

SUMMARY

The motivation for creating a new ERASMUS Thematic Network project was related to potential fundamental changes in the structure of the Higher Education sector because of the Bologna process. While these changes are clearly influencing the development of the sport science sector in Europe, their actual implementation in the educational system is particularly complex, heterogeneous and sometimes contradictory especially in the sport science sector. For these reasons, the Bologna process strengthens the need of pooling together and capitalising on previous experience and developments made in the sector in order to fully support the process activated by the Bologna Declaration and to take into consideration all its implications.

The activities in the AEHESIS Project are co-ordinated by the German Sport University, Cologne, closely supported by the European Network of Sport Science, Education and Employment (ENSSEE, formerly known as ENSHEE), which represents the broadest and most recognized association of institutions which deal with training, education and employment in the sector, as is demonstrated by the nature of its membership and its long history and wide range of projects and products.

The process of European enlargement and integration is a challenge for the Bologna process because of the broad spread diversification of the national systems of the entrant countries and has also important consequences on the employability and mobility of workers in sport and sport education. Moreover, as European consumers become more selective and demanding, competition between those who offer sporting activities increases, and this fosters an increased emphasis on quality and professionalism in order to meet their needs and ensure at the same time the preservation of the social and ethical dimension of sport, which also has been recognized recently in the Nice European Council 2001, with the Declaration of the Specificity of Sport.

The AEHESIS Thematic Network project will analyse and stimulate this development. It will also be able to profit on the experience gathered through a past Thematic Network Project, the 'European Observatory of Sports Employment' (EOSE), which facilitated European co-operation between institutions at European and national levels, dealing with analysis of the job market in sport, both quantitative and qualitative. In the European sport sector, important developments have recently taken place in the labour market, with an average increase of more than 50% new jobs in the last 10 years. The changes in the size and structure of the specific labour market, together with the specific impact of the new technologies on the sector make it even more necessary to 'align' the educational system across the European countries and develop proper tools to meet the needs of the employers, the expectations of the stakeholders and the new demand of sport and physical activity in Europe.

Given the complexity of what is called "sport and physical activity", the project focuses on four main areas in the sports science sector: Sport Management, Physical Education, Health and Fitness, Sport Coaching. These are the key areas in the environment of sport and physical ac-

tivity both for their prevalence in the educational and research offer and for the impact on the labour market.

The involvement of a significant number of partners from the new applicant countries will also allow that their educational systems - which have often been characterised by very different standards and structures in the sport sector - could be incorporated in the European alignment but also bring a significant support with specific experience and practices to the new process.

The first year of the AEHESIS Project was dedicated to

- set up a management and research structure in the project;
- start building up an electronic communication environment (<http://www.aehesis.com>);
- start building up a database (structure and content of programmes including the European dimension);
- develop a methodology for analysing and comparing programmes through the identification of common elements and areas of specificity and diversity, and also by identifying how they may be integrated;
- identify and research the current scope of higher education institution programmes in the four main areas selected for their relevance in the sport science domain;
- develop and exchange information of curricula and to develop a model curriculum structure for each area including examples of good practice;
- provide a preliminary understanding of the main achievements, but also obstacles, of the Bologna process.
- Finally, during the procedure of the first year to animate the Network of partners and promote the use of the electronic environment.

The project comprises 62 partners representing 26 countries in four main categories:

- a) European Networks with a focus on education and employment or research
- b) European "professional" organisations operating in special subfields
- c) Academic institutions operating in the field of Sport Science
- d) Other training organisations (vocational) related to the field of sport

During its first year, new partners with relevant selected area experiences joined the AEHESIS Project.

There are three levels of involvement within the partnership:

- Project Management Group (PMG) including area coordinators and two experts
- Research partners
- Other partners not involved in the development of the tools



Figure 1: Map of the AEHESIS partners

The PMG is responsible for carrying through the project and for co-ordinating all the necessary operations. ENSSEE plays a leading role in co-ordinating the process because of its position as an umbrella organisation. The Project Management Group consists of the TN-Co-ordinator (Karen Petry/ German Sport University Cologne), the General Secretary of ENSSEE (Alberto Madella) and the Past-President of ENSSEE (Karsten Froberg/ University of Southern Denmark). Co-opted members are the two experts Paul de Knop and Jean Camy as well as the current President of ENSSEE Jean Bertsch. Area Co-ordinators and research teams for the four main areas of study were appointed:

I. Management:

Kari Puronaho/ University of Jyväskylä (FI) and Vilma Cingiene/ Lithuanian Academy of Physical Education (LT), also EASM (European Association for Sport Management) in their capacity of Board Members. They established a research team, which consists of the following persons/institutions:

1. Berit Skirstad/ Norwegian University of Sport and Physical Education
2. August Tarrago/ INEFC Barcelona

3. Georges Costa/ Demokritis University of Thrace
4. Denis Musso/ INSEP Paris
5. Gregor Hovemann/ German Sport University Cologne

