the allocation of federal funds), a specialised institution, the FHS Council, is responsible for the academic accreditation of a proposed FHS programme, and later on for its evaluation and quality control. The FHS Council is an independent agency that is neither subordinated to a ministry, nor bound by any directives.

² *Arbeitsübereinkommen über die Bildung einer gemeinsamen Bundesregierung* (1990), quoted in: BMWF (1993), p. 58f.

Every institution, that wants to offer a FHS degree programme, has to prepare a well-defined list of different materials for the presentation of its proposal. Amongst other things, the innovative character and the academic quality of the curriculum have to be demonstrated. In addition, the applicant has to work out an analysis of the student-demand for the programme in question and an inquiry about the position of graduates on the labour market. The accreditation procedure focuses on the single degree programme and is performed in dialogical interaction between the FHS council and the applying institution.

FHS programmes are characterised by a clear vocational orientation. Normally they last eight semesters. An internship of one semester is not obligatory, but emerged as a de facto criterion for quality. Therefore it has become part of most of the existing programmes. Compared to degree programmes at universities, FHS programmes are rigidly structured, reducing the freedom of choice for the students. They offer stricter timetables and limited alternatives for optional subjects. Because of this “school-like” structure most of the students are able to finish their studies in the nominal duration of the programme. Contrary to the situation at the universities, the providers of FHS programmes are allowed to control the access of students and to select their applicants through entrance examinations.

Since universities are located in only seven out of nine Austrian provinces, it was one of the goals of the government to improve the regional distribution of higher education facilities by the establishment of FHS programmes. This goal was met quickly. At the end of 1999, only five years after the new sector came into existence, 45 individual FHS programmes have been established in about 20 different locations. In the meantime, government slightly shifts away from its broad bottom-up approach, that led to a strong fragmentation of institutions, towards a “consolidation of the locations and a long-time development concept” (BMWV 1999a, p. 16) of the entire sector.

In 1998/99 entrants in the FHS sector enrolled in four groups of programmes: engineering (38%), economics (45%), media (13%) and tourism (4%) (BMWV 1999b). Other subjects, e.g. for paramedical professions, are still missing. Most of the existing FHS programmes are highly specialised and innovative. Regarding enrolment numbers, the new FHS sector is fairly successful. Already about 10% of the new entrants in the entire higher education system in Austria enrol in FHS programmes. The sector is still growing, since several new programmes are introduced every year. According to plans of the government, in 2004/2005 one third of all new entrants should enrol in FHS programmes.

Finland

The largest and most far-reaching innovation in the Finnish education structure in the 1990s was the establishment of the non-university sector of higher education, the AMK (*ammattikorkeakoulu*) or polytechnic sector. By the early 1990s Finland was one of the few European countries with a uniform higher education system consisting of universities only. The main reasons for the late establishment of the non-university sector of higher education can be found in the academic tradition of Finnish higher education and in the policy decisions made in the 1960s and 1970s concerning the regionalisation of universities. The idea of higher education based on the Humboldtian unity of research and teaching has also been deeply rooted in the Finnish academic world and academic profession. This view has had

concrete implications for the institutional structure of the system throughout the history of Finnish higher education (Hölttä 1988.)

The Finnish government passed legislation on experimental AMK institutions in 1991, and on the basis of the positive results obtained, the AMK system was made permanent in 1995. The first permanent AMK institution commenced work in August 1996. The reform of vocational higher education was implemented as a gradual process of experimentation and development. The purpose of the experiments was to build up experience and to offer the temporary AMK institutions the opportunity to develop their programmes before the system was made permanent. In the academic year 1999-2000, there were altogether 31 non-university institutions: 24 permanent and 7 experimental. The ongoing programme of establishing the AMK sector will be over by August 2000, and all 31 institutions will operate on a permanent basis then. Student enrolment at universities was 152,000 and at AMK institutions 79,000 in 1999. Focusing on the percentage of first-year students, 63% of all new entrants into the higher education system enrol in the AMK sector. The Finnish government set a challenging goal ten years ago of broadening the access to higher education as expressed through the official quantitative target of providing a study place for 60-65% of the age group. The quantitative target has been reached and even surpassed at the beginning of the new millennium.

New AMK institutions were established on an experimental basis mainly by merging existing technical and business colleges, and other institutions formerly at the secondary level. Most of the AMK institutions are multidisciplinary. The largest fields of study are technology and transport, administration and commerce, and social services and health care. These fields enrol together about 80% of the AMK students. Links to working life and international connections are emphasised in the AMK system. The institutions are expected to deal with the challenges of the rapidly changing (national and international) labour markets by building networks facilitating the planning of studies that meet the requirements of various employers. The Finnish higher education reform was linked to the extensive reform of the whole post-compulsory system of education. The general objectives and the experiments in progress can be summed up as follows (Ministry of Education 1998).

1. *To raise the standard of education.* The AMK institutions will raise the standard of education. AMK degrees will be made part of the higher education degree system. In contrast to university degrees, AMK qualifications will have a vocational and practical emphasis.
2. *To react to changing needs for expertise and skills.* The reform should develop new study programmes to fill in gaps in competence left by the old vocational education system and the universities. Students should be given greater choice to fashion individual study programmes.
3. *To make vocational education more attractive.* The reform should provide a competitive alternative for young people with a good general education and interest in higher education.
4. *To improve the international compatibility of vocational education.* The reform should lift higher vocational education to a higher level, comprising a non-university sector on a par with the university sector. However, the difference between academic and vocational education was emphasised.

5. *To make the vocational education system more functional.* The reform should provide the occasion to set up larger, more efficient units with stronger material and intellectual resources. In fact, most of the new AMK institutions will be multidisciplinary consortia formed by combining several institutions. AMK institutions should be set up to rationalise the educational network, while utilising the synergy benefits of mergers and safeguarding the regional availability and impact of education.
6. *To decentralise the administration of vocational education.* The reform should transfer authority to the operational units, reducing normative administration and other central control.
7. *To reinforce the regional impact of vocational education.* The AMKs should assume their proper role in contributing to the development of the regional infrastructure by providing educational services as well as services and development supporting industry and business. Training in industries as well as R&D cooperation with regional firms were regarded as essential institutional activities.

