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Federal Department of Home Affairs

State Secretariat for Education and Research SER

Federal Department of Economic Affairs FDEA

Federal Office for Professional Education and Technology OPET

BOLOGNA PROCESS

NATIONAL REPORT: 2005-2007

SWITZERLAND

A. Background information on your Higher Education system

Details

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Main achievements since Bergen

1. Describe the important developments relating to the Bologna Process, including legislative reforms, since Bergen.

Soon after the Bologna Declaration in 1999, Swiss higher education institutions (Universities and Universities of Applied Sciences) recognised the importance of this reform process and set up project organisations. The authorities of the Universities passed legally binding "Bologna Directives" in 2003¹, those of the Universities of Applied Sciences in 2002². In 2005, the Federal Universities of Applied Sciences Act has been revised according to the new study structure³.

The legal bases for the two sectors are mutually compatible so that the reforms are well interconnected and consistent across the entire tertiary education sector. For all HEIs, the new system is based on a first cycle (bachelor) comprising 180 ECTS credits and a second cycle comprising 90 or 120 ECTS credits. An agreement regarding pathways between different types of HEIs is currently being prepared by the Rectors' Conferences.

The implementation of the Bologna process has made considerable progress in the last years. In autumn 2006, all first-year students (except for medicine) started their studies within a bachelor programme. As of autumn 2007, all first year medical students will also enter bachelor programmes.

The implementation of the Bologna process at Swiss institutions should be seen in the wider context of the far-reaching reforms currently under way for the entire higher education sector that is expected to be in place by 2012 at the latest. Their main goals are to improve the position of Swiss higher education in the international context, to simplify the highly complex mechanisms of cooperation between federal and cantonal authorities in steering the higher education system, as well as to enhance transparency and efficiency regarding institutional cooperation and allocation of resources.

¹ http://www.admin.ch/ch/d/sr/414_205_1/index.html (German)

² http://www.kfh.ch/uploads/dobo/doku/Richtl_Bol_d.pdf (German)

³ http://www.admin.ch/ch/d/sr/414_71/index.html (German)

National organisation

2. Describe any changes since Bergen in the structure of public authorities responsible for higher education, the main agencies/bodies in higher education and their roles.

The structure of public authorities responsible for higher education has not changed since Bergen.

As far as the Swiss Confederation is concerned, the higher education institutions are overseen by two ministries:

- The State Secretariat for Education and Research (SER) is part of the Federal Department of Home Affairs. It is the federal government's specialized agency for national and international matters concerning general and university education, research and space.
- The Federal Office for Professional Education and Technology (OPET) is part of the Federal Department of Economic Affairs. It is responsible for the implementation of the federal government's policy in the areas of vocational and advanced vocational training, Universities of Applied Sciences, innovation and technology.

The funds are allocated on the basis of a four-year plan which is elaborated by the Federal Council and has to be approved by the parliament. As far as higher education is concerned, the Swiss Confederation finances the domain of the Federal Institutes of Technology (ETH-Bereich) which comprises the Swiss Federal Institutes of Technology of Zurich and Lausanne as well as four research institutes. It also financially supports the cantonal Universities in proportion to the number of students and the amount of competitive funds acquired, and contributes a substantial part (up to one third) of the funds of Universities of Applied Sciences. Furthermore, it finances the promotion of scientific research. Its main instruments for this task are the Swiss National Science Foundation (SNSF) and the Commission for Technology and Innovation (CTI). Finally, it is responsible for international cooperation in education, research and technology.

Art. 63a lit. 3 of the Constitution of the Swiss Confederation⁴ implies the autonomy of the HEIs. Since the federal law does not specify the extent of this autonomy, this has to be defined by the different cantonal legislations for the cantonal Universities and the Universities of Applied Sciences. Therefore, not all HEIs are autonomous to the same degree.

The domain of the Swiss Federal Institutes of Technology is led and financed by the Swiss Confederation through a performance mandate and a global budget. The performance mandate specifies some very broad goals (e.g. to position the domain in the top ranks of international research or to promote the tenure-track system). It is then up to the ETH Board (ETH-Rat) to decide how to achieve these goals and how to use the funds efficiently. The Board is accountable to the government and the parliament for the use of its funds and the achievement of its goals. Thus the two Swiss Federal Institutes of Technology enjoy a large degree of autonomy. Usually, the cantonal Universities are also led through a performance mandate and a global budget by their canton. The degree of autonomy of the cantonal Universities depends on how detailed their respective performance mandates are and on how much influence the cantons are bringing to bear on their Universities. On the whole, however, the cantonal universities also enjoy a high degree of autonomy: they elect their governing boards, including the rectors and new professors (who need to be formally appointed by the cantonal government), decide on their internal organisation, define their strategies, and decide how to use their funds.

The Universities of Applied Sciences are led and financed jointly by the Confederation and the cantons. They are somewhat less autonomous than the cantonal universities. Most notably, their study programmes have to be approved by the federal government.

⁴ www.admin.ch/org/polit/00083/index.html?lang=en (English)

3. Describe any changes since Bergen to the institutional structure.

Tertiary education is highly diverse and generally grouped into two broad categories: 1) advanced vocational training (ISCED level 5B) and 2) higher education institutions (ISCED level 5A). A description of the two groups can be found in the National Report for the Bergen conference.