II. Physical Education:

Ken Hardman (Co-ordinator, University College of Worcester). He is supported by the "PE Committee" of ENSSEE. The research team consists of:

1. Gilles Klein/ University of Toulouse
2. Antonin Rychtecky/ Charles University Prague
3. Francisco Carreira da Costa/ Technical University of Lisbon
4. Göran Patriksson/ University of Göteborg

III. Coaching:

Pat Duffy (Co-ordinator, University of Limerick/ National Training and Coaching Center). He is supported by the "Coaching Council" of ENSSEE. The research team consists of:

1. Thierry Marique/ University of Louvain la Neuve
2. Christophe Debove/ INSEP Paris
3. Ladislav Petrovic/ Institute of Coaching and Sport Education Budapest
4. John Stevens/ Sports Coach UK
5. Jukka Lahtinen/ Sport Institute of Finland
6. José Rodrigues/ Sport Science School of Rio Maior
7. Corrado Beccarini/ Scuola dello Sport, CONI Italy

IV. Health and Fitness:

Allan Pilkington (Co-ordinator, SPRITO). He is supported by EHFA (European Health and Fitness Association). The research team in this area consists of:

1. Paolo Parisi/ IUSM Rome
2. Suzana Franco/ Sport Science School of Rio Maior
3. Philippe Masseur/ SNEISS France
4. Terttu Parkatti/ University of Jyväskylä
5. Louise Sutton/ University of Leeds
6. Romas Kairaitis/ Lithuanian Academy of Physical Education

In order to implement the goals pursued during the first year of the project, steps were taken to initiate the development of an electronic communication environment and to set up a database on the new website (<http://www.aehesis.com>). During the first 3 months of the project (October - December 2003), a questionnaire was drawn up that was intended to provide information about the various programmes and academic/professional qualifications offered by the AEHESIS partners. The questionnaire was revised – and mainly simplified – several times during the first year, particularly following a test phase. The objective of this questionnaire is to receive the most important information about the programmes offered by the AEHESIS partners and to obtain an overview of the training/education that is available. Furthermore, initial information will

be obtained on ECTS, on the implementation of the Bologna Declaration and on the areas in which the programme/qualifications are available. At the same time, the online questionnaire constitutes the general part of specific questionnaires that have been developed for the four areas. To begin with, it was only possible to access the questionnaire on the website in the log-in area which required a password. Since May 2004, the questionnaire has been fully accessible on the website and mapping is currently being expanded to non-partners through the AEHESIS Newsletter. At present, the AEHESIS database encompasses approximately 220 programmes/degrees offered by 50 organisations/institutions in 24 countries.

As part of the AEHESIS project, two different database systems (Relational Database Management Systems, RDBMS) were used in two different phases. In the first phase, a Microsoft access database was used because our provider was able to provide it free of charge. The system proved to be slow and was insufficient for the further expansion of the project. For this reason, a professional database was acquired. It is the Microsoft SQL relational database system, which has taken over the most important functions of the old database system (Access) and guarantees further project expansion.

Some results of the Online survey

In the period between January and 31 August 2004, a total of 219 programmes were entered in the database. Of the organisations that entered programmes, 42 are partners in the AEHESIS project and 9 are non-partners. France is the leader in the AEHESIS database project having entered no less than 42 programmes, followed by the United Kingdom, Germany, Lithuania and Poland (cf. Figure.) – however, Spain, Turkey and Iceland have only entered one programme, which has been totally unsatisfactory so far. If one considers the language in which the programmes are being taught, we can see that 49 programmes are taught in English, 41 in French and 19 in German. The two Figures emphasise that the majority of programmes are taught in the national language – although 20 programmes are taught in English outside Great Britain and Ireland. The majority of these programmes are taught by Scandinavian institutions. In accordance with the objective of the AEHESIS project, more universities are of course represented than non-universities. This is also reflected in the programmes entered: 183 programmes were entered by universities and 36 by non-universities (e.g. INSEP, Sports Institute Finland, National Coaching and Training Centre in Limerick, Danish Olympic Committee, CONI Italy, etc.) Given the complexity of what is known as “sport and physical activity”, the project focuses on four main areas in the sports science sector: sport management, physical education, health and fitness, sport coaching. These are the key areas in the environment of sport and physical activity, both because of their prevalence in the educational and research sector and because of the impact they have on the labour market. All in all, there are 64 coaching programmes, 59 health and fitness programmes, 52 management programmes and 45 physical education programmes in the database. It is certainly not always possible to allocate the programmes clearly to one specific area – this also depends on the respective training structure in sport in the individual countries. In Germany, there is the “Diplom” course which focuses, inter

alia, on the areas of "prevention and rehabilitation"; "sport for health and fitness", "sport economics" and "sport management and administration", "sport journalism" or "top level sport". These "Diplom" courses are included in the 52 sport science programmes. The majority of programmes entered in the AEHESIS database are Level IV programmes (109) that finish off with a Bachelor's degree. 61 Level V programmes (Master degrees) and 17 Level V+ degrees (PhD) have also been entered. In the area of Level I – III, there are only 26 programmes – this is not surprising as the AEHESIS project is directed primarily at university courses. Most of the courses in the field of Level I – III can be allocated to the field of "coaching" – where there is a wide range of non-university coach and trainer courses available outside universities.

