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Quality in Education and Training

Cases of Good Practice in Vocational Education and Training and Higher Education

Vienna, March 2006

Education and Culture

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Co-ordinated by Peter Schlögl

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Content

Foreword

One of the central aims of the European agenda is to make European education and training systems a "world quality reference" by 2010. Pursuing this policy, quality assurance is a key element to make European education more competitive and more attractive for European citizens and citizens from other continents alike. Beyond that, quality assurance is an instrument to establish synergies between vocational and higher education and to link the Copenhagen and the Bologna process.

Regarding the higher education sector, substantial progress has been made in developing quality assurance since 1999. The communiqués of the ministerial summits in Berlin (2003) and Bergen (2005) were setting landmarks, such as the European Standards and Guidelines and the European Register. The development of quality assurance in higher education has been essentially based on the work of the different networks co-operating in this field (ENQA, EUA, EURASHE, and ESIB among others), and these networks will also play a key role in further implementing the Bergen goals.

European co-operation on quality assurance in vocational education and training through the Copenhagen Process was initiated in 2002. A set of common principles and references for quality assurance has been developed and agreed at the European level, e.g. the Common Quality Assurance Framework. Its implementation seems broadly to be reflected as a national priority in many of the Member States. Currently, the quality process in vocational education and training has reached a new developmental stage: the European Network on Quality Assurance in Vocational Education and Training (ENQA-VET) was established by the Commission in June 2005 and was inaugurated at the Dublin Quality Conference in October 2005.

This study, funded by the European Commission and the Austrian Council presidency, presents cases of good practice in quality assurance in order to show how quality assurance is already successfully implemented in national educational systems. It wants to contribute actively to a cross-sectoral learning between vocational education and training *and* higher education as well as to a cross-national learning from experiences of different states participating in the Bologna and Copenhagen processes. The study is also the basis for in-depth discussions within the framework of the conference "Quality Assurance in Higher Education and Vocational Education and Training", held in Graz in May 2006, which will, for the first time, bring together the European networks dealing with quality assurance in higher education and the recently established quality assurance network in vocational education and training.

"Quality is the objective" is the Austrian Council presidency's overall motto in the area of education. Quality in education will ensure the successful development towards a knowledgebased society and help to adapt educational systems to the challenging demands of society. Therefore I want to thank all those bridging the gap in quality assurance between vocational and higher education and encourage them for a successful future co-operation.

Elisabeth Gehrer

Austrian Federal Minister
for Education, Science and Culture

I. Introduction

Peter Schlögl

I. 1 Context

Higher Education (HE) and Vocational Education and Training (VET) are a vital component of the Lisbon Council's (2000) agenda for Europe that focuses on developing Europe as the most competitive and dynamic knowledge-based economy in the world, capable of sustaining growth and producing more and better jobs and greater social cohesion. In 2002, the Barcelona European Council put the quality issue at the heart of the community's policy agenda, by setting the target of making Europe's education and training systems a world quality reference by 2010. Alongside this target, the European Employment Strategy calls on Member States to implement lifelong learning strategies, emphasising the need to improve the quality and efficiency of education and training systems, and to improve public and private investment in human resource development[1].

Up until the beginning of the 1990s, terms such as quality and quality assurance (QA) were largely neglected concepts in the education sciences and educational policies. This does not imply, however, that general issues, on which these considerations are based, were not taken into account. Institutions of higher learning, schools and enterprises always have paid a particular attention to the structures, educational processes and learning contents, as have educational policy makers at the local, regional and national levels. The findings of internationally comparative studies[2] increasingly fostered discussions not only about the European and international dimensions of education, training and labour markets, but also about the quality of educational processes and the efficiency of education systems.

QA requires continuous development by applying concrete measures. It is only through sustainable Europe-wide co-operation and commitment of Member States and participating countries that an actual progress in the achievement of the Lisbon targets and the targets of the Barcelona Council summit can be achieved. Apart from initiatives in individual Member States, regions or educational institutions, initiatives at the European level, such as the Bologna and Copenhagen processes, have attempted to reach these targets via joint efforts, for example to increase transparency of educational qualifications and to make the learning outcomes measurable and transferable. The key factor for the acceptance of a future European framework of qualifications is mutual trust between Member States and the participating countries. In this context, QA plays a major part and is at the basis for future development steps.

The Joint Interim Report of the Education Council to the European Council, on the Education and Training 2010 Work Programme[3], stressed the need for a European Qualifications Framework and in this context considers that "the common quality assurance framework for the vocational education and training" (follow-up to the Copenhagen Declaration) and the "development of an agreed set of standards, procedures and guidelines for quality assurance"[4] (conjunction with the Bologna process) should be top priorities for Europe.

Attempts to introduce QA in the HE institutions on the one hand and in the VET sector on the other were not synchronous. While the efforts and initiatives in HE already have a fine

[1] Quality Assurance in VET. Building Sustainable European Co-operation (Discussion paper for the DGVT meeting of 18-19 April 2005), 2.
[2] Such as TIMSS, BIJU and PISA.
[3] Joint Education Council/Commission Report on the implementation of the Lisbon Strategy: "Education & Training 2010: the success of Lisbon hinges on urgent reforms", 26 February 2004.
[4] "Realising the European Higher Education Area". Communiqué from the Conference of Ministers responsible for higher education in Berlin on 19 September 2003.

tradition and an agreement about important and necessary changes[5], the VET sector considers quality efforts at European level, in a first expansion movement, only recently.

In 1998, the Council of Ministers adopted the Recommendation on European co-operation in QA in HE. The Recommendation calls upon Member States to support or establish QA systems and to encourage HE institutions and competent authorities to co-operate and exchange experience. It also asks the Commission to support such co-operation and to report on the implementation of the objectives of the Recommendation at European and Member State levels. The Recommendation laid the foundation for the creation of ENQA, the European Association for Quality Assurance in Higher Education and its memberships.[6]

At this point most Member States are involved, in varying degrees in bilateral, multilateral, European and global co-operation on QA and accreditation. These transnational initiatives have similar objectives: identifying comparable criteria and methodologies and fostering the well-functioning of quality agencies in order to achieve more transparency and, ultimately, the mutual recognition of QA systems and assessments.

In the field of VET, Member States were called on in 2002, in addition to achieving the key objective of "supporting the development of compatible QA systems respecting diversity across Europe" (cf. Official Journal of the EU 2002), to implement QA systems based primarily on "learning outcomes that will enable qualifications and competencies achieved in vocational education and training to be compared and that could form the basis of a European currency in Vocational Education and Training (VET) qualifications" (cf. European Commission 2003, 24).

The European ministers responsible for VET set out a policy agenda for QA in VET within the process of Promotion of Enhanced European Co-operation in VET[7]: "Promoting co-operation in QA with particular focus on exchange of models and methods, as well as common criteria and principles for quality in vocational education and training".

On the basis of collected experience of the "Quality Forum" this agenda has been implemented by a Technical Working Group (TWG), in which Member States, candidate countries, EFTA-EEA countries, European Social Partners and the Commission were represented. Cedefop and the European Training Foundation provided relevant support to the implementation of the TWG's two-year work programme (2003-2004). As a major output of this programme, the TWG developed a Common Quality Assurance Framework (CQAF)[8]. This is a common reference framework designed to support the development and reform of the quality of VET at systems' and providers' levels, while fully respecting the responsibility and autonomy of Member States to develop their own QA systems.

Having fulfilled its mandate, the TWG was phased out in 2005. In parallel, sustainable means of ensuring European co-operation on QA were sought. The creation of a European Network on QA in VET (ENQA-VET), acting as a platform of exchange of experience, debate and consensus-building on concrete proposals at European level, appeared to be an appropriate answer to this concern. The ENQA-VET was established, following the favourable opinion of the Advisory Committee for Vocational Training (ACVT), at its meeting in June 2005. Its establishment follows on from the process of enhanced co-operation in VET launched at Copenhagen, and is part of the follow-up to the Maastricht Communiqué. The ENQA-VET will take stock of and build on the work experience and outputs of the former TWG.

Subsequently it was necessary to set up a European network of bodies responsible for QA in VET on a voluntary basis. This development was launched, in October 2005, within the

[5] See the recommendation of the European Parliament and of the Council on further European co-operation in QA in HE, 15 February 2006:
http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2006/l_064/l_06420060304en00600062.pdf

[6] Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. On the implementation of Council Recommendation 98/561/EC of 24 September 1998 on European co-operation in quality assurance in higher education, Brussels, 30.09.2004, COM(2004)620 final, 1.

[7] Council Resolution of 19 December 2002 (JO 2003/C 13/02) and Declaration, adopted in Copenhagen on November 2002.

[8] Kim Faurschou: "A European Common Quality Assurance Framework", Final Version. Cedefop. October 2003.

framework of a conference held in Dublin on the topic “Quality Assurance in Vocational Education and Training. Building Sustainable European Co-operation”.

I. 2 Objective and design of the study

During its presidency in the first semester 2006, Austria organises in co-operation with the European Commission a first joint quality network conference for HE and VET in Europe, on May 11-12, in Graz (Conference “Quality Assurance in Higher Education and Vocational Education and Training”). Its general aim will consist in promoting expert exchange in these two areas of the education system and of experience in QA and development already gathered there. This conference will contribute to the achievements of the Lisbon objectives with a particular emphasis on the priorities of the Copenhagen process as outlined in the Maastricht Communiqué. It will also reflect the work done within the framework of the Bologna Follow-Up Group (BOFUG) in terms of QA in the European Higher Education Area (EHEA) as well as the strategies and implementation measures of the Member States in this field. To set the stage for this approach, and to make use of the conference as an important step forward, this study on “cases of good practice in quality in VET and HE” was commissioned as a kind of guiding input to the conference.

Specialist literature on QA is usually application-oriented. Therefore, the majority of publications on this topic consists of overviews, instructions, guidelines and references. QA in the education sector, by contrast, comprises the entirety of operational activities aiming to ensure the defined quality of teaching, programmes, educational institutions, etc. through planning, controlling and testing. In this connection, the concept of quality in education must be looked at from a multi-level analytical perspective[9] and, accordingly, is oriented towards the macro-level (the educational system level), meso-level (the level of individual educational institutions) and the micro-level (the level of teaching-learning processes).

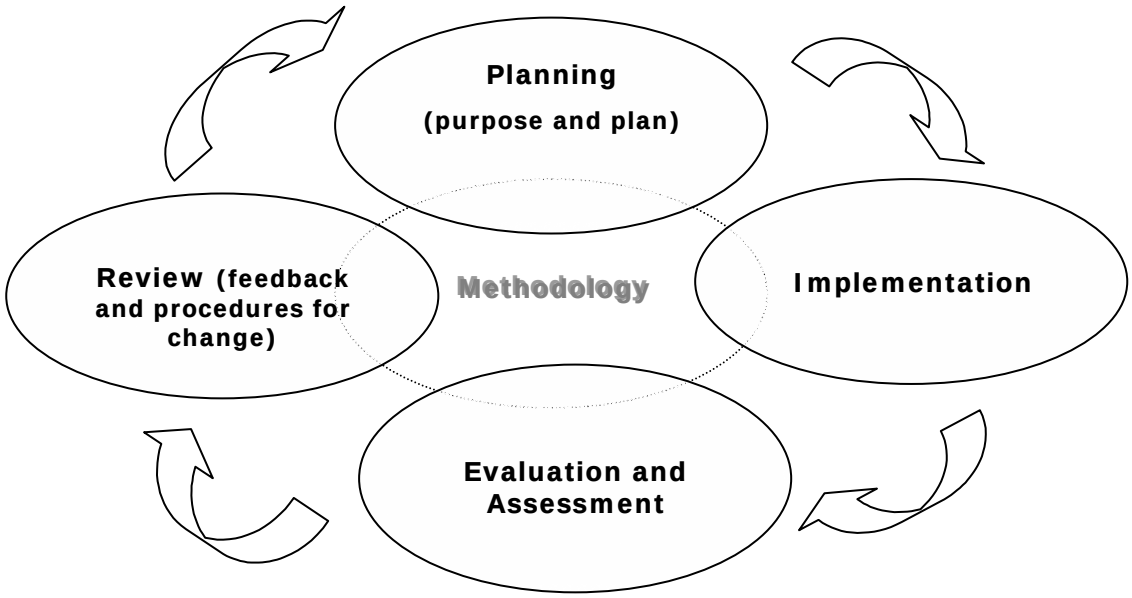
This study looks at four elements of the quality circle (Planning, Implementation, Evaluation, Review) from a VET and HE angle and illustrates this with country examples. With this approach the authors tried to meet the aim of a broad perspective via “common quality themes” within VET and HE. Also the scope focused on the macro or meso-level, where a certain degree of de-contexualisation seemed to be possible.

This was done against the background of the CQAF, which applies equally to HE. On the one hand, because the Education Council, in May 2004[10], endorsed the CQAF approach and invited Member States and the Commission, within their respective competencies to promote it on a voluntary basis, together with relevant stakeholders. The Council further invited to introduce practical initiatives to assess the added value of the common framework in improving national QA systems, and encouraged co-ordination of activities at a national and regional level to ensure the coherence of such initiatives with the Copenhagen Declaration. On the other hand, this allowed referring to aspects relevant to all QA efforts which could be of interest – independent of the education sector – to other systems, countries or education systems.

[9] Fend, H. (2000): Qualität im Bildungswesen. In: A. Helmke; W. Hornstein; E. Terhart (ed.): Qualität und Qualitätssicherung im Bildungswesen. Schule, Sozialpädagogik, Hochschule. ZfPäd 41. 55-72; and Fend, H. (2001): Qualität im Bildungswesen. Schulforschung zu Systembedingungen, Schulprofilen und Lehrerleistung. 2. Aufl. Weinheim, Munich: Juventa.

[10] Council Conclusions on Quality Assurance in Vocational Education and Training, 18 May 2004.

Figure 1: Quality Circle



Source: TWG (2004). Fundamentals of a "Common Quality Assurance Framework" (CQAF) for VET in Europe.

For the study, the four areas of the quality circle were operationalised in the following manner and supplemented by a perspective at the macro- and/or meso-level:

- (Self-)Evaluation, Reporting, Feedback
- Structural Conditions for Change/Improvement
- QA in a System Perspective
- Monitoring by Statistical Indicators

The challenge consisted in finding good-practice examples for these four elements from the Member States, meeting the following aspects:

- A mix of examples from the fields of HE and VET was required.
- Good practice means that already some (several years of) experience with the measures or concept have been made.

It has been possible to identify eight examples and to elaborate them in accordance with a description grid. This number of eight examples[11] demonstrates that the selection is truly of an exemplary nature only. They are:

1) Quality management in the Netherlands' HE system: The combination of self-evaluation with external evaluation and accreditation;
2) Top-down and bottom-up dialogue: Evaluation, reporting & decision-making in the Spanish VET system;
3) The German dual system – New and updated job profiles for apprenticeship training;
4) Local school improvement and external inspections as fundamentals for quality improvement in the United Kingdom;
5) The Further Education and Training Awards Council – responsible for QA in the Irish VET sector;
6) The Fachhochschule Council – responsible for QA in the Austrian FH sector, a sub-sector of HE;
7) Uses of statistical monitoring for QD/QA – the Danish case in comparative perspective;

[11] This selection was also based on resources and access to data.

8) Data production – the Swedish case of HE statistics

Research was conducted on the basis of analysis of literature and documents; additionally, interviews with experts, especially in connection with the chosen examples, were carried out. The findings were collected in an interims report, which was exposed to feedback by European and national experts (ministries, agencies, research institutes, universities, VET providers, ...).

I. 3 References

Council Conclusions on Quality Assurance in Vocational Education and Training, 18 May 2004

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Fend, H. (2000): Qualität im Bildungswesen. In: A. Helmke; W. Hornstein; E. Terhart (ed.): Qualität und Qualitätssicherung im Bildungswesen. Schule, Sozialpädagogik, Hochschule. ZfPäd 41. 55-72; and Fend, H. (2001): Qualität im Bildungswesen. Schulforschung zu Systembedingungen, Schulprofilen und Lehrerleistung. 2. Aufl. Weinheim, Munich: Juventa

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TWG – Technical Working Group "Quality in VET" (2004): Fundamentals of a Common Quality Assurance Framework (CQAF) for VET in Europe. European Commission, DG EAC, June 24th. Brussels. Internet (last accessed 10.3.06): http://www.cnfpa.ro/Files/eurodoc/theCQAFfinal.pdf

II. (Self-)Evaluation, Reporting, Feedback

Case studies about higher education in the Netherlands and vocational education and training in Spain

David F. J. Campbell, Hans Pechar, Dietmar Paier, Gerd Beidernikl

II. 1 Introduction to the case studies about the Netherlands and Spain

The comparative juxtaposing of case studies about education in the systems of HE (higher education) in the Netherlands (NL) and of VET (vocational education and training) in Spain, reveals several overarching features. First of all, an optimal balancing of quality assurance and quality improvement creates challenges. Quality management could be regarded as a meta-term, integrating aspects of quality assurance and quality improvement. Second, quality management demands links with indicators (indicator-based monitoring) and evaluation. Indicators represent ("indicate") organizations, institutions, structures and processes, while evaluation focuses more on qualitative in-depth assessments. Third, there are serious approaches of implementing and extending comprehensive systems of quality management, evaluation and indicators. This underscores a systemic understanding and problem-solving. These comprehensive systems refer to the nation state as a whole, but reflect also (have to reflect) a multi-level architecture: on the one hand, referring to trans-national processes, such as European integration and internationalization; on the other hand, also developing a sensitivity for sub-national regions and clusters. There can and should be a dialogue between top-down and bottom-up approaches. Fourth, comprehensive and successful evaluation systems typically combine self-evaluation and external evaluation. Self-evaluation encourages self-reflexive processes of institutions, and the one objective of external evaluation is exactly to assess the quality of these self-evaluations. Thus, the internal quality management mechanism of institutions of HE and VET moves into the focus of interest. Fifth, these systems of evaluation of HE and VET may be extended and even amplified by aspects of accreditation.

The Netherlands' system of quality management in HE represents a system with a so-called three-tier structure for the evaluation of education. The base-layer consists of the self-evaluation procedures of HE institutions, focusing on programmes as the smallest unit of assessment. These self-evaluations are paralleled by cycles of external evaluation of HE. In that context the self-evaluations represent a key input, supplying crucial information for the external evaluation. The newest move, now, was to add in accreditation as a third layer. Through accreditation (or non-accreditation) the external evaluation exercises are transformed into statements that directly are linked to decision-making about HE in HE institutions.

The Spanish system of quality management in VET represents a combination of top-down and bottom-up approaches, integrating the principles of master-planning at the governmental level, external evaluation, and self-evaluation at the institutional level. At the intermediary level, particularly the Education Administrations of the Autonomous Communities act as interfaces between institutional level and government level, overtaking a wide scale of functions such as assessment, reporting, and feedback. Decision-making for future action at the governmental level is thus enriched by the experiences and outcomes of a co-ordinated set of procedures within a multi-level system of quality assurance.

II. 2 Quality management in the Netherlands' higher education system: The combination of self-evaluation with external evaluation and accreditation [12]

II.2.1 Summary

The presented NLs' case study focuses on education (and not on research) in HE. The NL implemented a comprehensive, and now several-decade experience-based, system of quality management of education in the HE system. This systemic comprehensiveness underscores, why the NL should be qualified as a "good practice" for quality management in education (HE). In principal terms, systemic comprehensiveness enables rational decision-making, where prioritized objectives can be met and achieved by long-term strategies. The primary competence for self-evaluation lies within the responsibility domain of the individual HE institutions. The NL HE system integrates the following principles: self-responsibility and performance transparency through the combination of self-evaluation and external evaluation. Furthermore, external evaluation results are directly linked to the accreditation system of the different HE programmes (degree courses), which produces a new "three-tier" system of HE quality management. Within this context, the bi-national NVAO accreditation organization plays a key role. Our analysis of the NL follows a "historized" approach, where the "old system" (1980s-2001) evolved into a "new system" (2002 and afterwards). The "new system" may be characterized of even having extended this systemic comprehensiveness by adding consequently accreditation.

II.2.2 Rationales for the evaluation of education in the HE system of the NL: Combination of self-evaluation and external evaluation

Reflecting the evolution of HE in the NL (1980s-2001), the one main purpose of HE evaluation was to promote quality management, integrating the interests of quality assurance and quality improvement. This was realized through combining the principles of self-evaluation and external evaluation of education. Building upon the principle of external evaluation, until the mid-2000s, three comprehensive six-year "external university[13] HE evaluation cycles[14]" were carried out for NL universities (1988-1993, 1994-1999, and 2000-2005). The supervision responsibility for university HE – of the first two cycles – was assigned to the Association of Netherlands Universities (VSNU) (http://www.vsnu.nl).[15] More specifically, the rationales for external HE evaluation at universities were (until the early 2000s) (Jeliazkova/Westerheijden 2004, 330-331; see also the overview by Vught 1997):

1. Smallest unit of assessment (equals: smallest unit of evaluation): As a consequence of CF, courses are organized in "programmes". Ideally speaking, a programme (within the context of a university) represents a cluster of courses, often leading to the final degree of a doctorate. Consequently, there are HE programmes of the same discipline, however, located at different university sites. These HE programmes define also the reference points (smallest assessment units) for the HE evaluations.[16]
2. Self-evaluation: The faculty organizes the self-evaluation process of a programme, resulting in putting together a "self-study report". These self-reports addressed issues such as: objectives of the programme; content and structure of the programme; information about students, staff and graduates; aspects of internationalization; and reflections about "internal quality management".

[12] Acknowledgement: Telephone-based expert interviews were carried out with Guy Aelterman, David Bohmert, Margarita Hoppe-Jeliazkova, Albert Pilot, and Frank J. M. Wamelink. We want to thank the experts for their time and expertise. For possible errors or short-falls of analysis, however, only the authors are responsible.

[13] The term "university" indicates that these cycles address HE at universities. External HE evaluations for HBOs followed their own cycle tracking.

[14] "Evaluation cycle" refers to the temporal sequence of the conducted external evaluations.

[15] In that context it should be added that for the organization and supervision of external HE evaluation in the HBO sector the HBO Council (*HBO Raad*) was responsible. This again illustrates the parallel tracking of universities and HBOs.

[16] University research at NL universities is also structured in research programmes. The evaluation of NL university research, therefore, also focuses on these research programmes as the smallest assessment units (VSNU 2003; see, furthermore, on the issue of university-research evaluation Campbell 2003).

3. External evaluation procedure: The self-evaluation reports were exposed to a systematic external quality assessment. For that purpose the VSNU organized "visiting committees", made up of external (academic) peers and external experts. They assessed the reports and procedures of the self-evaluation. In addition, they also carried out "site visits", normally on a two-day basis, to conduct and collect independent observations of their own. In principle, the visiting committees referred to all HE programmes of the same disciplines, across different universities, following thus a disciplinary logic. The scope for each visiting committee was national, covering all of the NL. This exercise even extended bi-nationally, since some universities (programmes) in Flanders (northern Belgium) also decided to participate. Beginning with the second HE evaluation cycle, the visiting committees furthermore assessed, whether programmes, faculties and universities followed up and implemented recommendations of the external quality assessment of the first HE evaluation cycle.
4. External evaluation reports and feedback: The visiting committees published their findings and conclusions in a national and publicly available report (VSNU 1999, 25-26). Such a report consisted of a "general section" and the more specific "study programme reports", also containing several tables. The faculty always has (had) a chance for comments on the draft version of the report. In parallel to the report's publication, also VSNU issued press releases with the key findings. Recommendations of the visiting committee were developed in a so-called "management letter" and forwarded confidentially to the university board. The university board decided on further circulation and/or publication of these recommendations. For follow-up HE evaluation cycles these reports of the visiting committees defined crucial references, testing also the responsiveness of HE institutions. In addition, the Higher Education Inspectorate (following the 1986 legislation) conducted meta-evaluation exercises of these external quality assessments.
5. Formalized framework for the external evaluations: External evaluations were guided by documents, called "protocols" (protocol). For example, VSNU (1999) issued a protocol for the external assessment of university HE programmes for the 2000-2005 third cycle. These protocols also regulated the criteria for the process and report product of the self-evaluations. As a general tendency, the more recent protocols are published in Dutch and in English, to emphasize international visibility and openness for the possibility of international committee members.
6. Additional reflections: Albert Pilot (2001, 4) associated the following principles with the more application-oriented functions of quality assessment – a contribution for quality management; a primary criterion for quality-based self-regulation; and an expressed accountability to the public with regard to the quality of education.