AMK institutions are licensed by the government. Before taking the decisions on licensing, the government obtains the opinion of the Finnish Higher Education Evaluation Council³, which evaluates the current situation in a given AMK institution. The license granted by the government defines the overall framework for its operation, the fields in which courses are to be provided, the teaching languages, student numbers, and the location of the constituent units. The government may also include a requirement for further development of operations or provisions. AMK institutions receive almost 100% of their financing from public funds.

There are no tuition fees. AMK institutions also seek to acquire external funding, mainly from continuing education services and R&D co-operation with companies. AMK degree programmes require a minimum of three and a maximum of four years full-time study. Each AMK institution's degree programme is defined as a course of studies, which concentrates on a given area of professional expertise (FINHEEC 1997, Ministry of Education 1998).

The AMK institutions cover the whole country, i.e. there is an institution in every region. They have an important regional function in providing the regional labour markets with qualified human resources and in co-operating with regional companies in product development. Finland had already established an extensive regionally decentralised network of universities in the 1960s and 1970s. They were expected to boost the regional development in a sparsely populated country, where the differences in the natural living conditions between the southern coastal areas and northern and eastern areas are quite remarkable. The establishment of the AMK system is an important additional investment in regional development capacity.

³ The Finnish Higher Education Evaluation Council was established in 1996. According to the FINHEECs Action Plan for 1998-1999 the Council and its Secretariat assist universities, AMK institutions, and the Ministry of Education in matters relating to evaluation. The Council is a co-ordinating and implementing expert body, which is independent of both educational administration and higher education institutions. It does not make administrative decisions.

Italy

Traditionally, the higher education system in Italy is mainly represented by the university system. Universities offered both long-cycle academic courses (*laurea* degree, four to six years) which absorbed the overwhelming majority of the students and short-cycle vocationally-oriented ones: Special Vocational Schools (*Scuole dirette a fini speciali*, Sdafs) until the reform of 1990, and *Diplomi Universitari* (DU) after. The non-university sector was limited to higher education in the fine arts field (Academies of Fine Arts, Higher musical schools and *similia*) and to some higher institutes in the field of cultural heritage.

The impact of Sdafs on the Italian higher education system was quite limited. The exception was the medical area, characterised by very close links between academic sectors and health care services, which covered some 75% of the overall number of Sdafs. In 1990, Law n. 341 “Reform of the curricula” reorganised the short cycle university training by the establishment of the *Diploma Universitario*. The university short cycle was extended to three years⁴, and a totally innovative scheme, as concerns both organisation and teaching, was envisaged. The act clearly indicated that universities should be in charge of the new form of training and stated that students should be required to choose either the long or the short cycle at the outset of their courses. Moreover, the act foresaw universities in cooperation with public and private bodies, also by setting up consortia, in order to establish a new DU course. The interaction with external bodies (enterprises, local authorities, professional associations) was considered to be a fundamental element both in DUs contents and financing, and in overcoming the limitations in matching labour market requirements experienced by Sdafs. In order to stress the importance of local actors, the regional Coordination Committee, a body formed by rectors, deans and representatives of regions, had a role in the accreditation process of new DUs.

The financial support was also closely linked to a privileged model of interaction between universities and external actors. A reward was granted to those universities capable to start courses whose vocational character was explicitly assessed as in line with the needs of the labour market and implemented through a close collaboration with enterprises and public or private bodies operating in the same territorial district. On the other hand, the consortia established for DU course implementation were supposed to raise and attract from external sources additional financial support. Some additional funding came through the years from special programmes such as the *Ponte* project, aimed at establishing functional links between the universities and firms and professional associations, and the *Campus* project, launched in 1995⁵ and referred to DUs in the area of engineering and advanced tertiary services under the co-funding with European Social Fund, which excluded objective 1 regions (i.e. southern regions).

As for DU teachers, most of the personnel belongs to the permanent staff of the university, but universities can also recruit temporary teaching staff, within their own budget limits and on a private contract base.

⁴ The duration of the Sdafs courses could also be of two years. In order to comply with the EU directive n. 89/48, Sdafs will need to be transformed into DUs or be abolished.

⁵ The promoters were: CRUI (Italian Rectors' Conference), Unioncamere, Confindustria, Enea (National Body for new technologies, energy and the environment), the Ministry of Labour and the Ministry for the Universities.

DU programmes have a duration of 6 semesters. A period of practical training by external productive or service bodies is not compulsory, but emerged as a *de facto* element of quality for the courses. Compared with *laurea* degree programmes, DUs have a clear practical orientation, reducing as much as possible the theoretical parts of the training. In DUs, the freedom of choice for students is much more limited than in *laurea* degree courses. The limitation of students' choice in curricula, together with the *numerus clausus*, allow most of the students to finish their studies within the foreseen span of time. When entrance selections are used, the approved students are, as average, better and faster in their studies.

As for the spatial dimension of DUs, the southern less developed regions experienced a significant decrease in the 1990s, when the most developed regions of the north recorded a parallel expansion. The reason for this trend is quite likely to be found in both the higher adequacy of centre-northern universities in entertaining environment's demand for new courses and in a more developed, active and supportive productive context.

Concerning the overall quantitative dimension, the DUs experienced a great expansion passing from some 53,000 enrolled students to nearly 104,000 (from 3.2 to 6.2 % of overall enrolled students). Overall this still represents a limited share of the total student numbers in Italian higher education⁶. As for the number of offered DU courses, they were 420 in 1993/94 and are 1,237 in academic year 1999/2000, with 141 different typologies of courses⁷.

Despite being present in almost all disciplines, DU courses are particularly well represented in medical (35%), engineering (20%) and economic (12%) studies. In these fields, and especially in some of engineering degrees, DUs seem to compete quite well with *laurea* degrees.