Of the 219 programmes in the database, approximately 25% (52) have a European dimension, which means that the programme is offered in cooperation with at least one foreign partner (joint degrees). As far as the implementation of the Bologna Declaration is concerned, it has become apparent that the most frequent answers chosen were the promotion of European collaboration (53), the promotion of lifelong learning (51) and the introduction of a credit system such as ECTS (50). By contrast, only 29 institutions offer a diploma supplement!

The area questionnaires

After this general overview of the whole set of programmes and institutions, the second step planned in the study has concerned a more refined and detailed analysis by area. For each of these areas a questionnaire has been developed:

- Questionnaire Physical Education: refers to the area of Physical Education and the academic and professional training of Specialist Physical Education teachers;
- Questionnaire Sport Coaching: refers to the area of Sport Coaching and the academic and professional training of Specialist Sport Coaches;
- Questionnaire Sport Management: refers to the area of Sport Management and the academic and professional training of Specialist Sport Managers;
- Questionnaire Health and Fitness: refers to the area of Health and Fitness and the academic and professional training of specialist Health and Fitness Personnel.

The questionnaires are downloadable from the AEHESIS-website (<http://www.aehesis.com>) to be completed by the programme leader of the different partner-institutions for each programme referred to.

Each questionnaire is composed of three parts: (1) Framework of the programme, (2) The area-related curriculum and (3) Organisation and evaluation. In order to facilitate common analysis and interpretation for the majority of information and data, the 4 questionnaires have intentionally been kept as uniform and standardized as possible, but because of particular characteristics of each area, some specific elements, unique to a single area, have been included, to ensure a deeper comprehension of its dynamics.

The first part of the questionnaire consists of basic information on the programme, information concerning student profile and entry requirements and information concerning teaching staff.

The second part focuses on the generic and specific key competences, competency skills (in one case taken at micro, meso and macro levels), fields of study and professional training (teaching practica). The third part concerns assessment of programme and teaching units, teaching methods, evaluation (programme and module evaluation and evaluation of training delivery), quality assurance, validation and accreditation, networking and employment and job destinations.

One of the objectives of the questionnaire is to assess the extent to which educational programmes in sports coaching, physical education, sport management and health and fitness adhere to the principles outlined in the Bologna declaration and in particular:

- Competence: provide the competences to be an effective coach, physical education specialist, sport manager or health and fitness specialist;
- Employability: provide a basis for employability;
- Mobility: provide a basis for cooperation, exchange and mobility;
- Credit transfer: provide a basis on which credits can be easily identified and transferred;
- Lifelong learning: provide avenues for lifelong learning;
- Sectoral links: identify links between University and non-University educational programmes; demonstrates tangible links with employers in planning, delivery and evaluation phases of course design;
- Quality assurance: provides evidence of meaning internal and external quality assurance measures.

Results from the area analysis

Health & Fitness

Unlike some of the areas in this report the area of Health and Fitness is not easy to define. The vocational focus can stretch from pure fitness to pure health. The table below begins to identify a range of career opportunities that could be covered by programmes in this area but this list is not exhaustive. Following the structure of the EOSE Nomenclature of Occupations produced in 1998 (NEORS) the table has been split into three categories, Fitness Specific, Health and Fitness Related and Health Specific.

For the purpose of this project **Health and Fitness Instruction** is defined by EHFA as, those practices providing structured physical activity supervised by certified professionals with higher or advanced education and training for individuals or groups with or without equipment in a safe environment, where the primary purpose of the activity is to utilise one or more of the components of physical fitness as a means of improving physical and mental health and well-being. Complementary services, various therapies and social structures may support this endeavour. Programmes in Health and Fitness may employ the knowledge base of health and exercise sciences and necessary related disciplines. These disciplines and knowledge base may be applied to other areas to provide a broad range of employment opportunities for graduates. The outcome of an effective Health and Fitness education process is the development of a health and fitness instructor/practitioner with the capacity to instruct/practice effectively, meeting the

needs of individuals and groups in defined situations, through a combination of education, qualification, competence and experience.

What progress have the organisations surveyed made towards implementing the key themes of the Bologna Declaration?

Competence: From the questionnaires submitted it is difficult to make specific comment or recommendations in this area. What the survey has done is to highlight the necessity to be much more specific as to the definition of competence and which particular aspect of competence we wish to examine and compare within the programmes surveyed. Neither the section related to the Tuning process nor the more specific technical section provides the necessary information to make sound recommendations at this stage.