II.2.3 The three-tier structure of the "new system" of HE quality management in the NL: Self-evaluation, external evaluation and accreditation

The early 2000s mark an important transition period for the evaluation of education in the HE of the NL, since the previous two-tier system, combining self-evaluation and external evaluation, was extended by adding the third tier of "accreditation". In parallel to the third external university HE evaluation cycle (2000-2005) and the scheduled fourth external evaluation cycle (2006-2011), also a system of six-year accreditation cycles of HE was implemented. The first accreditation cycle is scheduled for 2003-2008, and a second for 2009-2014 (Wamelink 2006, 10). One consequence was that this first accreditation cycle interfered into the already running third external evaluation cycle, creating demands for temporary interim arrangements for the purpose of a "smooth transition".

This three-tier "new system" of evaluation and accreditation consists of the following layers:

- Self-evaluation of the HE programmes;
- External evaluation of the HE programmes, and of their self-evaluation, organized now primarily by "accredited" quality agencies, the so-called VBIs (Review and Assessment Agencies);

- Overall supervision of this process by the NVAO accreditation organization, which finally decides on accreditation (or non-accreditation) of the individual HE programmes.

With the introduction of this new accreditation system in 2002/2003, the years 2002-2005 also implied a certain overlap of the rationales of the old (two-tier) and new (three-tier) evaluation system. Key for this "accreditation extension" were the following developments and considerations:

1. Bologna process: The Bologna process[17] implies the comprehensive introduction of the so-called "three-cycle degree system". This significant degree change defines, on the one hand, a window of opportunity for allowing major policy changes, such as applying accreditation. On the other hand, there is also a need for properly designing – and thus "accrediting" – new HE programmes. By 2010, already all NL HE programmes should have converted to this new degree scheme.
2. Clear judgements of quality: In the previous system there was always a certain possibility that the visiting committees or external peers could be biased to evade a final statement on the quality of an individual HE programme and instead would formulate a series of ad hoc statements. There was no formalized linkage between the external reports and funding. Now, with the linking of external evaluation and accreditation, quality statements are more explicit. As Jeliazkova and Weterheijden (2004, 343) phrase this: "For external stakeholders, the change to an accreditation system promises greater transparency of quality judgements, which until now were written for an audience of insiders".
3. A greater emphasis on quality control: Evaluation systems of HE are caught in a sensitive balance and trade-off between the goals of quality improvement versus quality control. Currently, the government appears to be inclined to place more of an emphasis on quality control, i.e. quality assurance. A recently study, commissioned by the Higher Education Inspectorate, clearly underscores an affiliation between accreditation and "external quality assurance" (The Inspectorate of Education in the Netherlands 2005).
4. Support of international visibility: Accreditation is being regarded as a means for supporting the international visibility of the NL. Accreditation may involve international quality agencies. And accredited degrees may attract more international students. For a small- or medium sized country, such as the NL, international embeddedness can be of a greater concern than for the larger countries. Internationalization reflects Europeanization, but extends further. This also explains why the NL government demonstrated a continuous interest in promoting and championing HE quality management within the supranational EU context (see also Jeliazkova and Weterheijden 2004, 342).

II.2.4 NVAO: The Netherlands-Flemish Accreditation Organization

The NL accreditation organisation NAO was founded in 2002, and extended, in 2003, to the bi-national NVAO (Nederlands-Vlaamse Accreditatieorganisatie, http://www.nvao.net), responsible for accreditation in the NL and Flanders. The NVAO supervises the accreditation for all HE institutions in the NL, thus covering the (traditional) universities, HBOs and other (including private) "designated institutions".[18] The HE programmes – understood as "degree courses" –, framed in a disciplinary context, again represent the "smallest unit of assessment". NVAO addresses the academically as well as the professionally oriented programmes. It is estimated that this – alone in the NL – may total as many as 2,500 individual HE programmes at universities and HBOs. This overall national umbrella responsibility of NVAO marks a difference with the previous system that knew separate tracks for the specific HE sectors (e.g., universities and HBOs).

The two primary objectives of NVAO are:

- "Accrediting" already existing HE programmes (degree courses);

[17] The Bologna Declaration was signed in 1999. The objective is to create a coherent European Higher Education Area until 2010.
[18] In that sense the NVAO cross-integrates the accreditation initiatives for the university and HBO sectors.

- "Validating" new HE programmes (degree courses).

For reasons of simplification, both processes often are summarized in policy debates under the term of accreditation. The general conversion of the NL HE degree system to a three-fold degree cycle (bachelor, master and PhD) underscores the specific importance of the so-called validation procedures. The Bologna benchmark of 2010 illustrates furthermore, why this defines the ultimate year, until when the current HE accreditation cycle in the NL must be completed.[19]

For accreditation (validation) the NVAO provides and defines (NVAO 2003a and 2003b):

1. An assessment framework that is specific about subjects, facets and criteria[20];
2. The accreditation rules (decision-making rules);
3. In case of accreditation of existing courses: procedures and report demands for the external evaluation;
4. The procedure description of accreditation (validation) of "existing degree courses" and of "new degree courses".

Core themes ("core dimensions") for the accreditation of a study programme are:

1. Aims and objectives of the degree course;
2. Programme;
3. Deployment of staff;
4. Facilities and provisions;
5. Internal quality assurance;
6. Results.[21]

NVAO does not carry out the external evaluation of the HE programmes by itself, but delegates this task to so-called VBIs (Review and Assessments Agencies – Visiterende en Beoordelende Instanties), shortly also called "quality agencies". External evaluation follows closely the old system of external quality assessment by visiting committees. Through this outsourcing of external evaluation to independent organizations the credibility and legitimation of external evaluation should be strengthened, also through minimizing conflicts of interest between external evaluation (by VBIs) and the final accreditation (by NVAO). VBIs have to pass a specific accreditation test of NVAO, to be officially acknowledged by NVAO as an eligible VBI. VBIs, in addition, also have to renew regularly their status of eligibility for external HE programme evaluation. For that procedure NVAO also developed a specific protocol (NVAO 2005). As of January 2006, NVAO approved the following six quality agencies:

- ASIIN (Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenshaften und der Mathematik e.V.);
- Certiked (Certiked VBI bv);
- DNV (Det Norske Veritas bv);
- Hobéon (Hobéon Certificering bv);
- NQA (Netherlands Quality Agency);
- QANU (Quality Assurance Netherlands Universities).

The formal procedure of an external evaluation and accreditation of a HE programme consists of the following sequential phases (Jeliazkova/Weterheijden 2004, 339-340):

1. The HE institution approaches a quality agency – an accredited VBI – for external assessment;
2. The HE institution processes a self-evaluation of the HE programme and puts together a "self-evaluation report";
3. The invited quality agency carries out the site visit of the programme and assesses the self-evaluation report. Put in other words, the agency also evaluates the quality of the self-evaluation procedure and report. The quality agency produces a report,

[19] On the website of QANU (http://www.qanu.nl/?contentid=228) even the date of January 1, 2008, is being mentioned, until when the external assessment of all NL academic bachelor's and master's degree programmes should be completed.
[20] "Facets" represent a sub-unit of "topics", and "criteria" a sub-unit of "facets".
[21] The dimension of "results" tests, whether the programme's self-defined targets were met.

with conclusions about the programme's quality (e.g., whether minimum quality requirements are met), and is explicit in its recommendations;
4. The HE institution applies directly at NVAO for accreditation, also by forwarding the external report of the quality agency;
5. NVAO assesses the external report of the quality agency, and may demand additional information. Within three months NVAO should decide on accreditation or non-accreditation. Only in cases of insufficient information, NVAO may postpone decisions. Accreditation of a HE programme is valid for six years, and must be renewed (re-accredited) afterwards. Accreditation is being interpreted only as a temporary entitlement;
6. In case of non-accreditation, the affected HE institution may appeal;
7. NVAO publishes its decisions.

In a data-base format, allowing the convenient application of search tools, NVAO posts its reports to its website.[22] This adds crucially to the transparency (and also legitimation) of the accreditation procedures, and encourages also feedback.

- NVAO accreditation reports can be downloaded for free from: http://nvao.net/content.php?section=accreditatie&menu_id=156
- NVAO validations reports are publicly accessible through (also for free): http://nvao.net/content.php?section=accreditatie&menu_id=176

Accreditation (or non-accreditation) has formal consequences for the HE system in the NL. Accreditation acts as a prerequisite for: legal recognition of the degree; government funding; and financial support for the students. Non-accreditation implies that this HE programme would be taken off the CROHO (Central Registry of Higher Education Programmes) list. While the issuance of some "yellow cards" already happened, the question arises, whether NLs' academic culture is prepared also for allowing "red cards". That accreditation is being taken seriously, however, demands that some programme applications must be turned down. Tentative estimations speculate with a rejection rate of 5-10%, still implying an extraordinarily high approval rate of 90-95% (Jeliazkova/Weterheijden 2004, 333, 343).

Since this first accreditation cycle partially overlapped with the third external university HE evaluation cycle for the years 2003-2005, and the accreditation system also demanded some time for becoming fully operational, so-called "transitional arrangements" were introduced, allowing "provisional accreditations" for some study programmes.

II.2.5 The QANU (Quality Assurance Netherlands Universities) quality agency

QANU (Quality Assurance Netherlands Universities, http://www.qanu.nl) represents, as defined by the current demand, the key "quality agency" (VBI) for the external evaluation of HE programmes that are located at universities. QANU represents an independent foundation, originating from and replacing the former Quality Assurance Department at VSNU, and became operative in 2004.

Competence areas of QANU are:

- The conduction of "peer review" of university education and university research;
- The support of application submissions for accreditation of NL (and non-NL) universities;
- The consultation on improvements of "internal quality assurance".

Focusing more specifically on the assessment of university education, QANU offers the following services:

- Support for HE institutions in processing self-evaluation reports;
- Organization of peer review, site visits and of an external "assessment report" by assessment panels;
- Support for the application process for an accreditation or the renewal of an application;
- Supplementary and accompanying services.

[22] The reports are written in the Dutch language (English translations are not easily available).

QANU developed and released a specific and detailed protocol that lays out the guidelines for the self-evaluation reporting of the university programmes and, furthermore, regulates the external assessment carried out by visiting assessment panels (see QANU 2004). The QANU guidelines for the self-evaluation reports of HE programmes fall completely in line with the provisions, as being defined by NVAO.

After consultation with the assessed HE institutions (and obtainment of their approval), QANU posts the external assessment reports of education – and research – to its website, so that they are accessible to the public, and can be downloaded for free from a specifically installed link (http://www.qanu.nl/?contentid=232). Reports, dating back as far as 1999, are thus electronically available. With a few exceptions (e.g., QANU 2005[23]), all external assessment reports of education programmes are published in Dutch (while external reports about research programmes are mostly released in English).

II.2.6 Conclusions: Future scenarios

For 2006-2011 the next (fourth) regular external university HE evaluation cycle for education is scheduled, and the timeline for the second accreditation cycle (referring to all HE institutions) is set for the 2009-2014 time window (Wamelink 2006, 10). This, in principle, would imply continuing the current three-tier structure, which added on top of the HE self-evaluation procedures the combination of external evaluation and accreditation for HE in the HE system of the NL.

Challenges for this "new system" are:

1. Relationship of NVAO and quality agencies: What should be the amount of governance and control of the main accreditation organization (NVAO) over the quality agencies? Here different interpretations are possible, ranging from controlling, whether the quality agencies followed the procedures correctly (as outlined in "protocols"), up to an actual content-assessment of the quality-agency reports and conclusions by the accreditation organization.
2. "Bureaucratization": Is the current three-tier system too time-consuming, too complicated, to expensive? Certainly, the new system is more procedure demanding than the previous arrangement. This nurtures speculations of a possible over-complexity of the contemporary evaluation/accreditation architecture. Obviously, demands therefore are, to investigate in opportunities of optimizing and smoothly streamlining these evaluation and accreditation exercises, and to prevent, as much as possible, redundancies or "parallel actions" (causing more work).
3. The European and international dimensions: Already currently, some non-NL (or international) quality agencies (VIBs) have been accredited by NVAO for eligibility of carrying out external HE evaluation. Should external HE evaluation and accreditation primarily refer to the domestic (NL)[24] market, or should it increasingly favour an international orientation, thus reflecting processes of European integration and of globalization? This creates challenges, because the dimension of internationalization could be understood either with respect to the involved quality agencies and/or the responsible umbrella accreditation organization.[25]
4. The relationship of quality improvement and quality control: Quality management has to balance sensitively the two opposite poles of quality improvement, on the one hand, and quality control (quality assurance) on the other hand. Does the current three-tier system bias in favour of quality control? Concerns are being raised that in the contemporary context the "audit" (and "value for money") functions are emphasized at the cost of a more sensitive design for encouraging more effectively quality improvement processes in HE. Already the "old system" – the previous external HE

[23] This particular external report about education was issued in English, because the Technical University Eindhoven decided on linking together more closely the procedures of assessing its education and research programmes (QANU 2005, 5).

[24] Here we again should mention the bi-national character of NVAO, being responsible for the NL and the region of Flanders.

[25] Evaluation of university research, in the NL, is more clearly internationally oriented (see the latest research-evaluation protocol; VSNU 2003). For example, the external research-evaluation reports are issued in English by default (underscored by the respective homepage of QANU, from where evaluation reports can be downloaded).

> evaluation cycles of the 1980s and 1990s – was confronted with these issues. Also with regard to "quality measurement" the issue surfaces, to which extent this should serve quality improvement and/or quality control (Pilot 2001, 6).

One possible scenario for the future is that the accreditation focus may shift to an "institutional accreditation". In such a system the accreditation then would not – not only – refer to individual HE programmes, but would observe more closely the HE institution as a whole. For example, the accreditation organization (perhaps in co-operation with quality agencies) could assess, whether a specific HE institution (for example, a university or faculty) has implemented adequate "internal mechanisms" of quality control and quality improvement of HE. Institutional accreditations could be carried out in depth, without overburdening the whole system. Also the institutional accreditations would have to be renewed after a certain number of years. Institutional accreditations, in principle, would furthermore be compatible with a continuation of external evaluation (cycles) of HE.

II. 3 Top-down and bottom-up dialogue: Evaluation, reporting & decision-making in the Spanish VET system[26]

II.3.1 Summary

The Spanish system of quality assurance (QA) in Vocational Education and Training (VET) stands as an example of continuous development. Although there exists not only one comprehensive system of QA, and the intermediary level in the form of the Autonomous Communities does have a great autonomy in arranging the combination of particular approaches, the entire structure of QA displays a well-balanced interplay of roles and functions across different levels. Besides others, an important achievement of the system is its capacity to integrate a great variety of stakeholders at the institutional level. With regard to utilizing results and knowledge from both, external inspection and self-evaluation processes at the institutional level, it can be learned that strong involvement of the intermediary level enhances the overall system's capacity in taking-up results, evidence-based decision-making and, hence, supporting the continuous improvement of VET.

II.3.2 Development of the QA system

The present objectives and standards of VET in Spain have been created in close accordance with the strategies and objectives of the Copenhagen process. As a result of the Spanish reforms, several changes were introduced in both, vocational education and vocational training, in recent years.[27]

Due to the decentralized structure of the education and training system, one of the challenges was to develop "general priorities both for the State and the Regions" (2005 Progress Report, 4), which ensure the complementarity of national goal setting and monitoring on the one hand, and standards as well as procedures of assessment, inspection and self-evaluation at the regional and institutional levels on the other hand.

The actual developments in QA are the results of a series of legal acts:

- In 2004, the Ministry of Education promoted a broad process of debating and social reflection on educational reform issues with participation of the Autonomous Regions, representatives of teachers, educational institutions, students and parents.
- As a result of this process, the present foundations for QA in the education system will be established once the Bill of the Organic Act of Education is approved and established. The specific objectives of this law, with particular reference to QA, are: (1) improving

[26] Acknowledgements: Mr. Javier Molina, Ministry of Education and Science as well as Prof. Joaquim Prats and Mrs. Fina Grané from the Catalonian Assessment Board of the Education System have kindly provided written information. We would like to thank the experts for their contributions. However, possible errors and short-falls of analysis are solely the authors' responsibility.

[27] QA in school-based vocational education falls into the responsibility domain of the Ministry of Education and Science, while QA in vocational training represents a responsibility of the State Employment Public Service. For both areas, the decentralization of the Spanish system of education and training constitute particular challenges. QA at the VET level has been implemented in four out of seventeen Autonomous Communities until now.

the quality and efficiency of the education system, (2) widening the access to education and training, and (3) determining quality and equity as two inseparable objectives.[28]

- Qualifications and Vocational Training Act (2002)[29], with the objective to organise an overall system of vocational training, qualifications and accreditation that can respond with efficacy and transparency to social and economic demands through vocational training offered by the educational administration and the labour administration.
  This act establishes a set of instruments and schemes, which comprise:
  a) National Catalogue of Occupational Qualifications[30];
  b) A procedure for the recognition, evaluation and accreditation of the occupational qualifications acquired through on-the-job experience;
  c) Information and guidance in vocational training and labour matters;
  d) Evaluation and improvement of the quality of this integrated system.
  With the Organic Act 9/1990 on the General Organisation of the Education System (LOGSE), a catalogue of 22 groups of professions, which in short will be extended to 26, was established. It includes definitions of more than 140 professions, arranged accordingly to 2 levels: Intermediate Training Cycles and Advanced Training Cycles. The catalogue is the result of a collaboration of unions' and employers' associations that take part in the preparation. The associations' experts task is to define the qualifications and check the administration's proposals from the point of view of the labour market.
- With regard to the structures of vocational training, significant changes have been introduced in the recent years. At the end of 2005, the regulations that govern the establishment of Integrated Vocational Training Centres were created. They depend, jointly, on the Ministry of Education and Science and the Ministry of Labour and Social Affairs. They offer Initial Vocational Training, Continuous Vocational Training and Occupational Vocational Training. In the near future, the rules that will govern National Reference Centres for Innovation and Experimentation will be established.

The aforementioned Bill of the Organic Act of Education 2005 states the fundamental principles of quality in education and training. The most important are (see Eurydice 2005):

- Quality education for all;
- Participation as a basic value for the education of autonomous, free, responsible and committed citizens;
- Participation of the educational community in the organization, governing, functioning and evaluation of the educational establishments;
- Pedagogical, organizational and financial autonomy of the educational establishments;
- Self-evaluation of the educational establishments as a key for improvement of the education system.

II.3.3 The institutional architecture of QA

Following the ambition to integrate authorities, experts and stakeholders at different levels, the Spanish QA system stands for a highly differentiated model of QA. Within an elaborated set of linkages between state, regions, schools, and enterprises several functions and roles are assigned to different bodies and institutions (CIDE 2001).

It should be noticed here that the following chapters concentrate on the structural properties of the Spanish QA system rather than on the particular practices of evaluation, since the great diversity of activities and practices in the Autonomous Communities could not be covered adequately in this case study.

The Ministry of Education and Science establishes the legal frameworks for all matters of education and training, while the monitoring and general assessment of the national education system is carried out by the National Institute of Evaluation and Quality of the Education System (INECSE), which depends structurally on the Ministry.

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[28] Additionally, also a catalogue of key performance indicators that determines the outcomes of the education system has been established.

[29] Ley Orgánica 5/2002 de las Cualificaciones y la Formación Profesional (Qualifications and Vocational Training Act).

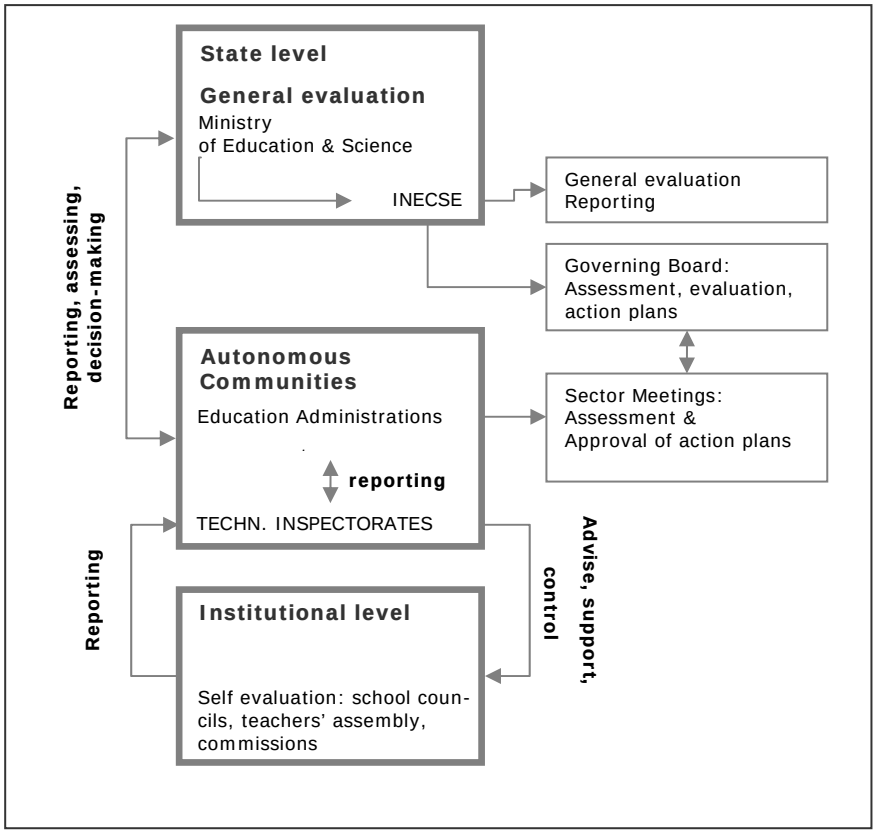
[30] It represents a catalogue of vocational standards, which is used as a reference to establish and design the different training offers for work and education, but is not a catalogue of certificates or diplomas.

The linkages between state level and institutional level are ensured through the various modes of integration by the Autonomous Regions, concerning different activities such as evaluating, assessing, reporting, and approving new action plans. The Autonomous Regions are of particular importance for the implementation of national policies, since one of their primary tasks is to "co-ordinate national policies" (2005 Progress Report, 4), which is a major issue of the so called Conferencias Sectorial de Educacion (Sector Meetings), attended by the Education Administrations of all Autonomous Regions.

As a rule, implementation of the framework for external evaluation, inspection and self-evaluation at the institutional level (schools, VET centres) is the responsibility of the Education Administrations of the Autonomous Communities. The Education Administrations act twofold: while there are bodies within the Administration in charge of assessment of QA activities and results, the work of the Technical Inspectorates of Education is directly related to schools and centres. The main functions of the Technical Inspectorates comprise advise, supervision and control of the implementation of effective norms at the institutional level as well as support of the self-evaluation activities carried out by schools and centres.

