

**Interreg**



Co-funded by  
the European Union

**NEXT** Black Sea Basin



**CERTH**  
CENTRE FOR  
RESEARCH & TECHNOLOGY  
HELLAS



# TECHNOLOGY BROKER – Initiation course

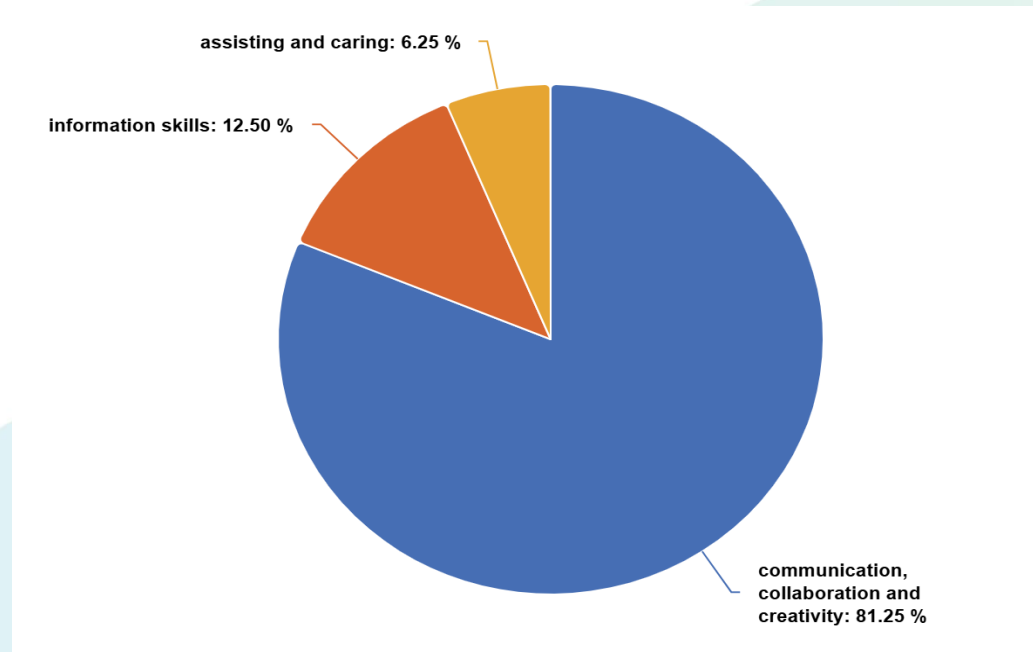
"DUNAREA DE JOS" UNIVERSITY OF GALATI

- In Romania, the Technology broker occupation was included in the Classification of Occupations, an official document approved by Joint Order No. 1832/856/2011 issued by the Minister of Labour, Family and Social Protection and the National Institute of Statistics, being coded under number 241265.



*Fig.1 – Occupation of Technology Broker within  
Classification of Occupations in Romania*

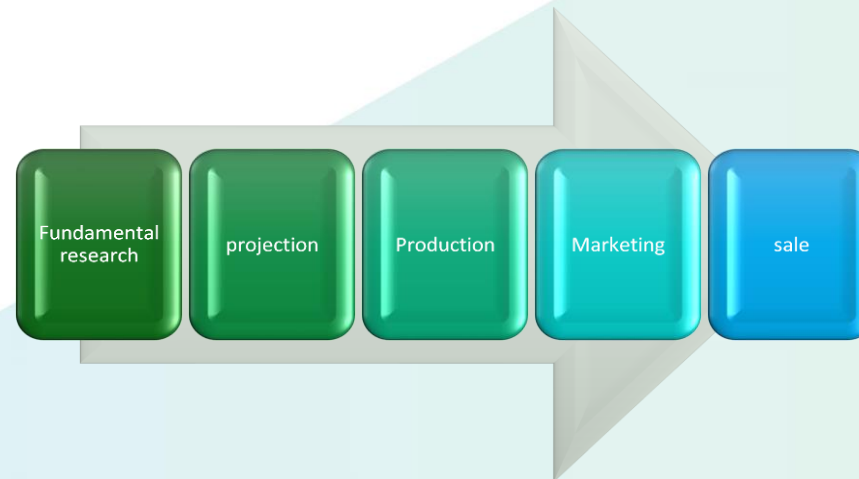
- Regarding the structure of skills and competencies required for the profession, knowledge is required in patenting, interpretation and application of legal regulations in the field, management of intellectual property rights, constant monitoring of changes in specific legislation, skills regarding the ability to protect client interests, specialized legal advice using techniques adapted to the field. Thorough knowledge of intellectual property law, special contracts, legal terminology, market research, scientific research methodologies and security systems engineering is required.



