

# **CIEA 2004**

**The Swiss Modular System –  
a politico-educational and pedagogical challenge**

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**Friday, 28 August 2004**

**24th INTERNATIONAL COURSE ON VOCATIONAL EDUCATION  
AND TEACHING IN AGRICULTURE**

Res Marty, co-founder of the Swiss modular system and from 1994 – 1999 head of the “Schweizerischen Modulzentrale (SMZ)” (Swiss Module Centre). Today, manager of several modularisation projects and member of the board of the successor organisation ModuQua. Regular participation as a lecturer in events on modularisation abroad.

More than 10 years have passed since the former president of the National Council, Ms Judith Stamm, submitted in 1993 a motion to the Federal Council aiming at introducing a modular system. In these years, the system moved into the Swiss educational system with amazing speed. In almost all professions of continuing vocational training and more and more often also in general education, modules (partial qualifications) are created in order to offer the students a flexible way to “save up” to a (professional) degree.

## **1. Stages of a development process**

The Swiss modular system went through several stages up till today. This process has not yet come to a close. Both from the organisational and from the pedagogical side of the process there is still a huge potential for development, and under adequate direction, this system will be optimised even more.

- 1993: Motion Stamm submitted to the Federal Council and considered relevant/ approved
- 1994: Awarding of a project offer by the at that time BIGA (Federal Office for Industry, Commerce and Employment; today OPET: Federal Office for Professional Education and Technology) to the project group C. Epprecht (Zug), R. Marty (Schwyz) and J. Widmer (Lucerne) and drawing up of a first report in co-operation with the interested professional associations for the attention of the BIGA
- 1996-98: Pilot trial with scientific accompaniment and evaluation which lead to a positive conclusion
- from 1996 on, gradual introduction of the model into various professional associations, schools and institutions of continuing vocational education
- 1999 Submission of a final report on the pilot trial including further development of the system. In addition, several partial reports on specific issues (e.g. harmonisation, quality development, modularisation in primary education etc.)
- 2000/2001: Establishing of various guidelines for the practical introduction into associations, schools and organisations
- 2000: Report by professors Dubs and Euler for the attention of the OPET and foundation of the association Modula as an interim solution until the integration into the educational administration
- 2001/2002: Preparation of the integration into the educational administration (Swiss Conference of Cantonal Ministers of Education (EDK), OPET, seco) with consultation of OPET guidelines on the modular system in Switzerland.
- 31.5.2002: The Federal Office for Professional Education and Technology (OPET) adopts Swiss-wide valid guidelines for the modular professional education in Switzerland.
- 2003: Preparation for the creation of a successor organisation to Modula. The private organisation “ModuQua” is supported by the FSEA (Swiss Federation for Adult Learning), the SGAB (Swiss Society for Applied Research in Vocational Education) and by several Swiss professional associations and schools
- 1.1.2004: The new law on professional education and the ordinance which goes with it come into force. They represent the legislative basis for a modular education

During this time, the modular system established itself in almost all professional fields. The development continues, and it can be assumed that in a few years' time this system will be accepted by the public and the possibilities contained in the system will be more and more consciously used by the students, so that they can organise and control of their own learning.

## **2. The modular system – concept and function**

If a new educational model is to be established in an already existing system, this happens on the basis of the analysis of the social and economic context and encompasses strategic and operational goals. These goals can be summarised as follows:

- Lifelong learning acquires more and more importance for the people because of the rapid economic and social changes
- The technological progress requires constant adaptation on all levels
- The integration into the globalisation process that takes place on all levels requires high intellectual, physical and psychical flexibility and mobility. Learning becomes more often and more rapidly a conscious survival strategy of a society

An educational model therefore has to achieve the following goals:

- Lifelong learning has to be possible irrespective of status, sex and profession
- Learning should be efficient and effective (no idling away, neither from a qualitative nor from a quantitative point of view)
- Learning should become a priority in the hierarchy of values of the people, and it should be of noticeable benefit to welfare and prosperity
- Learning should as often as possible lead to qualified degrees and the acquired competences have to be transferable to economic and social activities
- Learning should be individual for all participants, and it has to offer the possibility of autonomous control and organisation
- Learning has to be “affordable“ in all respects and it should not be a luxury
- The transparency of the entire educational system has to be optimised in all respects. Elitist “caste or guild spirit“ is a thing of the past

In this context and with this aims the model looks as follows:

### **Module**

The smallest unit of the modular system is a module; and based on the analysis of activities in a profession it is also called a professional task. It is a self-contained learning effort and is defined as a partial qualification of an entire (professional) qualification. The aim of a module is to achieve a certain action competence as part of a whole (e.g.: a partial qualification of a manager may be “the ability to conduct evaluation interviews”).