At the institutional level, self-evaluation is a predominant instrument of QA in Spain. A particular feature of the Spanish QA system is the attempt to involve not only school councils, teachers and commissions for pedagogical co-ordination, but a wide range of stakeholders such as parents, alumni, and representatives of city councils in the self-evaluation activities, too.

Figure 2: Institutional architecture of QA



II.3.4 (Self-)evaluation, reporting, feedback

At the different levels, complementary activities of (self-)evaluation are carried out in compliance with a distinct division of labour:

- State-dependent bodies overtake the role of continuous monitoring and assessing of the overall achievements ("general evaluation");
- Intermediate bodies at the level of the Autonomous Communities are responsible for assessment and inspection on the one hand, and contribute to activities of general evaluation and decision-making on the other hand, and, finally,

- Institutional self-evaluation is implemented by school bodies and supported by the Technical Inspectorates of Education, which depend on the regional Education Administrations.

II.3.4.1 General evaluation

On behalf of the Ministry of Education and Science, the INECSE carries out general evaluations of the education system periodically. This general assessment is based on a distinct set of indicators, the National System of Education Indicators.

The national set of indicators distinguishes five main categories of indicators (Ministry of Education and Science 2000, 2002, 2004), which are applied regularly to asses features of the Spanish system such as:

- Context;
- Resources;
- School attendance and performance;
- Educational processes;
- Results.

These categories are subdivided in further sets and definitions of indicators (see also Faurschou et al. 2002). The context indicators comprise specific indicators such as statistics on human capital and social prospects. The resource-related indicators contain indicators concerning economic and human resources such as the student/teacher-ratio. The section on school attendance and performance provides detailed data on the distribution of students at different levels of education, further training and lifelong learning.

The indicators of educational processes cover a wide area ranging from the organization of education and training centres to the various practice issues of education and the general school climate. This particular section is a striking example of the consistent implementation of the legal guidelines for quality in education, particularly the principle of participation, since, remarkably enough, specific information on the participation of parents in different school activities and on the number of school-related parents associations is provided.

The result-related indicators differentiate the outcomes of different educational levels. The national set of indicators provides both, a comprising and detailed data base including thematic assessments of the main goals for all Autonomous Communities.

II.3.4.2 The Education Administrations

As was mentioned before, the particular roles of the Education Administrations comprise activities directed towards the governmental level as well as the institutional level. It must be noticed here that the Education Administrations are responsible for the organisation and operation of their own system of inspection within the Autonomous Community. Thus, the QA architecture is characterized by assigning great autonomy to the Education Administrations in the organisation and operation of inspections and, hence, in the outcome assessment of self-evaluations in schools and VET centres.

Though the autonomy of the Communities is high, the National System of Education Indicators has a strong impact on determining the assessment content at the regional level, too. As can be learned from the Community of Catalonia, the indicator set to be applied to the Community level is homologous to the national system. This is an important precondition not only for a nation-wide implementation of the same concept of quality, but for taking up the assessment results in the various reporting procedures.[31] Thus, the framework of the general evaluation determines to a great extent the relevant issues at the institutional level, too, and combines it with more qualitative issues treated with in the processes of self-evaluation of schools and centres.

[31] As an example, the Assessment Plan, established by the Autonomous Community of Catalonia in 2005, illustrates a particular approach of interlocking “global” diagnostic assessments carried out by the Higher Assessment Council at the Community level, external assessments of the centres by the education inspectorate, and institution-based “selective” self-evaluations, with the latter directed to aspects of curriculum management and organizational management.

The Education Administrations' approach to QA represents a dialogue-oriented mode. Here, the Education Administrations' contributions to QA at the institutional level encompass two important tasks:

- The provision of advice and support for schools and VET centres through the Technical Inspectorates;
- The integration of proposals of schools and VET centres regarding evaluation design, analysis and interpretation of results.

II.3.4.3 The Technical Inspectorate of Education

The Inspectorates have several functions:

- To control and monitor, from a pedagogical and organizational point of view, the functioning of educational establishments.
- To monitor and support teaching and collaborate on its continuous improvement.
- To participate in the evaluation of the educational system.
- To control the compliance of all the regulations concerning the educational system.
- To advice, guide and inform the different sectors of the educational community.
- To inform about the programmes and activities fostered and promoted by the Educational Administrations.

II.3.5 Collaboration and reporting between the state and the Autonomous Regions

Within its competence in the framework of the general evaluation of the education system, the INECSE takes over important functions in terms of a meta-evaluation (2005 Progress Report). One characteristic of the actual practice of INECSE, although INECSE's competences are carefully delimited from those of the Autonomous Communities, is the function of systems integration, since this strengthens the Autonomous Communities' role of interfacing between state level and institutional level. Examples are:

- Partly, it develops the periodical National System of Education Indicators in collaboration with the local authorities in order to support evidence-based decision-making. Within this task, the Education Administrations contribute to the development of the indicators by providing the statistical information requested.
- It carries out general diagnostic evaluations of areas and subjects in collaboration with the Autonomous Regions.
- Integration of the evaluation plans and further development of general evaluation plans is achieved in close collaboration with the regional authorities, too.
- Publication of the results of the general evaluation in the periodical reports of the National System of Education Indicators, which again serve the regions, schools and centres as reference materials.

II.3.6 Self-evaluation at the institutional level

There are no binding standards for self-evaluation at the moment, however, the ISO 9000 and EFQM models are widely used for self-evaluation. Additionally, it should be noticed that self-evaluation is a voluntary activity in Spain.

The Spanish system promotes the implementation of self-evaluation processes at the institutional level by various means: first, the Education Administrations offer advice and support to schools and centres that plan or actually carry out self-evaluation programmes. The main support function is being supplied by the Technical Inspectorates of Education; second, financial incentives are provided for schools that consider implementing self-evaluations (see Rosario et al. 2002); third, the opportunity to benchmark against others enhances schools' preparedness for implementing QA.

At the level of schools and centres, there are three units which are particularly important for self-evaluation and improvement in schools and VET centres: (1) the teachers' assembly, (2) the school council, and (3) the commission for pedagogical co-ordination.

The school council approves the School Plan (proyecto educativo). This document represents the identity of the centre, describes the organizational structure and develops general objectives. Its composition underlines the importance of the principle of participation: various

agents such as the director, the training unit commander, a representative of the city council and a restricted number of teachers, alumni, parents and members of the administrative staff take committed roles in the activities of the school council. Thus, it provides the technical, practical and ideological foundations for the co-ordinated performance of the educational resources.

The teachers' assembly (claustro des professors) plays a distinctive role for the development of the so-called Curricular Plan that contains the goals, content, the procedures and the criteria for evaluation at the institutional level, which are then processed in the procedures of self-evaluation.

Within the activities of the centres, the Commission for Pedagogical Co-ordination (Comisión de Co-ordinación Pedagógica) is in charge of co-ordinating the development of all relevant documents, such as the Curricular Plan and the School Plan as well as the general annual programme, which is approved by the school council.

The frequency of self-evaluation appears to be quite high: usually, schools and centres carry out self-evaluations once a year. It is assumed that, since the introduction of the new Act on the Quality of Education in 2002, about 15% of schools and VET centres in Spain conducted self-evaluations.

II.3.7 The interface function of the Education Administrations

With regard to their contribution in the co-ordination of national policies, the Education Administrations play a distinct role, since they provide evidence-based information for planning and decision-making in the Sector Meetings, in which the directorates of all Education Administrations participate. These meetings are of particular importance for (1) co-ordinating the collaboration between the education authorities involved at different levels; (2) assessing and approving action plans based on the results of former evaluation and assessment cycles; and (3) for approving the national plans for evaluation and quality.

The course of approval is an interesting example of mutual information and negotiation between the national level and the intermediate level. It is in the Sector Meeting, where the directors of the Education Administrations determine the criteria and priorities of the action plan for evaluation and quality. It is then the director of the INECSE who draws up the actions plans and proposes them to the Governing Board, the representative body of the INECSE. Again, the Sector Meeting then approves the actions plans, while the Governing Board determines the measures required to ensure compliance of the plans drawn up by the INECSE with the plans approved by the Sector Meeting. Interestingly, this system assigns a very strong position to the Education Administrations, since they are involved in strategic processes such as the preparation of decision-making and decision-making itself. An advantage can be seen in the involvement of broad interests in decision-making about the future developments of quality in education and training, which, in addition, relies on in-depth knowledge from local processes of self-evaluation and external evaluation.

II.3.8 Particular approaches to QA in vocational training

Particular QA regulations have been implemented for vocational training and apprenticeship trainings. There are several quality models applicable to training. A specific example is the EFQM model used in the Vocational Training Centres, which are attached to the National Public Employment Service (INEM) and to the Community of Madrid. The purpose of this model is to implement a system for evaluating and improving training management through the design of procedures and ad hoc tools, the internal verification of the organisation (self-assessment), the planning and development of improvement processes for VET centre management, and, finally, the assessment of the viability of adapting the EFQM model to VET centres (see INEM 2005).

The QA procedures in vocational training utilize particularly training-related indicators, such as the number of started and completed training contracts, expressing the number of hours and costs of contracts and, overall, the degree of labour market integration of student-workers in labour contracts, which serves as the most important criterion for quality.

The recognised centres for theoretical training provide the provincial directorates of the INEM with this information on a quarterly basis. Additionally, specific information on the progress of trainees is provided. Regarding the programmes offered by School Workshops, Trade Learning Centres and Employment Workshops, an annual follow-up plan is conducted on areas such as human and material resources plus the subsequent degree of labour market integration of student-workers. The results obtained in each follow-up plan are used as a reference for introducing changes in the development of programme content as well as in the successive management designing by the Autonomous Communities.

II.3.9 Conclusions

Although there exists a great variety in the practical implementation of QA, some highlights of the Spanish QA system shall be mentioned here:

First, the Spanish system has achieved great progress during the last years, not only with regard to the development of a coherent quality system, but also in terms of co-ordinated action covering different political, administrative and organizational levels of the VET system.

In particular, lessons can be drawn from the well-functioning collaboration between institutional level and regional level, which provides a dialogue-based and demand-oriented support for the implementation of self-evaluation as the main instrument of QA at the local level.

Third, the combination of top-down and bottom-up procedures reveals some advantages, which are particularly effective due to the strong position of the Education Administrations in preparing and deciding on action plans.

Fourth, the Spanish system pays special attention to the necessity of integrating all members of the school community in the processes of QA and improvement. The degree of involvement of stakeholders is surely impressive and draws attention to a promising mode of implementation of a fundamental principle of quality. At the institutional level, the detailed assignment of roles and tasks to different members of schools and VET centres represents a future-oriented model that facilitates the implementation of self-evaluation.

Fifth, in Spain the Education Administrations responded quickly to the schools' and VET centres' needs for support in self-evaluation. Thus, the Technical Inspectorates exercise a strong responsibility in informing their bodies about activities, challenges, and achievements, which in turn supports the Education Administrations' function as interface between institutional and state level.

Sixth, the National System of Education Indicators is well-suited to provide quantitative and qualitative information in terms of an overall assessment, which places a considerable attention on the results of self-evaluation. Thus, it is more than a performance report, since it supports professional benchmarking and coherent discussions on selected issues, too.

II. 4 Comparative comments about the Netherlands' and Spanish case studies and lessons to be learned

Which lessons can be learned? *The NLs' system* of quality management of education in HE can be characterized to have developed a high degree of comprehensiveness. This "systemic comprehensiveness" also associates, why the NL can be regarded as a "good practice" of QA. This implies that, in principal but also in practical terms, the tools of self-evaluation and external evaluation have been applied to all education programmes in HE across the whole national spectrum. This obviously raised questions, what the "costs" of this are. However, the case study about the NL demonstrates that comprehensiveness is sustainable. This comprehensiveness even was extended by adding the "third tier" of accreditation. On the one hand, accreditation could be seen to make the system of quality management perhaps too complex. On the other hand, accreditation also may be interpreted as a logical consequence in the sense of amplifying the ramifications (consequences) of evaluation.

The Spanish system shows a multi-faceted and multi-level mode of QA. It manages to link the top-down approach by integrating global assessment and monitoring at the national

level with the intermediate position of the Education Administrations, which are key drivers for the organization of external assessments at the regional level and incentive-based self-evaluation of schools and VET centres. An important lesson derived is the structure of reporting loops between the different levels that are involved, which becomes a crucial success factor, too. In Spain, one essential reporting loop is the one between schools/centres and Education Administration mediated by the Technical Inspectorates and other bodies; another loop is that between the Autonomous Communities and the Ministry of Education and Science, where the Sector Meetings play a decisive role also in preparing and approving national plans for evaluations.

Derived from the case studies of the NL and of Spain, there are several key lessons to be learned, which appear to be decisive for the success of quality and quality management in education:

- First of all, the *combination of top-down and bottom-up strategies* provides the chance for a truly systemic operational mode of QA. In particular, the interaction between the different levels clearly illustrates processes which can be considered as a collaborative constructing of information bases while recursively further developing approaches and instruments for assessment, change and improvement. This systemic approach towards QA raises awareness and knowledge creation capacities in terms of self-reflexivity as well as the reinforced exchange of knowledge between the agents involved at different levels.
- Second, evaluation systems of education depend crucially on a *combination of self-evaluation and external evaluation strategies*. Self-evaluation is essential for preparing the appropriate organisational unit for the follow-up activity of external evaluation. Self-evaluation promotes an intensified awareness for quality issues. In a last consequence, *either* the encouragement of *or* the need for self-evaluation demand that organisational (institutional) units also implement and run systems of internal quality management (QA). External evaluations help to establish standards in a larger setting, particularly when they are operated on a national scale. External evaluations have the potential of defining a cross-cutting framework, to which the individual self-evaluations must subscribe to. *Self-evaluations could be considered as a "bottom-up", and external evaluations as a "top-down" strategy*.
- Third, the juxtaposition also demonstrates the significance of methodological co-ordination in quality assurance. While in the NL an identical set of interacting approaches, including identical methods for self-evaluation and external evaluation, was implemented, the greater regional autonomy in Spain triggered a need for methodical integration of evaluation practices. The efforts of a more comprehensive co-ordination of methodologies for self-evaluation and external evaluation in Spain, in recent years, show that this is a significant precondition for strengthening the explicit relations between assessment, exploitation of results and evidence-based decision-making at the different layers of the overall system.
- Finally, we even could ask, whether there is an additional lesson to be learned, paraphrased in the question: *Should evaluations of education (in HE and/or VET) have consequences?* "Accreditation" could be regarded as one possible answer. Accreditation or non-accreditation may be interpreted as an appropriate consequence of evaluations of education. Accreditation – and a systemic design of a built-in need for permanent re-accreditation – could foster the advancement of combining and integrating the bottom-up self-evaluations with the top-down external evaluations. Accreditations, of course, always are challenged to optimally balance QA and quality improvement.

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III. Structural Conditions for Change/Improvement

Institutional arrangements for quality assurance, meeting labour market needs and planning improvement in IVET: Good practice in Germany and in the United Kingdom

Kurt Schmid, Dietmar Paier, Gerd Beidernikl

III. 1 Introduction

One of the most important aspects for the quality of IVET (Initial Vocational Education and Training) is to continuously adjust VET to labour market demands and developments, especially with respect to current and future qualification needs. This continuous adjustment requires appropriate institutional arrangements for assessing quality achievements and planning actions for future improvement.

The case study presents two distinct approaches to that challenge in a systemic perspective: Germany's apprenticeship-system and United Kingdom's (UK) vocational schools. Due to different national IVET structures and institutional settings in these two countries, there are distinct reporting feedback structures, stakeholder involvement as well as bargaining processes observable. Whether these differences stem from the characteristics of the national systems or are genuinely diverging approaches to a somehow common quality assurance (QA) "problem" in IVET-systems represents the main topic of this study.

Moreover, by contrasting two different types in IVET (i.e., apprenticeship training versus fully school based IVET) in a comparative way, the country cases act as "role models" meaning that relevant aspects for QA with respect to the IVET form can be observed – at least partially – in the IVET systems of other countries as well.

The case of the dual system in Germany serves as an example for a highly input-oriented/controlled governance model (Sauter 2001) with elaborated and long established institutionalised procedural ways. Input-orientation thereby means that not only educational goals, but also the way VET is provided (in training companies and part-time public vocational schools), are specified in a rather detailed manner. After giving a general overview of the German education system with special emphasis on apprenticeship training (dual system), the following topics with respect to the creation and updating of job profiles in the dual system will be highlighted: (1) the important system elements for QA in the German dual system; (2) organisation of the institutional setting and the interplay of stakeholders involved; (3) the procedural approach of updating and/or renewing of job profiles for apprenticeships; and (4) the role of research-backed information and monitoring procedures, particularly the system for early detection of skill development and its further development towards a monitoring system at the level of business branches.

The case of the UK, on the other hand, is an example for a highly output-oriented/controlled governance model with a highly elaborated and institutionalised interaction of external inspection and self-evaluation between national authorities and school providers. VET schools appreciate a considerable amount of autonomy in adopting their offers and curricula according to the occupational standards that have to be met. In the description of the UK case we will give a general overview of the structure and procedures of the British Quality Cycle in the VET system. The description concentrates on three issues: (1) the organization of the interplay of local school improvement and external inspection; (2) distribution and adoption of evaluation results and technical support of local improvement processes; (3) institutional arrangements for further improvement, comprising procedures of decision-making, goal refinement, monitoring procedures and further development of standards.

III. 2 The German dual system – New and updated job profiles for apprenticeship training

III.2.1 IVET in Germany

After compulsory schooling, the German educational system offers a variety of educational and vocational choices. Besides upper secondary general school, essentially two distinct broad vocational streams exist: vocational full-time schools and the dual system. About two-thirds of every age group learn a recognised occupation within the dual system, making it by far the largest educational area within secondary sector II (BMBF 2003).

There are currently about 350 state-recognized training occupations in Germany. In terms of content, state-recognized training occupations are regulated by training regulations, which represent the legal basis for the practical implementation of company-based vocational training.

Central to the understanding of Germany's qualification system is its occupational standard-based approach (*Berufskonzept*). These *"occupational standards describe the profile of duties and tasks and the relevant knowledge and skills that are necessary to perform an occupation in the labour market in a competent manner"* (BIBB 2004, 13). In short, the occupation concept guides the structure of vocational content. Consequently, apprenticeship training follows that approach: occupations requiring formal training should be oriented to the groups of qualifications that are typical for the relevant work processes. Specialisation is permitted, as a complement to the basic qualifications required for each occupation in question, but it must be taught within an occupation context. Vocational training should prepare individuals for specific occupations, to be pursued immediately after the completion of training, but it should also prepare individuals for further learning (BMBF 2003).

Vocational training requirements in the German dual system consist of two basic parts. Learning processes in training companies focus on learning at the workplace or instructions in company training departments, with an emphasis on practical elements of the training occupation. The part-time public vocational schools provide general and vocational education, in order to deepen and supplement on-the-job training. Trainees spend about three or four days a week on in-company training and up to two days a week at the vocational college (cit. Ertl/Sloane 2004). Apprentices receive an allowance fixed by collective agreement for each branch of training. Graduates receive nationally recognised diploma.

QA in the German dual system

According to Sauter (2001) the dual system in Germany is based on an overwhelmingly input-oriented and criteria-led quality concept. Young people may be trained only in recognised occupations requiring formal training (exceptions apply for the handicapped).

In essence, nation-wide regulations determine quality standards that have to be met (i.e., minimum standards) and cover the fields of curriculum, learning sites (training companies, part-time vocational schools), training personnel (instructors), and evaluation. For all these fields exist various instruments.

The basis for the curricula are the training regulations that are available for every recognised occupation requiring formal training. In each case, they set forth at least the following: the name of the relevant occupation requiring formal training; the duration of training for the occupation; the skills and knowledge that the relevant vocational training must impart; guidelines for organisation, by subject area and instruction duration, of teaching of skills and knowledge; and criteria for examinations. Training regulations are co-ordinated with the framework curricula for vocational schools, for which the *Länder* are responsible (BMBF 2003).

Other important instruments for quality control are the legal provisions for the suitability of a company to provide training and the ordinance on aptitude of instructors (*Ausbilder-Eignungsverordnung* – AEVO). The last one contains regulations, pertaining to prove the vocational and pedagogical aptitude of instructors. Pursuant to the AEVO, every instructor (with the exception of those for liberal professions), in addition to possessing the specialised aptitude (i.e., with regard to the subject area in question) set forth by the Vocational Train-

ing Act, must also demonstrate that he or she has acquired relevant vocational and pedagogical skills (BMBF 2003).

One important instrument for evaluation are the nationwide uniform final examinations for apprentices that are held outside of the training company (the Vocational Training Act contains framework regulations for these examinations and the details, as to subject matter etc., are set forth by the relevant training regulations).

Evaluation at company level is conducted mainly by "competent bodies" (chambers). They have legally defined tasks:

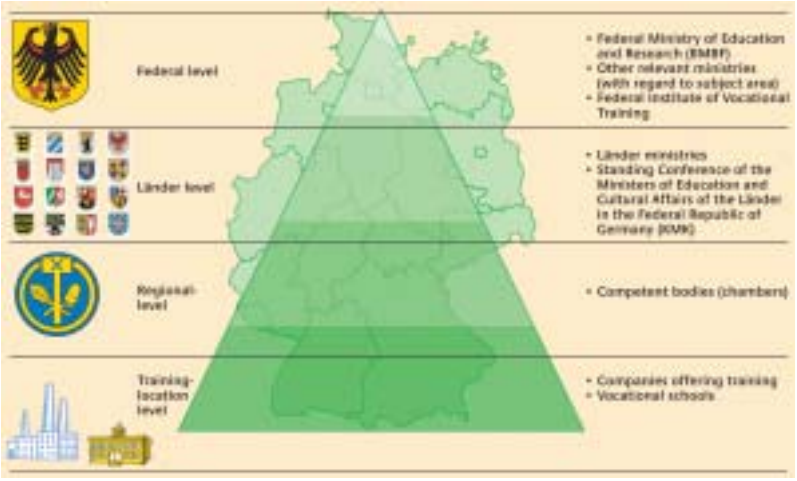
• Issuing regulations pertaining to training (for example, issuing examination ordinances);
• Advising instructors and trainees – for example, in connection with setting-up training places, with disputes between companies and trainees and with trainees' changes of occupation;
• Reviewing the suitability of instructors and training facilities; registering, modifying and deleting training agreements; crediting trainees' acquired knowledge against trainees' training periods; administering trainees' intermediate and final examinations;
• Monitoring execution of training via training advisors that the competent bodies appoint; organisations, which provide training (companies), are required to deliver the necessary information for such a "monitoring", to present relevant documents and to permit inspection of training facilities (BMBF 2003). Yet, usually this monitoring does not take place regularly – only if there are concrete complaints against the training company or repeatedly bad results surface at examination controls (Sauter 2001).

Institutional architecture and responsibilities

The regulative structure of the German dual system is characterised by two important aspects: federalism and corporatism (involvement of the social partners)[32]. The consensus principle guides the whole structure of the steering/bargaining process.

In this model the state delegates regulatory competence for the training system to corporatist bodies. The most important of these bodies are the local, self-governing Chambers of Industry and Commerce, the Crafts Chambers, the Chambers of Agriculture and the Associations of Professions. They have the status of "competent bodies" (*zuständige Stellen*) and play a crucial role in the organisation, administration and examination of vocational training. More precisely, these bodies act as intermediate organisations between the state and companies and put training laws and regulations into practice. An overall picture of the institutional architecture is provided by Figure 3.

