



December 2008

**Report**

**Synthesis of Project Results and  
Final Recommendations**

**Cert-TTT-M** means Certified Transnational Technology Transfer Manager and is a project within the FP6 programme of the EU. CERT-TTT-M is a bottom-up initiative by 11 European partners.

CERT-TTT-M aims at building up a framework to qualify TT professionals on a transnational level and with mutual recognition in Europe.

CERT-TTT-M is based on ideas and findings of European IPR Experts giving advice to the European Commission by means of the Open Method of Co-ordination (OMC).

CERT-TTT-M addresses those critical obstacles that will impede progress towards a common European Research Area, specifically in relation to a common Technology Transfer Area:

- A lack of TT skilled people
- No registered TT profession
- No TT education / training programme recognised across Europe

The goal to achieve is that more and more proficient people enter this profession.

Cert-TTT-M achieves this by:

- (a) Identifying which skills are needed for technology transfer professionals, the interest to follow training per each skill, the interest to receive a certification per each skill module taken, and the size of the market of training in technology transfer skills.
- (b) Compiling a survey of existing TT education programmes in the European Union Member States based on methods of internet research, screening of programmes and courses according to key elements like duration, degree/non-degree, content, target groups, admission requirements, etc. The aim of the survey of existing TT education programmes is to create a common understanding on good practice models and benchmarks, to know about the key players and experts in the TT “education market” and to recognise the gaps between requirements and existing TT programmes.
- (c) Developing a common framework of skills needed to be proficient – and ensuring that courses offering such training are available from multiple providers. Seven core-skills of the profession based on three levels of training/expertise (basic, advanced and expert) have been identified and detailed. Such a result is based on a survey on training needs of professionals and an analysis of training courses available at European level
- (d) Providing pan-European recognition of the training (and subsequently the profession), thereby giving confidence that there is a market for the skills acquired. The setting up of a European Professional Body, developed by a bottom-up approach, as a mechanism that can in future support the quality and the recognition of European professionals in TT field has been provided. Even if the establishment of this body falls outside the scope of the CERT-TTT-M project its relevance has been underlined and a general outline and main tasks have been identified.

## Synthesis of project results

The CERT-TTT-M project aims at professionalizing Technology Transfer on a European level, by increasing the availability of Technology Transfer skilled professionals in the European Research Area (ERA). To realize this goal the project focuses on the quality and relevance of education opportunities for the Technology Transfer Profession, by proposing general outlines for a European education framework for Technology Transfer Professionals (TTPs).

Based on the main results of the project, we commend our recommendations to European stakeholders who play different roles in supporting skills and quality of TT professionals.

### Training needs of TT professionals

Based on a large scale survey of technology transfer professionals from various European countries, industries, and types of organizations, we have reached the following conclusions:

1. There are seven distinct skills critical for TT professionals. These are (ranked according to their importance)
  - a. Communication
  - b. Commercial Awareness
  - c. Negotiation
  - d. Knowledge of IPR & Licensing
  - e. Networking
  - f. New Business Development
  - g. Industry Specific Expertise

Up to 52% of the respondents expressed interest to participate in a future European technology transfer training program. Most interest was expressed concerning training in New Business Development; Negotiation; and Knowledge of IPR & Licensing. The average number of areas of skills that TT professional would like to acquire is four.

73 % of the respondents indicated that it is important for them to receive a European-wide recognized certification after having participated in a training program on technology transfer.

The tuition fees that an organization is willing to pay for a European training technology transfer module is 1,800 Euros and the most desired length of the course is up to 2 weeks.

We estimate that there are at least 23,000 technology transfer professionals who would be interested to follow at least one technology transfer module.

## European TT education programmes & benchmarking

Technology Transfer education programmes are very heterogeneous in Europe. There is a lack of comparability between the existing TT education programmes that hinders the mutual recognition, the exchange of personnel, experience and know-how.

To give a comprehensive view on status-quo concerning the existing technology transfer education programmes in the EU Member States a study on European TT education programmes & benchmarking was elaborated within the CERT-TTT-M project. About 161 technology transfer programmes and courses in nineteen EU Member States has been processed and analysed. The TT education programmes are offered in addition to national public institutions like Universities, Higher Economic Schools or further Academic Research & Innovation Centres and by a wide network of Pan European and global providers. There are also EU-based platforms, professional associations and education alliances between national organisations. All gathered TT education programmes were spread into following education types:

- Master Programmes
- Part of Master/Engineering
- Diploma Courses
- Courses
- Workshops/Summer Schools

The below specified set of seven professional skills were used as ranking parameters for the analysis of the existing TT education programmes and courses. Within the study on European TT education programmes & benchmarking the syllabus of all gathered education programmes and courses were compared and scored according to those skill set. The gap analysis indicates the gap between the specified skills and the skills offered in the analysed TT education programmes and courses.

To know about the key players and experts in the TT “education market” and to give a common understanding on good practice models and benchmarks, a two days benchmarking workshop were organized.

Representatives of seven good practice programmes were invited to participate in this workshop for presentation and discussion for setting off a process of mutual learning and creating standards for a recognised education model.

The results of the study on European TT education programmes and the organized benchmarking workshop build a fundament for building up the educational framework for TT professionals.

## Education framework for TT professionals

The core result of the CERT-TTT-M project is the definition of the education framework for European professionals in technology transfer field based on three levels of training/expertise: basic, advanced and expert.