In recent years, the sector of non-university vocational education has been experiencing a progressive development. Among the reasons for this development (which are similar to those behind the creation of the university first-cycle, the *Diploma Universitario*) is the increased labour market demand of intermediate vocational profiles, halfway between high school graduates and university graduates and the push towards the convergence of European higher education systems.

As a consequence of the 1996 agreement⁸ between the government and social parties, a new non-university post-secondary sector called *Istruzione e Formazione Tecnica Superiore - IFTS*⁹ has been established. The first experimental courses were taught in 1998/99, but massive implementation is to start in autumn 2000. The agreement urged for the development of post-secondary vocational training through a territorially based organic system. This system – co-ordinated, controlled and certified by the regional authorities – was conceived as

⁶ The relative dynamic of DUs shows a quite better performance: the share of total student's enrolments on first years of course passed from a 6% in 1993/94 to more than an 11 % in 1998/99 (source: ISTAT, ibidem).

⁷ Source: CIMEA-RUI, Banca Dati sull'Università

⁸ "Agreement on employment", signed by Government, employers' organizations and trade unions on 24 Sept., 1996.

⁹ Another, less commonly used expression for this sector is: *Dormazione Tecnico Professionale Integrata – FTPSI*.

made up of universities, firms, (vocational) training centres, and secondary schools. Funded mainly through the European Social Fund co-funding mechanism, in this system the *Regioni* (regional authorities) assume an absolutely new relevance, as do secondary schools and vocational training centres, both public and private. New actors include employers' organisations and trade unions, who take part in the general planning activity carried out by the Ministry of Labour and in the implementation of such plans, a task of the Ministry for Education. The admission is restricted to a limited number of students (20 to 40) and the courses are foreseen to last from two to four semesters. Professors are recruited on the base of private contracts, but the amount of pay per hour is equal for all and fixed at regional level.

An ambitious post-secondary education system is thus taking shape, whose goal is to optimise the use of all available institutional and financial resources and to involve both local and central actors.

Common features, main differences and first experiences

Reasons for the late development of vocationally oriented degree programmes

University-based higher education systems

The starting position for the establishment of new degree programmes was very much the same in all three countries. Until the end of the 1980s, higher education in Austria, Finland, and Italy was almost exclusively university-based. Universities represented more or less the only form to provide higher education in these countries.

This does not mean, that a non-university supply did not exist at all. Examples of vocational training can be found everywhere. Rather, the point is that the university sector was dominant with respect to prestige and quantity. Vocational training on the level of post-secondary education often had a minimum duration of less than three years and therefore has not been regarded as higher education. Additionally, most of the efforts put into the post-secondary educational system were directed to the universities. In Finland, especially regional universities had some functions which had been non-university functions in other European countries, e.g. adult and continuing education and a general regional development function.

Centralised administration by the government

Another common feature of the specific circumstances in Austria, Finland and Italy is the extent to which their education systems, and especially higher education, were centrally steered. Until the late 1980s, the relationship between the state and the higher education institutions had been dominated by a sovereign state steering model (Gornitzka and Maassen 2000, referring to Olsen 1988). The involved Ministries were responsible for most of the administration and decision making for the whole sector at the level of the central government, while the universities had the status of dependent and subordinated units. This led to a situation, in which it was by no means clear whether the higher education system of a

country consisted of several or only one single university.¹⁰ In this system, a single higher education institution had many characteristics of a sub-office of the Ministry, although formally, they were autonomous organisations. Amongst other things, one side effect of this strong governmental control was the tendency to oversimplify the structure of the education system and to avoid any further differentiation.

Status of the reform in a general political context

In Austria and Italy, the establishment of new degree programmes can be characterised as a kind of a single-issue policy with comparatively few direct linkages to other policy issues. Therefore the foundation of these new vocational sectors was more accompanied by, than co-ordinated with other reforms of the post-secondary education systems. The reforms were serious, but nonetheless evolutionary, being part of continuing political developments that were accelerated by the European integration.

In Finland, the decision of establishing the vocationally oriented higher education programmes was a central part of an extensive process of reforming post-compulsory education. It aimed at raising the level and quality of the programmes and increasing the attractiveness of the vocational route through the educational system. In addition, the higher education reform was connected to the overall reform of making the Finnish economy more competitive, and it was accompanied by a reform of the steering (or co-ordination) and management structures of the whole public sector (Hölttä and Malkki 2000). The economic recession, affected also strongly by the collapse of the USSR, boosted both the public sector in general and the educational reforms as an important external factor in the early and mid 1990s. As a result the structure, content and scope of the education system changed rather dramatically in Finland in the 1990s.

Organisational characteristics

The new degree programmes differ in many organisational characteristics from the traditional degree programmes.

New degrees and their status in the overall degree structure

Until the introduction of new, vocationally oriented degree programmes in the 1990s, the overall structure of university degrees in Austria, Finland and Italy had been (and to a large extent still is) two-folded. Generally speaking, the first university degree in Austria was the *Magister*, in Italy the *laurea*, in Finland the *kandidaatti*.¹¹ They were followed by the doctoral degree in Italy and Austria, and by post-graduate degrees, a doctor's degree, and the *licentiate* in Finland, which was a first post-graduate degree preceding the doctorate. Unlike the three-folded Anglo-Saxon degree structure, there was no lower, intermediate higher education degree, comparable to the Bachelor.

¹⁰ An observation **made by** an OECD review team in Finland, but that can be generalised for **all three countries** (OECD, 1982, p. 61).

¹¹ **All three countries** knew only minor exceptions of short-cycle university programmes, e.g. the *Sdafs* in Italy or the *Kurzstudien* in Austria. The example of Finland is of special interest. In that country lower academic degrees, corresponding to the Anglo-Saxon Bachelor, had been abolished during the reform of the 1970s.