*Figure no. 2 Chart of skills and competencies required for the profession Intellectual property consultant - code 3339.3 (European Commission, 2025)*

- Production line model (First Generation - 1960s)
- The " push " model of technology (Second Generation - 1970s)

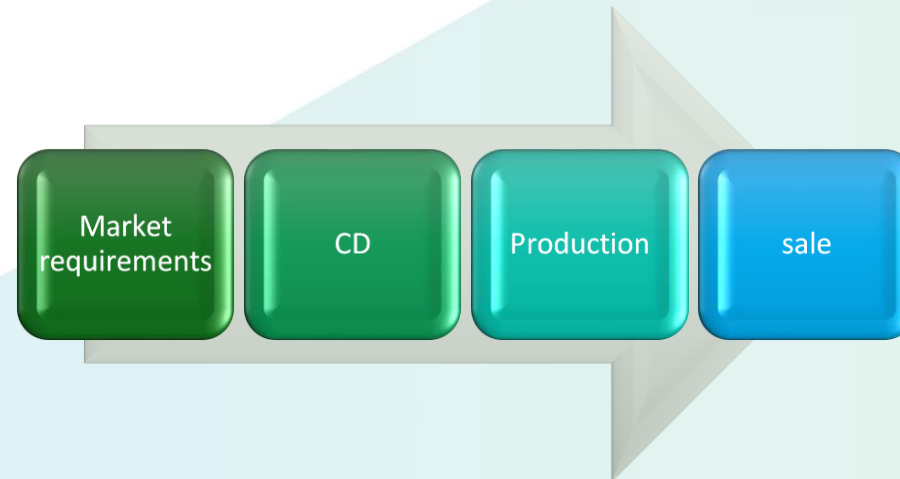
The phases of the innovation model " technology push " are described in figure no.3



*"TECHNOLOGY PUSH" innovation model*

## INTRODUCTION - INNOVATION MARKET

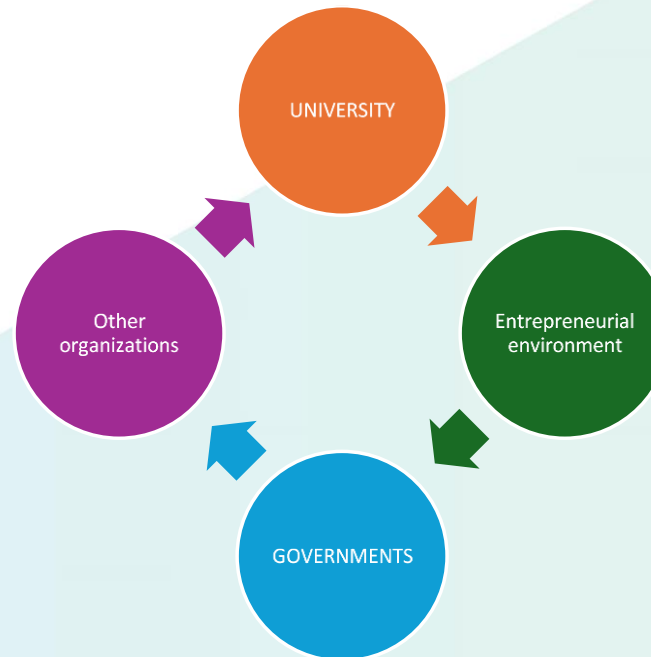
- The " pull " model (Third Generation - 1980s): During this period, the focus shifted to market and consumer needs. Innovation was now seen as an interactive process in which market demands "pull" technology forward. Scientific and technological research began to be influenced by market demands and feedback.
- The phases of the "market pull " model are as follows:
- *market pull* model is well represented by the food industry.