Figure 3: Responsibilities within the dual system



Source: BMBF 2003

[32] An example, reflecting the principle of corporatism in the dual system, is – for instance – that supervising and examining bodies are set up by the Chambers and consist of equal numbers of employers' representatives, employees' representatives and vocational college teachers. The vocational training committee and the board of examiners represent the most important of these bodies at the executive level of the training system (BMBF 2003).

The guiding and co-ordinating ministry on the national level is the Federal Ministry of Education and Research (BMBF). Other relevant federal ministries also issue ordinances and co-ordinate with the BMBF (their provisions are subject to the approval of the BMBF). In the Board of the Federal Institute for Vocational Training (BIBB), representatives of employers, the unions, the *Länder* and the Federal Government work together on an equal basis.

The Federal Government is responsible for regulating training in companies, while the *Länder* are responsible for vocational training in schools[33]. This allocation of rights and duties is based on the Basic Law according to which the *Länder* are largely responsible for education and cultural affairs.

To achieve the necessary measure of commonality in the areas of education, science and cultural affairs between the *Länder*, on the one hand, and also between the *Länder* and the Federal Government, on the other hand, a national body (the Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* in the Federal Republic of Germany, KMK[34]) exists.

On the regional level, the autonomous organisations within the economy, especially the Chambers of Industry and Commerce and the Crafts Chambers, have important competencies.

Pursuant to the Work Council Constitution Act (*Betriebsverfassungsgesetz*), employees' elected representatives (work councils), in the companies that offer training (the training-location level), have rights of participation in planning and carrying out vocational training and in hiring instructors.

Development of new training regulations or updating of existing regulations – meeting the needs of the labour market

As vocational education in the dual system takes place both in companies and in vocational schools, it is necessary to co-ordinate the subject matter taught in these two learning spheres, along with the relevant scheduling (BIBB 2004). In essence this means that the training content provided by companies (in keeping with the training regulations for the relevant occupations) must be co-ordinated with the course component provided by vocational schools (in the form of framework curricula).

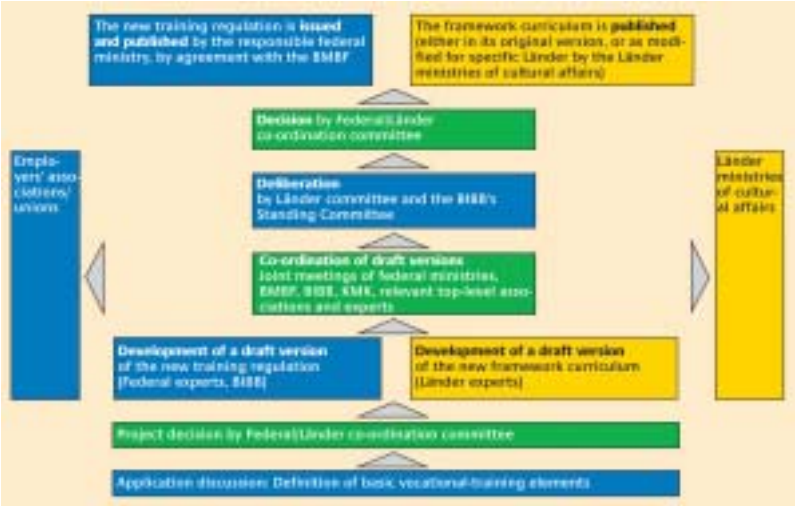
A special procedure has been developed for this, providing for close co-operation between the Federal Government and the *Länder*, granting the social partners (employers' and employees' representatives) an important role. This procedure is outlined in the Figure below. A one-year period is allowed for modernisation of an existing occupation, while two years are allowed for the development of a new occupation.

The development of new training regulations or the updating of existing regulations, and the co-ordination of these with the outline curricula of the *Länder* (KMK), take place within a multi-stage process involving substantial integration of the parties participating in VET, namely employers, trade unions, the Federal Government and the *Länder*.

[33] The *Länder* committees for vocational training are made up of representatives of employers, employees and the relevant *Länder* governments. These *Länder* committees advise their *Länder* governments on vocational training issues. They are charged especially with promoting co-operation between school-based and in-company vocational training and with taking account of vocational training in the overall development of schools.

[34] In the KMK the *Länder* ministers and the senators responsible for education and training, higher education and research and cultural affairs work together.

Figure 4: Co-ordination of training regulations and framework curricula



Source: BMBF 2003

The starting point for an updating of training occupations within the dual system is a corresponding qualification requirement in trade and industry. An initial application approach is made to the federal ministry responsible, generally the Federal Ministry of Economics and Labour (BMWA). The application stipulates the respective training benchmarks (including the name of the occupation, the duration and structure of the training, a rough outline of the necessary qualifications) in consultation with the BMBF and with the consent of the leading employers' and employees' associations. This forms the basis for the development of draft training regulations and the co-ordination of these with the outline curriculum of the secretariat of the KMK.

The relevant drafts are then prepared in separate bodies: the draft of the training regulation is prepared by federal experts[35], while the draft of the framework curriculum is prepared by *Länder* experts (framework-curriculum committee)[36].

The social partners (employers' and employees' representatives) are involved in preparing and co-ordinating the draft versions, and relevant decisions are made jointly by all concerned parties. The consent of employers' and employees' associations ensures that a relevant regulation is promptly prepared and implemented. In a next step, a joint meeting is held, under the BMBF's chairmanship, involving representatives of relevant top-level associations, federal and *Länder* experts and the BIBB, in order to finalise co-ordination of the content and the scheduling set forth by the drafts of the new training regulation and framework curriculum.

After being deliberated by the *Länder* committee and the BIBB's Standing Committee, the drafts of the new training regulation and framework curriculum are approved by a formal decision of the Federal/*Länder* co-ordination committee. When the above process has been completed, the training regulation is issued and published by the responsible federal ministry, in agreement with BMBF, and the framework curriculum is published[37].

System for early detection of skills developments

As shown, the starting point for the updating of training occupations within the dual system is caused by a corresponding qualification requirement in trade and industry. Traditionally, these initiatives conveyed a re-active rather than a pro-active understanding of development, i.e., they usually reacted to changes and challenges and thus tended to lag behind the demands. But such a re-active fine-tuning seems to be incompatible with the increasing

[35] The BIBB, in collaboration with experts nominated by the leading employers' and employees' organisations, exercises the overall control for the development of the draft training regulations (for the in-company element of the training).
[36] The draft outline curriculum (for the school-based element of the training) is developed by federal state experts that are nominated by the individual ministries of culture and education.
[37] cit. http://www.bibb.de/en/4963.htm / BMBF 2003.

contingency of development (as regards future technologies, sales markets, qualification needs etc.).

Therefore, since 2001 a special research network "Early identification of qualification needs" has been established additionally, which tries to forecast and anticipate future labour market needs for skills[38] with new methodological approaches.

The aim for the establishment of this system of early detection of skills developments was to provide additional and scientific-based information for the whole procedure of developing new training regulations (or modernising existing regulations). At the beginning it was geared to generate better information about mega-trends (e.g., "tertiarisation" and its implication for qualification demand and, consequently, for apprenticeship training). What was missing was an explicit interface for the development of precise training regulations. Therefore, currently the system is further developed towards a monitoring system at the level of business branches. Researchers and representatives of the social partners (mainly from the employers' side) will work together in a co-ordinated process that will prepare draft versions of training regulation applications. This is especially important for the initial phase as it backs the qualification requirement that marks the starting point for the whole institutionalised procedural way (before the main input or initiative comes from sector representatives that lobby for changes in the professions).

III. 3 United Kingdom – Local school improvement and external inspections as fundamentals for quality improvement

The UK has a devolved system of governance of education and training, assigning decision powers to territorial bodies in the four parts of the Union (England, Scotland, Wales, and Northern Ireland). Scotland, in particular, has an education system with a long history of independence from the other parts of the UK. Therefore, major differences between the educational systems of England, Scotland, Wales, and Northern Ireland are evident.

In this report the major foundations and similarities of these systems are reflected on a general level. Most of the explanations and examples are specific to the English VET system. The Scottish particularities concerning VET will be illustrated only marginally.

IVET in the UK

Initial Vocational Education and Training (IVET) in the UK starts mainly in upper secondary education. Schooling is compulsory from age 5 to 16 and all publicly funded schools must provide the national curriculum. At the age of 16 most pupils take public examinations such as the general certificate of secondary education (GCSE) in England, consisting of different individually chosen subjects.

Although there is no lower secondary VET pathway than that in the UK system, the efforts of the UK government go into the direction of VET pre-qualifications in lower secondary education. Through the introduction of GCSEs in vocational subjects, the government promotes the parity of esteem between vocational subjects and the traditional academic subjects.

After completing their compulsory education in secondary schools, young people may choose from different pathways for their further training (Leney/Cuddy/Hall 2003):

- They can continue to go to a full time school by changing to a sixth-form school/college or a further education college,
- they can enter apprenticeship training
- or, finally, they can enter the labour market without further training pathways.

[38] The scientific tools consist of job-offer analyses (in print and online media), evaluations of innovative continuing education and training offers of providers, company surveys (for the detection of changed skill needs caused by acute or impending process, product and organisation innovations) as well as expert interviews (external consultants and in-company experts are addressed and case studies of consulting and attendance processes of company restructuring measures are carried out). For details see at the BIBB homepage: http://www.bibb.de/en/786.htm.

Those students remaining in school-based education at a school or college may choose between general (academic) and vocational subjects or take a combination of both. The upper secondary stage normally lasts from age 16 to 18/19. The most commonly aspired qualification on upper secondary level is the general certificate of education (GCE), obtained at different levels up to the highest qualification the full GCE A-level (general education).

School-based IVET in the UK represents a strongly developing pathway with a growing number of opportunities in recent years (Eurydice/CEDEFOP 2003). Thereby the vocational schooling in schools and colleges is adapted to the qualification levels in general education by introducing vocational A-levels. The vocational certificate of education (VCE) is an A-level award designed for those wanting to study a broad area of work mainly achieved by attending sixth-form colleges (Leney/Cuddy 2003). Specifications have been revised recently, and since September 2005 the VCE has been following the same structure as the GCE and will be known in 10 applied subjects. Examples are engineering, health and social area, applied business etc.

For those who want to gain recognised qualifications for specific occupations, instead of whole occupational fields, the NVQs (national vocational qualifications) have been designed. They offer progressive pathways to further education and training on the labour market. NVQs are designed as qualifications that recognise work-based competencies and are often achieved through study in further education colleges.

The counterpart to the school-based IVET is the apprenticeship training in the UK. It offers work-based training in a broad range of sectors to persons aging +16, while they work regularly in a company. As in most countries, apprentices receive pay during their training and have the status of employees.

Apprenticeship training is split between company-based training and part-time schooling. Normally it lasts between one and three years. Apprentices can enter employment or HE pathways after a successful completion of the corresponding apprenticeship training. Apprenticeships can be accessed in over 80 different industries, at different levels, depending on their length.

Per definition universities and other HE institutions offer IVET (concerning GCE A-level students who might obtain a vocational training at university level for the first time) and VET training as well. HE, however, is not the topic of this chapter.

Institutional architecture and responsibilities

Due to the very specific administrative setting of the UK, being composed of four nations with devolved responsibilities, the UK (I)VET system is comparatively complex and underscores developed diversity. One can outline the components, responsibilities and general patterns of co-operation as follows (according to Leney/Cuddy 2005). The name of the responsible institution in England is named at the end of each passage:

- The Learning and Education Department of each national government is responsible for the overall policy regarding education, vocational learning and skills development. In England this is the Department for Education and Skills (DfES).
- The funding, provision and management of learning opportunities in each nation is delegated to a funding council. The National Learning and Skills Council (LCS) is responsible for the funding of providers in England.
- Regional and local bodies advise the provision of learning opportunities to meet local needs, within the overall national policy and funding framework. The Local Learning and Skills Councils (locals LCSs) are thereby responsible for the determination of needs and priorities at the regional level in England. They work via the strategic area review (StArs) process. Individual colleges and schools have a considerable amount of autonomy in adopting their offers and curricula to regional needs.
- Inspection of the quality of provision is the responsibility of an independent body in each nation. The same applies to evaluation and research and staff development. The Adult Learning Inspectorate (ALI) and the Office for Standards in Education (OfStED) are responsible for the inspection of provisions in colleges and work-based training in the English VET system. The latter is focused on inspections in schools and colleges in general, ranging from first grade to those aged 16-19. The Learning

and Skills Development Agency (LSDA) is concerned with research in the VET field and the further development of staff.
- Approval of qualifications for use in publicly funded provisions is the responsibility of accrediting bodies in each nation. They work closely together UK-wide. The Qualifications and Curriculum Authority (QCA) is responsible for the approval of qualifications in England, which may be supported by public funding.
- Employment policy and training programmes for unemployed are the responsibility of the UK Department for Work and Pensions (DWP).
- The Sector Skills Development Agency (SSDA) is responsible for defining the occupational standards, on which the occupational qualifications are based on. Their executive bodies are the Sector Skills Councils (SSCs), responsible for identifying skill needs in economic sectors. 25 specialized SSCs are set up in England.

Finally, one has to annotate the role of social partners in the VET system as well. In the UK the employers and the employees' unions participation in formulating VET is characterized in three different ways: (1) consultation at the stage of curriculum development, (2) collective bargaining and (3) participation in formal bodies. Thereby, consultation primarily takes place at the national level; direct participation in decision-making bodies mainly occurs at sectoral level. Collective bargaining within the qualification system is mostly limited to localized negotiations, especially concerning the apprenticeship training.

Skills and competence development – meeting the needs of the labour market

Within the UK, there exists a variety of established mechanisms for the recognition of labour market trends and the adoption of the VET qualification system. In this regard the DfES, in conjunction with the DWP, is responsible for collecting and analysing labour market data. These are carried out internally or commissioned to research institutions. The DfES provides technical support for anticipating skill needs by developing the national online manpower information system (NOMIS), which provides online access to labour market information and includes all major data sets.

The introduction of the UK-wide SSDA, in 2002, fortifies the governmental intentions for VET improvements based on labour market demands. The SSDA organizes the SSCs and carries out skills forecasts. The SSCs are ment to develop NVQs through functional analysis by experts. Standards are then specified as units, aggregated to meet qualification needs of specific occupations. The SSCs review the labour market needs and the acceptance of qualifications. New qualifications are typically developed over an 18-month cycle. Routine monitoring of qualifications is undertaken by the QCA.

Self-evaluation in IVET (school-based)

The UK VET system can be characterized by a high involvement and autonomy of individual schools and colleges regarding QA and quality management. These school-internal measures are accompanied by a system of inspection on the national level. The responsibility for external inspection of VET schools and for supporting the school management in questions of self-evaluation is primarily exercised by the OfStEd.

Publicly funded schools and colleges in the UK are accountable for their own performances through a governing body which includes representatives of key stakeholders such as parents, local communities, teachers, etc. This governing body and the headteacher carry the prime responsibility for school improvement and self-evaluation. Self-evaluation has increasingly been promoted and supported by the government and local authorities in the recent years. The main steps for school improvement and self-evaluation are put down by the OfStEd as follows (Eurydice 2003):

- Monitoring performance at all levels of a school;
- Analysing (ones own) performance by comparative data from similar schools;
- Evaluating the quality of teaching and learning against national criteria and deriving a strengths-weaknesses-map;

- Planning what needs to be done to overcome weaknesses by setting up clear objectives (annual school improvement plan[39]);
- Acting on the findings of monitoring and evaluation.

As these criteria by the OfStEd show clearly: the demands for the schools are high and the school governing body has to take comprehensive action in order to fulfil these aims (Leney/May 2003). Support is provided by the OfStEd and the DfES Standards and Effectiveness Unit. The self-evaluation of schools and external inspections develop increasingly interdependent. In England, a brief self-evaluation report, based on OfStEd evaluation criteria, must be prepared by the school before an inspection.[40] This and other information about the school is used by the inspectors to focus inspection efforts. The use, extent, quality and effects of self-evaluation are, in turn, main criteria for the assessment of the school management by the inspectors.

Schools, therefore, often use OfStEd evaluation criteria as a reference for their internal evaluation between external inspection intervals. OfStEd supports this process by providing an internet-based data collection system for self-evaluation and self-audits. Although there is no official requirement for schools to store their self-evaluation data in this database, most of the schools choose doing so. Although schools are encouraged to use OfSTEd evaluation criteria, there is no requirement to do so, neither to use any specific model for self-evaluation. Therefore, alternative frameworks have been developed as well by other organizations in the VET landscape (e.g., based on surveying the expectations of pupils, parents, etc.).

Concerning post-16 colleges the procedures are quite similar, but the responsibility for inspection in England is shared between OfStEd and the ALI. Although the responsibility for improving quality of provision lies within the colleges, which are autonomous and self-governing institutions, ALI and OfStEd expect them to regularly self-evaluate all aspects of their provision. Since 2001 all providers are asked to carry out annual self-assessment. The starting point for self-assessment is expected to be the criteria set out in the "Common Inspection Framwork for Inspecting Post-16 Education and Training" (ALI and OfStEd 2001). The latest self-assessment reports are used for planning the external inspections of the colleges.

In the post-16 sector the government published the "Success for All" strategy in 2002, currently implemented by the LSC[41] and Local Educational Authorities (LEAs). It is an initiative to foster self-assessment and to establish a commonly shared framework of quality criteria.

External evaluation and inspection in IVET (school-based)

External evaluation and inspection of schools is primarily carried out by the OfStEd. Concerning post-16 schools and colleges this responsibility is shared between OfStEd and ALI. LEAs also have responsibilities for monitoring and evaluating the schools they maintain.

External inspection takes place at least once within a three-year interval. Inspections are thereby proportional to need – the best-performing schools have the longest inspection interval. The inspections are carried out by independent inspection teams[42], recruited and trained by the OfStEd, but are not permanent staff. Inspections are carried out according to

[39] Internal evaluation is expected to contribute, directly or indirectly, to periodic updating of the school improvement plan, which maps the priorities for action and sets out programmes for implementing them.

[40] In England, a brief self-evaluation report based on OfStEd evaluation criteria (known as Form S4) is prepared by the school before an inspection. This is accompanied by a self-audit of compliance with statutory arrangements and policies (known as Form S3), which is completed by the governing body. This and other information about the school is used by the inspectors to focus inspection effort and to enable the inspection to respond to any specific issues that can usefully be included (Cuddy/Leney 2003).

[41] The LSC currently is implementing this new framework through the introduction of three-year development plans and three-year funding agreements. The three-year development plans must include "headline improvement targets" and should be based on self evaluation.

[42] Each inspection must be led by a registered inspector, obliged to ensure that: inspectors of the inspection team are competent and effective; that the team is composed of inspectors best suited for the inspection; and that the inspectors are effectively deployed so that the inspection is well tailored for the school. Furthermore, an inspection team must include a lay inspector without personal experience in the management of a school or the provision of education in a school.

the statutory framework for inspections, put down in handbooks by the OfStEd (for England).

Inspections are made by using the following sources:

- Latest self-assessment reports and other documents such as the school improvement plan;
- Lesson observation;
- Discussions with pupils and teachers;
- Learning outcomes and statistics.

The focus of such inspections concentrates on:

- Achievements of learners;
- Effectiveness of teaching and school management;
- Effectiveness of monitoring and self-assessment;
- Degree in which the school meets the needs of the learners.

The inspection results in a feedback for the governing body and the headteacher as well as in a full inspection report. Based on this feedback the school has to set up a school improvement plan addressing strengths, weaknesses, a schedule for implementing improvements and a procedure for monitoring improvements. Schools that cause concerns regarding their inspection outcomes, are monitored by the inspection authorities.

Post-16 schools and colleges follow a similar procedure. There the OfStEd is responsible for external evaluation as well. In case the educational programme of the regarding school is provided to adult learners too, the inspections are carried out by co-operatively involving OfStEd and ALI.

LEAs are also involved in the inspection process. They do not have a specific duty to inspect schools, but they have other duties that require them to monitor school development. Another major duty of the LEAs is to make interventions, should external inspections raise concerns that a school is performing badly. Then the LEAs try to support school improvement but – on the contrary – also have the right to sconce that school.

III. 4 Conclusions

As the descriptive part has shown, there are remarkable differences between the two countries that stem from political (e.g., diverging degree of federalism and involvement of social partners), vocational (occupation concept – *Berufskonzept* – in Germany versus the competencies-based approach in the UK), type of IVET model (apprenticeship versus fully school-based IVET) as well as contextual (educational governance system: input- versus output-orientation) factors and circumstances.

In both countries, anticipating mechanisms for early identification of future qualification needs have been established rather recently. Yet, the way these mechanisms and instruments have been implemented, differs according to the above mentioned parameters.

With respect to QA and development in the light of structural conditions for change/improvement one can conclude that the emphasis in Germany seems to be geared towards the institutionalised side – hence the elaborated procedural approach of updating and/or renewing of apprenticeships in connection with the development of an elaborate anticipation system of early skills detection (currently further developed towards a monitoring system at the level of business branches). Because of the input-oriented governance structures, extending evaluation procedures and instruments play minor roles. The underlying vocational concept brings about rather detailed curricula, and these are “forwarded” to the potential educational providers (training companies and part-time vocational schools).

On the contrary, in the UK the effort lies more on improving educational quality in schools – hence the emphasis put on internal and external evaluation mechanisms and instruments for schools, which can be interpreted as a reflection of the output-oriented governance system and competencies based approach. In line with that setting, schools in the UK have a relatively high autonomy in adapting their educational offers and curricula. It is largely up to

them to cope with the new challenges and chances the new NVQs pose. Therefore, evaluation mechanisms are an important complementary systematic element in that setting.

To conclude, the analysis has shown that the developments in each country follow strongly the lines of the multidimensional national context parameters. Nevertheless, possible interesting fields for mutual learning could be marked:

For Germany this could be thinking about enhancing the role of evaluation (internal and/or external) mechanisms, especially with respect to quality provided in the educational sites.

For the UK it could be possibly attractive to integrate the already established anticipation mechanisms in a more institutionalised manner, especially when it comes to the aspect of cross-sectoral agreement on equivalence between qualifications provided in different industrial sectors.

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IV. Quality Assurance in a System Perspective

Good practice from the Irish VET and the Austrian HE sector

Karin Messerer, Jörg Markowitsch, Kurt Sohm, Walter Balfe

IV. 1 Introduction

The aim of this chapter is to examine approaches to quality assurance from two different countries by focusing on the system perspective instead of concentrating on specific elements and methods within the system. Of great interest for the European educational context, and at the same time a challenge we would like to meet, is to take a cross-sector perspective by comparing developments and achievements of quality assurance systems in higher education (HE) and vocational education and training (VET). In both sectors, quality of education represents a topic of high priority, but generally different ways to assure quality at the system level can be observed:

- In HE a common model of quality assurance seems to have been developed in the recent years: based on an internal evaluation by the HE institution (self assessment), an independent agency or Council conducts an external evaluation. The standards for the evaluation are set either by the agency or Council itself or by a third body. This development was possible due to more institutional autonomy given to the universities in many European countries. In this context, the ministries – who used to express full responsibility for universities – play a minor role now: responsibilities are more and more shared between ministries, agencies/Councils and universities. The increasing number of members of ENQA, the European Association for Quality Assurance in Higher Education, reflects the creation of new agencies or Councils for quality assurance in HE.
- In VET similar developments can only be observed to a lower extent so far. The situation in VET is much more diverse, there is neither a common model of quality assurance (although a Common Quality Assurance Framework – CQAF – and a set of quality indicators have been produced within the framework of the Copenhagen process[43]) nor do the institutions, responsible for quality assurance in the different countries, have a similar profile. However, in most countries this responsibility aligns with the ministry of education. The establishment of independent agencies or Councils for quality assurance in VET can only be observed in recent years.