With the establishment of new vocational degrees, this structure was challenged. The question was raised which position the new degrees should get. Governments intended to introduce short-cycle curricula. But at the same time the acceptance of new degrees is strongly related with their 'value' for graduates and employers. The most important reference system to measure the value of new degrees is the comparison to high status, and highly appreciated university degrees. This is a good reason to integrate new curricula into the higher education degree structure¹², by giving them at least a comparable minimum nominal length. Governments tried to do this in several ways.

All Austrian providers of FHS degree programmes decided to organise the programmes in such a way that they would match the duration of the traditional *Magister* degrees, even if they had the possibility to create shorter curricula. Therefore with only a few additional courses a graduate of a *Fachhochschule* can start a doctoral study. Concerning the academic degree structure, a FHS degree is directly corresponding to the first university degree. The *Fachhochschulen* have been introduced without a major change in the overall degree structure. This correspondence between the two sectors has been irritated by the latest changes in the legal framework of the study regulations at the universities. In 1999, the Austrian government wanted to follow the Sorbonne and the Bologna declarations of the European education ministers and opened the opportunity for universities to choose between a two-folded (*Magister, Doktor*) or a three-folded structure (*Bakkalaureat, new Magister* programmes following the *Bakkalaureat, Doktor*) for each of their programmes. Up to now, the *Fachhochschulen* do not have similar opportunities to split their programmes into an undergraduate and a sequential graduate degree.

Comparing these three countries, Finland exercised the most radical reform of its higher education system in the 1990s. It also changed the university degree structure more or less simultaneously with the establishment of new degrees in the AMK sector. It transformed the complete architecture of the degree system into a three-folded structure in the mid-1990s. Consequently, bachelor degrees were introduced at the universities. However, the status of the Master's (*Magister*) degree as the basic target was remained. The funding of universities, for example, was decided to be based on the number of Master's and Doctor's degrees (Hölttä 1988). Parallel to that the new AMK sector was founded with vocationally oriented degrees at the bachelor level as well. The Finnish government was very well aware about the risk of academic drift as the decisions on the new programmes were made. It emphasised strongly the difference between academic degrees granted by universities and the AMK degrees (Opetusministeriö 1992). The established AMK programmes were designed to provide a separate route from the university programmes. So, the AMK degrees as vocational degrees do not provide the student with qualifications for Master level studies at universities. Instead, the purpose is that the AMK graduates enter the labour market directly after graduation. However, the universities allow an AMK graduate to transfer some part of their credits if they start with a university study. To provide the AMK graduates with possibilities to continue their studies, discussion on vocational post-graduate programmes and degrees, provided by the AMK institutions themselves has, however, been initiated, again separate from the academic post-graduate programmes.

¹² Normal post-secondary programmes are no sequential steps for a further career in higher education. Therefore they are often seen as "dead ends".

Similar to Finland, the establishment of the DUs in Italy was accompanied by changes in the degree structure. But different to Finland and Austria, the short-cycle DU courses have been initially developed parallel to the degrees at universities. Only later as a consequence of the Sorbonne and the Bologna declarations and similar to Austria, deep changes in the overall degree architecture of the Italian higher education system took place and led the Italian to establish in 1999 a new degree structure, made out of a first degree (3 years), a second degree (2 years) and a third, doctoral degree (3 years). The new structure, which will be fully operational in 2001, will abolish the DUs and its parallel, non-sequential characteristic, integrating it into an organic curriculum of three sequential cycles.. Even the very short non-degree programmes of the new IFTSs are going to be linked to this architecture. Despite not providing direct passages to university programmes through the credit system, some of the work done by students in the IFTS will be acknowledged by universities.

Decentralisation and institutional autonomy

With respect to their national higher education systems, the establishment of vocational sectors can be seen as steps towards decentralisation in Austria, Finland and Italy. While universities in the 1980s had been treated as subordinated and dependent parts of the entire higher education system, that had been steered by a sovereign state, the institutions, which are responsible for the organisation of vocational degree programmes, became more institutional autonomy in their relationship to the central government. This change from a state control model to a state supervising model (Neave and Van Vught 1991) was not limited to the vocational sectors only. At the same time, when decentralised forms for their vocational sectors were established, all institutions were granted much more autonomy and independence from the government. Therefore 'institutional autonomy' in this context refers to more independence from the state, not necessarily to independence from other stakeholders.

Like their predecessors, the AMKs in Finland are mainly owned by regional authorities, not by the state, as universities are. The foundation of the AMKs can therefore be seen as a step towards a decentralisation of the higher education system. Other forms of decentralisation have taken place in the university sector as well, where the autonomy of institutions has been remarkably increased in the 1990s.

Very similar to that is the status of the FHS providers in Austria. They are the first institutions for higher education that are not part of the central administration. In 1993, the year when the FHS Studies Act was introduced, a new act on the organisation of universities passed the parliament, which gave more organisational autonomy to the universities.

In Italy, the general framework of the higher education system was changed in 1994, which led to institutional autonomy for the universities and enabled them to organise DU programmes independently. A further step towards decentralisation will be reached by the establishment of the IFTSs during the next years.

The decentralisation of their higher education systems marks a paradigmatic change in the way in which central governments perform their higher education policies. Traditionally, the Ministry had been responsible both for the strategic definition of goals and for their operational realisation in subordinated institutions. According to the new paradigm, these functions have to be divided between the Ministry and the providing institutions. The Ministry became responsible for the definition of goals and the creation of an overall

framework, while the institutions became responsible for the design and the organisation of degree programmes that fit into this framework.

Political regionalisation

It is obvious that this functional differentiation between the Ministry and the institutions changes the balance of political influence. But it would be completely wrong to speak of a privatisation of the vocationally oriented higher education sectors.

In Finland and Austria, the institutions, which offer vocational degree programmes, are in most cases owned not by profit oriented enterprises, but by local or regional authorities. However, in Finland the Ministry of Education wanted to keep the main policy variables concerning both sectors in its hands, and although decision making power has been decentralised to the institutional level, it is developing a steering-by-results model (Hölttä 1998) to the AMK sector, which is quite parallel to the model applied within the university sector. In Italy, the universities (as public institutions) organise DU programmes with the help of consortia, in which again local or regional public authorities are deeply involved.