The first category is based on the Federal Act of vocational education from 13 December 2002. In 2005, there were about 40,000 students who pursued advanced vocational training in 211 public and 120 private institutions.

The higher education institutes of ISCED level 5A are divided into Universities (including the cantonal Universities as well as the two Federal Institutes of Technology, ETH), Universities of Applied Sciences and Universities of Teacher Education. For the 10 cantonal Universities, the relevant legal basis is the Federal Act on Aid to Universities and Cooperation in Higher Education from 8 October 1999⁵, for the two ETH, it is the Federal Institutes of Technology Act from 4 October 1991⁶. In 2005/06, more than 112,000 students were enrolled at Universities or ETH (around 2/3 of all students in ISCED level 5A).

The 8 Universities of Applied Sciences (one of which is private) are regulated by the Federal Universities of Applied Sciences Act⁷ which has been revised in 2005. In 2005/06, about 44,000 students were enrolled at Universities of Applied Sciences.

Teacher education is the responsibility of the cantons. Thus it falls under cantonal legislation. Legally binding directives concerning the recognition of diplomas have been issued by the Swiss Conference of the Cantonal Ministers of Education (EDK). In 2005/06, more than 10,300 students attended a University of Teacher Education.

Partnership

4. Describe the structure which oversees the implementation of the Bologna Process in your country.

Legal responsibility for the Bologna process lies with the Swiss University Conference (CUS) for the cantonal Universities and the Federal Institutes of Technology (ETH), with the Council for Universities of Applied Sciences for Universities of Applied Sciences and with the Swiss Conference of Cantonal Ministers of Education (EDK) for Universities of Teacher Education. The three bodies have passed legally binding "Bologna Directives". At the institutional level, the implementation of the legal framework is overseen by the three executive bodies (Rectors' Conference of the Swiss Universities, Swiss Conference of Universities of Applied Sciences Switzerland, Swiss Conference of Universities of Teacher Education), which collaborate closely and report to the political authorities. All three have set up Bologna commissions which bring together representatives of all member institutions and partly student representatives in order to ensure a coordinated implementation of the reforms. Their activities include the establishment of guidelines, recommendations and codes of best practice regarding general aspects of the reforms as well as coordination and support of curricular reforms, ECTS, admission regulations, mobility, monitoring, improvements, quality assurance and the social aspects including gender equality. They provide a platform for inter-institutional discussion of all Bologna-related issues.

5. Describe the arrangements for involving students and staff trade union/representative bodies in the governance of HEIs.

At the national level, student participation in all relevant committees and working groups is en-

⁵ www.admin.ch/ch/d/sr/4/414.20.de.pdf (German)

⁶ www.admin.ch/ch/d/sr/4/414.110.de.pdf (German)

⁷ www.admin.ch/ch/d/sr/4/414.71.de.pdf (German)

ured. However, at the institutional level, student participation differs considerably between the various higher education institutions and especially between Universities and Universities of Applied Sciences. Therefore, members of the Rectors' Conference of the Universities, government representatives and students have formulated recommendations regarding student participation in all University governing bodies, academic councils, etc. These recommendations then resulted in a publication financed by the government which gives an overview of actual student participation conditions (situation 2005). Descriptions of different models in place are to help institutions to implement the recommendations and harmonise their practices. The implementation process is being monitored by the Rectors' Conference of the Swiss Universities. A first follow-up report planned for 2007 will examine the progress made and discuss further steps. At the moment, the Universities of Applied Sciences are at the beginning of a similar process. Student organisations are currently working on another project, which concerns their participation at the national level in the formulation of the next Framework Law on Higher Education in Switzerland.

With respect to the involvement of staff representative bodies, individual members of groups concerned as well as representatives of national bodies (association of doctoral candidates and research assistants, association for gender equality, etc.) participate in the relevant committees at the national level.

6. Describe the measures in place to ensure the co-operation of business and social partners within the Bologna Process.

The Universities enjoy quite a large degree of autonomy; the institutions are relatively free to manage the reform process and the development of curricula according to their specific situations and needs. Therefore, co-operation mechanisms differ from institution to institution as well as between disciplines. At the Universities of Applied Sciences, business and social partners generally participate in commissions in charge of curricula development. The Universities of Teacher Education collaborate closely with the Swiss Conference of Cantonal Ministers of Education which has the legal responsibility. The individual cantonal authorities are also the main employers in the sector.

At the national level, two-yearly surveys among graduates allow for the opportunity to evaluate the integration of HE degree holders into the labour market, determine problem areas and draw conclusions with respect to the general usefulness of the lines of study offered as well as the needs of the labour market.

B. Main stocktaking questions, including scorecard elements

Degree system

(Scorecard and Eurydice)

Stage of implementation of the first and second cycle

7. Describe the progress made towards introducing the first and second cycle.

In autumn 2006, all first-year students at the cantonal Universities (except for medical students) and the Federal Institutes of Technology enrolled in bachelor programmes; as far as medical studies are concerned, the two-cycle system will start in 2007. The traditional single-tier study courses are being discontinued: according to current estimations, more than 95% of students will be enrolled in bachelor or master courses in 2010/11.