Modules have a firmly prescribed framework which is handled by all users of the system in Switzerland in the same way. Fixed points of this framework, which have to be declared by the makers of the module, are, among others: title of the module, prerequisites, accurate description of the action competence and the necessary learning goals, learning time, form of the offer, period of validity, term, test etc.

Each module has to offer the possibility of a final examination. The form of the qualification (test) has to be made transparent for the students and it has to be declared in the framework.

**Modules are no subjects.** As in general, only precise (professional) competences are taught in a subject, subjects cannot be modules.

After having completed a module, you (generally) are capable of doing something. Having completed a subject, you (generally) know something.

However, competence also requires knowledge. Therefore, each module teaches the relevant knowledge needed to acquire a competence. The same importance is attached to the teaching and training of the (working) methodical, social and personal competences needed for the defined action competence. In the above mentioned example ("being able to conduct evaluation interviews"), the following contents would be – among others - necessary: being able to apply communication rules in an evaluation interview, to apply and evaluate qualification models, to apply assessment processes, to analyse mistakes made in the observation and assessment and prevent them, if possible, reflect on personal impact in evaluation interviews, to carry out processes in order to set objectives with colleagues and to evaluate them etc. etc. ).

If somebody thinks that without attending a module he or she already possesses these competences (e.g. empirical knowledge, own learning efforts in self-study etc.) then he/she can directly apply for the test. If somebody even possesses written proof for his/her relevant competences, this will be accepted.

The requirements for a module therefore are:

- Defined partial qualifications (e.g. on the basis of an analysis of a profession) of at least one particular profession<sup>1</sup> or of a defined bundle of competences.
- Repeated usability of a module is possible (e.g. "being able to conduct evaluation interviews" is a competence not only needed by managers, but also by members of other professions such as heads of human resources, principals, apprenticeship masters, entrepreneurs, heads of department, etc. etc.)
- Modules can be completed via a test. The participants receive a certificate for this test.
- Modules are declared according to a uniform framework and included into the Swiss module market and published via internet
- Modules can also be used by other providers via the module market (in the manner of a barter; giving and taking).

### **"Modular Construction Kit"**

A certain number of modules leads to a (professional) qualification. The sum of a certain number of partial qualifications (modules) leads to a (professional) diploma. Providers of "modular construction kits" may also require intermediate examinations (after a certain number of modules), or a final examination (after all modules). However, a new competence has to be tested by these examinations (e.g. the capability to integrate independent partial qualifications).

### **Modular System**

If modularisation takes place in a professional field<sup>2</sup>, we speak of a modular system (number of modules that lead to various degrees in one professional field – sometimes by multiple usability. For example, 30 different modules in varying combinations may lead to a total of 6 degrees in one professional field).

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<sup>1</sup> From a point of view of industrial psychology "profession" is defined as a sum of partial qualifications (=bundle of qualifications or competences)

<sup>2</sup> Professional field as a collection of professions that belong to the same field, e.g. professions in the field of nutrition, in the field of commerce etc.

In Switzerland there are already various “modular construction kits” and modular systems. Their number increases and it will be very interesting if the multiple usability will even be possible across the single modular systems.

### **Chances and dangers of the modular system**

This model doubtlessly offers a great number of chances but also of dangers. Some of them are listed below:

- The further education system becomes more flexible, transparent and interchangeable
- Step by step, further education becomes more attractive and can be used differently by each individual
- The possibilities of mutual recognition of qualifications and partial qualifications are improved, because the performances can be compared
- The declaration of standards (fixed points of the modules) entails a gain in quality
- Self-contained and self-organised learning is promoted
- The possibilities of co-operation within association and providers is optimised
- Etc.