Decentralisation did not lead to a general reduction of political influence in the observed cases. Since the additional actors, which are showing up as an effect of the decentralisation of the higher education system, are mainly local and regional authorities, it is justified to say that the establishment of the vocational sectors lead to a political regionalisation. Accompanied by a functional differentiation of responsibilities, the local authorities gain their own possibilities to get involved into the organisation of higher education, while the central government specialises its influence in controlling the framework.

Accreditation

In all three countries, degree programmes are developed by the institution itself and presented for accreditation. But the organisational frameworks for the accreditation procedures differ very much from country to country.

In Austria there is a clear distinction between the political decisions related to the funding of FHS degree programmes and the decisions on the academic accreditation of the programmes. While the involved Ministry decides on the question of funding, the FHS Council, an independent expert body, decides on the academic accreditation.

The accreditation of the AMKs is connected to the process of granting a permanent operating licence for the experimental institutions. The Council of State's decision on the operating licence is based on the advice of FINHEEC, the Finnish Higher Education Evaluation Council, a buffer body between the Ministry of Education and the institutions of higher education. Experimentation and evaluation have been the visible features of the formal process of upgrading the institutional status of the vocational institutions to the non-university system of higher education. Different to the situation in Austria, the accreditation procedure does not focus on a single degree programme, but on an entire institution.

In Italy the situation is more complicated, since more actors are involved. The regional Coordination Committee is responsible for the first assessment of a proposal, the CUN (*Consiglio Universitario Nazionale*) as the national representative body of university disciplines and staff, and additionally a Parliamentary Commission have to give their opinions, before the minister decides by decree on the establishment of a new programme.

The content of the accreditation procedure is very much the same in all three countries. The applying institutions have to demonstrate the goal and the labour market relevance of their programmes, their position in the overall education scenery, and their relationship to regional authorities and enterprises. All these questions force the institutions to get in a close and permanent interaction with the main actors in their environment for the continuous development and evaluation of their vocational degree programmes.

Selection of students

Finland, a country with a comparatively high participation rate, was used to entrance selections of students already. An applicant fulfilling the eligibility criteria (student selection is based on the student's school achievement, work experience and often also an entrance selection) has the right to apply to any AMK institution. Admission into AMK institutions is applied for through the national joint application system, within which the applicant may, with one application form, apply to a maximum of four study programmes involved in the joint application system, anywhere in Finland. Permanent AMKs decide their student selection criteria independently. However, the student selection criteria of experimental temporary AMKs is determined by the Ministry of Education.

But for Austria and Italy, the widely spread introduction of entrance selections brings a new element to their higher education systems. Apart from some exceptions, both countries had more or less open access to their higher education systems.

Except for areas, where a *numerus clausus* is forced by regulations of the European Union (as for medicine, veterinary, architecture), Italy exercises open access in *laurea* degree courses. Differently to that, DU courses regulate student's access. In fact, most DUs use entrance examinations to implement *numerus clausus*. Examination forms are individually decided and developed by each DU, which may or may not use external bodies to implement them.

Up to now, Austria still not even has a *numerus clausus* in medicine. Universities therefore envy the *Fachhochschulen* very much, which are even free to individually decide on the criteria of their entrance examinations. Compared to the universities, they do not only have the opportunity to select an 'elite' of students, but also the advantage of a calculable maximum number of entrants.

Ways to establish a new sector of higher education

Even if the three countries aimed at the introduction of a new sector of higher education for vocationally oriented degree programmes, they used different forms of institutional establishment.

Finland was successful in merging and then upgrading existing post-secondary institutions into AMK institutions. This led to a transformation of already existing non-degree programmes into new degree programmes. Compared to the other countries, this seems to be the fastest way of creating a vocationally oriented higher education sector of remarkable size.

Italy had a different approach. It left higher education in the responsibility of the universities. Therefore even the new vocationally oriented degree programmes, the Dus, had to be developed and established at universities. In other words, there is no clear institutional

specialisation, no differentiation between academically and vocationally oriented higher education institutions like, for example, in Finland. It is only with the recent establishment of the new vocationally oriented IFTSs that new institutions, different from universities, are created.

Contrary to Finland and Italy, Austria did not (yet) use existing education institutions for the foundation of its new sector, neither by upgrading them, nor by taking them as an organisational basis. Apart from some minor examples, the introduction of new degree programmes mainly led to the establishment of new institutions. But since any organisation is allowed to apply for the accreditation of an FHS degree programme, the Austrian system is open for the upgrading of existing post-secondary programmes and for the establishment of FHS programmes at universities as well. Both developments are expected to take place in the near future.

External stakeholders

Compared to the situation with respect to the traditional universities, local authorities seem to be external stakeholders of the new vocational institutions already. Apart from that, other external stakeholders, especially social partners and enterprises got involved on different levels as well.

Social partners played a crucial role in Italy and Austria. They have been of great influence at the central national level, especially during the stage of development of the new higher education sectors, sometimes even being initiators of the reforms. In Italy the *Confindustria* was one of the most important stakeholders for the creation of the DUs. Additionally, the new IFTS system rose from a national agreement between the government, employers' association, and trade unions. In Austria, the employers' side of the social partners voted for the reforms with similar arguments as in Italy.

Even stronger is the involvement of external stakeholders at the level of the institutions. In all three countries, the accreditation procedure puts strong pressure on the institutions to get in close interaction with their environment. In Italy and Austria, an analysis of the labour market demand is obligatory for every degree programme that applies for accreditation. In Finland, the relation to the regional labour market is one of the criteria in the evaluation of an AMK institution. Also, external stakeholders have been involved in all stages of planning of the AMK system. They are also present in the administration of the institutions through representation in the Boards of AMKs.