The two approaches to quality assurance at the system level, presented in this chapter and introduced as cases of good practice, are FETAC, the single national awarding body for Further Education and Training (FET) in Ireland[44], and the Austrian FH Council, the single national accreditation body for the Austrian *Fachhochschule* (FH) sector, a sub-sector of the HE sector in Austria.[45]

The architecture of the system and the general procedures for quality assurance within these two systems are described in sections IV.2 and IV.3. The following paragraphs outline the reasons for the selection of these cases and the assumptions, why these cases can be assessed as good practice. Based on these assumptions, questions regarding the key success factors, which make these approaches work, will be posed. In the final section of this chapter these questions will be discussed and potential key factors will be analysed. This is of particular importance with regard to the transferability of these approaches to other sectors – a perspective that will raise further questions.

[43] For more information about these developments see the reports of the Technical Working Group "Quality in VET" (2003, 2004).
[44] http://www.fetac.ie
[45] http://www.fhr.ac.at

IV.1.1 Selection of the cases

We are presenting cases from different, but complementary sectors: with FETAC, responsible for quality assurance in a sub-sector of VET in Ireland (the FET sector) and the FH Council, responsible for quality assurance in a sub-sector of HE in Austria (FH sector), we can analyse two system approaches that together cover most levels of the education system.

The two approaches may be characterised shortly as follows:

- FETAC was set up as a statutory body only in 2001, under the Qualifications (Education and Training) Act of 1999.[46] According to this Act, providers are responsible for quality assuring their programmes, with FETAC exercising the role of agreeing providers' quality assurance procedures and monitoring the effectiveness of their implementation. As an independent body, consisting of different stakeholders, FETAC represents a rare example of a national quality assurance approach in VET.
- The Austrian FH sector was established by law more than a decade ago (1993) as a totally new HE sector.[47] It represents an interesting new model of relationship between autonomous institutions and external quality assurance. The establishment of this new sector in Austria enabled the initiators to set new standards in quality assurance and financing, which probably – at this time – would not have been possible in the existing university sector. Moreover, Austria was one of the first European countries to introduce an accreditation system for the FH sector. During the course of time this system was further improved (without changing its overall structure), and many of these experiences are documented.[48] Therefore we can look at the approach of the FH Council still as a rather new one, however, with a demonstrated good practice.

But what are the key success factors that make these two approaches work? Can they be found in their common elements or rather in the particularity of the respective contexts? In the following paragraphs some questions, that will be referred to again in the final section of this chapter, will be introduced. These questions are based on similarities and differences that can be observed at a first glance.

IV.1.2 Key success factors

Within the Irish FET sector and the Austrian FH sector, comparable structures for assuring quality at the national or rather system level have been developed: both Councils are independent bodies of similar size and structure (different stakeholders) and are established by law. This leads us to the question:

- What influence on the functioning of the system does the structure of the Councils have (e.g., legal basis, central body, independency, size, composition of the Council)?

Both approaches to quality assurance are provider-based, providers are involved in the development process (at least to some extent), and both systems are characterised by a high degree of autonomy of providers. These observations raise the following questions:

- What influence does the involvement of the providers have on the success of the systems?
- How important is the autonomy of the providers in the context of good practice of quality assurance at the system level? Would the systems also work without such a degree of autonomy of the providers?
- To what extent are consequences or incentives influencing the motivation of providers to fulfil the quality assurance requirements set by the Councils?

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[46] At the same time another new awards council was established: HETAC, the Higher Eduaction and Training Awards Council. It also would be interesting to compare the experiences and developments of FETAC and HETAC, but our intention was to combine the cross-sector analysis with a cross-country perspective.

[47] The development of the FH sector is an example for the increased importance of practice-oriented education at tertiary level. A tendency in the direction of increased importance of vocational education at tertiary level can be observed across Europe (c.f. Bjornavold 2004).

[48] E.g., Sohm 1999; Kozar 1999; Markowitsch 2001; Hoyer/Ziegler 2002; Messerer/Humpl 2003; Lassnigg et al. 2003; Messerer at al. 2003; Clementi et al. 2004; and Lassnigg/Unger 2006.

Despite their common elements there are undeniable differences between these two approaches:

FETAC, on the one hand, was established as the single national awarding body for the FET sector in Ireland, addressing existing as well as new programmes and training providers. FETAC replaces institutions that were previously responsible for making awards and can build upon examples of good practice to assure and monitor quality of programme provision and assessment provided by the former awarding bodies. The FH Council, on the other hand, was established prior to setting up the sector and started with the accreditation of new programmes. The FH Council also developed and set the concrete rules for the implementation of the FH Studies Act. Neither the sector, nor a similar type of providers or programmes existed before. This difference leads to the following question:

- What kind of influences on the working and acceptance of such systems can be observed when a new body replaces already existing bodies that oversee existing programmes or when a new body is established prior to setting up the sector?

FETAC operates in a rather diverse sector and makes awards to learners from a vast range of programmes offered by providers of many different types, whereas the FH Council is responsible for quality assurance in a more homogenous sector in terms of programmes and degrees offered.

- What role plays the homogeneity or, as the case may be, the diversity of the sector in the setting up of a successful quality assurance system?

We will come back to these questions and analyse potential key success factors after presenting the cases in a more detailed and rather descriptive way in the following two main chapters.

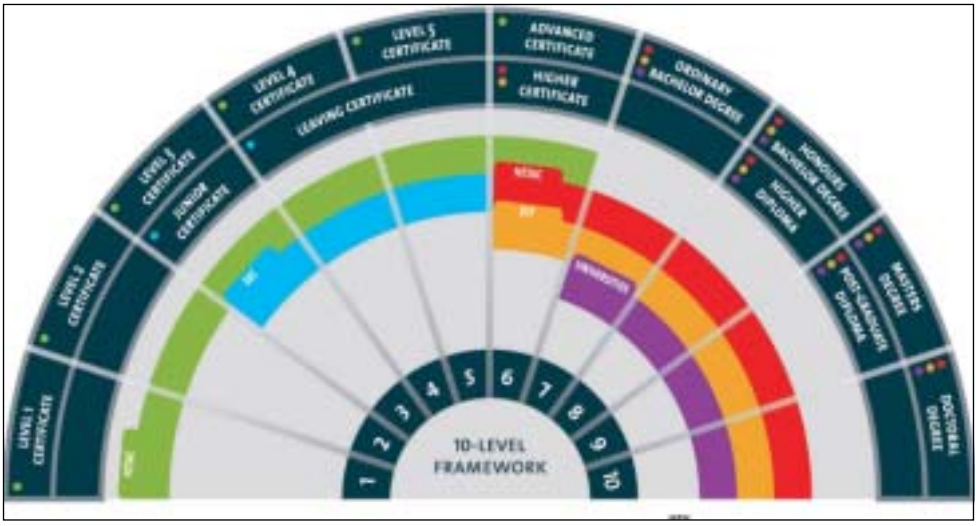
IV. 2 Further Education and Training Awards Council (FETAC) – Ireland

IV.2.1 The Irish FET sector

Further education and training is a vibrant, rapidly growing part of education and training in Ireland. It caters for a diverse range of learners, settings and fields of learning. Learning takes place in a range of environments, including centres of further education, training centres, Institutes of Technology, community-based centres, the workplace and on-line. There are approximately 300,000 learners in this sector.

The 1999 Qualifications (Education and Training) Act sets out FET as encompassing "*education and training other than primary or post-primary education or higher education and training*". In the Act the National Qualifications Authority of Ireland (NQAI) is specified as the body which will determine the definition of FET. To this end the NQAI have defined FET awards as "*those made by the Further Education and Training Awards Council (FETAC) at Levels 1 to 6 on the National Framework of Qualifications"*. The National Framework of Qualifications represents a 10-level structure and is depicted in Figure 5. Each level refers to an associated set of learning outcomes that are expected of a learner if she or he is to receive an award at that level. FETAC makes awards at levels 1 to 6 of the Framework.

Figure 5: National framework of qualifications for Ireland



Source: National Qualifications Authority of Ireland (n.d.)

Hence, FET is that which leads to FETAC awards. The number of FETAC awards issued has increased from 37,292 in 2001 to 81,770 in 2003 (FETAC 2003, 18), and to approximately 285,000 by the end of 2004 (FETAC 2004, 8). The FET sector in Ireland should be regarded as a diverse and dynamic sector, typical features of which include:

- Programmes usually have a vocational focus and reflect national, regional or sectoral economic needs and also aim to develop personal skills;
- There are over 1,000 providers in the sector, both publicly and privately funded; each consists of one or more centres;
- Programmes are funded from a wide range of sources;
- The cohort undertaking any one programme does not fit a prescribed profile (in terms of age, existing qualifications etc.).

IV.2.2 Quality assurance of FET programmes

In Ireland, quality assurance of FET programmes falls into the responsibility of both the providers and FETAC. Recent legislative and policy initiatives defined the primary responsibility with the providers, while FETAC expresses an overarching, monitoring role. The members of the Council are appointed for five years.[49] There are 18 Council members representing:

- Government departments with responsibility for Education, Training, Employment;
- Former VET awarding bodies, whose roles have been subsumed by FETAC;
- VET providers;
- Social partners – employers, trade unions;
- Learners;
- FETAC Executive and HETAC[50] Executive (Chief Executive Officers);
- Independent Chair – president of a third level college.

The Qualifications Act provides a legislative grounding for these developments. It sets out the respective responsibilities of FETAC and the providers as outlined below (see also FETAC 2004):

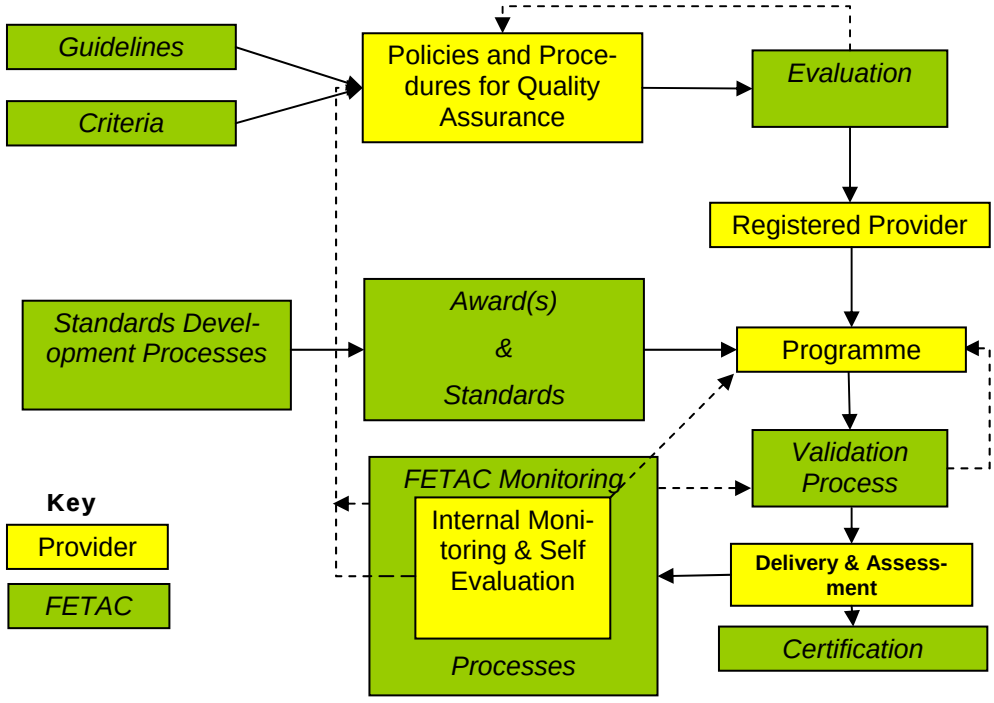
- FETAC, as the awarding body, determines the standards for the awards, i.e. the outcomes of knowledge, skills and competencies, which a learner must have demonstrated in order to achieve an award.

[49] The first Council was established in June 2001, and hence is approaching the end of its term.
[50] HETAC is the Higher Education and Training Awards Council. HETAC makes awards at levels 6 to 10 of the Framework.

- Any provider, who wishes to offer a programme(s), leading to a FETAC award(s), must first demonstrate its capacity to quality assure that programme(s). This criterion forms the basis of registration with FETAC.
- A registered provider can present a programme to FETAC for validation. This is a specification of how that provider will enable a group of learners to achieve a particular award. FETAC will examine the programme to ensure that the requirements for the award are included and that it is a valid programme. This will be done before that programme is offered to learners.
- A registered provider with a validated programme delivers the programme within its own internal quality assurance system. This will culminate in the assessment of the learners followed by certification by FETAC.
- The provider's internal quality assurance must monitor the quality of provision on an ongoing basis. In addition, this quality assurance should regularly conduct and report evaluations of the programme by staff, learners and an external person. These evaluations must link to a continuous improvement plan.
- FETAC will monitor the effectiveness of the provider's internal quality assurance in maintaining and improving programme quality.

In the following Figure the steps of the procedure as well as the activities and responsibilities of FETAC and training providers are depicted:

Figure 6: Provider registration and programme quality assurance



Source: Balfe 2005

Up until now the feedback from providers has been largely positive. This approach requires from many providers in the public sector to establish or clarify structures and systems which may or may not have been there before. Although in some cases these requirements might be annoying, providers appreciate that this approach gives them both increased autonomy and responsibility.

Some further details of the more important elements of this overall system are set out below.

- Quality assurance by providers:

Under the Qualification (Education and Training) Act 1999 a central function of FETAC is to establish, publish and review policies and criteria for the validation of programmes. In June 2004, FETAC published a policy on Providers' Quality Assurance. This defines the mechanism by which providers can register with FETAC only following an agreement on the capac-

ity of the provider's quality assurance policies and procedures to quality assure its programmes and services. Included in the policy are the areas of a programme, which a provider must quality assure.[51] An important tenet of the policy is that every provider must quality assure the same areas of provision, but must propose their own procedures for doing so. In other words, there is consistency as to what is quality assured, but how it is quality assured can vary from provider to provider. This ensures that all providers are designing and operating to a common framework, however, the variety of different contexts present in the sector can be maintained through providers still being able to operate in a manner in keeping with their own ethos and resources.

- Programme validation by FETAC:

Validation of programmes requires a provider to specify certain information about the content, delivery and assessment of any programme, which leads to a FETAC award or awards. This is a FETAC quality measure to ensure that a proposed programme can, when delivered, enable a learner to meet the requirements of a specific award. A critical aspect of the programme information relates to how the learners of the programme will be assessed. Validation is a measure which enables quality proving by providers and FETAC, before a programme is initiated. It has a preventative function, removing problems before they happen and improving the programme design.[52]

- Quality assurance of assessment:

Fair and consistent assessment of learners is crucial for the overall quality of service to learners and to the credibility of awards. Since all assessment in Irish FET is provider-led, a provider's quality assurance policy and procedure must clearly demonstrate the commitment and capacity to ensure valid assessment of the learners. The training provider must ensure that all the assessments are criterion referenced and aligned with the espoused learning outcomes. This is assisted by FETAC, producing all awards expressed as learning outcomes with guidance for providers on appropriate assessment methodologies. A provider is required to have a system for internal verification of results, supplemented by external verification by an independent person with relevant programme expertise. FETAC will establish a register of external examiners who are selected for their subject matter and education/training expertise, but also their ability to fulfil the objective role required. For example, the register may include people from FET, HE, industry etc.

- Monitoring by FETAC (external quality assurance):[53]

FETAC expresses a responsibility for monitoring the effectiveness of a provider's quality assurance, placing a particular emphasis on the validity, fairness and consistency of its assessment processes and output. Monitoring does not try to alter the importance of a provider's own quality assurance, but seeks to support it and wants to ensure that it is achieving its purpose of quality maintenance and improvement. Monitoring will be financed by FETAC and "monitors" will be full-time staff contracted by FETAC, based on their experience and suitability for the role.

Currently a policy on monitoring for approval by the Council is being drafted. This policy has been out for consultation with providers, who have given substantial and varied feedback. It will be communicated further to ensure understanding and acceptance.

Monitoring will comprise a combination of:

- On-site visits by trained monitors: there will be a small panel of full-time professional monitors. They will be selected on the basis of having experience and expertise in both education/training and possibly auditing of quality systems;
- Review of external verification of assessment;
- Analysis of reports from the certification database, e.g. achievement of learners, progression, grade analysis etc.;
- Review of the provider's self-evaluation reports.

[51] Cf FETAC 2004, 13.
[52] For the information that is supplied by a provider, seeking validation of a programme, see FETAC 2006, 23.
[53] Current monitoring practices are those of the former awarding bodies, whose role FETAC has subsumed, but whose systems are being phased out. These are well established and accepted by providers.

The findings and results of monitoring will be communicated back to the provider, so as to recognise and encourage good practice and to require improvement when necessary.

IV. 3 FH Council - Austria

IV.3.1 The FH sector at a glance

The Austrian FH sector has a rather short history. It was newly set up in 1994, and is still developing. After the FH Studies Act became effective on 1 October 1993, the first 10 FH programmes started in the academic year 1994/95. Meanwhile, there are 18 institutions offering 150 programmes with about 28,000 study places, and the annual intake of students in 2005/06 was about 7,700; until now, there are about 17,000 graduates. At present, 52% of the programmes are offered in accordance with the Bachelor-Master system and the re-organisation of the programmes, in line with the Bologna process, continues. It is expected that in the academic year 2006/07 about 80% of the programmes will be in line with the Bologna system.

The educational mandate of FH study programmes is to provide a scientifically sound and practice-oriented professional education at a HE level, and particularly to provide graduates with problem-solving skills in a professional field in accordance with the latest scientific developments and professional requirements. This educational mandate focuses, in particular, on the employability of FH students. The suitability of the acquired qualifications in a specific occupation plays a central role. Hence, curricula are to be designed in such a way that graduates have a reasonably good chance of finding a job that matches their qualification. With reference to this educational mandate, the basic concept for a FH degree programme must describe the connection between the vocational fields of activity, the related qualification profile and the curriculum, and these connections should be reflected in the teaching concept as well.

When drawing up degree programmes, profiles defined on the basis of the Dublin Descriptors and describing the characteristics of practice-oriented Bachelor's, Master's and diploma programmes, must be taken into account.

IV.3.2 Framework condition

- General

As a new sector with a strong focus on employability, FH institutions were given a high degree of autonomy to organize themselves, and this concept also meant the end of the state's monopoly as supplier of HE studies.

The framework conditions can be summarised as follows:

- The state no longer centrally controls and regulates the HE sector as it previously did;
- The decision-making process is decentralised in order to foster the independence, responsibility and flexibility of the institutions;
- Course providers are private organisations (legal persons under private law, e.g. companies with limited liability, associations or public foundations);
- Study places benefit from public funding;
- External quality assurance is the responsibility of an independent public authority (FH Council).

- FH Council

The FH Studies Act established the FH Council as the public authority that takes responsibility both for external quality assurance and for the approval of new programmes. Thus, a positive accreditation decision is equivalent to an approval.

The FH Council consists of 16 members, half of them are required to have the relevant post-doctoral lecturing qualification (Habilitation) and the other half comes from business/industry (they are required to prove that they have worked in the fields relevant for FH degree programmes for several years). They are appointed by the Federal Minister for Education, Science and Culture, and four of them are appointed on recommendation of the Ad-

visory Board for Economic and Social Affairs. They are appointed for three-year terms, and re-appointment for a second consecutive term is possible.

Each decision of the FH Council on accreditation or non-accreditation of degree programmes requires the approval of the Federal Minister for Education, Science and Culture. Such an approval can be denied if the decision of the FH Council does not correspond with the goals of national educational policies. However, the ministry may not instruct the members of the FH Council to approve a specific degree programme. The FH Council is under the supervision of the Federal Ministry for Education, Science and Culture (and under the control of the Court of Auditors), but this supervision is limited to the observance of laws and regulations.

- Financing

As far as the financing of programmes is concerned, the FH Council must work within the requirements of the FH development and financing plan of the Austrian federal government, in which the government undertakes to fund an agreed number of student places. The current FH development and financing plan is valid for the academic years 2005/06 to 2009/10. It states that the government plans to fund 300 new student places per year. Hence, this is the financing concept of study place management. It is the legal task of the FH Council to advise the competent federal minister on the use of federal funds.

The key figure for the financing of FH degree programmes is the cost per student place: the annual costs of one student amount approximately EUR 6,400 to EUR 7,600.[54] To create incentives for a mixed financing system, the government funds only about 90% of the annual standard costs for a student place.

IV.3.3 External quality assurance

Quality assurance for education, offered by the FH institutions, is of utmost importance to the Austrian FH sector. This high importance also results from the modern regulatory framework conditions.

- Basis of external quality assurance

The FH Studies Act contains the prerequisites and procedures for the accreditation of FH programmes as well as the conditions for awarding the institutional designation “Fachhochschule”. The FH Council interprets the legal requirements by setting up guidelines and quality standards for accreditation and evaluation (cf. FH Council 2005). Regarding the accreditation procedure, the General Law on Administrative Procedure is applicable. The FH Council decides on an application for accreditation or re-accreditation as an FH programme without unnecessary delay, but at the latest within a period of nine months after submission of the application.

The external quality assurance system is based on the fundamental principle that the responsibility for assuring and improving quality finally rests with the institution. It is the main task of the FH Council to assure that the institutions meet their responsibility for quality in a valid, reliable and transparent way.

- Systematic connection between initial accreditation, evaluation and re-accreditation

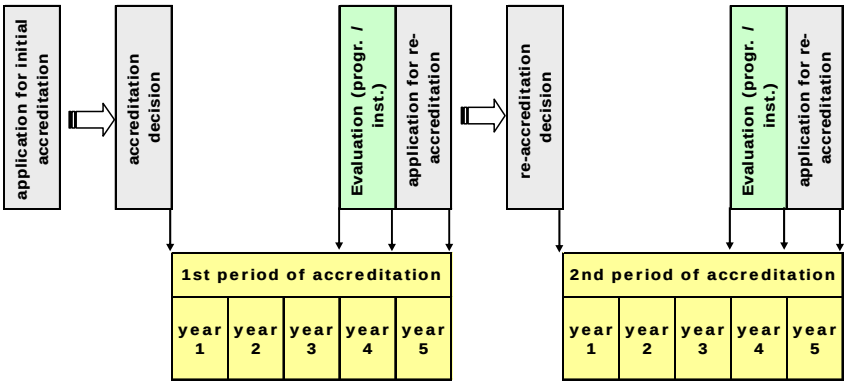
The external quality assurance system is marked by a close connection between initial accreditation, evaluation and re-accreditation. The systematic connection between initial accreditation, evaluation and re-accreditation can be summarized as follows (see also Figure 7):

- Initial accreditation and re-accreditation always refer to programmes; accreditation is granted for a period of a maximum of five years.
- Each re-accreditation requires a new application and the submission of an evaluation report, i.e. each FH Council decision on re-accreditation is based on a previously conducted evaluation as well as on the acceptance and assessment by the FH Council of the submitted evaluation report.

[54] These costs were calculated on the basis of a background report drawn up for the OECD (for a breakdown of costs see also Keber 1992).

- Prior to the expiration of the accreditation, an evaluation procedure has to be carried out (each re-accreditation is preceded by an evaluation).