The Universities of Applied Sciences and Universities of Teacher Education introduced bachelor programmes in most subject areas in 2005/06; the remaining subjects followed in autumn 2006. During the academic year 2005/06, 48% of all students (2004/05: 29%) below doctoral level at

the Universities were enrolled in first and second cycle programmes. Figures for 2006/07 were not available at the time of submitting the present report but are expected to be considerably higher. At the Universities of Applied Sciences and the Universities of Teacher Education, 22% and 62.5% of the total student population during the academic year 2005/06 were enrolled in two-cycle programmes, respectively. These figures are also expected to rise considerably.

(Eurydice)

Stage of implementation of the third cycle

8. Describe the progress made towards implementing doctoral studies as the third Bologna cycle.

Enhancing the quality of doctoral education is considered a priority by the universities and part of their strategic planning for the next years. In all subject areas, the core element of the doctorate remains the doctoral thesis – in its capacity as indispensable proof of independent research performance. At the same time, the universities aim at modernising doctoral education as part of the 3rd cycle of the Bologna reform. Therefore, financial arrangements have been made in order to increase the number of more tightly structured doctoral programmes (i.e. including competitive selection, taught elements beyond master level, intensification of support of doctoral candidates, etc.).

As a rule, it should be possible to complete the doctorate within 3 to 4 years (full-time equivalent). The doctoral degree is awarded when the thesis has been accepted by the examination committee and defended (viva-voce examination) and a set number of copies has been handed in.

The Swiss qualifications framework for higher education is still being developed; it will comprise the 1st, 2nd, and 3rd cycles including learning outcomes for all three levels. For the 3rd cycle, no credit ranges will be indicated in the Swiss qualifications framework. With respect to the doctoral level, the use of credits is usually restricted to taught elements (probably a total of 12 to 15 ECTS credits for the doctoral programme as a whole).

No figures are available yet regarding the percentage of doctoral candidates following structured doctoral programmes. During the academic year 2005/06, approximately 17'300 doctoral candidates were enrolled at Swiss universities. Currently, there exist about 60 to 70 doctoral programmes.

(Scorecard and Eurydice)

Access⁸ to the next cycle

9. Describe the arrangements for access between the first and second cycles and second and third cycles.

At the Universities and the Federal Institutes of Technology (ETH), all first-cycle degrees give access to second-cycle degree programmes. Only for a small number of so-called Specialised Master programmes may the Universities set additional requirements equally applicable to all candidates. At the Universities of Applied Sciences, some master programmes will start in 2008. The definite arrangements regarding access are not established yet. It is expected that about 25% of first-cycle degree holders will have access to the second cycle. The Universities of Teacher Education plan to introduce a restricted number of second-cycle programmes by 2007–2009. Access will be limited; definite arrangements regarding admission will be decided on at a

⁸ Access as defined in the Lisbon Recognition Convention. Access: the right of qualified candidates to apply and be considered for admission to higher education.

later stage.

Currently, the Swiss HEIs are preparing a mutual agreement regarding transition between first and second cycle programmes across different types of institutions (e.g. between Universities and Universities of Applied Sciences). Within the same subject area, first-cycle degree holders will be admitted to master programmes offered by a HEI of another type, if "bridging" courses that might be necessary (determined on an individual basis) do not exceed 60 ECTS credits. Third-cycle programmes are only offered at the cantonal Universities and the Federal Institutes of Technology (ETH). Access to doctoral studies is limited to students who have completed the second cycle. There is, however, no right of admission, which will rather be granted on merit by the academic staff in charge of the doctoral programme.

(Scorecard and Eurydice)

Implementation of national qualifications framework

10. Describe the stage of implementation of the national qualifications framework to align with the overarching Framework for Qualifications of the EHEA⁹.

The elaboration of a NQF for higher education is a mandate of the State Secretariat for Education and Research to the three Rectors' Conferences (Universities, Universities of Applied Sciences and Universities of Teacher Education). In September 2005, a steering committee was set up including representatives of the Rectors' Conferences, the State Secretariat, the Center of Accreditation and Quality Assurance of the Swiss Universities (OAQ), the Swiss Conference of Cantonal Ministers of Education, the Federal Office for Professional Education and Technology, student bodies and the body of the non-professorial teaching staff. The steering group has close links to all national bodies involved in the Bologna Process.

A small working group including an expert in the field of education is in the process of developing the first draft. The final draft is to be presented to the responsible political bodies (Swiss University Conference and Council of Universities of Applied Sciences) for approval in 2008.

The working group proposes to follow the structure of the overarching EQF for EHEA (3 qualification levels) using the Dublin descriptors as national outcomes-based descriptors. At the same time, a close watch will be kept on the development of the EQF for LLL of the European Union. At the present early stage, the ownership, control and maintenance of the future NQF have not yet been established. The decisions will be made by the appropriate political bodies.

The continual involvement of all concerned institutions and stakeholders is assured. A first informal survey on the possible functions of a NQF undertaken in August 2006 showed that the NQF should be used as a reference framework for sectoral or disciplinary frameworks. The survey also showed that the level of information among the stakeholders concerning the concept of learning outcomes is rather low. One of the top priorities is therefore to work out an information strategy in order to advance the awareness of the stakeholders. The link to quality assurance and accreditation is also under discussion. For 2007, a series of intensive discussions with all stakeholders is planned; also, appropriate means for feedback to the project group will be provided.