It is clearly visible that, mainly as a result of their vocational orientation and the indicators used in the accreditation procedure, the new institutions seek much more contact with external stakeholders than the universities. In all three countries, internships emerged as a standard for the curriculum of the new programmes. The institutions have to co-operate with enterprises to receive places for internships, external lecturers, tutoring, and research co-operations. Enterprises can hold a share of an institution or at least become members of consultative bodies in all three countries. Overall the conclusion can be drawn, that there exist other efficient ways and instruments to improve the contacts between higher education institutions and the economy than mere privatisation.

Funding

Similar to normal university programmes, the institutions in Italy receive funds from the Ministry for their new vocational programmes that are based on the number of students. For new programmes with a clear vocational orientation, a reward is granted. A new element is the obligation of the consortia for the establishment of DU courses to raise additional money. One source for additional money was the *Campus* project, a fund co-financed by the Italian government and the European Community.

For the Austrian system, the funding of *Fachhochschulen* based on student numbers was something new. Government pays 90% of the estimated standard-costs of a study place. The institution has either to be very cost efficient, or to raise additional money, normally from local authorities. This again is an innovation. Until the introduction of *Fachhochschulen*, the funding of higher education was the sole responsibility of the federal government.

The financial obligation of local authorities in Finland is even stronger. They have to provide more than 40% of the basic funding of the AMKs. This basic structure of the funding model dates back to the funding model of vocational education, in which the municipalities were responsible for providing the funding of study places for their inhabitants. Additionally, the government awards funds on the basis of projects or of performance. Today, funding is based on the average costs of study places, but very recently, a national working group has proposed a more performance-based model of basic funding, in line with the development of the steering-by-results within the AMK sector. It also means that the funding model is becoming quite similar to the funding model applied at the university sector (Hölttä 1998).

While Austria and Italy accumulated new governmental funds for the foundation of vocationally oriented degree programmes, the Finnish government had to cut its budget for higher education before the mid-1990s and still succeeded in establishing a vocational sector. It is remarkable, that none of the countries under study uses any form of tuition as a funding element.

State of the art of the new sectors

Variety of subjects

Despite from being present in all disciplines, the new vocational sectors are mainly present in a few fields, even if this variety differs from country to country. Generally speaking, the most important fields are engineering (very often in connection with new information technologies), economics and paramedical professions (in Austria still missing). Given this selection of subjects, the new vocational sectors seem to reflect socio-economic changes in their countries, by focusing on the latest demands of post-industrial societies for service and/or technology oriented qualifications.

Regional distribution

The introduction of vocationally oriented degree programmes was always meant to be an instrument for regional development and a better regional distribution of the supply of higher education. There are differences in the extent to which this goal could be achieved.

Finland, a sparsely populated country, where the differences in the natural living conditions between the southern coastal areas and the northern and eastern areas are quite remarkable, had already established an extensive regionally decentralised of universities in the 1960s and

1970s. 32 new AMK institutions cover the whole country and complete this institutional network of higher education institutions.

Since only seven out of nine Austrian provinces have universities (five of them are located in Vienna), it was a goal to improve the regional distribution of higher education institutions. While disadvantaged regions successfully used the first development phase of the FHS sector to catch up with their educational structures, the old unbalance seems to get reinstalled on a higher level. At the moment, traditional centres of education (especially Vienna), which have not been very active up to now, start to intensify their activities to establish FHS degree programmes.

Similar observations have been made in Italy. A comparison between the beginning and the end of the end of the 1990s shows that the relative weight of the southern, less developed regions of the country experienced a quite meaningful decrease in the considered period, when the most developed regions of the north recorded a parallel expansion. The reason for this trend is quite likely to be found in both the higher adequacy of center-northern universities in entertaining environment's demand for new courses and in a more active, supportive and developed productive context.

Size of the new vocational sectors

Austria and Italy have about the same success with their new vocational degree programmes. Both have about 10% of their first-year students enrolled in the new programmes, a percentage they still want to improve. Austria, for example, wants to increase this percentage up to 30% during the next five years (BMWV 1999a). But the development in both countries seems to be partly restricted by limited funds. Additionally, governments see the foundation of new programmes as a further differentiation, but not yet as a further expansion of the higher education system. However, this numbers can be seen as a remarkable success of the new vocational sectors, since they gained a significant percentage of the first-year students in less than a decade.

Finland has been even more successful in establishing a non-university sector by upgrading the vocational programmes. In the meantime, about 60% of all first-year students enrol in AMKs. It has been important in Finnish higher education policy to keep academic and vocational sectors separate. A special feature of the Finnish model is the formal separation of AMK programmes (and also institutional structures) from the university programmes and degrees. However, co-operation between universities and AMKs is encouraged by government, in particular at the regional level in the form of industrial co-operation and in continuing education of the AMK teachers. The Finnish government has set a challenging goal of broadening the access to higher education beyond the quantitative target of providing study places for 60-65% of the age group. The AMK institutions are founding their social roles, although there are not enough experiences yet about the success of graduates in the labour markets compared to university graduates. The early experiences show that the AMKs have introduced healthy competition into the Finnish higher education system. The developments of this sector, as well as of the whole higher education system, have been closely connected to the other aspects of national developments, in particular to the implementation of information society (Hölttä and Malkki 2000).

Conclusions

The establishment of vocationally oriented degree programmes in Austria, Finland and Italy was a necessary adaptation process in their higher education systems. These systems had to be diversified, amongst other things, to match the growing complexity of society and economy by developing new structures at the level of higher education. The change in labour market requirements and, more generally, the passing from an industrial fordist model to a post-industrial, post-fordist model implied a deep reshaping of professional profiles, which led to a shortage of skilled labourers in many areas.

Compared to other countries, such as Germany, Great Britain or the Netherlands, the establishment of vocational higher education sectors in Austria, Finland and Italy came rather late. Indeed, international comparisons had been an important argument for the creation of these new structures. Governments worried about the competitiveness of their national higher education systems. The international frame of reference for these fears was not a global one, but a European one. While globalisation in general had been a topic of minor relevance, the adaptation of the higher education systems of the single countries to the perceived 'standards' inside the European Union had been a strong motivation. The European integration, which led to the development of a European area for education and training (e.g.: European Commission 1991), increased the pressure to reform national systems.

