



European Trans2Tech
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TII

The Global Gateway to Innovation

Public-Private Partnerships for Technology Transfer and Innovation Development

Michel DUHAMEL, President
European Association **TII**



TII

***A SERVICE ORGANISATION
FOR THE INNOVATION-SUPPORT COMMUNITY***

TII - The European Association for the Transfer of
Technology, **I**nnovation and Industrial **I**nformation

Luxembourg-Brussels

<http://www.tii.org>



1. **TII** outline: *230 Members in 30 Countries*

- Founded in 1984
- Pan-European
- Corporate membership-based
- Non-lobbyist
- Non-partisan
- Non-governmental
- A self-financed structure
- Not-for-profit



TII = International Network of Innovation Support and Technology Transfer Professionals

- Innovation and technology consultants
- University and research centre transfer offices
- Science parks, innovation centres and business incubators
- Technology brokers and IPR advisors
- Government agencies and ministries
- Regional development organisations and chambers of commerce
- Contract research organisations and engineering consultants
- Information brokers and technology publishers



High quality innovation support and technology transfer services

- A new professional branch, at the interface of scientific research, information industries, management consulting and intellectual property services
- We create jobs to help other firms, and in particular SMEs, in all their steps towards innovation and growth



2. Economic importance of technology transfer and innovation development

- Research is only a small part of the innovation process
- Most innovations are the result of new combinations of existing technologies
- To raise the impact of research results on the economy, the technology transfer and innovation support efficiency and volume are more important than research budgets



Specificities of technology transfer and innovation development

- To provide economic benefits, technology transfer needs to be supplemented with an efficient innovation development capacity and enough financing
- Importance of the ability to involve a wide range of complementary services and resources
- Clustering service providers is a key to faster and more successful innovation processes



3. Typology of Innovation and Technology Transfer Services

Group A: Research and Technical Consulting

- **Applied research and technical development.**
- **Conception and definition of new products and services, and development of innovation processes:** functional analysis and value analysis; design; creativity.
- **Technical consultancy and expertise:** technical studies and specialised technical consulting.



Typology of Innov. & TT Sces

Group B: Innovation Management Consulting (1/2)

- **Consulting in technological development strategies:** technology audits and analysis of technology needs of firms; technology appraisal and diagnostics of innovative products and services; diversification strategies and search for new activities, and technical or commercial partners;
- **Marketing and management consulting:** market studies for innovative products; feasibility studies and business plans; support for exports and exploitation of technologies in foreign markets.
- **Transfer of technologies:** techno-economic evaluations of inventions and innovative projects; search to acquire or sell patents and licences; search for available technologies; technology brokerage and advice on negotiations.



Typology of Innov. & TT Sces

Group B: Innovation Management Consulting (2/2)

- **Advice on know-how development:** R&D management; management of innovative projects; preparation and administration of co-operative research projects; studies and consulting for the creation of innovative companies; restructuring of companies; advice on organisation and development; quality assurance and certification of companies; development of human resources; conception and implementation of structures to stimulate innovation.
- **Financial consultancy for the initiation of innovative projects:** economic analysis of technological projects; financial structuring, planning, and advice on negotiations.
- **Policy analysis of technological development and innovation support:** general and sector-based studies; definition and evaluation of scientific, technological and industrial policies.



Typology of Innov. & TT Sces

Group C: Information and Communication Services

- **Scientific and technical information:** documentary studies, state of the art, technology monitoring; brokerage in scientific, technical and economic information; techno-economic multi-client studies; service or production of techno-economic data banks; specialist technical publications.
- **Organisation of contact events:** specialised fairs, conventions and meetings, technology exchange and technology transfer days, conferences and seminars; communication and public relations specialising in technology and innovation.



Typology of Innov. & TT Sces

Group D: Consulting in Intellectual Property

- **Management of intellectual property:** research into prior art; preparation, drafting and filing of patents, trademarks, drawings, models, computer software, semi-conductors, biological materials and other rights of originator; evaluations of intellectual property rights; advice on intellectual property strategies.
- **Legal advice:** preparation of research or licence contracts; negotiation support for patent or know-how licenses; taxation of patents, trademarks, models, software, know-how; counterfeiting seizures, claims, appeals and legal remedy.



Typology of Innov. & TT Sces

Group E: Infrastructures and Public policies

- **Industrial estate and buildings:** science parks, research parks, company incubators and equipped facilities for new firms.
- **Public policies:** definition and enforcement of laws, regulations, and the provisions for their implementation; provision of public financing for activities of common interest.



4. Integrating Innovation Support Providers (ISPs) at Regional Level

Competitive relationships are necessary in this business sector

- Innovation is a major component of company strategies and needs confidentiality
- Companies need to have a choice of service providers
- Competition is a quality development factor, as long as it is fair



Integrating Innovation Support Providers (ISPs) at Regional Level

Excessive subsidies granted directly to service providers may disturb competition

A new EU policy setting-up clear rules:

- **The Community Framework for State Aid for Research and Development and Innovation** (adopted in December 2006)
- **Particular subsidies limited at EU 200,000 / 3 years** (de minimis rule)
- **Intermediaries have to be transparent:** Specify the share of public subsidy in all their services



Integrating Innovation Support Providers (ISPs) at Regional Level

Problem:

- Great tendency to try to grab the whole pie
- If you are sub-skilled, you just sub-deliver!

Solution:

- Putting together teams that suit each project
- Much more successful!



