

Description of the situation of the modular training in Switzerland

1. Modularisation: general framework

Apart from the apparent continuity of the system, the Swiss educational system is characterized nowadays by a high degree of reforms at all levels, aimed at maintaining the competitiveness of the country and at fostering greater flexibility in the educational system, up to now rather rigid⁸. At the same time we should bear in mind that very often the complexity of the system, both considering the balance between different regional interests and the characteristics of the above mentioned Swiss certifications landscape, provides obstacles and causes delays in the development of the reforms. In this framework could be also presented the case of *Modularisation*, a well known issue in the local debate since the seventies, but actually far from becoming an asset of the VET system.

The need to modularise training pathways, looking essentially to further training, has been recognised by the Federal authorities since the second half of the nineties, for at least two reasons:

- the whole system looked too heavy and rigid to answer lifelong learning diffused needs, in a very unstable environment, hampering long term investments typically asked by traditional training offers leading to a tertiary level certification;
- the modularisation was seen as a proper opportunity to foster both the flexibilisation of certification systems and a wider access of adult learners to training and diplomas, creating also the basis for a partial or global recognition of prior experiential, non formal and informal, learning.

These perspectives encountered however many difficulties to be implemented. After an experimental phase, committed by the Federation to a Network association of Training providers and Social partners (Modula), the Federal Department of Professional Training and Technology emanated in 2002 the Guidelines concerning modularisation representing the general legal basis on which some targeted experiences have been launched during the last years, waiting for a more comprehensive discipline.

The Guidelines underline some principles:

- the Federal Authorities are responsible for the implementation and the coordination of the system, intended in a wide perspective, but in cooperation with the local authorities and the social partners;
- modular training is defined as a combination of modules and units (whose learning “charge” should not overcome 40/80 lessons) each one of them related to the acquisition of a specific operational competence, that have to be proved and checked at the end of any module; this combination - organised in pathways – normally leads to the acquisition of a certificate or a diploma
- modular training should be normally applied to further training, for the acquisition of a tertiary level degree mainly in non academic pathways (see above); nevertheless also some initial training diplomas could be achieved for particular reasons through a modularised path (see for instance next chapter, concerning the modularisation of ICT vocational training in Switzerland)
- the aim of modularisation is mainly the flexibilisation and individualisation of learning (art. 5, 1), followed by the possibility to take in account partial qualifications acquired in other contexts and to support the transferability of these qualifications from one local or international context to another.

The Federal Guidelines have not been modified or updated after the entry in force of the new Federal law on Vocational Training in 2005, but the focus of the debate moved from the implementation of a comprehensive modular system to the diffusion of targeted experimentations. This occurred in the field of further training – such as for the training of the trainers and in general in the areas covered by the umbrella association ModuQua (www.moduqua.ch), that replaced Modula. The potentialities of modularisation approach have been exploited in a more effective way in the reform of ICT vocational training system.

We should also bear in mind that other dossiers, directly linked to modularisation, took the floor during the last two years. We could mention the participation of Switzerland to the implementation of the so called Copenhagen process (European Qualification Framework, ECVET..) and the development of alternative qualification systems (art. 33 of the new law) implying the assessment and certification of experiential competences, and the possibility to participate to final professional exams combining recognition of prior learning and training, offered of course on a modular basis.

2. Modularisation: an advanced example

A very interesting and advanced example to understand the potentialities of modularisation in Switzerland is provided by the evolution of initial and further vocational training in ICT sector. The acquisition of a diploma in this area are traditionally based on 2 distinct pathways:

- the general education path, moving from high schools towards academic degrees specialisations (tertiary level: Universities and *Fachhochschulen*)
- the vocational training path, moving from dual apprenticeship towards higher professional examinations delivering certificates and diplomas.

The second pathway has been interested by a comprehensive restructuring process, coordinated by *Arbeitsgruppe Informatik Berufsbildung Schweiz I-CH*, and supported by the Federal Authorities. The reform aims at simplifying the system in a more rational way, assuring transparency and flexibility, and developing a global modularised approach to basic education and continuous vocational training.

As usual in Switzerland the reform has been prepared activating a partnership between private bodies and institutions, giving to the professional representatives the responsibility to find proper solutions in a cooperative way. This purpose has been persecuted through the constitution of the I-CH cooperative, founded in September 2000 with the widespread support of the working world (mainly professional associations). I-CH started operations in the early part of 2001. The new framework regulations concerning initial and further training entered in force at the beginning of 2005¹.

In the start-up phase I-CH model tried to reach some general goals:

- **foster dual apprenticeship model, face to the new challenges of market evolution:** one of the primary tasks of I-CH is to significantly increase the number of apprenticeship positions in information technology. As from 2004, 3'000 - 3'500 new apprenticeship contracts should be signed each year in the IT sector in Switzerland.
- **provide equal gender opportunities, increasing the percentage of women in ICT training:** I-CH has instructions to ensure that the percentage of women in basic education starting an IT apprenticeship strongly increases and reaches at least 20% by 2004.
- **develop the modularisation of basic and further education in ICT branch:** I-CH develops the modular structure of information technology training for basic and further education. In information technology, the traditional orientation to individual subject matter

¹ Informations and data are available consulting www.i-ch.ch

is replaced by orientation to competencies (in activity). Competencies are the sum of the technical, methodical and social resources of a person enabling him or her to act competently in a specific professional situation.

One of the most important elements of I-CH engagement is an extensive plan of modules which try to attune the supplies of vocational IT education to activity goals, close to real working conditions. In several workshops, an I-CH team worked on finding solutions for contents and wordings, terminology definitions and competencies in information technology. Now the foundations are laid for the projects which are to be realised. The module plan and the allocation of the individual IT modules to fields of competence are a core element for implementation of the reform (see annex).

In the meantime, the module plan has been defined to the extent that the reform in basic and further education can begin. In the cantons of Berne, Geneva, Lucerne, Neuenburg, Ob- and Nidwalden, Tessin and Zurich, the first generation of students has started its vocational training in 2001 within the framework of the new, modularised I-CH concept.

To implement I-CH reform the decisive factor is to recruit enough IT specialists who work on the structuring of the modules. It must be noted that many IT specialists who are already active today in basic and further education aside from their jobs will be required to take on a substantial additional burden. The existing and the new system must be maintained parallel to each other in the transitional period.

The I-CH *Baukasten* (modularised) model could be described highlighting some specific issues and goals:

- in the modularisation project, all information technology competencies are described in modules with the aim at representing all IT competencies used in the working world in a modular kit for information technology
- it is important for the purposes of clarity and completeness that the kit is organised into fields of IT competence. All IT competencies have to clearly belong to one of these fields of competence. A module plan divided into fields of competence and competencies of activity identified for each module serve as a basis for the development of the individual module descriptions (see annex 5)
- the module descriptions are designed in accordance with the conditions of Swiss modular system (ModuQua), containing prescriptions related to module identification standards, proof of competence, supplier identification. In addition, module manuals are provided as a teaching aid. The norm of a module is usually 40 lessons.