Figure 7: Systemic connection between initial accreditation, evaluation and re-accreditation



Source: Managing Body of the FH Council

- Initial accreditation

According to the FH Studies Act the design of new programmes must be carried out on behalf of the provider by expert teams with academic and professional qualifications (at least two persons with academic and two persons with professional qualification).

As far as the accreditation decision is concerned, programmes are reviewed against the fulfilment of their educational mandate. Thus, the review of the coherence between the targeted vocational fields of activity, the qualification profile and the curriculum plays a central role in the accreditation procedure.

The aim of accreditation is to assure that institutions meet their responsibility for quality and guarantee students, sponsors, the business community and society that the programmes offered have gone through a positive quality assurance procedure prior to their approval. As a rule, the timeframe from the development of a new programme to the accreditation decision of the FH Council comprises about six to nine months.

The main stages of initial accreditation are as follows:

- Programmes are designed on behalf of the course providing bodies by expert teams with the required academic and professional qualifications.
- An application for initial accreditation of a programme is submitted to the FH Council according to the “Fachhochschule Studies Act” and the accreditation guidelines of the FH Council.
- Applications are examined by the members of the FH Council and the staff of the Managing Body of the FH Council. If there is a lack of expertise in the FH Council, external written expert opinions are asked for.
- The decision on initial accreditation is carried out by the members of the FH Council themselves. The accreditation procedure ends with a positive or negative decision, including a likely request by the FH Council to take certain measures to improve the quality of the programme.
- If the legal prerequisites are met and the required quality measures fullfilled, an FH programme will be approved for a limited period of time not exceeding five years.

- Evaluation and re-accreditation

The evaluation procedures are carried out according to the evaluation regulations of the FH Council. The evaluation in the Austrian FH sector consists of the following elements:

- Internal evaluation by the institution to be evaluated (self-evaluation);
- External evaluation by a review team;
- Compilation of an evaluation report: the evaluation report shall not exceed 20 pages and shall be drawn up in agreement with all involved members of the review team; dissenting opinions may also be given;
- Comment of the course-providing body on the review team’s evaluation report;

- Acceptance and appraisal of the evaluation reports by the FH Council;
- Follow-up procedure;
- Publication of the evaluation results (summary report).

The organisation of the evaluation procedure is carried out in co-operation with an independent and internationally renowned quality assurance agency. Two different evaluation procedures are carried out: institutional and programme-related evaluations. In this system evaluation does not state a methodological concept of its own, but serves to fulfil the task of accreditation of programmes. Evaluation reports are submitted to the FH Council. Applications for re-accreditation must clearly outline, how the FH institution has responded to the results of previous evaluations. Evaluation results are published on the website of the FH Council. Each FH Council's re-accreditation decision is based on a previously conducted evaluation by an external review team. The members of the review team need to be independent and unbiased.

For both the degree programme-related evaluation and the institutional evaluation the review team comprises at least three members and one assistant. The review team for the degree programme-related evaluation includes one member who occupies an academic management function for a foreign degree programme in a similar field, one member with relevant practical experience as well as one member with sufficient experience with teaching and the assessment of the design of curricula with respect to teaching methods. For the institutional evaluation, the review team also comprises one member who fulfilles an academic management function at a foreign HE institution in a similar field, as well as one member with management experience gained in a business or non-profit organisation. At least one member of the review team must be familiar with the Austrian FH sector, and at least one member must be experienced in performing evaluation procedures.

Members of review teams also ought to be prepared (concerning the content, methods and organisation of the external evaluation) for their activity in a timely and suitable fashion prior to their on-site visit.

IV. 4 Conclusions

IV.4.1 Key success factors and transferability

When analysing these two cases, some elements of the system approaches to external quality assurance are striking. They seem to be crucial elements that make the approaches work. To a certain extent we already can predict that the transferability of key success factors is possible across sectors because the described elements were taken from cases belonging to different sectors (VET and HE). When discussing the key success factors identified, considerations for further possibilities of transferability to other countries and sectors will be added.

We would like to begin with common elements of the two cases:

- Structure of the Councils

Both Councils have a clearly defined legal basis for quality assurance, their own tasks and their independence. It can be assumed that the independence of each Council's decisions guaranteed by law[55] fosters the acceptance of the system in their respective sectors. This may also be the case for the composition of the Councils, because it reflects in both cases the variety of actors in their sectors:

- Half of the members of the FH Council must be academically qualified by post-doctoral lecturing experience; the other half of the members comes from business or industry.
- The FETAC Council reflects the wide variety of groups in the FET sector, and the breadth of provision available nationally.

[55] For example, pursuant to a constitutional provision, the members of the FH Council are not bound by any instructions when performing their responsibilities (cf. section 7 of the *Fachhochschule* Studies Act [*Fachhochschul-Studiengesetz*, FHStG] as amended).

Both FETAC and the FH Council are the single national body for their sector. The existence of more agencies operating in the same sector would foster competition and would make possible a specialisation of agencies. Competition between several quality assurance agencies could push down the prices of their services. But at the same time this could have negative effects on their quality.

The decision to have only one Council per sector seems to be possible and to be sensible in view of the size of the countries and the sectors: they are in both cases of a manageable size. Furthermore, examples from HE in other European countries show that in most cases a single national body has been established. It appears that there is a high agreement that countries are better served with a single agency or Council that has an overarching responsibility for establishing and maintaining a unified and coherent system of external quality assurance in HE.

- Involvement of providers

In both cases, providers are involved in the development or further development of procedures (see e.g. FETAC 2006, Clementi et al. 2004). Consequences of this approach are that the systems have – to a large extent – gained acceptance among providers, which is a basic pre-condition for the effective functioning of any national quality assurance system.

- Joint responsibility

In both cases, the quality assurance systems work under the auspices of modern and innovative framework conditions and are based on principles of "New Public Management". This implies a deregulation at the state level and a regulation by the private sector under state supervision, and a joint responsibility for quality assurance shared between public authorities, Councils and providers. Both systems require providers to take high responsibility for their own quality assurance and to show the capability and internal systems and structures necessary to do so.

- Autonomy of providers

High levels of institutional autonomy of providers allow for shared responsibility in quality assurance.[56] In HE, a trend to more institutional autonomy can be observed internationally. In a rather new sector like the Austrian FH sector, a high degree of autonomy was given to the newly established institutions from the outset, while in many European countries the universities were granted more autonomy only recently, and the process still continues. In the Berlin Communiqué of the Conference of Ministers responsible for HE (19 September 2003), Ministers stressed that

> *"consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework."*

Examples from other European countries (e.g., Denmark, Finland, UK) also emphasize that the development of quality assurance at the system level in initial VET goes along with a high degree of provider autonomy.

- Integrative approach of quality assurance

Both systems represent an integrative approach to quality assurance. Integrative approach means that quality assurance is an essential element of the processes in the sectors: preconditions are defined, their fulfilment is monitored and in case of non-fulfilment consequences are entailed.

FETAC is responsible for the registration of providers, programme validation and monitoring of quality assurance. In the Irish FET sector only providers with agreed quality assurance procedures can register with FETAC and apply for validation of their programmes, and only

[56] Institutional autonomy in this context means that an institution is provided with the right to act by its own choices – at least to a certain extent – in pursuit of its mission: providers can decide more or less on their own about, for example, specifications of organisational structure and institutional decision-making, selection of students for admission, or personnel recruitment.

programmes validated by FETAC can lead to FETAC awards. In Ireland this has led to a situation, where the 1999 Act requires only state-funded providers to have their programmes validated, but private training providers now also apply for validation. There is no direct funding or financial implications of registration with FETAC. However, some funding agencies or learners will only leverage a programme which has national certification available, and this is a high motivation for providers to apply for validation.

The Austrian FH sector demonstrates a wholly integrated external quality assurance. This means that initial accreditation, evaluation and re-accreditation are all connected. Every FH programme needs to have a positive accreditation decision to start. The accreditation procedure is designed to verify compliance with given requirements and the accreditation decision sets binding requirements for the HE institution to assure and improve quality. The non-fulfilment of quality standards and requirements entails consequences. This fact is a core element of the system and gives quality assurance a central role in it, instead of being just an accompanying measure.

Clearly defined regulations for quality assurance combined with consequences, and as the case may be also with incentives, seem to be a high motivation for providers to fulfil requirements. A high quality of study programmes offered, based on a well developed and communicated quality assurance system, can yield a good public image of the institution. This also contributes to higher acceptance of graduates on the labour market.

- High importance of self-evaluation

An essential element of both approaches is the providers' self-evaluation of their programmes and services. This encourages a high sense of responsibility among providers and reduces their dependency on external audit as the main engine of improvement and change.

Moreover, the importance attached to self-evaluation leads to a better acceptance within the educational context. For example, the quality assurance system regulated by the FH Council has gained acceptance in the HE sector and is seen as benefiting "people on the spot". A study accompanying the institutional evaluation within the Austrian FH sector came to the conclusion that providers widely approve this approach (Clementi et al. 2004, 159).

Furthermore, quality assured study programmes enjoy higher acceptance both by students and the labour market. For example, as far as the Irish case is concerned, FETAC was set up because of the need for learners to have a nationally recognised qualification that employers and educators could rely on. The increasing number of FETAC awards issued seems to signal the success of this purpose and can be seen as a contribution to the increasing recognition and consolidation of the FET sector in Ireland.

After looking at the common elements of the two cases, we now would like to focus on the differences: What kind of influences on the working and acceptance of such systems can be observed when focusing on the differences of the two systems?

- Establishment of a new body replacing others for an already existing sector versus establishment of a new body prior to setting up the sector

The examples presented underscore that in both cases a good practice of quality assurance can be developed. But certain strategies or proceedings seem to be crucial for that success. Especially in the case of FETAC it can be assumed that the involvement of providers and of the institutions previously responsible for quality assurance were important factors. In the case of the FH Council, the new institutions applying for accreditation could make use of newly defined standards for the programmes and their experience and feedback was used for further improvements of the system.

- Homogeneity or diversity of the sector

It appears that quality assurance requirements can be defined at a rather general level. The fact that FETAC, which is dealing with a very diverse sector, follows an output-oriented approach, seems to be of particular importance: a key function of FETAC is to determine standards of knowledge, skills or competencies, to be acquired by learners before a Further Education and Training Award can be issued by the Council. The output orientation counterbalances all obstacles that might result from the diversity of the sector.

Further differences between the two systems might stem from the fact that in Ireland a National Framework of Qualifications has been developed: FETAC's mission is to make quality assured awards, which are in accordance with this Framework, which furthermore recognise achievement, create opportunities for learners, and provide systematic progression pathways. Hence FETAC is an awarding body for learners, whereas the FH Council is an accrediting body for providers. A more detailed analysis about the consequences resulting from the existence or not-existence of a National Qualification Framework as a structure for developing, describing and systematizing the relationships between qualifications, would go beyond the scope of this analysis, but should be addressed in further studies.[57]

The key success factors, i.e. the most important elements that should be taken into account when attempting to transfer these models to other sectors and countries, can be summarized as follows:

An independent external organisation (Council or agency) should be established with clear tasks and responsibilities (e.g., for the definition of standards and the monitoring of their implementation). Providers should have to justify their activities and must demonstrate accountability to this independent body, and should benefit from incentives linked to the fulfilment of standards. At the same time, providers should have a high degree of autonomy and flexibility in their activities. An appropriate balance between autonomy and accountability seems to be necessary. Providers should thus be fully aware of the importance of quality assurance.

IV.4.2 European dimension and future prospects

Both systems are rather young and quite flexible and innovative. Their development process seems to be fluid and ongoing and may not reach full completion for some more years (FETAC), and is still advancing under the auspices of an established accreditation system (FH Council). This flexibility and openness also allows for the integration of new developments or good practices from other European countries.

Although the impact of European developments is traditionally rather minimal on the practice of VET and more significant in the case of HE – because of differences in needs and motivation, stages of development, approaches, networking and information channelling (cf. Deane and Watters, 2004, 20) –, both FETAC and the FH Council are involved in European and international co-operation: for example, FETAC has conducted extensive research into national systems for quality assurance in other European countries as well as in South Africa, Australia, New Zealand, and the United States. Furthermore, FETAC is an active participant in structures for co-operation in quality assurance among Member States developed within the framework of the Copenhagen process, and its Quality Assurance Policy agreed upon in June 2004, is consistent with the CQAF. The FETAC system has as its foundation the Irish National Framework of Qualifications, which will be linked into the EQF[58], and FETAC awards will be complemented by Certification Supplements as part of the EuroPass model.

Similarly, the regulations set by the FH Council are in line with the Bologna process and the FH Council is actively involved in international quality assurance networks.[59]

With increasing knowledge, experience and growth of these still rather young systems and thanks to the integration of good practice from other countries, further developments and changes in the systems presented can be expected.

This analysis shows that a comparison of quality assurance systems in VET and HE is fruitful for the identification of key success factors. However, the question remains open, whether these assumptions may be generalised. Other sectors or countries seeking to adopt the examples presented, should be aware that key success factors in one system might be, at the

[57] National Qualification Frameworks are also discussed in the context of the current debate regarding the development of a European Qualifications Framework (EQF).

[58] The Irish National Framework of Qualifications can also be seen as a model for the development of the EQF.

[59] The FH Council is member of the following networks: International Network for QA Agencies in Higher Education (since 1995); European Association for QA in Higher Education (since 2000); Joint Quality Initiative (since 2002); European Consortium for Accreditation (since 2003); Deutsch-österreichisch-schweizerisches Akkreditierungsnetzwerk (since 2003); Central and Eastern European Network of QA Agencies in HE (since 2004).

same time, obstacles to their transfer into a different context. This will have to be analysed in further studies.

With the presented analysis we hope to stimulate further discussions and cross-sector as well as cross-country co-operation, which furthermore contributes added value to quality assurance developments.

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V. Monitoring by Statistical Indicators

Use of statistical monitoring for quality development and quality assurance – examples of good practice in Denmark and Sweden

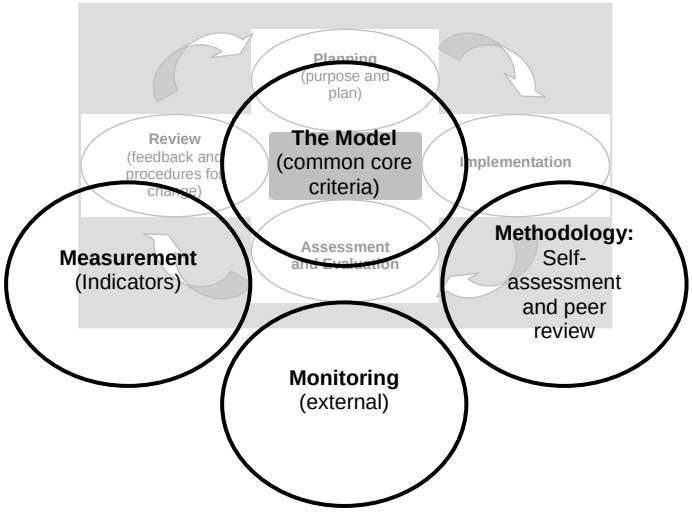
Lorenz Lassnigg

V. 1 Introduction

In this chapter the contribution of monitoring by statistical indicators to quality assurance and quality development (QA/QD) in education and training (ET) is analysed. The analysis refers to the Common Quality Assurance Framework (CQAF), which has established procedures of (external) monitoring as one of its cornerstones.[60] Based on the model of the quality cycle, the framework rests on a combination of self-assessment, external monitoring and measurement by quality indicators (Figure 8).

> *"Self-assessment (…) needs (…) to be combined with periodic external monitoring by an independent and appropriate third party body at national, regional or sectoral levels. This combination is a pre-condition to ensure the credibility, legitimacy and recognition of the evaluation of VET results and to support review. (…) Monitoring systems, mechanisms and procedures are part of the regulation function in governance and they can be as diverse as the national systems, sub-systems and institutions are." (TWG 2004, 11)*

Figure 8: The methodological cornerstones of CQAF



Source: Figure by the author based on TWG 2004

Statistical monitoring combines QA/QD with measurement by quantitative data, which represents one form of how it can be done (Fitz-Gibbon 1996, UNESCO 2005).

The analysis is presented in the following steps:

[60] TWG – Technical working group "Quality in VET" (2004) FUNDAMENTALS OF A "COMMON QUALITY ASSURANCE FRAMEWORK" (CQAF) FOR VET IN EUROPE. European Commission, DG EAC, June 24th. Brussels http://www.cnfpa.ro/Files/eurodoc/theCQAFfinal.pdf; see also Faurschou, Kim (2005): CQAF as a Common Framework for Quality Assurance. Presentation at the Conference about Quality Assurance in VET. Exchange of Good Practices and Institutional Co-operation. February 10th -11th, Dipoli Congress Centre, Espoo, Finland. http://www.oph.fi/info/qa/vet/auditory/Faurschou%2010.2.05%20Opening%20Ceremony%20CQAF.pdf

- First, a conceptual mapping of the relationship between statistical data and QA/QD is provided;
- Second, the use of quality indicators and the procedures of data collection as two main issues of this relationship are worked out in greater detail, using the cases of Denmark and Sweden as examples for good practice;
- Third, some conclusions and questions for discussion are presented.

Conceptually, the analysis starts with the assumption that the sources of statistical information often are not fully exploited for QA/QD. The trend towards devolution of authority to the ET institutions and the increasing substitution of administrative by management practice emphasizes information needs.

> *"The trend towards decentralised governance, supporting and relying on local know-how and creativity, goes together with an increasing strategic complementarity between internal and external procedures." (TWG 2004, 11)*

The establishment of proper mechanisms of statistical monitoring is particularly related to the planning phase of the quality circle, which sets the conditions for the overall system and methodology (the *systematic approach)*, for the *measurability of goals and results,* and for the methodology of *implementation and assessment.*

V. 2 Conceptual mapping and aims of the study

The development of a proper linkage of statistical information systems with quality policies represents a major challenge in many ET systems. In the following section, a mapping of the relationship between statistics and quality is outlined.

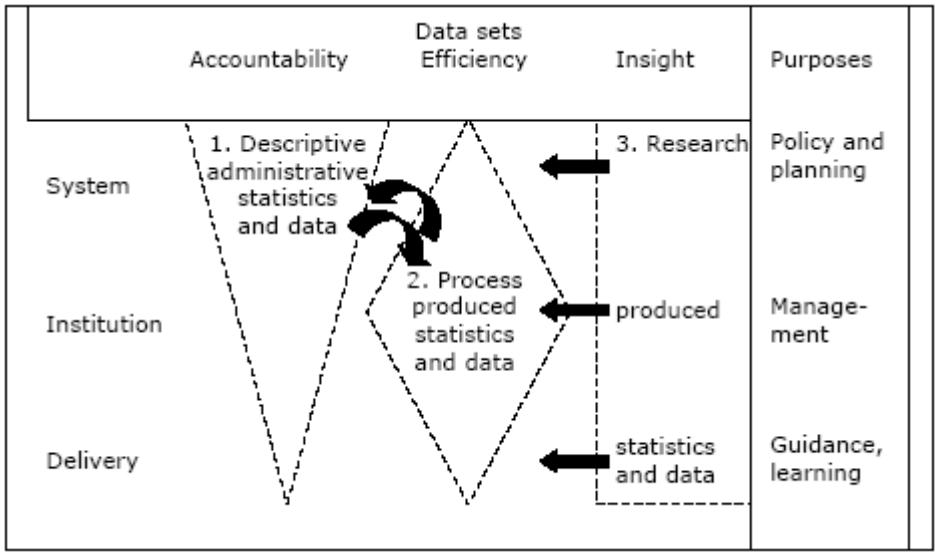
V.2.1 Data supply: Mapping of data sets and diversification of data production

One proposition of the conceptual mapping concerns a certain distance between statistical data production and policy making. The core of the argument is institutional. Different sets of data have emerged which are related to different uses in different institutional contexts:

(1) The traditional frameworks of administrative statistics, which have developed as an outcome of the interaction of state governments/departments and statistical offices (statistical reports and presentations);
(2) Process produced data as an element of certain administrative and/or management activities (e.g., data for the provision and management of resource allocation);
(3) Research produced data, which are not a direct part of management, administration and policy making, such as the various projects for the assessment of achievement results or competences (e.g., PISA).

These different sets of data have served different purposes, which are depicted in a stylised manner in Figure 9. In *traditional descriptive administrative systems* statistics have been used for purposes of public accountability and to some extent for macro-level planning and budgeting purposes, focused on the input side. Statistics were more or less detached from quality control, and situated in separate statistical offices. Quality control was based on input-sided regulation and inspection, including information gathering by qualitative data through site visits and administrative reporting rather than by statistical data. Process related information was not available. Periodical population census surveys were an additional source of information, which covered some educational variables, e.g. outcomes. Data were collected in tabular form about aggregates.

Figure 9: Mapping of different kinds of data sets



Source: Own conceptualisation by the author

In the 1970s, with the expansion of computing, things started to change in two ways: in some areas it was the start of collecting *individual micro data,* which allowed for the follow up of pathways through the ET system, and beyond that into working life. Scandinavian countries pioneered this type of data collection. With the spreading of computing, *process produced data* for management and administrative purposes developed in many areas. Those data were initially more or less separate from the collection of statistics. For several years, however, the electronic data production was not very flexible too, and sometimes even more time-consuming than before, because of the increasing scale of requirements, variables, etc.

More recently, several types of *data based on samples and surveys*, which are more directly related to research activities, have been increasingly collected. European initiatives were a driving force for this development, e.g. the Labour Force Survey (LFS) or the Continuing Vocational Training Survey (CVTS). The Programme for International Student Assessment (PISA), and many other similar projects, also produced data about ET systems. These data, based on samples, brought inference statistics more closely to consideration.

As a result of these developments, a diversification of different types of data emerged, sometimes including several parallel activities in the collection of similar data. Since the late 1980s, the activities of producing international comparative data and indicators increased substantially.[61] The UNESCO-OECD-EUROSTAT (UOE) questionnaire, which collects comparative national data, represents a key instrument (and example) for these initiatives. Many sets of *indicators* have been developed, with the OECD Indicators, published in Education at a Glance (EAG), as the most well-known. At the European level, the Lisbon strategy generates a strong impetus for the development of indicators.[62]

In this process a broad supply of data has emerged at regional, national, and international levels, which are embedded in different institutional contexts with different constraints. Figure 9 shows a stylised picture, where the descriptive administrative data are related to the system level with the purposes of accountability and planning, whereas the process pro-

[61] See the Council Resolution, of 5 December 1994, on the promotion of education and training statistics in the European Union Official Journal C 374
http://europa.eu.int/eur-lex/lex/LexUriServ/LexUriServ.do?uri=CELEX:31994Y1230(02):EN:HTML

[62] E.g., the European Structural Indicators, the indicators produced in the work programme for Education and Training 2010, including the European Benchmarks, and the Indicators for Quality in VET in the CQAF. A previous study (Lassnigg 2003) provided an inventory of comparative international indicators in six education-specific and in six more general indicator systems. Counting all ET related indicators (including double counting across indicator systems), a number of about 280 internationally comparative indicators can be stated. Input related indicators still provided one third to one half of the available indicators. However, quite a large number of indicators, concerning the other categories, also has been observed.

duced data refer to the institutional level and to efficiency and management purposes. Research data are more diversified. The arrows in Figure 9 underscore a tendency of integrating administrative and management data, on the one hand, and of integrating research data with other sets, on the other hand. However, in practice there appear to operate limits to that integration. The proposition is that in different national and regional systems there will be different distributions among those types of data with different demarcation boundaries between them.