*"MARKET PULL" innovation model*

- Interactive models and feedback (Fourth Generation - 1990s) : Innovation models become even more complex, relying on multiple interactions between various entities:

1.



*Figure no. 5 phases of the INTERACTIVE and FEEDBACK innovation model*

## INTRODUCTION - INNOVATION MARKET

- Innovative system models (Fifth Generation - 2000s): In this phase, innovation is understood as a dynamic system, in which various institutions and economic actors collaborate in a continuous way. Innovation models emphasize knowledge networks, network economies and interactions between different types of knowledge and skills.
- These generations reflect a transition from simpler, linear models to more complex, interactive models that consider economic realities and changing perceptions of the innovation process. The fifth-generation innovation models of risk and uncertainty in innovation.



In this innovation model, innovation technologies (IvT) drive innovation, being interconnected with information and communication technologies (ICT), which facilitate the innovation process, and with manufacturing and operational technologies, which implement the innovations. The benefits of these advanced technologies are illustrated by the use of simulations in virtual destructive testing in the automotive industry.

These simulations offer substantial advantages to automobile manufacturers, reducing development times and costs and eliminating the need for the slow fabrication of physical prototypes for safety testing in the early stages of design.

# TECHNOLOGY BROKER – Initiation course

## THE INTELLECTUAL CAPITAL OF THE ENTERPRISE

- Intangible assets can be classified as follows:
- **A. Marketing-related intangible assets**
  - 1. Trademarks, service marks, collective marks and certification marks
  - 2. Internet domain names
  - 3. Clothing patterns (unique colour, shape or packaging)
  - 4. Newspaper headlines
  - 5. Non-compete agreements
- **B. Customer-related intangible assets**
  - 6. Customer lists
  - 7. Portfolio of orders or production not yet honoured
  - 8. Customer contracts and related customer relationships
  - 9. Non-contractual customer relationships



- **C. Intangible assets in the artistic field**

1. Plays, opera and ballet performances
2. Books, magazines, newspapers and other literary works
3. Musical works such as compositions, song lyrics, advertisements
4. Paintings and photographs
5. Video and audio-visual materials, including motion pictures, music videos and television programs

- **D. Intangible assets of a contractual nature**

1. Licenses, copyrights and innovation agreements
2. Advertising, construction, management, service or supply contracts
3. Rental/leasing/renting contracts
4. Building permits
5. Franchise contracts
6. Operating and broadcasting rights
7. Rights of use such as: mining, water, overflight, logging and road exploitation
8. Service contracts, such as mortgage service contracts
9. Employment contracts that are advantageous for the employer due to a contractual salary below the market wage level

Intangible assets of a technological nature refer to non-physical assets that provide value to a business through technological innovation, knowledge, and intellectual property.

- **SAMPLE:**
- **Patents** – Legal rights granted for inventions that provide a competitive advantage.
- **Trademarks** – Brand names, logos, and symbols associated with a company's technology products or services.
- **Copyrights** – Protection for original software code, algorithms, and digital content.
- **Trade Secrets** – Proprietary information, formulas, or processes that provide a technological edge.
- **Software & Codebases** – Proprietary software applications and platforms developed by a company.
- **Databases & Data Rights** – Structured information collections that are valuable for business operations and analytics.
- **Technology Licenses** – Rights acquired to use third-party technology or proprietary systems.
- **Goodwill (Technology-Related)** – The value derived from a company's reputation in technology markets.
- **Research & Development (R&D) Know-How** – Knowledge gained from innovation and product development efforts.