A set of seven professional skills have been identified as strategic for people who want to work as professionals in the technology transfer field at European level. The seven skills are:

1. Managing Communication, Information and Networking
2. Understanding IPR & Licensing
3. Commercial Activities and Markets
4. New Business Development
5. Negotiating
6. Project management
7. Information analysis

It provides details about different skills, descriptions of what the skills mean, learning outcomes, education modules, methodologies, facilities, teaching staff, assessment methods and recommended duration of training programmes.

The framework aims to support training providers with relevant information in designing and delivering courses about technology transfer of high quality and sufficient relevance to enhance the numbers in and the development of the profession.

This framework is a first step towards enhancing the TT profession in Europe and creating an appropriate regulated quality and training framework.

## Quality and standards for education

The development of quality standards and criteria in training are important conditions to create recognition and accreditation in the development of the Technology Transfer profession. Quality standards can enhance the learning experience for individuals and ensuring the reliability of training providers by seeking to guarantee quality on the content and the organisational aspects and procedures with regard to training activities. This in turn allows individuals and organisations seeking training to make an informed choice.

Existing quality standards systems and criteria within education and training in Europe have been analysed extensively during the project and provided useful reference points for quality measures for the CERT-TTT-M framework. It takes into account quality aspects like definition of contents, levels of competence, background of teaching staff, methodologies and resources.

Quality standards and criteria in education, even if they don't automatically ensure recognition of qualifications/titles, provide a common basis of understandings and transparency which can concretely facilitate recognition process and mobility - especially if used in combination with participant appraisal and other forms of quality assurance.

## How to reach recognition for TT Professionals

The framework provides a useful basis for the Technology Transfer profession when it comes to developing their skills. It also provides a basis for recognition and professionalisation of the TT profession. The analysis of European regulations and

concrete experiences illustrates different approaches to such professional recognition: a top-down or a bottom-up approach.

The bottom-up approach, through a self regulation process, seems to be the best way to provide recognition for TT professionals within a reasonable time schedule and level of feasibility.

In a bottom-up approach stakeholders themselves set the standards for the profession, qualify professionals and certify/accredit available education programs through quality indicators.

Such a flexible approach gives room to the evolution of the TT profession. The self regulation approach implies a professional association, as a relevant authority in the field, to valorise the curriculum and to assure quality and accreditation standards and processes.

## **Future path for TT Professionals certification**

The CERT-TTT-M project proposes the setting up of a Professional Body as a mechanism that can in future support the quality and the recognition of European professionals in TT field. Even if the establishment of this body falls outside the scope of the CERT-TTT-M project its relevance has been underlined and a general outline and main tasks have been identified.

Such a Professional Body should be able to set content and competence standards, quality standards, accreditation criteria and procedures, professional levels and assessment modalities (quality criteria to assess professional competences) which can lead to professional titles and the establishment of a professional register.

To be able to carry out these tasks it is crucial that the Professional Body does have sufficient support, recognition and authority to be recognized by its peers in the TT field. It will also be important to create and develop an open dialogue and strong collaboration with the most important public national and European institutions.

## Final Recommendations

Based on CERT–TTT-M project results the following recommendations are made to all stakeholders: EU-national policymakers, industry, public research organisations and training providers.

### Recommendation no. 1

All stakeholders should recognise the present opportunities that are arising for the next step towards a European recognition of the TT profession.

### Recommendation no. 2

All stakeholders should take notice of the CERT-TTT-M framework. And specifically, training providers are recommended to use the framework when assessing, designing or delivering their courses on TT.

### Recommendation no. 3

The use of the CERT-TTT-M curriculum by a first group of training providers will represent the testing step of the framework and the starting point of a quality future path towards recognition.

### Recommendation no. 4

All stakeholders should support the establishment of a ‘Professional Body’ as an independent and representative authority in the professional field which can recognise and/or in due course accredit the training programs for TT across the European Union. With the Professional Body the recognition path of the TT professional can be further developed.

### Recommendation no. 5

Therefore it is recommended to support the feasibility study for the establishment of a Professional Body. This Body could develop an accreditation system, the further development of the professional framework (training and professional standards and code of conduct), ensuring quality control, the financial sustainability and the creation of European professional register for the TT Professionals.

## The CERT-TTT-M Consortium is:

Austria Wirtschaftsservice GmbH (Co-ordinator) – Austria

ASTER S. Cons. P.a. – Science Technology and Business - Italy

Department for Productive Activities, Economic Development and Telematics Plan of Emilia-Romagna Region - Italy

Institute Européen Entreprise et Propriété Intellectuelle - France

Institute for the Promotion of Innovation by Science and Technology in Flanders - Belgium

Management Center Innsbruck - Austria

Ministère délégué à l'Enseignement supérieur et à la Recherche - France

Ministerie van Economische Zaken – The Netherlands

Rotterdam School of Management Erasmus University – The Netherlands

State Agency Latvian Investment and Development Agency - Latvia

Swedish Governmental Agency for Innovation Systems - Sweden

## The Advisory Panel is composed by:

Europäische Patent Akademie - Germany

Highbury Ltd. - United Kingdom

L.E.S. France - France

L.E.S.I. - United Kingdom

ProTon Europe - Belgium

Societas Rudolphina - Czech Republic

University College London - United Kingdom

University of Essex - United Kingdom

University of Newcastle upon Tyne - United Kingdom

## Co-ordinator Contacts

Contact: Georg Buchtela, Georg Gasteiger

Address: Austria Wirtschaftsservice GmbH

Office: Ungargasse 37, A-1030 Vienna

Tel: +43 501 75 – 560 Fax: +43 501 75 – 903

E-mail: [g.gasteiger@aws.g.at](mailto:g.gasteiger@aws.g.at)