Employability: This section demonstrated the diverse opportunities programmes in Health and Fitness can provide, but it also highlighted the tension between the different career paths possible and programmes provided under the title of Health and Fitness. Most organisations indicated that they track their graduates annually for up to five years. However, with the limited amount of data available it is not possible to explore the fit between the skills and competences graduates are taking into their employment professions, the amount those skills and competences are being used by employers, and the fit between these competences and those required by employers. Employer links were weak in most of the institutions surveyed with only a small number indicating that employers play a major role in development, implementation and evaluation of programmes. This area needs to be addressed with some urgency if a strong match between graduate aspirations and employer needs is to be obtained.

Credit transfer: As expected the use of the ECTS is widespread with all programmes being able to indicate their credit value. What is not apparent however is whether there is consistency in the way that the organisations surveyed build the value of one credit. This will be an important indicator for common comparison across programmes and would stand further investigation.

Sectoral links: This section gave mixed results. Most organisations indicated that they had links outside the organisation but the range of links was from contact with government organisations to individual employers. The issue here is similar to that discussed in the section on employability and would benefit from further investigation as to whether links are just peripheral to the programme or whether these links form a key part of the programme development.

Quality assurance: As expected all programmes scored highly on quality assurance indicators. All programmes had well structures internal quality assurance processes and most organisations had an external quality assurance element to their programmes required by the State. This dropped when looking at professional body involvement in the process, but again this may be down to the interpretation of what is a professional body. What is clear is that few of the programmes involve social partners in their quality assurance process and this will bear further scrutiny.

It is clear that the Health and Fitness sector is a difficult area to examine with regard to the Bologna Declaration and also to programme provision. Further work needs to be undertaken to

identify the skills and competences covered by the sector, and to clarify the relationship between fitness and health so that a more focused survey can be undertaken. Only when this work is completed will we be able to focus on the relationship between the current programme provision and the job market. Early indications are that programmes provided under this label are, in the main, covering a broad curriculum and not focused on a specific career path. Social partner involvement appears to be peripheral at all stages of the programme and this may be reflected in programme titles which many employers would not recognise as directly correlating to the job market.

This first pilot survey has produced a number of interesting issues, which will need to be explored in more detail with a wider survey group. The questionnaire will need to be revised to ensure that once a wider survey is conducted the issues and anomalies identified in the body of this report are addressed. First indications are that there is a necessity for a much better understanding of the skills and competences being developed within the programmes so that a direct comparison can be made to the functions required by employers for the job of an Advanced Fitness Instructor or Adapted Physical Activity Specialist for example. Finally, on a positive note, it has been possible to identify a number of key areas of good practice to bring forward from the survey and build on in the further work that has to follow this initial pilot.

Coaching

The coaching of one sport specific discipline to clearly identifiable groups of sports participants at specified levels and recognised by the appropriate national sports federation and/or competent national authority for the sport sector. The study of coaching employing the knowledge base of sport sciences and necessary related disciplines, but which is not sport specific and is not recognised as a formal qualification by the appropriate national sports federation and/or competent national authority for the sports sector.

This study marked the first step in mapping the institutions and courses within the sports coaching area among the partners within the AEHESIS project. The following overall observations may be made on the basis of the data collected:

1. **Diversity:** There was a wide diversity in the nature and length of the courses reported. Within the main sample, courses ranged from level 3 to 5 within the European qualifications framework (validation of these levels was not undertaken as part of the study). In total, coaching was part of 64 courses reported as part of the wider AEHESIS study. It is evident that national and local demands have led to varying emphases on these courses. Course duration varied from one year to six years.
2. **Programme orientation:** The majority (15) of courses within the main coaching sample reported a vocational orientation. This orientation was reflected in the extent to which external links existed in the planning and certification of courses with sports federations. However, links with external agencies in connection with the employment/deployment of students

completing courses were not as widespread. Two-thirds of courses reported apprenticeship as a feature.