From this mapping we can draw the conclusion that the historically grown structures of data production influence their utilisation. The data use is embedded in tight systems of regulation, and in social structures of actors and institutions with diverse interests and needs. Data utilisation thus also means co-operation among these actors.

V.2.2 Data demand: Shift towards the result dimension and to the institutional and management level

On the demand side of data the emerging models of QA/QD have shifted the emphasis to the result dimension (output and outcome), and to the institutional level. Purposes of efficacy and efficiency point particularly to the relationship between inputs and results. The flow of information must be integrated much more strongly into the management of institutions and systems, leading to the task of a more integrated linkage of statistical monitoring and institutional and systems management. In public systems, the devolution of authority to institutions leads to increasing diversity. In order to retain oversight over the system, the demand for information increases. Purposes of steering and management need more time-sensitive information than purposes of accountability and input planning.

There are two main challenges for the use of statistical monitoring for QA/QD: First, the operational formulation of goals and objectives; second, the accurate and timely flow of data production, dissemination, and utilisation for purposes of daily control and cyclical feedback (and “feed-forward”). The *formulation of operational goals and objectives* is the basic ingredient for quality indicators, which formulate the relationship of the goals to performance measures. Quality indicators, by definition, relate statistical information to goals and objectives, and ideally give an indication to which extent goals and objectives have been reached (Quality = Experience/Expectations). Because quality represents normally a complex issue, it is not directly observable. Thus more or less complex indicators are necessary.

Basically, the formulation of goals and objectives is a core issue of the planning stage. However, every stage of the whole policy cycle depends on it, as the goals and objectives must be reasonable “translated” into the necessary resources and measurable results, as well as into the information necessary for the assessment, evaluation, and feedback. In other words, it is not only reasonable to define indicators for the results, but also for the input and process dimensions. The CQAF indicators include this. For any causal analysis the context dimension is essential.

The *flow of data production and utilisation* should support every stage of the process of QA/QD. So far a main problem of data production is the time lag, until the information is provided. To some extent this is due to the complexity of the data production systems, and to “long” production lines involving many actors.

V.2.3 Aims and objectives of the current study

The current study aims in providing a closer look, how monitoring by statistical data can be used effectively in the QA/QD process at both institutional and systems levels. Frequently, different data sets and data gathering procedures are used at different levels of the process. Statistical systems also are often separated from the operational level, and sometimes the procedures of data-gathering are doubled or multiplied. Dissemination of information is also frequently separated from the policy process.

Using selected cases of good practice and additional observations about experience in Member States, the key issues and key challenges for the use of statistical indicators for QA/QD are analysed, in order to identify some common areas of improvement. The following points are proposed as key issues and challenges of the use of statistical monitoring for QA/QD:

- *Functions*: A well-defined system of monitoring by statistical data should integrate the functions of the definition of indicators due to policy goals and objectives, of timely data production and dissemination, and of feedback and feedforward for improvement.
- *Levels of aggregation*: The use of indicators at the level of educational institutions and at the more aggregate regional and system levels should be integrated in a comprehensive system across these levels to be effective, and to create synergies for QA/QD.
- *Operational goals and measurement*: Problems of proper measurement of the main quality dimensions concerning goals and delivery (input, process, output, outcome), must be resolved. The definition of quality indicators, which cover the goals and objectives in an operational way, is a key challenge to be met.
- *Quality system*: The integration of statistical data, on the one hand, and of the procedures of QD/QA represents another main challenge to be resolved. This integration concerns the procedures of data production as well as of data dissemination and reporting.
- *Planning procedure*: The social organisation of the planning phase, in terms of the co-operation among the stakeholders and the inclusion of the interested social groups in the process in an effective, transparent and co-operative way, marks a crucial challenge in the building of a systematic approach to QA/QD.
- *International and European levels*: Another challenge concerns the relation between the regional, the national and the supranational levels, as many sets of comparative statistical data are available and are being further developed. The regional and national systems contribute to those data sets, and the question arises, how they can be utilised for QA/QD purposes at these levels.

Those key challenges can be translated into some more specific questions, which should be addressed by the analysis and the subsequent discussion:

- How to move from descriptive data to quality indicators via the goal setting process?
- What are main supporting factors/obstacles to operational goal definitions?
- Which actors are necessarily involved in the practice?
- What are the necessary ingredients of successful dissemination and feedback mechanisms?
- How is the relationship between monitoring/statistics/information and governance? Is there a main difference between VET and HE?
- Which important European issues are touched in the cases analysed?

V. 3 Selected issues for analysis and discussion: Quality indicators and data production

Taking up the former propositions from the conceptual mapping in section V.2, we can formulate two specific issues which are essential for the use of statistical monitoring for QD/QA. The first issue concerns the question of how the statistical monitoring system might be effectively related to the operational process of QA/QD. We can ask through which channels the statistical information might be related to the QA/QD process (e.g., through the formulation of quality indicators), or how the linkage between the results of evaluation and assessment to the procedures of feedback and change might be supported by statistical information? The main dangers and pitfalls of statistical monitoring must also be addressed. One is the danger of following measurability instead of content and operational issues, another is the old divide between quantity and quality in education purposes.

The second issue, we select, concerns the more technical questions of data production. It might be reasonable to see the process of data production in a broad way, starting with the collection through processing and ending with the availability of the data for users. The demand and the requirements for data collection from various agencies has multiplied, and the question is how to streamline and to organise these activities in an effective and economical way. The demands from European and international comparative data in relation to the regional or national systems requirements are an important issue at this level. An interesting view on these relations has been provided by a comparative evaluation of the UOE data about the financing of HE (Lassnigg/Steiner 2003).

V.3.1 Uses of statistical monitoring for QA/QD – the Danish case of good practice in comparative perspective

Several activities in the course of the TWG and its predecessors have provided insight in the availability and use of statistical data in a range of European VET systems.[63] This section makes use of this material and of some additional observation of studies and internet resources. First an overview about the Danish case is given, which is put in a broader perspective subsequently, with the focus on the following aspects: production of statistics, reporting and uses at the system level, uses at the institutional level.

V.3.1.1 The Danish case presentation

The Danish case has been selected as a case of good practice for the following reasons:[64]

a. Longstanding practice at central and institutional level;
b. Clear procedures and a comprehensive model at institutional level;
c. Use of indicators at the level of institutions;
d. Use of indicators at system level;
e. Use of indicators in specific policy initiatives;
f. Social system of goal setting.

a. Longstanding practice at central and institutional level

The development of mechanisms for QA has been a longstanding issue in the Danish ET system.[65] The Danish policy of QA has developed stepwise since the early 1990s. Its focus is on a comprehensive framework *at the institutional level*. The vocational colleges are required by regulation to have a QA system since 2000.[66] A remarkable project also has been conducted at the system level around 2000 (Undervisningsministeriet 1999). An important feature of the Danish system and policy is that the distinction between initial education and adult/continuing education is becoming increasingly blurred, and those sectors are consequently included in the overall system of indicators. Particularly in VET, there are proposals and plans to co-ordinate and integrate the different frameworks of provision more strongly (Lassnigg 2003). More recently the further improvement of the quality indicators is seen as an activity to come. Quality indicators are deemed too few and too incomplete by responsible actors.

b. Clear procedures and a comprehensive model at institutional level

Due to the regulation, each VET college must have a QA system, a procedure for self-evaluation, and is requested to publish on the college's web site a plan for follow-up. Since 2005 all upper secondary colleges are obliged to base their quality approach on the same principles. The Danish Evaluation Institute conducts evaluations of programmes and themes based on self-evaluation and visits to colleges, which follow-up the yearly plans. Since 2002, the institutions are required to publish certain information on the website, including the average of the final grades and the results of internal and/or external evaluations. The information should also be comparative. Institutions take part voluntarily in quality networks, and compare their results based on surveys.

The QA system at the institutional level includes a procedure which allows ongoing self-assessment and QD, which is guided by questions about strategically selected fields of ET activities, involving management, teachers, learners and enterprises. Each school must have a procedure that demonstrates that the teaching provided meets the objectives set out in the plans for the individual courses. The colleges are obliged to ask for the learners' opinion about the teaching and training offered and to include results from external evaluations

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[63] A first overview was collected in the European Forum for Quality in VET (see: http://www2.trainingvillage.gr/etv/quality/); see also: Lassnigg 2003; and a peer review and cross country analysis on quality indicators has been performed in 2004, by exchanging information about six countries (Finland, Austria, Denmark, Germany, Italy, and Norway).

[64] The author thanks Philip Pedersen for his very helpful guidance to key resources and for his very valuable comments on a first version of the case presentation – misunderstandings remain completely with the author.

[65] See the materials presented on: http://eng.uvm.dk//publications/, particularly the following documents give some insight in main developments: Danish Ministry of Education 1997; Undervisningsministeriet 2000; Danish Ministry of Labour and Danish Ministry of Education 2000.

[66] The regulation is refered to in http://pub.uvm.dk/2005/vetquality/kap05.html.

and assessment. Furthermore, an increasing number of vocational schools have joined their forces to improve the quality of their services and to establish benchmarks in this area. Those co-operative efforts, so far, concern benchmarking on the basis of satisfaction surveys conducted among students, staff and enterprises.

c. Use of indicators at the level of institutions

The financial managers of the schools have developed comparative financial indices across the schools. Those mechanisms focused on the input side, more recent documents also emphasised strongly the further development of output indicators (Danish Government 2002, 80). The financing of the colleges, based on the taximeter system, needs as a prerequisite certain forecasts of the activity per student, which is financed through grants to the schools by the government.

For the purposes of QD at the institutional level a set of indicators has been developed, which covers the following areas:

- Supply of enterprise training and completion of courses (3 indicators);
- Teachers' competence development (3 indicators, 10 sub-indicators);
- Business contacts (2 indicators, 7 sub-indicators);
- Systematic QD (5 indicators, 12 sub-indicators); and
- Institution management (1 indicator, 5 sub-indicators).

A template of 37 sub-indicators is given, asking questions about the practice and experience of the institutions. The indicators comprise a mixture of quantitative and qualitative questions, only 12 of the sub-indicators collect quantitative information about professional development and skills of teachers, student progress and completion. They are additional to the typical statistical counting of heads and units. The majority of indicators collect information about activities done by the institutions. Illustrations of most of the indicators are shown at the colleges' web sites in order to enhance transparency and openness about the colleges' performance. Further funding of the colleges is also linked to the colleges' documentation, but also to the number of learners completing and getting an apprenticeship contract.

d. Use of indicators at system level

At the central level a big attempt has been set around 2000, to develop a system of indicators in order to report and assess the achievement of the goals and objectives of ET policy.[67] This initiative was a temporary one, which could be seen as a pilot initiative. Seven general targets were set, and five framework conditions defined in order to reach the targets:

The seven targets:

- Education for all;
- Coherence in the education system;
- Efficient use of resources;
- High technical/professional level;
- The students' technical and personal qualifications;
- Education should lead to employment and growth;
- Motivation for continued education.

Five prerequisites:

- Qualified and motivated teachers and management;
- Qualified and motivated pupils and students;
- Development activities;
- Economical and physical framework;
- Support functions.

Those dimensions were defined in terms of indicators and translated into results, as outlined by the setting of criteria for the indicators. The system of indicators includes 43 indicators (with a number of sub-indicators), which are clustered into four broad categories:

[67] See: Undervisningsministeriet 2000; Danish Ministry of Education 2002; Danish Ministry of Education 2005.

- Education system (including basic characteristics of provision and financing);
- Resources (16 indicators);
- Pupil/student flows (15 indicators); and
- Results (10 indicators).

It has also been considered for future development to create operative linkages between that system of monitoring and the mechanisms of QA/QD at the level of institutions, e.g., to assure the necessary inputs to achieve the targets (The Danish Government 2002, 19-20).

e. Use of indicators in specific policy initiatives

There has been a long standing focus on the drop-out problem in Danish education policy. A recent initiative to increase retention included the use of indicators at the institution level (Danish Ministry of Education 2005, 42). Examples are activities to identify drop-outs and trying to bring them back on track in collaboration with the local Youth Education Counselling Centres; or early identification of the at-risk students, who have changed programmes multiple times by introducing a coach or mentor especially to those trainees. Other examples concern the monitoring of absenteeism in relation to the students progress.

f. Social system of goal setting

The Danish system comprises strong consultation mechanisms of societal forces in ET policy (Cort/Madsen 2003). The social partners are involved in sector trade committees and in local training committees, which advise the colleges and facilitate the contacts to the local labour market. In one sector a trade committee is involved in the above mentioned benchmarking project among VET institutions. This year, the social partners placed a considerable emphasis on the quality assurance of the in-enterprise training in the dual system. The trade committees collect some data about completion and final grades, but most data are collected by the Danish Statistic Bureau.

V.3.1.2 Broader comparative perspectives

- Data production and use: some considerations about transparency of presentation

We can see some significant differences in data collection and use in different countries. A quite common procedure is that data are collected in ET institutions and are transferred to national statistical boards or offices, which process and publish them to varying degrees. The educational administration normally has access to those data. However, sometimes the data collection is under the authority of regions which transfer them to national bodies. For financing purposes, a parallel stream of data may exist between the institutions and the administration, which are increasingly transferred online. The data transfer processes are based on regulations and the statistical offices, in co-operation with the administrative bodies, issue guidelines for the collection of data and provide for the control and maintaining of the data bodies. Public availability is underscored at a first stage by descriptive, more or less standardised reporting and to some degree also by tables in the internet. This descriptive information is not directly related to QD/QA purposes. However, it might provide a more or less adequate source for the development of quality indicators.

Some quite simple basic rules can be stated which allow for an assessment of the usability of the basic statistical information for purposes of QD/QA. As a general point we can try to define some requirements for the transparency of the presentation of the data. Transparency increases by the degree to which simple meaningful relational indicators can be calculated from the publicly available data (the counterfactual to this is that for the calculation of meaningful indicators a privileged access to the data would be necessary). Examples of such meaningful indicators are relations between resources and students, between inflow and graduates, between applicants and accepted students, between results and resources, between context factors and delivery, etc.

To increase transparency in this sense, some requirements for the presentation of the statistical data must be fulfilled:

- The data about the different dimensions or variables (sites, students, groupings, teachers, investment, results, etc.) must be available in the same systematic categories (e.g., structural traits, time-periods);
- The data must be sufficiently disaggregated to allow comparison between the main sectors

and programmes of the system;
- The data must be sufficiently disaggregated to allow regional comparison;
- The data must allow for comparisons at the time-dimension in order to obtain change;
- The relation between national or regional data and the main international sources should be explicated.

Despite the seeming simplicity of those requirements, it is striking to which low degree they are fulfilled by existing presentations of statistical information.

- Reporting and uses of quality indicators at the system level

In addition to the public presentation of data and information, another approach of common practice of how data and information are related to QD/QA, is systematic reporting. Various kinds of reporting at the national or regional level are linking quantitative information to policy goals and objectives. A recent study, which compared the practices of reporting in seven European countries and four German regions, identified three different types of reporting: scientific reports, problem oriented policy reports, and data driven policy reports (Grabensberger 2005).

The publication of "key data" is a common practice, which relates data to policies at a quite general level, mainly to report about past activities. Another practice is the production of more detailed policy reports, which try to figure out the state of an education system, the results of main policy strategies, and future measures. These types of practice transform data and information into knowledge about the performance of education systems, or of more specific policy strategies. Examples of this kind of reporting are the annual report of the ministry of education in Finland (Finnish Ministry of Education 2005, 2003); examples of more specific uses of statistical data are the Danish initiative to fight drop-out (Danish Ministry of Education 2005), and the quality approach in the region of Trentino, Italy (Alluli/Grando 2004).

Quality indicators are the main lever to integrate statistical monitoring into QD/QA practices at the systems level. Indicators are usually composite statistics, which relate the quantitative information to a framework of meaning, and thus transform it into knowledge. Quality indicators can be defined as a subgroup of achievement-indicators and are related to a certain goal or objective (van den Berghe 1997, 11-17). Those goals or objectives have to be stated as a starting point for the formulation of quality indicators.[68] Indicators can be analytic, communicative or normative in terms of purpose.[69] These different purposes are to some extent related to the usability of indicators at different levels and for different actors. Thus, a specific indicator will not serve easily those different purposes. Quality indicators will be predominantly normative indicators, as they are related to the fulfilment of goals. Quality indicators are the most demanding and the most complex category of indicators, as they should also, at least implicitly, meet criteria of the other purposes: they should be to some extent analytic, and also communicative to serve the purpose of improvement.

A European proposal of quality indicators for VET has been developed in the CQAF. The indicators are related to the overall policy aims of better employability of the work force, of a better matching between training supply and demand, and of a better access to VET, in particular for vulnerable groups in the labour market. They measure the context of delivery, and the dimensions of input, process, and outcome. Examples are the following (see Faurschou 2005, 17-18):

[68] Concerning the content of indicators the levels of description, conception, achievement, and quality have been distinguished, concerning the purpose the levels of analysis, communication, and normative settlements have been distinguished; cf. van den Berghe 1997.

[69] - Analytic indicators should improve the understanding of the causal and/or systemic relationships involved in ET as well as between VET and its context of wider society, and will be especially interesting for the research system.
- Communicative indicators should improve the professional discourse about matters of ET, and serve for the provision of accountability of VET systems. Those indicators will be interesting for the practitioners, as well as for policy makers and the wider public (as clients or consumers of services, or more generally, as taxpayers for public systems).
- Normative indicators should serve for the improvement of practice at the different levels of the system.

- *Context/input*: Unemployment according to groups; prevalence of vulnerable groups; share of VET-providers applying QM-systems;
- *Input/process*: Investment in training of trainers;
- *Output*: Successful completion of training; participation rates in IVT and LLL compared to prevalence of vulnerable groups;
- *Outcome*: Destination of trainees (sixth month after training); utilisation of acquired skills at the work place (in perspective of both trainee and employer).

- Uses at the institutional level

Another key point for the use of data for QD/QA purposes is their availability at the institutional level. Data and information at institutional level is collected in most systems. However, most systems are cautious to publish those data. Ranking tables of institutions are hotly debated in terms of positive and negative consequences, e.g., whether they might cause improvement through better informed choice, or might rather lead to de-motivation and segmentation along social cleavages. Increasingly, institutional data are made available for the institutions themselves for purposes of comparison and development measures. Some examples for this practice are:

- *Benchmarking practices by using regional averages of statistical data as performance measures* (Allulli/Grando 2004): The QD procedure in the Italian province of Trentino uses the comparison of a set of indicators at the institution level to the provincial average as an input into the self-evaluation. A broad set of indicators about context, resources, process, and results is used, e.g., parents' educational background; students' previous achievement; students with special needs; development of student numbers; technological, human, and financial resources; drop-out; time-missing by students and teachers; retention of students; grades by subjects.

- *The use of selected statistical indicators in QD models, as* EFQM (Koski/Pernu 2005) *or balanced scorecard* (Andersson 2005): The EFQM models include similar performance indicators as in the Trento example (enrolment rate, dropout rate, share of students with special educational needs, pass rate/graduation rate, completion rate in regular time, employment rate, pass rate to further studies in polytechnics or universities, number of complaints of students, response rate of companies to surveys; Koski/Pernu 2005, 14). In the example about the use of balanced scorecard models, statistical indicators are included in the outcome measurement of three dimensions: efficiency for customers (placement in employment/further education), human resources (level of staff competence, staff development costs), and financing (operational expenditure).

- Use of indicators across levels: performance based funding

A more complex strategy for using statistical indicators, which spans the levels of aggregation, is performance-based funding (Tammilehto 2005). This strategy directly links macro-level policy (decisions about expenditure) to institutional performance. In Finland the performance-based financing system complements the statutory element of financing, which is based on student numbers, with a unit price depending on a set of factors calculated for each provider. One element of the performance-based system is outcome-based funding derived from statistical indicators, a second element is additional funding based on quality awards.

The statistical measures for performance-based financing include the following indicators (Tammilehto 2005, 11-18):

Effectiveness:

- *Placement in labour market:* The Placement Measure indicates the placement of graduates in the working life (weight in 2004: 40%);
- *Transition to further education:* The Further Education Measure indicates the placement of graduates in HE (weight 15%).

Processes:

- *Dropout rate:* The Retention Measure indicates, if the student has quit studies in the educational system without completing a qualification, and has not been employed (weight 15%);
- *Graduation rate:* The Graduation Measurement indicates the proportion of students graduated within the normative duration (a maximum of 4 years) of studies (weight 13%).

Employees in VET:

- *Formal qualifications:* The Teacher Qualification Measure indicates the formal competence of the teaching staff for their work (weight 11%);
- *Staff development:* The Staff Development Measure indicates the financial input by the education provider into updating the personnel's professional skills, especially knowledge of working life, and maintaining work capacity (weight 6%).

As another example from HE the Austrian university reform has planned performance indicators to determine 20% of the resources distributed to the institutions, the remaining 80% will be based on service level agreements (*Leistungsvereinbarung*). The Austrian Science Board (Österreichischer Wissenschaftsrat 2004) recommended indicators about four dimensions: teaching (student, graduates within normative duration), research (third-party funds, achievements and awards, citation results), aims for society (equal opportunity of women and men, placement of graduates, knowledge transfer indicators), and international impact (out-going measures of student exchange, teaching in foreign languages).

V.3.2 Data production – the Swedish case of HE statistics as an example of good practice

An important issue in statistical monitoring is the effort needed for the production of valid, reliable and timely data. We have touched several aspects of data production already in the previous section. We provided a mapping of different types of data sets, which are produced within different institutional contexts. We mentioned that parallel activities of data collection might occur. Moreover, available data perhaps are not fully utilised because of a lack of co-ordination.

In addition to the national data collections also international and European data bases are gaining attention. Therefore, two steps of data production have evolved: first the collection, processing and presentation of data sets at the national or regional level, and, second, the provision of the required data for international data bases through the completion of the UOE tables for the purposes of the UNESCO, OECD and EUROSTAT data production. Sometimes, the regional and national levels must be co-ordinated.

V.3.2.1 The Swedish case presentation

A comparative evaluation of the practices of data production about the financing of HE in the OECD Indicators in six countries claimed that the Swedish data most perfectly fit the requirements of the UOE data collection and the calculation of the financial indicators. Estimations are not necessary because the data can be directly calculated from the national data base which includes the required information (Lassnigg/Steiner 2003). In the other countries, important components of financing must be estimated (full-time equivalents of students, study duration, pensions, administration costs). Substantial deviations from reality occur in some instances. The Swedish case was, therefore, selected as a good practice example.[70] The description is quite simple, it might be named after the well-known dictum of a German poet "*Das Einfache, das schwer zu machen ist*" ("*The simple thing, which is difficult to implement*").

The system comprises the following traits:

a. It integrates administrative data and statistics;
b. The different institutional frameworks are co-operating;
c. It is based on individual data, which

[70] The author thanks Anna Gärdqvist and Mats Haglund for their very valuable comments on a first version of the case presentation – misunderstandings remain completely with the author.

d. can be linked to other data bases,
e. national and international data requirements can be fulfilled from the same basis.

The Swedish Local Administrative Documentation System (LADOK)[71] represents a local administrative system, and the data, continuously fed into LADOK by the individual universities, are the basis for data delivery to Statistics Sweden. The data transfer is made at a predetermined schedule. At Statistics Sweden the data are coded and re-arranged for classification, in order to achieve national comparability. 99% of all data are delivered by LADOK and transferred via internet.