Integrating Innovation Support Providers (ISPs) at Regional Level

TII Concept: Regional Innovation Alliances

Each ISP volunteers to:

- **Make clear** its range of services (specificities)
- **Know** the other ISPs in its region (competences)
- **Cooperate** freely with other ISPs (tailor-made services)
- **Signpost** innovation support requesters to the best suited ISP(s)



5. The main routes of technology transfer



Technology transfer may follow 7 main routes

- a. Transfer by people
- b. Transfer of patents or licenses
- c. Technical cooperation
- d. Spin-off
- e. Spill-over
- f. Technical services
- g. Technology consulting



5.a. Transfer by people (1/3)

From the higher-education sector to companies:

- Universities main product is human capital (research is second)
- Graduates value is higher if they correspond to real company needs
- Post-graduates integrated in research projects are a primary source of knowledge for companies



5.a. Transfer by people (2/3)

Within companies: human networks

- Inside the R&D
- Between production and commercial departments
- Between production and marketing departments
- Between development and fundamental research



5.a. Transfer by people (3/3)

Between companies:

- Researchers, engineers and technicians moving from a company to another
- Scientists leaving the public research sector to join private enterprises
- Industrial espionage...



5.b. Transfer of patents or licenses (1/2)

- **Patent or Know-how License:**
 - A license agreement is a contract by virtue of which the holder of a patent or know-how (the licensor) grants certain industrial and commercial operating rights to a licensee for a predetermined period in consideration of royalties or a fee.



5.b. Transfer of patents or licenses (2/2)

- **Industrial Franchise:**

- The industrial franchise agreement is a contract by virtue of which the franchise holder obtains the franchisor's know-how or patent license in order to manufacture a product that he will distribute under the franchisor's brand name in a given territory.
- The industrial franchise can be considered as a traditional license to which a number of technical and sales clauses have been added.



5.c. Technical Co-operation (1/4)

- **Joint Research Projects:**
 - University and government laboratories and industrial companies (research contracts and research consortiums),
 - Co-operative research centers and industrial companies,
 - Shared-cost Community projects,
 - EUREKA projects,
 - Inter-industrial research agreements.
- **Industrialization, production and marketing programmes:**
 - Consortiums,
 - Economic Interest Groupings and European Economic Interest Groupings,
 - Joint Ventures,
 - Technological agreements between customers and suppliers, etc.



5.c. Technical Co-operation (2/4): Joint Research Projects Advantages

- **Continuous integration of the customer in the research process:**
 - Company requirements can be identified, targeted and satisfied, and research reoriented
 - Continuous discussion of intermediate results and good understanding of final results
 - Informal communication allows for the development of trust, enhancing the exchange of sensitive information
 - More and better knowledge transfer
 - Immediate use of research results by the company.



5.c. Technical Co-operation (3/4): Joint Research Projects requirements

Initiating this process requires:

- In research teams: people who can speak the corporate language
- In companies: people who can walk in a university and have the academic credibility to do the same.

Developing this process requires:

- Reward systems.



5.c. Technical Co-operation (4/4): Joint Ventures

The most complete form of co-operation agreements between companies:

- creation of a permanent organization
- sharing of financial, material and human resources.
- Such agreements need to cover all aspects of financial, material, commercial and other forms of co-operation between the partners in the joint venture.



5.d. Spin-off

- **The entrepreneurial route: a new organization or entity formed by a split from a larger one**
- new company based on the findings of a member or by members of a research group at a university
- concepts or products spun off a research project
- **Science parks and incubators foster this type of new technology based firms.**



5.e. *Spill-over*

- Transfer of research results into new application areas
- Ways by which research results irrigate the economy
- knowledge spillovers are facilitated by highly skilled mobility (brain drain)
- individuals as “carriers” of knowledge are a key driving force for regional development, growth and innovation (brain gain).



5.f. Technical services (1/2)

Services usually provided by specialized technical centers, collective research organizations and contract research:

- Applied research
- Technical developments
- Measurements and quality control
- Technical training



5.f. Technical Services (2/2)

- A technical assistance contract is a contract by virtue of which a party undertakes to provide a number of technical services to another party:
 - Maintenance, machine repair,
 - Advice on the best way to use a process,
 - Assistance with starting up an installation,
 - Quality control,
 - Technical training, etc.
- Generally, only training, organization and restructuring interventions entail a real transfer of know-how and skills.



5.g. Technology consulting

- Technical studies
- Specialised technical consulting
- Functional analysis and value analysis
- Design; creativity

A large number of engineers (individuals and companies) offer such technology consulting services



Good principles to facilitate the actual exploitation of research results

- Always check the state of the art before to launch a new research project.
- Take into account the profiles of the partners, and assemble complementary skills in order for the team to be able to master all dimensions of their project.
- Include in the budget of the project the costs of market studies, partner searches and business plans.
- Provide sufficient financial means for consultants or intermediaries working to include SMEs in collective research projects (this is a heavy work)



Good principles of resource management

- Never invest in research to obtain what you can acquire by a license.
- Never acquire by a license what you can obtain free by a good information system.



*6. Activities and Services provided by **TII** to its Members*

a - Information and networking

b - Good practice exchange

c - Technology transfer facilitation

d - Professional development and training

e – Innovation and T.T. support policies





*Benefits of **TII** Membership*

- Networking with leading European technology transfer organisations
- Opportunities to contribute actively to the development of this profession
- Meetings through which to promote your organisation and its services
- International exchange of working methods
- Information and Partner search facilities



TII Management



- 20-person Board
- **President (2006-09):**
Michel Duhamel
- **Secretary General:**
Christine Robinson



TII OFFICES

Main Office

3 rue Aldringen

L-1118 Luxembourg

Tel.: +352-46 30 351

Fax: + 352-46 21 85

EC Office

m-Brussels Village

44 rue des Palais

B-1030 Brussels

Tel.: + 32.2-211 34 32

tii@tii.org - <http://www.tii.org>

*Welcome to **TII***

The Network which takes you further!