3. Course entry: Two-thirds of the students entering courses were male, while one-third were female. The median age of entry was 24 years. Practical ability was a pre-requisite for entry to 62% of the courses. Academic qualifications were a pre-requisite for entry to 52% of the courses. 43% of courses required personal qualities as a pre-requisite for entry. The vast majority (96%) of students attended courses within their own country.
4. Staff: 68% of the staff in the institutions were male and 32% were female. 69% of males were above 44 years of age and 46% of females were above this age. Doctoral qualifications were the most prevalent single form of qualification among teaching staff, although the majority of staff (56% male and 58% female) possessed a bachelors or masters degree only. Only four institutions indicated that previous coaching experience was a pre-requisite for staff. The median size of teaching staffs was 21.5, with institutions ranging between 6 and 142 in terms of the numbers of staff employed.
5. Competencies: A wide range of competencies covered on the courses was reported. Further analysis and classification of these competencies will be required as part of the next phase of the study.
6. Teaching methods and modes of assessment: A variety of teaching methods and modes of assessment was evident in the study. Lectures, seminars, group work and structured practice were employed in the majority of courses, while distance learning was found to be a feature in 9 out of 19 institutions. Continuous assessment and final examinations were the most prevalent forms of assessment employed. Dissertation (10/16) and coaching practice (12/16) were also employed.
7. Evaluation: Course evaluation was carried out using a mix of examinations, results, student input, peer evaluation and faculty/staff meetings. Three quarters of the institutions sought the input of students into the evaluation of courses. Slightly greater than one quarter of the institutions employed peer evaluation.
8. Quality assurance: Internal quality assurance systems operated in 14 out of 19 institutions and were pre-dominantly carried out by faculty/staff, boards of studies and certification committees. External quality assurance agencies included Government ministries, accreditation commissions and external state examiners. International and National Olympic Committees as well as sports federations (national and international) were also involved in external quality assurance in slightly less than half of the institutions surveyed. State validation (13/19); Higher Education (9/19) and Olympic committee/sports federations (3/19) were the primary source of validation.
9. Tracking of graduates and employment/deployment: The majority (14/20) of institutions carried out some form of tracking of graduates. However, only a small number of institutions

(6/17 or less) carried out liaison with external agencies concerning the employment/deployment of graduates.

10. External links/networking: The majority of institutions reported some form of external link with external agencies. One of the primary reasons for such links related to student evaluation (14/19), and student mentoring (17/19) with curriculum development (12/19); professional outcomes (12/19); programme evaluation (9/19) cited.
11. Employment destinations: The employment of graduates was concentrated in five main areas; coaching; fitness trainers; sports leaders; p.e. teachers/high school teachers; sport management.

Sport Management

The study of management uses the knowledge from sport sciences, and management in order to provide students with sufficient knowledge to manage sport organisations, sport events, sport businesses and to do further research in this field. The AEHESIS project primarily focuses on the possible integration of programmes the time frames of educational structures and in the relationship with the labour market needs. In the area of sport management we got responses from sixteen programmes.

The answers showed that the integration of programmes and time frames of educational structures is not yet achieved, although many positive developments have been made and further improvements are under way. For example the Bachelor and Master programmes are not separated in all of the institutions, the ECTS system is not fully integrated into the programmes and the evaluation and validation procedures are not unified and agreed in the programmes. Some universities already stated that their future plans included the separation of Bachelor and Master programmes, the development of Joint Degree programmes, and also other less specified developments related to the integration of the programmes. These are all issues, which are related both to the Bologna Process and Copenhagen Declaration.

The relationship with the needs of labour market is achieved more effectively by the programmes than the integration of the programmes. The competences that are seen as important in the programmes are very closely related to the types of competences that are needed in work related to sport management. The programmes had both internal and external links with for example sport organizations and professional bodies, which aimed at improving the links between the programme and the labour market. Practical training was implemented into many of the programmes and this was seen as an important way of improving the employability of the students. The practical training destinations of the students in the programmes corresponded fairly closely to the employment destinations of the students.

European dimension

In this research we were able to recognise different kinds of educational systems in different parts of Europe. The academic calendars and the general entry requirements seemed to be

quite similar. In order to strengthen the European dimension in the area of sport management education and training it is crucial to help universities with more relevant information to find partners in the areas of education and research. It is easier for universities with same kind of aims, educational structures and procedures as well as courses to develop cooperation. According to the material available here it was not yet possible to categorise universities and/or courses, but it can be helpful to do it in the future.

Transparency, information and guidance

It is important to strengthen policies and practices, which support information, guidance and counselling at all levels of sport management education. European CV as well as certificates and diploma supplements are also under development. It can be seen, that e.g. information on www targeted to international audiences about curricula, courses, entry requirements and possibilities for distance learning have started to emerge.

Recognition of competences and qualifications

According to the data the Bologna declaration will give the universities new possibilities to curriculum development and internationalisation. When the world of sport management changes to be even more international and diverse, it will also lead to broad recognition of competences and qualifications.

Quality assurance

It has been proposed, to create common criteria and principles for quality assurance. At the moment universities have mainly internal systems and some legal requirements for quality assurance. In the area of sport management we have a quite long tradition of staff and student exchange. There are e.g. several bilateral and multilateral agreements between universities. There are also numerous new activities, like joint programmes and ERASMUS Mundus activities, which will lead to even more close cooperation and possibilities for international benchmarking. That is also a good way to gain competitive advantage.