11. What measures are being taken to increase the employability of graduates with bachelor qualifications?

The Swiss Universities aim at providing an education on master level to as many students as possible. They are, however, aware that this may not always be possible for or desired by individual students and that reorientation has to be an option after completion of the bachelor level. Therefore, all Universities closely monitor the study pathways of students and continue their

⁹ A Framework for Qualifications of the EHEA: <http://www.bologna-bergen2005.no/>

considerations of which profiles and contents are needed for bachelor and master programmes in order to encompass a variety of needs and purposes including but not limited to preparation for research careers.

The number of bachelor diplomas awarded by the Universities is still limited and divided unequally between disciplines in 2004/05 (figures for the academic year 2005/06 are not available yet). Approximately 80% of first cycle graduates continued into the second cycle (decrease of 3,5% as compared to the previous year). In the next few years, the number of first cycle graduates will strongly increase. Since in many disciplines bachelor diplomas will be awarded for the first time ever, it is too early yet to predict employment rates.

The study programmes of the Universities of Applied Sciences and the Universities of Teacher Education have traditionally been first cycle degrees oriented towards the professional sector; therefore, no extra measures to increase the employability of bachelor qualifications are felt to be necessary beyond constant efforts to assure a high quality of these programmes.

Quality assurance

(Scorecard and Eurydice)

National implementation of the Standards and Guidelines for QA in the EHEA¹⁰

12. To what extent is your national system of QA already in line with the Standards and Guidelines for QA in the EHEA?

On behalf of the State Secretariat for Education and Research, the Center of Accreditation and Quality Assurance of Swiss Universities (OAQ) has to check every four years whether the quality assurance systems of the Universities are compatible with internationally accepted standards, and whether they result in high quality output in education and research. Federal funding of the cantonal Universities is partly linked to the results of these so-called 'quality audits'. On the basis of the ENQA Standards and Guidelines for internal quality assurance, the OAQ has in collaboration with the Universities developed national Guidelines for internal quality assurance for Swiss Universities. Furthermore the OAQ has compiled annotations to the Guidelines that offer explanations and show the link to the ENQA Standards and Guidelines. The Swiss Guidelines have been formally issued by the Swiss University Conference (SUK) in October 2006 and will become effective in January 2007. They are binding for the Swiss Universities recognized by federal law. Compliance with these Guidelines will be evaluated in quality audit procedures mandated by the State Secretariat for Education and Research and carried out by the OAQ in 2007/08. With the new Federal Framework Law on Higher Education in Switzerland these Guidelines will also be applicable to Universities of Applied Sciences.

The OAQ has been evaluated in 2006 by an international expert panel on the basis of the ESG (European Standards and Guidelines for Quality Assurance in Higher Education) and it has been established that it complies very well with the Standards and Guidelines of ENQA for quality assurance agencies as well as the ENQA Guidelines for external quality assurance. The report of this evaluation is published on the website of the Swiss University Conference (www.cus.ch) and the OAQ website (www.oaq.ch).

With these developments, the national quality assurance system in Switzerland is now fully compatible with the ENQA Standards and Guidelines.

(Scorecard and Eurydice)

Stage of development of external quality assurance system

¹⁰ www.enqa.net/files/BergenReport210205.pdf

13. Describe the quality assurance system operating in your country.

The Center of Accreditation and Quality Assurance of Swiss Universities (OAQ) is the independent national agency for external quality assurance in Switzerland. In 2001, the OAQ was only responsible for the Swiss Universities. In 2006, the OAQ has started to carry out accreditation procedures for the Universities of Applied Sciences and so established itself as the national agency responsible for most of the tertiary sector in Switzerland (not for the advanced vocational training sector). The system of external quality assurance has been implemented in 1999 with the Federal Act on Aid to Universities and Cooperation in Higher Education and it operates on a national level. It includes three different types of external quality assurance: Accreditation (voluntary / for private and public institutions or programmes), Institutional Evaluations (mandatory for institutions applying for federal subsidies), Quality Audits (mandatory for recognised institutions). OAQ procedures and quality standards are based on international good practice. OAQ performed an in-depth review of foreign accreditation and evaluation systems before developing its own procedures. So far the OAQ has carried out more than 100 quality assessments of Higher Education Institutions and programmes. All procedures include the following three steps: a) internal evaluation (self-evaluation report) b) external review (on-site visit) c) decision and publication of results. Results and reports of all accreditations granted in Switzerland are published on the OAQ website. At the moment only positive decisions may be published. Due to the data protection law, negative decisions cannot be published.

(Scorecard and Eurydice)

Level of student participation

14. Describe the level of student participation in your national quality assurance system.

Students are involved in the production of the self-evaluation reports and as interview partners during site visits. However, until 2006, they were not part of the expert panels or the governance body. With the forthcoming new Federal Framework Law on Higher Education in Switzerland and the revision of the guidelines for accreditation, students shall be included in the expert panels and the accreditation council (decision body) of the OAQ. Pilot projects with student participation in expert panels of the OAQ started in November 2006. The OAQ has entered an agreement with the Swiss student organization VSS to organize training sessions for students to prepare them for their role in QA as well as to build up a pool of student experts eligible for accreditation procedures. The first trainings will be carried out in 2007.