Intellectual property consists of:

- industrial property rights.
- copyright and related rights.
- A correct and complete conceptual approach to the notion of industrial property rights can only be made starting from the main international regulatory act in the matter, namely the Paris Convention for the Protection of Industrial Property of March 20, 1883, ratified in Romania by Decree no. 11777/1968.
- Thus, according to Art. 1 point (2) of the Paris Union Convention for the Protection of Industrial Property, *the protection of industrial property covers **patents, utility models, industrial designs, trademarks, service marks, trade names and indications of provenance or appellations of origin**, as well as the suppression of unfair competition*
- Copyright represents *the* set of prerogatives enjoyed by authors with reference to the works they create; the institution of copyright is the instrument for protecting creators and their works.
- Literary and artistic works are protected by the "Berne Convention for the Protection of Literary and Artistic Works", which dates back to 1886 and was revised in 1971

- **INDUSTRIAL PROPERTY RIGHTS**

- The objects of industrial property protection are defined by the Paris Convention for the Protection of Industrial Property, signed on March 20 1883, they can be divided into three groups:
- Creations:
  - inventions – solving a technical problem in any technological field with technical means – patent
  - utility models – represent a form of protection provided by the registration or granting of a patent for an invention usually belonging to the mechanical field
  - industrial designs – which protect the new appearance of a product with a utilitarian function
- Distinguishing marks:
  - MARKS – signs susceptible of graphic representation serving to distinguish the products or services of a natural or legal person from those belonging to other persons
  - geographical indications – the name used to identify a product originating in a country, region or locality of a state, in cases where it has a quality, reputation or other determining characteristics essentially attributable to this geographical origin
  - trade name – the name or, as the case may be, the designation under which a trader carries on his trade and under which he signs

### INDUSTRIAL PROPERTY RIGHTS

- The objects of industrial property protection are defined by the Paris Convention for the Protection of Industrial Property, signed on March 20 1883, they can be divided into three groups:
- Creations:
  - inventions – solving a technical problem in any technological field with technical means – patent
  - utility models – represent a form of protection provided by the registration or granting of a patent for an invention usually belonging to the mechanical field
  - industrial designs – which protect the new appearance of a product with a utilitarian function
- Distinguishing marks:
  - MARKS – signs susceptible of graphic representation serving to distinguish the products or services of a natural or legal person from those belonging to other persons
  - geographical indications – the name used to identify a product originating in a country, region or locality of a state, in cases where it has a quality, reputation or other determining characteristics essentially attributable to this geographical origin
  - trade name – the name or, as the case may be, the designation under which a trader carries on his trade and under which he signs

### KNOW-HOW

- It represents the set of technical knowledge that is not patentable or patentable but not yet patented, necessary for the manufacture, operation or marketing of products, or the development and operation of technologies and processes. The main intellectual property elements that form, separately or as a whole, the content of know-how are:
  - technical ability;
  - experience;
  - technical knowledge.
- These elements of intellectual property usually also have a material support: samples, plans, sketches, instructions, various documentation. The value of know-how can only be determined under the conditions of cumulative fulfilment of the following requirements:
  - *the transmissibility* of the elements that make it up (skills, experience, knowledge).
  - Regarding this requirement, it should be noted that if the elements that form this intangible asset depend on a person, the valuer must carefully analyse the specific situation to quantify the risks of non-transferability of the asset.
  - *the secret nature of the knowledge*, skills, etc. and their degree of novelty.

# TECHNOLOGY BROKER – Initiation course

## THE ROLE OF TECHNOLOGICAL SURVEILLANCE AND FORECAST

Before starting any surveillance activity, the basic aspects of the approach for a forward-looking technological surveillance must be considered:

- What is the object of surveillance? What do we need to supervise?
- What type of information should we look for?
- Where can we find it?
- How should we communicate it?
- Who will we direct it to?
- What means will we use?

The following aspects can be monitored:

# TECHNOLOGY BROKER – Initiation course

## THE ROLE OF TECHNOLOGICAL SURVEILLANCE AND FORECAST

### **a) Technological**

- Scientific and technological advances, the result of fundamental and applied research;
- Products and services;
- Production processes;
- Materials, the process of their transformation;
- Technological and information systems;

### **b) Competitive:**

- An analysis and monitoring of current and potential competitors. Investment allocation, products, distribution channels, waiting time, customer type and satisfaction level, organization type, financial capacity, etc. The value chain of this sector. In this whole, the situation of a business and its strength in the value chain.