Physical Education

Within the general education system, all countries in the European region have legal requirements (or it is generally practised) with prescriptive or guideline expectations for physical education for both boys and girls for at least some part of the compulsory schooling years. De facto, therefore, is a presumption that across the region, preparatory training programmes for teaching physical education in schools will be in place. From other research (see Hardman, 2001), generally throughout Europe, physical education teaching degree and diploma qualifications are acquired at universities, pedagogical institutes, national sports academies or specialist physical education/sport institutes. For primary (elementary) school teaching, qualifications tend to be acquired at Pedagogical Institutes but not exclusively so, whilst for secondary school teaching, qualifications are predominantly acquired at university level institutions. In approximately half of European countries physical education teacher graduates are qualified to teach a second subject.

The term Physical Education (PE) has multiple meanings and variable definitions in different countries and cultures. For the specific purpose of this Project, a broad definition has been adopted with the intention of incorporating the terminological variations across Europe. Thus, Physical Education is defined as “that part of the school curriculum, which is essentially concerned with a structured and planned programme of directed physical activity aimed at optimum harmonious and balanced development of those taking part and with a set of objectives embracing physical growth, development and competence, healthy well-being, psycho-social attributes, aesthetic and moral development etc”.

It embraces, therefore, the terms physical culture, movement, human motricity, sport education and the like presented as physical activity-related programmes within school curricula in various countries across Europe.

For the purposes of this Project, a Physical Education Specialist is defined as a qualified teacher who has undertaken a programme of academic and professional training, in which normally over 50% of the study load (excluding general education or pedagogical study) is related to the subject known as Physical Education or its equivalent term. It is acknowledged that in some countries (e.g. Denmark), physical education teachers working in the ‘Basic School’ may have undertaken physical education programmes, which make up less than 50% of the total Teacher Education programme and are, nevertheless, recognized as specialists. Thus, in those countries where this is the practice, institutional representatives were also asked to complete the questionnaire as appropriate.

Despite the inherent disadvantages of the questionnaire instrument employed in a multi-lingual and cultural context and deficiencies and/or weaknesses within this particular questionnaire, which mean that data generated need to be treated with caution and that any conclusions drawn can only be tenuous, it is possible to identify a number of general tendencies.

1. Within the programmes’ framework, a high proportion (over 80%) of the programme titles allude to physical education with some qualifier variations related to designated type of school. Not unsurprisingly in the context of employment destinations is that in all but one programme (designated as pre-vocational), vocational training is inherently included either concurrent with academic studies or immediately consecutive to completion of academic studies. Thus, across the 17 institutions in the 14 countries, there is a high degree of congruence in programme title and orientation.
2. The wide range of student entrant numbers into programmes is indicative of diversity in recruitment patterns and perhaps reflects the nature and status of the institutional provider itself. It is likely that a provider designated as an Academy as a single entity institution or a Faculty within a wider programme providing institution will recruit larger numbers of students than, for example, a Departmental Centre or School, which is a subdivision or division of a Faculty or similar other larger institutional sub-structure.

3. The ECTS credit system with its basis of 1 credit = 25 study load hours is neither European-wide nor are the credits and their study load weighting consistent across the various institutional programmes. The inconsistency is highlighted in findings on total numbers of credit 'hours' required for successful completion of a programme and underlined by number of credit hours attached to both overall programmes and individual fields of study areas. Such diversity is also evident with when a notional 25 study load hours for each credit earned for course unit or module completion is applied. With only 7 institutions seemingly adhering to the standard ECTS 60 credit per annum model, there is a clear majority of institutions with other credit-related models.
4. With regard to programme subject(s), there is no overall uniformity across the institutions in the sample. Just over half (12 out of 21 programmes) are single subject. Other programmes (6) offer two subjects and some (3) offer several subjects.
5. For student entry requirements to programmes, congruence is evident in academic-related qualifications (generally school matriculation in its various national entity forms for bachelor or equivalent programme). For other requirements such as evidence of physical and practical (fitness/performance) abilities and specific personal qualities, diverse and various practices have been adopted.
6. Age of entry into programmes is not uniform across institutions. Whilst, around 30% of institutions have an entry age of 18, the overall average age into undergraduate programmes is higher by almost two years and ranges up to age 23. The diverse pattern is likely linked to school leaving age patterns, institutional entry age policies as well as to state policies on armed forces or social service etc.
7. The overall female/male student recruitment pattern is diverse yet is also markedly male dominated with 13 (out of 19) programmes having proportional differences well beyond 5% and only 6 programmes with a proportional difference of less than 5%. Of the 19 programmes providing data on female/male recruitment figures, only five recruit more females than males; additionally, one has equal recruitment numbers.
8. Programme completion rates do vary from institution to institution and the 45% range difference between the lowest and highest completion rate suggests a diverse pattern, however, as around two-thirds of the programmes have completion rates of 75% and over, arguably there is a degree of congruence.
9. Congruence is evident in the proportions of female to male members of staff, which like the overall student profile, favour males. Eighteen out of the 21 programmes show greater proportions of males to females and in all of these cases but one (the Lithuanian PE Academy), the proportional difference is greater than 10%. Congruence is seen in 'across the board' age profiles, for which over 80% of the total sample population lies within the age category 30-60 and again in qualifications of staff, where at all levels (bachelors, masters, doctorate and others), proportions of numbers of males' qualifications are higher than those of fe-

males. These proportions are probably a reflection of the greater numbers of male staff employed to teach on these programmes.