(Scorecard and Eurydice)

Level of international participation

15. Describe the level of international participation in your national quality assurance system.

The international participation in the governance of the Center for Accreditation and Quality Assurance of Swiss Universities (OAQ) is guaranteed through the composition of its scientific advisory board. This board is responsible for the scientific quality of the work of the OAQ. At least

two of its five members have to work and live outside Switzerland. The expert groups established for external evaluations and accreditation procedures in Switzerland must include a majority of peers coming from outside of Switzerland (this is regulated in the legally binding Guidelines for academic accreditation in Switzerland¹¹). The OAQ actively participates in several European networks for quality assurance and accreditation. Memberships include the Joint Quality Initiative (JQI), the European Consortium for Accreditation (ECA, co-founded in 2003, chaired by the OAQ director), and the regional network D-A-CH (founded in 2003 by Germany, Austria and Switzerland). In August 2006, the OAQ applied to become a full member of the European Association for Quality Assurance in Higher Education (ENQA; results are expected in December 2006). In addition, the OAQ is a member of the corresponding quality assurance networks and organisations at the international level: the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) as well as UNESCO/OECD forums on accreditation/quality assurance and on cross-border education.

Recognition of degrees and study periods

(Scorecard and Eurydice)

Stage of implementation of Diploma Supplement

16. Describe the stage of implementation of the Diploma Supplement in your country.

The Diploma Supplement is available at all HEIs (Universities, Universities of Applied Sciences, Universities of Teacher Education) and for all bachelor and master diplomas free of charge. It is issued automatically to all students together with their diploma, in the language of the institution (German, French or Italian) as well as in English. Both the Universities and the Universities of Applied Sciences and of Teacher Education use the official EU/CoE/UNESCO model with the preamble and the eight categories of items. All students graduating in 2007 with a bachelor's or master's degree will receive a Diploma Supplement. Some institutions also deliver a Diploma Supplement together with the old diplomas (*Lizentiat/ Diplom*).

(Scorecard)

National implementation of the principles of the Lisbon Recognition Convention

17. Describe the stage of implementation of the main principles and later supplementary documents¹² of the Lisbon Recognition Convention.

Switzerland was one of the first countries to ratify the Lisbon Recognition Convention in 1998. The existing decentralized laws and regulations proved to be flexible enough to deal with the Lisbon Recognition requirements. The Universities have adapted their admission regulations in order to guarantee fair assessment. All diplomas are recognised if no substantial differences can be proven. Information on the recognised institutions and their programmes is publicly available and can be found on the following websites:

- www.crus.ch → English → 4. Swiss Information Centre for Academic Recognition Matters → Recognized Swiss Universities
- www.crus.ch → English → Range of subjects at Swiss Universities

¹¹ www.cus.ch/wEnglisch/akkreditierung/richtlinien/OAQ-RL-engl-16.10.03-8bis.pdf

¹² Recommendation on the Criteria and Procedures for Recognition (2001); Recommendation on the Recognition of Joint Degrees (2004); Code of Good Practice in the Provision of Transnational Education (2001)

- www.kfh.ch → English → Universities of Applied Sciences and Offers
- www.skph.ch → English → Links → Universities of Teacher Education
- www.berufsberatung.ch → Studium

Switzerland has a fully operational ENIC (European Network of National Information Centres on Academic Recognition and Mobility) which is a department of the Rectors' Conference of the Swiss Universities (CRUS). Together with the Swiss ENIC, the CRUS Commission for Admission and Equivalence supports and monitors the implementation of the Convention and discusses arising problems. A workshop is organised every year to discuss necessary adaptations of admission requirements.

(Scorecard and Eurydice)

Stage of implementation of ECTS

18. Describe the credit and accumulation system operating in your country.

Across all sectors of tertiary higher education (Universities, Universities of Applied Sciences, Universities of Teacher Education), the new system is based on a first cycle (bachelor) comprising 180 ECTS credits and a second cycle comprising 90 or 120 ECTS credits. According to the legal framework (Bologna Directives) for the two-tiered programmes, the use of ECTS is mandatory and is, therefore, applied in all bachelor and master programmes. In the academic year 2005/06, this concerned 48% of all students at the Universities and 30% of students at the Universities of Applied Sciences, respectively. As the traditional single-tier programmes are running out, the above figures will rapidly increase each year. It is expected that in 2010/11, ECTS will apply to over 95% of all students (including further education programmes).

19. Has your country produced a national plan to improve the quality of the process associated with the recognition of foreign qualifications¹³? If so, give a brief description of the plan and attach a copy.

Switzerland has a national action plan for recognition in which all HEIs and the responsible recognition authorities are involved. It has ratified the Lisbon Recognition Convention and its subsidiary texts. National laws and regulations and the Bologna Directives of the Swiss HEIs are in conformity with the principles of the Lisbon Recognition Convention. Information on recognition procedures can be found on the website of the fully operational Swiss ENIC (www.crus.ch) and on the websites of the competent recognition authorities. It takes one to three months to process applications for recognition, depending on the responsible body. There is a close collaboration between the Swiss ENIC, the Center of Accreditation and Quality Assurance of the Swiss Universities (OAQ), the HEIs and the responsible recognition bodies.