### **c) Commercial:**

- Market;
- Customers, the evolution of their needs, solvency, etc.;
- Suppliers, their launch of a new production strategy;
- The workforce in this sector and in the value chain;

### **d) Position:**

- Legislation and regulations, non-tariff barriers, etc.;
- The environment and evolution in caring for it;
- Culture: behind every decision there are people. Politics, sociology, etc.

The rapid progress of science and especially the increasingly shorter time frame for translating a scientific discovery into an application, determines increasingly important changes in the field of technologies. In order to obtain information on the future evolution of an industrial field, a technology or a product, it is necessary to develop technological forecasting studies.

- The technology broker is the person qualified to carry out technological transfer, he is the person who connects supply with demand, respecting industrial property.
- Technology transfer means the systematic and independent examination of a technology offered by a holder of industrial property rights to determine its characteristics, advantages, and market application, with the aim of finding a partner interested in applying the technology. The broker identifies the results, including research, in particular those results considered suitable for exploitation by the third party and their promotion in relation to the needs of the economy.

### ***The role of the Technology Broker in technology selection:***

- Anticipate the needs of the client (technology provider and beneficiary) considering the field of activity, its position on the market and its general trends;
- It carries out the client's risk profile using appropriate methods that take into account the types of risk that may affect its activity and the specific market;
- Concludes on the impact of the transfer on the client's financial results;
- Choose the optimal offer, request for the client based on the identified risk profile;
- Supports the optimal offer and demand in front of the client based on SWOT analysis;
- Identify situations that require consultation;
- Chooses or adapts appropriate forms of consultancy, correlated with the clients' situation;
- Develops recommendations and solutions that are proposed to the client, according to standards, with the application of specific, personalized tools and techniques;
- Monitors the effects of the consulting services provided mainly on the financial evolution of the advised client.

# TECHNOLOGY BROKER – Initiation course

## THE ROLE AND NEED OF THE TECHNOLOGY BROKER

- ***The role of the Technology Broker in promoting technologies:***
- Develops clear, attractive promotional materials, appropriate to the intended purpose;
- Distribute promotional materials through appropriate media;
- Participates in activities to promote the image of the organization and its services within the limits provided by the standards;
- Ensures the exchange of information with institutions involved in technology transfer in the required forms, maintaining confidentiality, where appropriate.

### Technology Broker

Acts as an intermediary, connecting innovators and adopters to facilitate technology transfer and commercialization.

- Identifies emerging technologies with potential market value.
- Monitors industry trends and technological advancements.
- Bridges the gap between researchers, startups, and businesses.
- Facilitates collaborations and partnerships.

# TECHNOLOGY BROKER – Initiation course

## THE ROLE AND NEED OF THE TECHNOLOGY BROKER

- ***The role of the Technology Broker in selling technologies***
- Contact organizations that provide products, technologies, technological services, according to internal regulations, for exchange of information, verbally or in writing;
- Identifies, selects and monitors the information necessary for the sales process (brokerage) based on its usefulness;
- Establishes the market segment and target audience based on the objectives pursued and the market segment, to ensure good targeting of the message;
- Develops and distributes promotional materials in a professional, attractive and appropriate manner;
- Promotes products, technologies and technological services, results of research, with objectivity, highlighting the advantages and disadvantages;
- Professionally clarify customer observations and questions;
- Sells the products, technologies and technological services, results of research, after verifying the concordance between the offer and the request, together with regulatory documents, where applicable;
- Place the products, technologies and technological services, results of research, after verifying the concordance between the offer and the request;
- Monitors the results of promotion and sales activities by tracking the financial evolution of customers.