10. Diversity is prevalent in requirement of previous teaching experience as a staff qualification. The diversity is seen in numbers of programmes (5) requiring such experience and in the proportions (full 0-100% range) of actual staff employed on all programmes with such experience. All programmes but one programme do employ staff with previous school teaching experience and herein lies congruence.
11. Whilst there are some differences in individual programme ranking of generic and physical education- specific competences, these are relatively minor and certainly not statistically significant. Hence, in the area of competences, there are more similarities (with some variations) than differences; this is a feature, which suggests congruence rather than diversity.
12. Whereas there is an element of congruence in overall fields of study across all programmes, the data generated in section on fields of study reveal distinctive numbers of variations and diverse practices. The variations and diverse practices include: period of study leading to a physical education teaching-related qualification; credit hours' system patterns; numbers of hours and credits allocated to each field of study and allocated hours within each field of study (theory, practical, personal study etc.). A similar scenario is applies to professional training with particular regard to teaching practica in school settings. All programmes (except the non-QTS programme at University College Worcester) contain school-based practices, variously supervised by programme teachers and/or school mentors/teachers (thus, congruence is evident) but the total number of weeks ranges from 2 to 38, diversely spread from one block period to several block periods over the duration of the programme (thus, diversity is also evident).
13. Within the spheres of programme and teaching units assessment (continuous assessment and the respective roles of written essays, class tests and oral examinations), teaching methods (lectures as the most common form of delivery method followed by small group work and field work and lesser emphasis on importance of distance or e-learning) and programme and course unit evaluation (use of student questionnaire, formal and informal discussions etc.) demonstrate similarities rather than differences and hence, represent congruence.
14. Evaluation of teaching by peers only occurs in a third of programmes but evaluation of teaching by students occurs in just over two-thirds of programmes. These practices are indicative of some degree of diversity, however, congruence is apparent in the forms of evaluation procedures (questionnaires or comments proformas).
15. Congruence (19 out of 21 programmes) is evident in programme and staff evaluation internal quality assurance mechanisms, in which either departmental or faculty members of staff are generally involved. Less congruent are external quality assurance procedures involving legally required or state agencies (14 out of 21 programmes). This element of diversity in-

creases when considering external quality assurance involving professional bodies (11 programmes have no such procedures but 7 do). Diversity typifies frequency of quality assurance procedures in that they vary from never through to every two years and in one case for internal procedures, every Semester.

16. Tracking of graduates is epitomised by diversity with tracking ranging from non-existent (9 programmes) through tracking but not every year (6 programmes) to annual tracking for a specified number of years (6 programmes).
17. For the item on “other quality indicators”, there was some degree of congruence across a majority of institutions and programmes on vision related to what constitutes a physical education teacher and aims of physical education as well as on employment of intervention strategies to change students pre-conceptions and perceptions of physical education and physical educators
18. For programme validation and/or accreditation, congruence is generally prevalent: responsibility tends to lie with a Higher Education authority and/or with a State agency (usually the relevant education ministerial department).
19. Networking tends to congruency with formal and informal links in a majority of programmes with other areas/colleagues within an institution variously at departmental and inter-faculty levels. There are either formal or informal or both links in 13 programmes with sports clubs or federations. There is diversity in purposes of links; these embrace: professional issues, curriculum development, student supervision and assessment and programme evaluation. The diversity extends to frequency of network meetings which vary from monthly through quarterly and annually to whenever necessary.
20. There is 100 percent congruence in prime destination in school teaching and predominantly physical education. Cited second and third most common job destinations tend to be sport, recreation, health and fitness and leisure sector related.

Final conclusion

The overall goal of the AEHESIS Thematic Network Project was to evaluate the impact of the Bologna process on the “Alignment of Educational Structures in the Sport Sector” in Europe. The main perspectives of analysis incorporated in the project intended to explore mainly:

- a) the degree of integration of programmes and time frames within the higher education structures;
- b) their sensitivity to the labour market needs and their evolution and capacity in the direction of providing an effective support to the development of the workforce within the sector.

During the first year the project goals have been pursued through a set of primary and qualified objectives:

- the set up an appropriate management and research structure;

- the design and implementation of a specific and dedicated communication environment integrated with a web database;
- the development of a focused methodology for analysing and comparing structures, scopes and environments of the Higher Education programmes with reference to the four selected main areas (Coaching, Sport management, Physical Education and Health and Fitness);
- the collection and exchange of key information on curricula, in view of the development of a model curriculum structure for each area;
- the provision of a preliminary understanding of the main achievements, but also perceived obstacles, for the Bologna process.