Lifelong Learning

(Scorecard)

Recognition of prior learning

20. Describe the measures in place to recognise prior learning, including non-formal and informal learning.

As far as HE is concerned, there are currently no national procedures for recognition of prior

¹³ ENIC/NARIC has produced guidelines for National Action Plans for Recognition.

non-formal and informal learning. Normally, the required qualification to obtain access to higher education is the Matura (general Matura for Universities and Federal Institutes of Technology, vocational Matura for Universities of Applied Sciences) or an equivalent diploma. However, some Universities make use of their right to choose students who do not satisfy the usual admission conditions. For instance, there is a University which admits students over 30 years old, if it considers them to be able to successfully complete their degree. Furthermore, work experience and informal learning are taken into account for the admission to many continuing education programmes, including some Masters of Advanced Study (MAS). For most of the programmes at Universities of Applied Science, a work experience of one year is required, at least three months of which must be in a field related to the study programme. Each institution has the right to decide whether the work experience is adequate or not. Finally, some of the flexible learning paths described in answer 21 (especially the Passerelle) might also be considered as a kind of recognition of prior learning.

21. Describe legislative and other measures taken by your country to create opportunities for flexible learning paths in higher education.

As described in answer 20, there are two ways to access higher education in Switzerland (general Matura for Universities and Federal Institutes of Technology, vocational Matura for Universities of Applied Sciences). Recently, various steps have been taken in order to facilitate exchange between the sectors. After passing the vocational Matura, for example, there is the possibility to take an exam (called Passerelle) which gives access to Universities. In order to increase the openness between the different types of higher education in Switzerland, the Swiss University Conference as well as the Council for Universities of Applied Sciences enacted comparable directives (Bologna Directives) for each of the sectors, which should simplify transition between them. The three Rectors' Conferences agreed that after obtaining a first degree (bachelor) from an institution of one type, a student can in principle change to an institution of another type (in the same field of study) if 60 ECTS-Credits are sufficient to bridge any major differences of profile or content. However, this rule has not yet been formally approved. Doctoral studies are only offered at the Universities and Federal Institutes of Technology (ETH). Universities of Applied Sciences (UAS) and Universities of Teacher Education (PHS) do not offer doctorates. A political discussion about the possibility to take up doctoral studies at a University or ETH after completing a master's degree at a UAS or PHS is in progress. Most of the UAS and an increasing number of Universities offer programmes with modular structures. This proves to be very useful for the increasing number of part-time students (more than $\frac{3}{4}$ of Swiss students work besides studying¹⁴).

Joint degrees

(Scorecard and Eurydice)

Establishment and recognition of joint degrees

22. Describe the legislative position on joint degrees in your country.

Joint degrees are legally allowed. Three Swiss universities offer joint master's programmes in collaboration with leading partner universities from France, Spain, Holland, Italy, UK and Singapore. One University has signed the Double Degree Agreement for Management Education in Europe (DAFME). Besides these international joint master's programmes, most universities offer joint masters together with other Swiss universities. Thanks to bilateral agreements, there is also the possibility to obtain a joint or double doctorate (cotutelle de thèse) from a Swiss and an Ital-

¹⁴ Swiss Federal Statistical Office, 2005

ian or French university. Joint or double doctorates offered only by Swiss universities are not awarded.

The Swiss Confederation welcomes and encourages the implementation of joint degrees. It can offer financial support for double degrees at the doctorate level.

C. Current issues in Higher Education

Higher education and research

23. Describe the relationship between higher education and research in your country - what percentage of research is carried out in HEIs; are any steps being taken to improve the synergy between HE and other research sectors.

In 2004, Switzerland dedicated 2.94% of its GDP to research. More than two thirds of research are financed by the private sector (70%), whereas 23% are financed by the public sector and 7% by other sources.

Publicly funded research is mainly conducted within higher education institutions. Research, together with education, is in fact part of the mission of all three types of Swiss higher education institutions (Universities, Universities of Applied Sciences and Universities of Teacher Education) as defined in either cantonal or federal laws. Moreover, a tight link between higher education and research is expected. The Federal Act on Aid to Universities and Cooperation in Higher Education considers the unity of teaching and research to be a condition for obtaining subsidies. The Federal Act on Research¹⁵ which regulates federal financing of research also insists on the tight link between research and education. Accordingly, the cantonal Universities and Federal Institutes of Technology spent 53% (2004) of their overall budget on research. In 2005, the Universities of Applied Sciences spent 16% on research (aim 2011: 20%). The research at the Universities of Teacher Education is still being developed and currently amounts to 6% of the overall budget.

For a long time, the creation of synergies between HE and other research sectors has been a priority for Switzerland. It will be one of the challenges ahead to maintain the high level of current activities aimed at turning investments in R&D into entrepreneurial successes. Measures include the following:

- All HEI have put in place mechanisms to ensure research cooperation with the industry, including small and medium-sized enterprises. In 2004, for instance, research mandates from the private sector made up 6% of the Universities' overall budget.
- CTI, the Swiss Confederation's innovation promotion agency has a long-standing tradition of supporting the transfer of knowledge and technology between businesses and Universities through promoting and supporting innovative projects with serious market potential conducted by businesses and Universities. The CTI budget for the 2004-2007 period amounts to approximately CHF 400 million and is expected to rise considerably in the next years.
- swiTT, the Swiss technology transfer association, supports and seeks to strengthen the transfer of technology between the private sector and public research and education institutions by promoting the professional development of its members, an understanding of the technology transfer process and its benefit to society, an optimal environment for technology transfer activities, and good inter-personal relationships.