LADOK integrates the administration of students at the institution level and the production of statistical information. It is a computer-based admission and documentation system, which is used by the state financed institutions of HE for admission and documentation.

This system follows up on individual students according to courses and study programmes. It contains information for student identification, eligibility, admission, registration, course data, credit points, degrees, and international studies. It allows the calculation of straight indicators about student full-time equivalents, results, etc. at university level.

Data from the LADOK system are exported to Statistics Sweden, which administrates the Register of Higher Education on behalf of the National Agency for Higher Education. This register contains data for all students in undergraduate and postgraduate education, and statistics are produced for applicants, students enrolled, results and degrees.

The register is based on a unique personal identity number, making it possible to calculate study duration times and graduation rates as well as to perform data processing with other registers, e.g., population register and employment register. Thus follow-up studies on transition patterns and on the settlement of graduates in the labour market are possible.

V.3.2.2. Key issues of data production

The presented case emphasizes some issues, which are very important for effective data production: integration of sources, availability of individual data, protection of data privacy, integration of national and international data production and use, use of sample data for monitoring.

- Integration of sources: process produced administrative or management data and statistical data

The Swedish case shows that the integration of the different sources can produce synergies among the different institutional settings and a necessary flexibility in case of the indicator calculations. In connection with the increasing autonomy of institutions the question might arise to which extent a rising degree of diversity of data production at the institutional level might arise, and how these data can be pooled to a common data base. In case of the process produced data, the combination and pooling of various data collection systems might be difficult.

As an example, the new approach of the Austrian "*Wissensbilanz*" (knowledge accounting) of universities will lead to broad sets of indicators about the performance of university institutions. Data warehouse solutions are projected to bring those data together. Sometimes the set up of these solutions might be difficult, because the requirements of potential utilisation are not clear enough.

- Availability of individual data, protection of data privacy

Increasingly, the collection of group data is followed by the collection of individual data, which multiply of course the potentials for reporting and analysis.

The protection of privacy of those data might set important barriers for the use of these data. Solutions, which can secure data protection as well as accessibility, must be found.

- Integration of national and international data production and use

[71] See: http://www.ladok.se/index.php?id=643

The divergence and convergence of the use of national and international data is a question, which also deserves attention. Much effort is put into the development of indicators beyond the regional or national level, and to some extent parallel systems of presentation and reporting arise. Clearly, for several purposes national systems are necessary. However, if the divergence between national systems and the international systems is too big, the latter can only poorly be used for national purposes.

To a certain extent the presentations of systems differ at the national and international levels, and sometimes also “competition” developed between the different data bases. We can see different ways of dealing with the duality of national and international data sets. A number of countries have integrated the international data in their own presentations, whereas in other countries the national or regional emphasis still focuses mainly on the national data. Sending data to the international bases resembles a one-way street in these cases.

- Use of sample data

A specific question concerns the use of sample data, e.g. from European surveys or from project-based research data (e.g., PISA). Those data can provide average measures for purposes of statistical monitoring, which are derived from samples of educational institutions.

The complex modelling strategies and the small samples often do not conveniently allow the deriving of descriptive measures or indicators from samples. However, those data bases include important information about background issues, which frequently is not retrievable from descriptive education statistics. Strategies of a combination of those data production activities with descriptive statistics and QA/QD should be developed.

One shortcoming of sample data concerns the use at the institutional level, whether the majority of institutions is covered by them. A way to solve this could be the integration of questions into the common data collection process.

V. 4 Conclusions

- Statistics and politics: a need for intermediaries?

A first issue concerns the differences and tensions between statistics and politics. Data and statistics have to be objective, and thus should separate from politics. At the same time they are meaningless, if they do not relate to a framework of reference. Politics is not primarily concerned with objectivity. As a consequence, intermediary mechanisms between statistics and politics are needed. One are regulations stating, which data and information must be collected, and the conditions under which they have to be processed, including personal data security. These regulations are complex and the utilisation and changing demands are not their primary concern.

There might be a need for some additional intermediaries, which provide analytical functions. The Danish Evaluation Institute and the Finnish National Board of Education can be regarded as examples. We also can observe a tendency towards increasing utilisation of data from different instances and for different purposes, e.g., the international and European activities and the educational institutions.

- Transparency and access to statistical data and information: producing knowledge from public reporting

The public availability of data and information has increased. A basic question concerns the requirements for transparency in the presentation of those data. To which extent should the publicly presented data allow for the calculation of meaningful indicators? Some simple requirements for this transparency have been stated.

- Quality indicators: some convergence

We can see a huge variety of indicators, including performance indicators and quality indicators. However, some common dimensions of the used indicators surface: placement and transition, completion and retention, teacher competences and teacher development, and resources.

- Integration across levels starts from the institutional level

The use of data at institutional level seems to be a most important driving force for the progressing of statistical monitoring. Thus, the development appears to be rather "demand driven" than "supply driven". Impulses for the designing of meaningful quality indicators are rather rooted in activities of institutional development than in the overall policy activities. This also produces an incentive for data production. The integration of admission data and documentation data acts as a driving force for the improvement of the sources of statistical monitoring. To some extent there are also tendencies to produce additional, different data for the purposes of QA/QD.

- Integration with international comparative data bases increases, however, remains difficult

Indicators from the OECD are increasingly utilised at the national and regional levels, and integrated in the statistical reporting templates. However, their use and comparability is restricted, so far. An open question is, how the data and information from specific comparative studies (e.g., PISA) can be integrated into the practices of statistical monitoring?

Some preliminary answers can be given to the initial questions, which nevertheless remain exposed to further discussion:

How to move from descriptive data to quality indicators via the goal setting process? Two main mechanisms have been identified for that movement: first, the development of intermediaries for functional analysis and, second, an increasing emphasis for QA/QD at the institutional level. The latter seems to be the strongest impetus for the use of statistical data in QA/QD, as can be seen in Denmark and Finland. However, the conventional statistical data might not be sufficient for the institutional level. In the Italian example, a strong impetus seems to come from the system level also. We must recognise that both Denmark and Finland had an early start for the quality policy, which was based on regulations by the system level.

What are main supporting factors/obstacles to operational goal definitions? A positive interacting dynamic between the institutional and the system level and a combination of top-down and bottom-up processes appear to be crucially supporting factors for operational goal definitions. A combination of self-evaluation and external visits, which uses quantitative information, also drives towards operational goal definition.

Which actors are necessarily involved in the practice? At the system level a mix of actors from statistics, administration and research is necessary. Actors from the institutional level give additional impetus for the development of comprehensive systems of QA/QD. Actors from the political community and social partners are necessary to develop effective regulations.

What are the necessary ingredients for successful dissemination and feedback mechanisms? Effective procedures of data production are necessary, and the documentation of meaningful and understandable data in the internet, which extend simple descriptive data, are important ingredients. Transparency is increased, if the data are presented in a way, so that "outsiders" are able to calculate relationships at least between students, teachers and financial information. Another ingredient is the availability of data at the institutional level and of reference figures for comparable aggregates.

How is the relation between monitoring/statistics/information and governance? Is there a main difference between VET and HE? A key issue of that relation refers to the autonomy of institutions and a positive emphasis for QA/QD at the institutional level. As far as this is given, there does not seem to be too much of a difference between VET and HE institutions at the level of teaching (research of course constitutes a difference). As far as indicators are discussed, rather similar dimensions have been observed in VET and HE.

Which important European issues are touched in the cases analysed? The examples cited refer to the CQAF, to European pilot projects, and to exchanges of experiences. The communality of the utilisation of national/regional data and European data mark an important issue in this respect.

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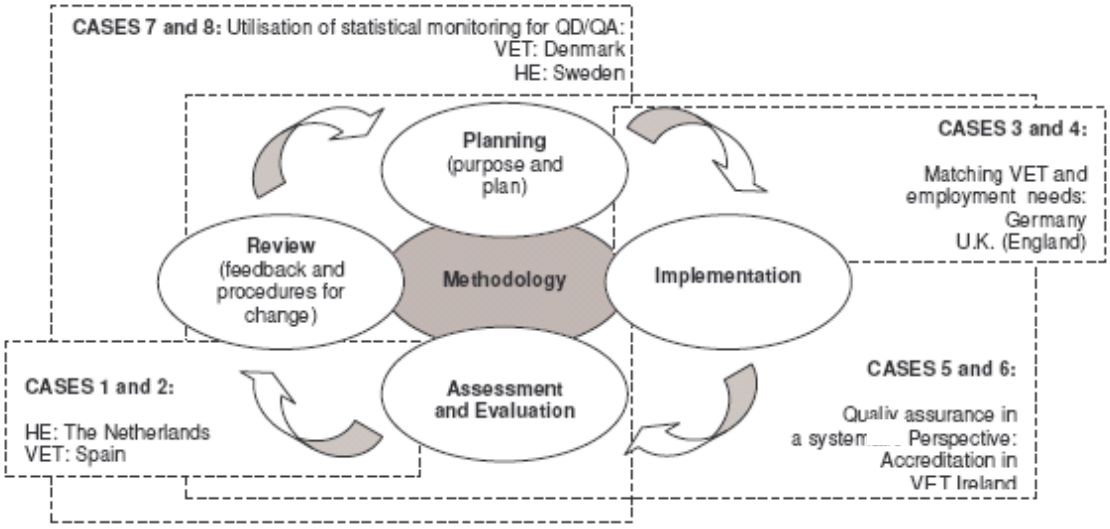
VI. Executive Summary

Lorenz Lassnigg[72]

The current study has been carried out in the run-up to the conference "Quality Assurance in Higher Education and Vocational Education and Training", Graz, 11-12 May 2006. Its purpose is to serve as a "guiding input" to the conference, providing information and a basis for discussion. Four workshops at the conference are foreseen to deal with the case study examples presented in this report. The study presents eight cases of good practice from eight Member States (Austria, Denmark, Germany, Ireland, Netherlands, Spain, Sweden, United Kingdom), connected to the core elements of the Common Quality Assurance Framework (CQAF). The aim of the study is to provide material for discussion and further development of quality development and quality assurance (QD/QA) in vocational education and training (VET) and higher education (HE) in Europe.

Figure 10: The selected cases in the CQAF perspective



Some of the more complex issues of the CQAF model and methodology have been selected for an in-depth study:

- The CQAF methodology recommends to combine self-evaluation and external evaluation as a methodology for evaluation and review. Two cases cover this area: the development of quality management in the Netherlands' HE system, and the system of QA in Spanish VET (cases 1 and 2 in section II).

- The more specific issue of different institutional arrangements for quality management to assure the matching of VET provision with the needs of employment has been analysed in the German dual system and in the local quality improvement arrangements in the United Kingdom with a focus on England (cases 3 and 4 in section III).

- The analysis of two cases of single national awarding or accreditation bodies, the Further Education and Training Awards Council (FETAC) in Ireland and the Austrian FH Council (*Fachhochschulrat*), in a system perspective covers the different elements of the whole model and methodology of CQAF (cases 5 and 6 in section IV). This analysis complements

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the cases 1 and 2, and views self-evaluation and external evaluation in a comprehensive perspective of the overall system architecture.

- The use of statistical monitoring for purposes of QD/QA is analysed as another specific issue, which covers the elements of planning, assessment and evaluation, and review. The methodological focus of this section is on measurement and its relation to external monitoring and self-evaluation. The use of statistical data and quality indicators in VET in Denmark, and the model of the production of statistical indicators for HE in Sweden are presented as cases of good practice (cases 7 and 8 in section V).

VI. 1 Some main conclusions from the analysis

In terms of the CQAF methodology, the selected cases are following a systematic approach; most of them use a combination of self-evaluation and external monitoring or evaluation, and mechanisms for implementing change are in place mostly at the institutional level. Quality indicators do have a varying role, in some cases (e.g., Denmark and Finland) they are systematically integrated, in other cases they are used less explicitly. Partnership among internal and external actors is strongly and explicitly developed in some instances (e.g., in Spain and Denmark); in other cases the role of external players is less clear.

Selected findings from the analysis of the cases

- Cases 1 and 2: Evaluation and feedback

The cases meet the CQAF quality criteria in different ways. Particular strengths of the analysed cases are the long tradition and experience in the combination of self-evaluation with external evaluation in the Netherlands' HE sector, and the strong emphasis on partnership and common procedures of goal finding and goal formulation in the Spanish VET sector.

The set up of a bi-national system, as well as the strengthening of consequences of evaluation by the recent emphasis on accreditation of programmes by external bodies and the prolongation of the quality cycle in the Netherlands, are points for attention. This case also demonstrates the strengths as well as the costs of a comprehensive system, which spans the whole of HE. The Spanish system established feedback loops across the institutional levels, which give an example for the combination of top-down and bottom-up processes. The attempt to use systematically a set of national indicators as an integrating information base for QA and QD in the multi-level system, is an important aspect which deserves attention.

- Cases 3 and 4: Quality of matching VET and employment needs

The CQAF quality criteria are met through regulation in the input-oriented German system and through the demand of a quality system by providers in the output-oriented system of the United Kingdom. The largely different approaches of relating VET to the qualification needs of the economy in Germany and the United Kingdom/England provide a basis for discussion of different sources of complexity of the implementation mechanisms in different systems. The German approach, based on the "*Berufskonzept*" (concept of vocation), is related to complex procedures of the development and change of programme profiles on the input side, whereas the qualification and competence-based United Kingdom system comprises a high complexity of the organisational and institutional structure of the National Qualification Framework (NQF) and the system of accrediting bodies. The comparison of the examples shows the strong relationship between the institutional structures and the practices of the matching of VET supply with the demand of the economy: in Germany, the emphasis is on the comprehensive institutional set-up of the creation of new apprenticeship profiles, in the United Kingdom the emphasis focuses on the evaluation procedures in VET institutions, due to their ability to meet the demand.

- Cases 5 and 6: Accrediting bodies and systematic models of QD/QA

The CQAF quality criteria of the quality cycle are met in a similar way:

- By setting standards through regulation;
- By securing implementation;
- By a national quality approach in combination with the demand for a quality approach at the provider level;
- By structured procedures of evaluation;
- And by feedback and consequences along a predefined plan.

The analysis looks at the key success factors of single sectoral accrediting bodies in VET in Ireland and in HE in Austria. An independent external body with clear tasks and responsibilities, based on a legal framework, and the involvement of the providers' activities of self-evaluation in the quality system, are named as the key success factors. Furthermore, the providers should receive clear incentives for setting up their quality procedures, and should have a high degree of autonomy for their decision-making.

- Cases 7 and 8: Use of statistical monitoring for QD/QA

The steps from descriptive data and information to quality indicators, and the effective and timely production of the indicators, were identified as key challenges in the use of statistical data for QD/QA. The definition of quality indicators presupposes the formulation of clear operational goals and objectives. A very important requirement to realize this is co-operation among the various institutions and actors in educational and statistical agencies. The use of statistical monitoring at the level of institutions seems to be an important lever for the use and development of system monitoring.

Communalities and differences between VET and HE

The analyses of evaluation and feedback (cases 1 and 2) and of the systematic approach (cases 5 and 6) have focused in parallel on the procedures and bodies in VET and HE, thereof one university system and one polytechnic system. The university case seems to differ more markedly from VET than the polytechnic case. The accrediting bodies for VET in Ireland and the polytechnic (*Fachhochschule*) sector in Austria look quite similar, the procedures in the universities in the Netherlands and VET in Spain show more marked differences. There appears to be a tendency that quality management in VET is more strongly related to state institutions, whereas in HE, particularly in universities, the autonomous institutions in relation to independent bodies have a stronger influence. The comparison of the similar bodies for programme registration and validation in Ireland FETAC and HETAC might provide further insight into similarities and differences between VET and HE. Another difference, which also has come up (in case 4), concerns national structures, which are strong in VET, whereas the university case shows clearly the international relations and orientation.

VI. 2 Some common interrelated issues

A first issue, which surfaced across the cases, is the *complexity of the quality systems*, particularly in large Member States with national or regional subdivisions. Co-ordination among the different levels and actors inside and outside education is a challenging task, which constitutes a need for regulation.

Different structures of co-operation exist in different systems, some relying more on *state institutions and inspection*, some relying more strongly on *autonomy of VET institutions*. Different types of *intermediate bodies* are involved in the quality systems: evaluation institutes, quality agencies for making reviews, accrediting councils, external bodies including employers or social partners, which oversee the employment needs, etc. To find a balance of an appropriate degree of regulation, and at the same time to avoid too much complexity by too many bodies, represents a quite common challenge - however, we can also observe the examples of single bodies in Austria and Ireland, which pose the question of scale: Are there limits in terms of scope for single bodies to work successfully? The degree of complexity of national or regional systems might also interact with the potential for transnational co-operation.

The use of indicators is systematically integrated in several quality systems. Four dimensions, which are related to the CQAF proposal for European indicators, seem to evolve as a common core for quality indicators:

- Placement and transition to employment of graduates;
- Completion and retention of students;
- Teacher competences and teacher development measures;
- Resources.

The use of indicators also presupposes co-operation among the different institutional levels and agencies. Use of statistical data in the quality procedures at the institutional level, and the involvement of intermediary agencies, seem to be supporting factors for the development of monitoring systems.

With respect to the development of the European Qualifications Framework (EQF), the different versions of qualification frameworks, professional lists, and the German *Berufskonzept,* are examples for important issues for the development of QD/QA, particularly in VET. In HE the disciplinary structure marks an additional feature in this respect. To analyse the strengths and weaknesses of these concepts, would be an important contribution to the European agenda.

VI. 3 Some common points for discussion

Finally we present some common points for discussion, which arise from the case studies:

1. How to balance QD and QA? Which aspect should be more strongly emphasised? Which mechanisms are supporting which aspect?

2. How to integrate qualitative and quantitative information and knowledge? How is this related to the quality approaches at the different levels and the aspects of QD and QA?

3. How to find a feasible degree of regulation, which supports QD/QA, without leading to bureaucracy and inflexibility?

4. How to distribute the responsibilities among the various actors and stakeholders? Which roles can intermediate bodies play for furthering co-operation and co-ordination?

5. How to avoid “over-complexity” in multi-level co-ordination?

6. How to involve the different types of actors as partners in QD/QA?

7. How to build regional, national and transnational relationships in QD/QA?

Some of those questions, e.g., about the balancing of QD and QA and about the dangers of bureaucracy in the set up of quality management systems, have been debated already for a long time in HE. Nevertheless, there is a need for fresh solutions in these areas.

These questions are meant to stimulate discussion, and to trace some basic directions for further work in this area. Sustainable solutions need co-operation between Member States and between the various actors in the VET and HE sectors. A main element for supporting these kinds of co-operation is proper information and exchange of experience about the practices and systems of QD/QA. The study wants to contribute in this process.

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VIII. Abbreviations

ACCAC	Qualifications, Curriculum and Assessment Authority of Wales
ACVT	Advisory Committee for Vocational Training
ALI	Adult Learning Inspectorate (UK)
ASIIN	Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenshaften und der Mathematik, German accreditation agency specialised in accrediting degree programs from the fields of engineering, informatics/computer science, the natural sciences andmathematics (NL)
AT	Austria
BIBB	Federal Institute for VET (DE)
BIJU	Projekt Bildungsverläufe und psychosoziale Entwicklung im Jugend- und jungen Erwachsenenalter, Project Learning Processes, Educational Careers, and Psychosocial Development in Adolescence and Young Adulthood (Max-Planck-Institute for Human Development in Berlin/Germany)
BMBF	Federal Ministry of Education and Research (DE)
BMWA	Federal Ministry of Economics and Labour (DE)
CCEA	Council for the Curriculum, Examinations and Assessment for Northern Ireland
CF	Conditional Funding (NL)
CIDE	Centro de Investigación y documentation educativa (ES)
COU	University Orientation Course (ES)
CQAF	Common Quality Assurance Framework
CROHO	Central Registry of Higher Education Programmes (NL)
CVET	Continuous Vocational Education and Training
CVTS	Continuing Vocational Training Survey
DE	Germany
DfES	Department for Education and Skills (UK)
DK	Denmark
DNV	Det Norske Veritas, independent foundation with the objective of safeguarding life, property, and the environment in Norway
DWP	Department for Work and Pensions (UK)
EAG	Education at a Glance (OECD)
EC	European Commission
ECTS	European Credit Transfer System
EDP	Electronic data processing
EEA	European Environment Agency
EFQM	European Foundation for Quality Management
EFTA	European Fair Trade Association
ENQA	European Association for Quality Assurance in Higher Education
ENQA-VET	European Network on Quality Assurance in Vocational Education and Training
EQF	European Qualification Framework
ES	Spain
ESO	Educación Secundaria Obligatoria, Compulsory Secondary Education (ES)
ET	Education and training
FET	Further educational and training
FETAC	Further Education and Training Awards Council (IRL)
FH	Fachhochschule (AT)
FH Council	Fachhochschul Council (AT)
FHR	Fachhochschulrat = FH Council = Fachhochschul Council (AT)
GCE	General Certificate of Education (UK)
GCSE	General Certificate of Secondary Education (UK)
HBO	Higher professional education – *hoger beroepsonderwijs* (NL)
HE	Higher Education

HETAC	Higher Education and Training Awards Council (IRL)
HOAK	Report of the Dutch Ministry of Education, The Hague 1985: "Hoger Onderwijs: Autonomie en kwaliteit", Higher education: Autonomy and Quality" (DK)
ICT	Information and communication technologies
IEA	International Association for the Evaluation of Educational Achievement
INECSE	Instituto Nacional de Evaluación y Calidad del Sistema Educativo (ES)
INEM	Instituto de Empleo Servicio Publice de Empleo Estatal (ES)
INESCE	Instituto Nacional de Evaluación y Calidad de Sistema Educativo (ES)
IRL	Ireland
ISO	International Organization for Standardization
IVET	Initial Vocational Education and Training
KMK	Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (DE)
LADOC	Local Administration Documentation System in Sweden
LCS	Learning and Skills Council (UK)
LEA	Local Educational Authorities (UK)
LFS	Labour Force Survey
LOCE	Ley Organica de Calidad de la Educación (ES)
LOGSE	Ley Orgánica de Ordenación General del Sistema Educativo, the Educational Reform Act (ES)
LOPEG	Ley Orgánica de la Participación, la Evaluación y el Gobierno de los Centros Docentes, the Teaching Centre Participation, Assessment and Management Act (ES)
LSDA	Learning and Skills Development Agency (UK)
MOCW	Ministry of Education, Culture and Science (NL)
NL	Netherlands
NOMIS	National Online Manpower Information System (UK)
NQA	Netherlands Quality Agency
NQF	National Qualifications Framework
NVAO	The Netherlands-Flemish Accreditation Organization – *Nederlands-Vlaamse Accreditatieorganisatie*
NVQ	National Vocational Qualifications (UK)
OECD	Organisation for Economic Co-operation and Development
OfStEd	Office for Standards in Education (UK)
PISA	Programme for International Student Assessment (OECD)
QA	Quality assurance
QANU	Quality Assurance Netherlands Universities
QCA	Qualifications and Curriculum Authority (UK)
QD	Quality development
SSC	Sector Skills Council (UK)
SSDA	Sector Skills Development Agency (UK)
ST	Ars Strategic Area Review (UK)
TIMSS	Trends in International Mathematics and Science Study (IEA)
TWG	Technical Working Group
UK	United Kingdom
UOE	UNESCO-OECD-EUROSTAT Questionnaire
VBIs	Review and Assessments Agencies – *Visiterende en Beoordelende Instanties* (NL)
VET	Vocational education and training
VSNU	Association of Netherlands Universities
WHW	Higher Education and Research Act (NL)
WO	Wetenschappelijk onderwijs, scientific education (NL)