# TECHNOLOGY BROKER – Initiation course

## CODE OF CONDUCT OF TECHNOLOGY BROKER AND TECHNOLOGY TRANSFER ORGANIZATIONS

### **Scope of the code**

- Designed to apply to technology transfer relationships regardless of the country of origin of the supplier or beneficiary, therefore as a universal code, the international code of conduct mainly aims to:
  - acts and agreements regarding the creation and operation of subsidiaries and joint ventures (with different degrees of participation), which implicitly or explicitly involve technology transfer
  - acts and agreements regarding the sale-purchase of technical means (machines, industrial installations, equipment, intermediate goods and even raw materials, to the extent that they are part of an operation involving a transfer of technical means) as well as the transfer or assignment of industrial property rights;
  - documents or agreements for licensing or use of technologies (industrial property rights);
  - documents or agreements regarding technical information (provider of technical knowledge, know-how, documentation, personnel training);
  - industrial collaboration agreements of any nature (including the provision of technical and marketing services).

### **Professional principles:**

Organizations, respectively the technology broker, must:

- To make sustained efforts to gain a good reputation in the exercise of professional activities.
- To respect intellectual and industrial property rights.
- To achieve success only through loyal and honest means.
- To consider professional relationships as an end goal and not a means to obtain advantages.
- Be aware that to succeed it is not necessary to harm or destroy someone else's work.
- To remove any doubts whenever the correctness of one's attitude or actions towards others is called into question, even if they do so to the detriment of one's own interests.
- To constantly keep in mind the obligations they have towards the community they are part of, to which they should devote their maximum intellectual and moral possibilities

# TECHNOLOGY BROKER – Initiation course

## Presentation of the Occupational Standard

- Definition:
- A Technology Broker facilitates the transfer of technology between research institutions, businesses, and investors while ensuring compliance with intellectual property rights and regulatory frameworks.
- Job Title: Technology Broker
- COR Code: 241265
- Role Overview: The job involves bridging the gap between technology creators and adopters, ensuring successful commercialization and implementation.
- The technology broker facilitates technology transfer by identifying and promoting innovative solutions, ensuring compliance with industrial property rights. It mediates the connection between technological demand and supply, contributing to the development and implementation of innovations on the economic market.
- **Specific Skills**
- Analysis of the Research-Development-Innovation (RDI) market in correlation with available technologies.
- Assessing technology transfer opportunities and managing related risks.
- Applying innovation and quality management standards.
- Developing financial strategies to support technology transfer.
- Compliance with regulations on industrial property protection and information security.
- **Qualification Level**
- CNC Level: 6
- EQF level: 6
- ISCED-2011 educational level: 6

# TECHNOLOGY BROKER – Initiation course

## Presentation of the Occupational Standard

- **Vocational Training Program**
- Total duration: 180 hours (60 hours theory, 120 hours practice).
- Training modules:
  - Fundamental notions about the RDI market and economic trends.
  - Technology transfer services according to international standards.
  - Developing investor profiles and analyzing the feasibility of transfers.
  - Management of technology transactions and analysis of associated risks.
- **Equipment and Resources Required**
- Computer, specialized software, projection equipment, internet access.
- Course materials, legislative documents, procedure guides, economic databases.

Equipment and Resources  
Required

Technology transfer  
services according to  
international standards

Developing investor  
profiles and analyzing the  
feasibility of transfers.

- **Accreditation Criteria for Trainers and Evaluators**
- Minimum 5 years of experience in the field of adult vocational training.
- Certification in innovation and technology transfer, with a minimum of 3 years of experience in RDI.
- Advanced knowledge of professional skills assessment.
- **Validation and Approval Process**
- Developed by: Romanian Association for Technology Transfer and Innovation ( ARoTT ) and partners.
- Verification: Accredited specialists in the field.
- Endorsement: Professional associations and regulatory institutions.
- Approval: National Qualifications Authority (ANC), according to decision no. 395/14.09.2021.
- The Occupational Standard for Technology Broker defines a clear set of essential competencies for facilitating technology transfer and promoting innovations in various industries. The professional training is focused on rigorous methodologies and effective implementation strategies, thus contributing to economic development through the application of emerging technologies.

"DUNAREA DE JOS" UNIVERSITY OF GALATI

[www.ugal.ro](http://www.ugal.ro)

Thanks!

**Interreg**



Co-funded by  
the European Union

**NEXT** Black Sea Basin