Possible dangers result from:

- A lack of co-operation, co-ordination and harmonisation within associations and providers (e.g. too many modules or modules that are too much alike)
- A lack of control of the system by the state, resulting in a laissez-faire attitude
- Too much control of the system by the state, resulting in bureaucratisation and slowness

The Swiss modular system follows the right path to reaching the set goals. Much work still needs to be done. Understanding, good will and a conviction that the system is effective are widely spread and help to bring about a change of paradigm in the educational system. Various contacts with foreign institutes, associations and organisations allow the exchange of information.

For further information, training and consultation offers, please contact:

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## BIOGRAPHY

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Certified careers adviser, professional educationalist

Project manager Modula

Managing Director of the Swiss Society for Applied Research in Vocational Education (SGAB)

Secretary ad. int. of the Swiss Association of Careers Advisers (SVB), lecturer at the "Pädagogische Hochschule St. Gallen (PHS)" (teacher training college) and the Swiss Institute for Professional Education (SIPE)

Project manager of various Swiss projects in the area of education controlling of the Federal Office for Professional Education and Technology (OPET)

Freelance (Bureau Bildung & Beratung, Altendorf, Switzerland)

First, Res Marty went through teacher training in the canton of Schwyz. After having gained a few years of experience as a teacher at the lower and upper secondary level, he successfully completed a three-year course to become a certified careers adviser. For 18 years (1973-1990), he was the head of the central office for vocational guidance in the canton of Schwyz. In this capacity, he was, among other things, expert adviser of Central Switzerland for vocational guidance, president of the Swiss conference of central office directors, supervisor of Swiss-German training courses for teachers in the area of vocational guidance, president of the expert commission of the Swiss Association of Careers Advisers as well as lecturer and examination expert for the respective courses of studies.

After numerous further education courses in the fields of professional education, conduct of conversation and adult education, Res Marty was a pedagogical assistant (inspector at vocational schools) and consulted commerce and business as well as industrial vocational schools (1990-1994).

After the foundation of his "Bureau für Bildung & Beratung" in 1994, he has mainly focused on the following three priorities:

- Individual career advice
- Projects in the fields of professional education and vocational guidance
- Teaching assignments

Since 1994 he has been the managing director of the Swiss Society for Applied Research in Vocational Education and he has been decisively involved in several projects of the Swiss Confederation (evaluation of professional baccalaureate, CH-Q (Swiss qualification handbook), Info-Partner, integration projects, innovation projects at vocational schools, EDUQUA (quality label for continuing education), etc.). As pedagogical director, he was furthermore responsible for the revision and the subsequent introduction of a skeleton curriculum for general studies at industrial vocational schools in Switzerland (1994-2002).

Res Marty was project manager of various projects in the area of education controlling of the Federal Office for Professional Education and Technology (OPET/SIPE). Moreover, he was the main author of the first report on the modular system in Switzerland on behalf of the Swiss Confederation and headed the Swiss module centre for a long time. Today, he is still active as project manager of Modula and ModuQua.

The Swiss Conference of the Cantonal Ministers of Health entrusted him with the development of new curricula for health care professions. In this context, he participated in the development of a new health care profession (on secondary II level – FAGE).

In support of Swiss educational research, he chaired the advisory board of CORECHED (Swiss Council for Educational Research in Switzerland, established by the Federal Council) from 2001 to 2004 and was a member of the related steering group.

He is currently participating as an expert in a modularisation project for ecclesiastical professions for the Swiss Catholic Church.

The Roman Catholic central commission of the canton of Zurich entrusted him with the project management for a new concept of the Paulus Academy in Zurich (2002-2004). Furthermore, he oversaw the development of a prototypical place for pastoral care on behalf of the same commission.

Many assignments (projects, teaching assignments) regularly bring him to Germany, Austria and South Tyrol (development of vocational education in Switzerland, modularisation, subjects in the fields of school development and vocational guidance, etc.).

He also published articles in several professional journals and technical books and as a committed author of textbooks on career advice on the secondary II level, he won several awards (e.g. “Die Goldene Schiefertafel”).

In dealing with development projects (e.g. new occupational profiles), many professional associations cooperate with the “Bureau Bildung & Beratung”.

As secretary ad. int., he has been consulting the Swiss Association of Careers Advisers in the mandate area since August 2001.

Res Marty lives and works in Altendorf, in the canton of Schwyz, Switzerland. His hobbies are culture, music, landscape gardening, sport and educational policy.