Even if this late development of vocationally oriented degree programmes can be seen as a kind of delay, it opened the opportunity to learn from the experiences of other countries. Compared to the examples mentioned above, the new structures represent a 'second generation' of vocational sectors. Governments could take the opportunity to assess advantages and disadvantages of foreign structures, which in some cases even led to the transfer of useful policy models or effective sectoral and organisational structures.

The diversification of national higher education systems took place in two directions. First new fields of qualification were established or received a professional status, in many cases, by the introduction of degree programmes. Special emphasis was put on subjects that are closely related to new media with the aim to support the rapid development of information technologies. In addition, new forms of qualifications were established. These new forms are special degrees for vocational education. In all three countries at one time or another short, vocational programmes at the level of post-secondary education could be found. But the key characteristic of the new vocational degree programmes is their minimum requirement of at least three years of studies, which, in addition to expanding the average length of vocational programmes, established them at the level of higher education. By making vocational degrees - at least formally - comparable or parallel to university degrees, vocational education became a real alternative to university education.

The monopolies of the national university systems on higher education eroded and were broken by the introduction of the new vocational structures in all countries studied. This had to do with the organisational characteristics of the new institutions. All countries involved new institutional actors in organising and establishing vocational programmes, even if the extent of involvement varied substantially between the countries. Other actors than the state received the possibility to offer higher education degree programmes. Local and regional authorities became the most important additional actors with respect of the organisation of

programmes. The most important role of private enterprises became to participate in advisory functions as prospective employers of graduates, or by providing places for internships. Compared to the centralised governmental steering model with respect to not-yet-reformed university sectors a decade ago, the individual institutions in the newly found vocational sectors received a larger amount of organisational autonomy. Most operational decisions were shifted towards the level of the institution, while the central, governmental administrations focused on the design of the overall framework and the definition of goals for the higher education systems in general. This changed the pattern of interaction between the state and the individual higher education institution. New forms of external control had to be introduced. Accreditation mechanisms and elaborated quality assessment systems, as well as specialised agencies had to be created for these functions.

These patterns of interaction between state authorities and the higher education institutions differ fundamentally from the patterns, that were common in the university sectors during the 1980s. The model of sovereign state does not apply to the new vocational sectors in any of the three countries. The appearance of actors, in addition to the government and the higher education institutions, indicate, that the new state steering models are either of the type 'corporate-pluralistic' or of the type 'super-market' (Gornitzka and Maassen 2000, referring to Olsen 1988).

Since the most important of these additional actors in the vocational higher education sectors are organised interest groups, such as local and regional authorities, social partners and/or staff unions, and not profit oriented enterprises, it is reasonable to assume, that variations of the the corporate-pluralist steering model are applied in all three countries.

This judgement becomes less convincing, if the role of the state is observed more closely in the given examples. In Finland, the government sees no contradiction in giving up its monopoly for higher education on one hand, and still continuing to behave as a proactive actor with clear, strategic interests on the other hand. Since the old, hierarchical decision-making procedures have been seriously replaced by new negotiation procedures, this behaviour is in line with the corporate-pluralistic model. Different to that, the governments in Austria and Italy behave in a more reactive way. Even if national funds are still the most important in the field of vocational higher education, these funds tend to be allocated mainly by market mechanisms, 'earned' by stakeholders with a stronger market position. Compared to the situation in Finland, the governments in Austria and Italy have by far a lower strategic profile as actors in the field. This brings them near to the supermarket steering model, where governments are assumed to supervise their higher education systems like neutral 'bookkeepers' or 'night-watchmen' (Gornitzka and Maassen 2000) from an outside position, without any strategic interest of their own. At least in Austria, this behaviour is not caused by an ideological conviction, but by the anxiety to repeat the mistakes of the paternalistic, sovereign state model.

The autonomous status of providing institutions in the new vocational sectors made it possible to involve regional actors at the level of the individual higher education institutions already. This and the clear objective to design study programmes that proved their labour market relevance, led to a proactive behaviour of the institutions and to the development of new forms of interaction with external stakeholders. In Austria and Finland, where the vocational structures were set up outside the universities, the new entities were significantly smaller, but also more numerous, than the institutions in the university sector.

Decentralisation, institutional autonomy, clear institutional profiles and accountability,

negotiable objectives and rewards in the relationship between the government and higher education institutions, elaborated mechanisms for external output control, responsiveness to labour market demands, regional involvement of institutional actors, etc. All these characteristics of the new vocational structures mark strong differences with the traditional university sectors, in particular in Austria and Italy. Even if both higher education sectors do not have the same goals, the difference of orientation and content does not justify these organisational differences between vocational institutions and universities in all the other points. Therefore it became possible to read the positive features of the vocational sectors, amongst other things, as a list of deficits of the (old) university sectors.

The new vocationally oriented degree programmes were set up at the level of higher education, but in a clear, formal separation from the old university programmes and degrees. This is especially true for Finland, where the avoidance of academic drift was a major topic in the whole process. In Austria and Italy academic drift was not openly discussed as a major problem, but nonetheless also these countries created unique degree structures for vocational training. Because of the formal separation, the new vocational institutions do not have to deal with old university traditions and do not have to continue old patterns of behaviour. The separation made it possible for the vocational sectors to set up new structures and develop their own characteristics.

The success of the vocational sectors also served another purpose. They became pioneers of change for the entire higher education systems of their countries. They have developed outside the traditional university structures alternative mechanisms and models for the organisation of higher education. They have also proved their efficiency in practice. Vocational structures became externally set, living examples of change for the homogeneously organised university institutions in Austria, Finland and Italy. There are some indications that university sectors feel threatened by and learn from these examples. In all three countries, the establishment of new, vocational sectors is accompanied or followed by changes in the university sectors as well, mainly aiming at decentralisation, increased participation of external stakeholders, and a strong emphasis on flexible mechanisms to strengthen the responsiveness of higher education institutions to labour market demands and to the needs of the economy.