Moreover, the law on foundations has recently been revised and liberalised in order to stimulate and simplify private donations to public institutions.

¹⁵ www.admin.ch/ch/d/sr/4/420.1.de.pdf (German)

24. What percentage of doctoral candidates take up research careers; are any measures being taken to increase the number of doctoral candidates taking up research careers?

In 2004, 54% of R&D personnel, both within HEIs and the private sector, held a higher education degree. Also, Switzerland's basic research is highly regarded throughout the world. In order to maintain and enhance this excellent position, the Universities aim at modernising university research by first of all enhancing the quality and attractiveness of doctoral education. Measures taken include the establishment of doctoral programmes including taught courses above master level, a tighter structuring of doctoral education in order to improve supervision as well as shorten the duration of doctoral studies, and the introduction of mechanisms to promote exchanges between young and experienced researchers.

The Swiss National Science Foundation (SNSF) is also dedicated to promoting scientific research, fostering young scientific talents, and contributing to optimal framework conditions for research. The SNSF funds more than 7000 researchers every year, 5000 or more of whom are 35 years old or younger. Through its fellowship and grants activities, the SNSF promotes promising young scientists by providing financial support during the stage of their career between doctoral thesis and assistant professorship. In 2005, the amount of CHF 42 million was spent on assistant professorships ("*Förderungsprofessuren*") and CHF 17.7 million on scholarships for young researchers.

The social dimension

25. Describe any measures being taken in your country to widen access to quality higher education.

The measures in place for widening access to higher education include a system of cantonal grants for socially disadvantaged students and public counselling services for guiding students in their study and career planning. There are also many grants and loans from Universities as well as from private sources.

In order to monitor the impact of policies, the promotion of research on student conditions and the setting up of a nationwide statistical system will be helpful. A first survey on the social conditions of students has already been published by the Swiss Federal Statistical Office. Additional reports on this topic will be published in 2007.

In 2006, the Swiss Science and Technology Council published a report on the national measures and future policies concerning conditions of students. It outlined the necessity to improve study conditions in Switzerland in the context of the ongoing Bologna reform process. As a consequence of the high percentage of students working part-time during their studies (78% of University students and 74% of University of Applied Sciences students, respectively), the report suggested that the grant system be improved in order to match the needs of a knowledge-based society. To this effect, the amount of public grants should be increased and distribution mechanism to students be adapted. The Swiss Science and Technology Council also recommends harmonising cantonal grants regulations and establishing a federal legal system based on a newly adopted constitutional article on education and the planned Federal Framework Law on Higher Education in Switzerland. This process is expected to lead to more equal conditions for all students and to remove financial and structural barriers restricting student mobility and access to higher education. Switzerland is also participating in the BFUG working group on the portability of grants and loans.

26. Describe any measures to help students complete their studies without obstacles related to their social or economic background.

The guidance and counselling measures for higher education students have been reinforced by all HEIs. All provide specific services to their students. Institutional help desks cover questions

related to curricula information, social matters, study and career counselling, grants etc. Access to guidance and counselling has been improved by providing online information on the institutions' websites.

The Swiss internet platform educa.ch makes available additional information about services for counselling and grants. According to the statistics published by the Swiss Federal Statistical Office, 11.3% of all University students and 14.3% of students from Universities of Applied Sciences and Teacher Education received grants from the cantons in 2004.

Mobility

27. Describe any measures being taken to remove obstacles to student mobility and promote the full use of mobility programmes.

Compared with other OECD countries, Switzerland has one of the highest proportions of international students (17.2%), PhD students (40%) and teachers (36%) in tertiary education.

The bilateral agreements with the EU both enhance participation in EU education programmes and facilitate taking up residence in Switzerland (e.g. obtaining residence permits, health insurance). Negotiations for full Swiss participation in the EU's new Lifelong Learning Programme (LLP) are planned and should lead to Switzerland fully taking part in EU mobility programmes. In the Swiss Confederation, the cantons enjoy much autonomy regarding legislation in many relevant fields, which affects the higher education sector both directly and indirectly. As a result of cantonal autonomy, factors influencing mobility from and to Switzerland vary between the cantons, making mobility an often complex endeavour. Improvements are necessary, in particular regarding portability of regular student loans and grants (only allowed by some cantons) or alleviation of administrative obstacles (e.g. regarding health insurance, obtaining student permits for non European students).

In order to promote horizontal student mobility under the Bologna structure, the Rectors' Conference of the Swiss Universities (CRUS) suggests that each study course offer a mobility window. Either the second or third academic year of the bachelor's degree would be suitable; in the master's degree course, the second or third semester should be chosen. Each student should be able to complete one-third of his or her course of studies at another University, i.e. to gain at least 30 ECTS credits externally.

To increase vertical mobility between cycles, the CRUS strategy paper "Swiss University Landscape: Strategy 2005 – 2015" (www.crus.ch) puts forward a target figure of 25% of an institution's master students having obtained their bachelor's degree from another University.