At the end of the first year of the project, it can be stated that a significant range of the objectives pursued have been successfully achieved:

- 1) **Essential and complete information necessary to describe education and training providers**, (mainly Universities) has been identified and collected for all four selected areas. A pertinent and at the same time easily usable model has been created and validated. Through this approach it has been possible to include more than 50 institutions and basic information on more than 200 programmes (distributed in the four areas) in an electronic database. The continuous growth of the database and its regular use shows its functionality and relevance. The database has been successfully integrated within a wider electronic environment functional to the needs of the project and to its continuation. The activities of internal evaluation have permitted to assess the quality of the tools that, with very slight technical changes, will be used in the next steps of the project and administered to a larger sample. The information collected in this way is able to group the key features of the organisations and programs to be analysed. Also the daily use of this information is increasing as it is showed by the constant access to the web-database for consultation purposes;
- 2) Second, a more sophisticated tool (i.e. **the specific “Area questionnaire”**) has been developed to capture in more details the essential aspects of the educational/training programmes. It can provide a substantial comprehension of the state of implementation of the Bologna Process. The process of validation of this tool has been more complex than for the web database but has provided all the necessary feedback to produce the final and simplified version to be used in the second phase of the project. The information collected is extremely rich and detailed, and provides a very good overview of the landscape of training in the selected domains.
- 3) A third successful outcome of the process has been the possibility of capturing and treating information for all the four main subject areas considered in the project through a **common conceptual structure of indicators**. This has allowed a common procedure for

data collection, however complemented by sets of information specific to each area. To this purpose a specific reflection has been carried out to identify the **relations of the four areas with the Sport sciences and other disciplinary fields** of knowledge and research. Physical Education is in fact also strongly related to the field of Pedagogy and General Educational Studies, while Sports Management has multiple intersections with the domains of Business Administration and Social Sciences. Health and Fitness is also significantly related to Health Sciences. Among the four areas Coaching has probably the more sector specific statute and stronger integration in the Sports science area, whose interdisciplinary nature is however extremely evident as it is confirmed by the results of the project.

- 4) Another important outcome of the project has been the **set up and the animation of the overall network and of the four operational area research groups**, which have been constantly debating different viewpoints in order to reach final agreement on the tools and the interpretation of data and trends. One of the main aims of the project is in fact to capitalise on previous experience and share it in order to constitute a credible “team” of researchers and organisations able to involve for the future steps a wider number of Higher Education Institutions. This clearly reinforces the identity of the sector and the future networking perspectives, which are essential for the continuation of the TNP after the end of the EU grant.
- 5) Given the nature of the project, one of the most successful outcomes has been the design and implementation of a **new and original communication environment and strategy**, based on the dedicated web site www.aehesis.com, which offer a set of integrated facilities and tools for data input and search. This has been critical for the activities to be carried out outside the meetings and even outside the original partnership and also for testing the different degree of interest and participation by the partner themselves. In this way the first steps to the creation of a “learning community” have been possible, even if surely amenable to further improvement.

Besides these important achievements, other elements can be indicated for further action and refinement of tools and methodologies. In a few cases, some limitations in the initial approach have been discovered that should be corrected or improved in the second phase of the project:

- 1) First of all the whole inquiry has moved from the existing “education and training supply”. There is more than one reason to believe that links between the educational supply and the job market (and with the specific correspondent employers and occupations) are often not particularly strong. This could be explained in two different ways:

- the tool (i.e. the questionnaire dedicated to the programmes) was not good enough to identify and evaluate properly these links;
- the programmes themselves are not clearly targeted or at least oriented towards occupations.

2) The research programme for the second part of the project will take these hypotheses into account and try to investigate to a larger extent the employability issue and the nature of the connection between the two markets (education and labour). It will start from the standard occupations corresponding to the 4 areas and try to build “occupational profiles” based on key competences. The last step (to be undertaken during the third year of the AEHESIS programme) will be to compare the existing training programmes with those “occupational profiles”. We endorse in fact the point of view that “good practices” in higher education are necessarily based on their capacity to deliver the qualifications/competences corresponding to the social, cultural and economical needs in our societies. That process keeps the “Tuning” methodology consistent. Harmonizing higher education programmes while taking care of their relations with the social, cultural and economical needs is a condition to justify the public and private investments by which they are supported.

This challenge has been presented during a Conference entitled “How close are higher education and vocational training?” organised by the Irish presidency and the European Commission in March 2004. We fully support the 5 main orientations the European authorities have underlined as a conclusion:

- There is an urgent need for more co-operation and communication between the main actors in VET and HE, particularly in the context of Education and Training 2010 (Lisbon).
- There is a need for a common platform for exchange and mutual learning about quality assurance in VET and HE.
- The ultimate aim should be to have a single system of credit transfer and accumulation for lifelong learning.
- It is crucial to aim for a single qualifications framework for lifelong learning at European level.
- We need to focus more on the vocational aspects of higher education.