At the end of the decade, the Austrian and Italian vocational sectors enrolled about 10% of all entrants into higher education in their country, while the Finnish AMK's received about 60% of the new entrants. The most convincing explanation for this remarkable difference lies in the different ways of establishing the vocational sectors. While Finland upgraded existing post-secondary institutions, Austria and Italy developed completely new programmes to form their vocational sectors. Additionally, only Finland had the explicit goal to increase the participation rate and to expand the entire higher education system from the very beginning of the reforms. Austria and Italy experienced an expansion of their higher education systems as well, but in both countries this development seemed to be a kind of a politically unintended side effect of the introduction of vocational structures. Therefore it was not supported actively. This again shows, that the governments in Austria and Italy have a less clear idea about the strategic development of their vocational higher education sectors, than the government in Finland has.

References

Austria

BMWV (1999a) „Entwicklungs- und Finanzierungsplan für den Fachhochschulbereich II, 2000/01-2004/05“, Vienna.

BMWV (1999b) „Statistisches Taschenbuch 1999“, Vienna.

BMWF (1993) „Das Österreichische Bildungssystem in Veränderung. Bericht an die OECD über die geplante Diversifikation des Postsekundarsektors“, Materialien zur Bildungspolitik 2, Vienna.

Lassnigg, Lorenz / Pechar, Hans (1988) „Alternatives to Universities in Higher Education. Country Study: Austria, Higher Education and Research“, Paris (OECD).

OECD (1995) Reviews of National Policies for Education: Austria, Paris (OECD).

OECD (1976) Reviews of National Policies for Education and Research: Austria, Paris (OECD).

Pechar, Hans (1997) The Funding of Fachhochschulen in Austria. In: Tertiary Education and Management, Vol. 3, Number 2, June 1997.

Pechar, Hans (1995) Der Preis der neuen Freiheit: Die Normkostenfinanzierung im Spannungsfeld erweiterter Handlungsspielräume und reduzierter Sicherheiten. In: Zeitschrift für Hochschuldidaktik 3/1995.

Pechar, Hans (1990) Jenseits Alma und Mater. Braucht Österreich Alternativen zu einem Universitätsstudium? In: Zukunft 12/1990.

Finland

FINHEEC (1997) Finnish Higher Education Evaluation Council Action Plan for 1998-1999. Publications of Higher Education Evaluation Council. Edita. Helsinki.

Hölttä, Seppo (1988) Recent Changes in the Finnish Higher Education System. European Journal of Education 23, 91-103.

Hölttä Seppo (1988) Funding of Universities in Finland. European Journal of Education, Theme issue, Financing Higher Education: innovation and changes. Vol 33, No 1.

Hölttä, Seppo (1999) Regional cooperation in postsecondary education in Europe – the case of Nordic Countries. Journal of Institutional Research in Australasia. 8, 31-46.

Hölttä Seppo and Nuotio Jaakko (1995) Academic Leadership in a Self-Regulative Environment - A Challenge for Finnish Universities. Tertiary Education and Management, Vol 1, no 1.

Hölttä Seppo and Malkki Pertti (2000) Response of Finnish higher education institutions to the national information society programme. Higher Education Policy, forthcoming.

Ministry of Education (1998): Higher Education Policy in Finland. Helsinki.

Opetusministeriö 1992 Tutkimuksen asema ja tehtävät väliaikaisissa ammattikorkeakouluissa. Ministry of Education, Helsinki.

Italy

AA.VV. (1994) "Il diploma universitario di primo livello in Italia." Analisi e prospettive. Atti del Convegno Murst, 18 novembre 1993 (Supplemento n. 20 a UR-Università Ricerca). Roma, Istituto Poligrafico e Zecca dello Stato.

Boffo, Stefano / Gagliardi, F. (1993) "L'analisi comparativa in cinque paesi europei", in: Benadusi, L. (a cura di) (1993): "L'istruzione superiore di primo livello." Milano, Franco Angeli.

Finocchietti, Giovanni / Gagliardi, F. (1995) "Rapporto sull'offerta e sulla domanda di formazione in relazione ai diplomi universitari in Italia e nel Mezzogiorno." Roma (mimeo).

Gentili, C. / Finocchietti, Carlo / Schiavone, N. (1996) "Minerva e Vulcano. I diplomi universitari e le imprese." Roma, Sipi.

Isfol (a cura di Allulli, G. - D'Arcangelo, A. - Ruberto, A.) (1997) "L'avvio del diploma universitario. Successi e difficoltà di una nuova offerta formativa." Milano, Franco Angeli.

Istat (1999) Lo stato dell'università, Roma, ISTAT-MURST,

Moscato, R. (a cura di) (1986) "I "cicli brevi" nell'istruzione superiore. Esperienze straniere in una prospettiva italiana." Milano, Franco Angeli.

Ministero dell'università e della ricerca scientifica e tecnologica - Sistema statistico nazionale (1998) "Il sistema universitario italiano. La popolazione studentesca a. 1996-97" (Supplemento n. 38 ad UR-Università Ricerca). Roma, Istituto Poligrafico e zecca dello Stato.

Comparative analysis and conclusions

European Commission (1991) Commission memorandum on vocational training in the European Community in the 1990s.

Gornitzka, Å. and P. Maassen (2000) Hybrid steering approaches with respect to European higher education. In: Higher Education Policy ??????????????????????

OECD (1982) Reviews of National Policies for Education – Finland. Paris (OECD).

Olsen, J.P. (1988) Administrative reform and theories of organization. In: *Organizing governance; Governing organizations*. Eds. C. Campbell and B.G. Peters. (pp. 233-254). Pittsburg: University of Pittsburgh Press.

Neave, G. and F.A. van Vught (eds.) (1991) *Prometheus Bound. The changing relationship between government and higher education in Western Europe*. Oxford: Pergamon.