To foster student mobility and to enable students to select the appropriate University, efforts are being made to provide more and easily accessible information about master's and bachelor's degree courses. For this reason, course catalogues, course descriptions including learning outcomes, descriptions of teaching and learning methods as well as assessment procedures are published on paper and on the Universities' internet platforms, on the CRUS' website and on an English website (www.swissuniversity.ch) especially designed for foreign students. Furthermore, ECTS is fully implemented at Swiss Universities and facilitates the academic recognition of student mobility.

28. Are portable loans and grants available in your country? If not, describe any measures being taken to increase the portability of grants and loans.

There is no national grant system in Switzerland. The cantons are responsible for grants and loans, i.e. grant systems are a responsibility of the 26 cantonal ministries of education. In all cantons, grants and loans depend on parent income, in some on age, nationality/residence conditions and student income. In most cantons, there is a combination of grants and loans with loans depending generally on the same conditions as grants. In many cantons grants and loans

are portable. Measures are expected to be taken in order to define common standards and to render the grant and loan systems of the different cantons more transparent. To this end, an inter-cantonal agreement is being developed, which is also to improve the situation with respect to the portability of grants and loans.

29. Describe any measures being taken to remove obstacles to staff mobility and promote the full use of mobility programmes.

Traditionally, Switzerland has a high percentage of long-term foreign teaching staff. In several Universities, nearly 50% of teaching staff are foreign citizens, and in one University, even more than 50% of staff is of a foreign nationality. Also, short-term teaching staff inward and outward mobility is steadily increasing, e.g. within the framework of ERASMUS teaching staff exchanges. Universities grant professors sabbaticals on a regular basis and contribute to travel costs to initiate research projects.

Doctoral students (research staff) from all disciplines enrolled at Swiss Universities can apply for so-called "cotutelles de thèse" programmes with French and Italian Universities. This includes financial aid to cover additional costs incurred by preparing a doctoral thesis at two Universities. Acting on a mandate issued by the Swiss federal government, the Swiss National Science Foundation (SNSF) supports research and fosters young scientific talents through grants for periods abroad (Swiss Fellowship for advanced researchers, SNSF Professorships, SNSF Fellowships). The SNSF also promotes international research cooperation in order to make a positive contribution to scientific research in the relevant areas of the world and to foster research cooperation between these areas and Switzerland.

Since January 2004, Switzerland has fully participated in the Sixth Framework Programme of the European Commission for research including Marie Curie actions. Switzerland has also negotiated a renewal of the bilateral agreement for the participation in the Seventh Framework Programme.

Swiss Universities participate in the ERA-MORE network for mobile researchers and the Rectors' Conference adopted the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers published by the European Commission. Currently, a pilot project for their implementation is being conducted and the Swiss Rectors' Conference actively participates in expert committees of the European Commission for the dissemination of Code and Charter.

From the academic year 2007/2008 on, the start date of each semester is harmonised at all Swiss Universities, Universities of Applied Sciences and Universities of Teacher Education like in most parts of Europe. This should facilitate mobility within Switzerland and with other countries. With the intention to offer more English modules and to expand the marketing abroad when searching for new lecturers, the attractiveness and recognition of Swiss higher education should increase.

The attractiveness of the EHEA and cooperation with other parts of the world

30. Describe any measures being taken in your country to promote the attractiveness of the EHEA.

Because the EHEA is very important for Swiss HEIs, particular attention is being paid to ensure that national Bologna Directives are compatible with international regulations.

An important actor for the promotion of the EHEA is the Information and Coordination office ERASMUS Switzerland (IKES) and its "spin-offs" (so-called mobility offices) at the HEI.

In order to make up for the fact that the Swiss Confederation is not a member state of the EU, various measures have been taken to ensure at least an indirect participation of Swiss institutions in EU higher education programmes.

Future challenges

31. Give an indication of the main challenges ahead for your country.

A distinctive feature and highly-valued asset of the Swiss higher education system is its variety of types of institutions and a corresponding division of responsibility between federal and cantonal bodies. On the basis of a new constitutional article which has recently been adopted, national legal reforms are being undertaken in order to reduce this structural complexity and to enhance the coherence and efficiency across the entire tertiary education sector. At the same time, however, such reforms must not lead to excessive centralisation and the strong regional ties of higher education institutions should not be loosened. Also, the diversity of types of institutions and offers in higher education has to be maintained.

The financing of higher education will be another major challenge in the coming years. The Swiss Confederation and the cantons (with and without Universities) have to agree on a new mechanism and new rules for University funding. Moreover, if – in the face of rising student numbers – the goal of advancing the quality of teaching and learning is to be met, appropriate teacher-to-student ratios have to be ensured and adequate funding made available.

The challenges ahead for HEIs specifically related to the Bologna reforms include

- consolidating the profound renewal of University teaching already achieved within the framework of the Bologna process,
- completing the introduction of high quality master programmes in all disciplinary fields (Universities) or where appropriate (Universities of Applied Sciences),
- enhancing teacher-to-student ratios especially in the humanities and social sciences,
- creating reasonable and fair pathways between different types of HE institutions,
- modernising and enhancing doctoral education by increasing the number of structured doctoral programmes,
- providing easily accessible and user-friendly information on study opportunities at Swiss HEIs, and
- evaluating the achievement in consideration of the intended goals of the Bologna reforms.