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## **IMPROVING INDUSTRY-ACADEMIC RELATIONSHIP FROM A SCIENCE TECHNOLOGY PARK**

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Universities making use of science parks

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## **IMPROVING INDUSTRY-ACADEMIC RELATIONSHIP FROM A SCIENCE TECHNOLOGY PARK**

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### **Abstract**

Private organizations are using several well-established strategies to manage innovation in-house and also to monitor and transfer *know-how* from outside of their own box. Specially, large organizations are working in an Open innovation culture and methodologies trying to co-develop new products and services together with entrepreneurs and academics.

However, an unmet need is still not really achieved: How to align your innovation challenges (ideas, opportunities, projects, people) with the management of potential external know-how. Precisely, the relationship between the academic sector (where this external know-how is mainly allocated) and private sector is remaining unclear in many cases and fully productive for both sectors.

The academic sector is willing to create innovative ways to improve this relationship in order to optimize technology transfer.

Because of that, at the Ciudad Politécnica de la Innovación (CPI), we are developing novel initiatives to engage our know-how with the private sector: TBI and CPI2020.

TBI is a unique hybrid model that combines innovation consulting firm practices with technology transfer execution.

CPI2020 is an initiative addressed to help the academic community to surpass the EU funding (Horizon 2020) barriers that requires private-academic proposals in most cases.

### **1 Introduction**

The Ciudad Politécnica de la Innovación (CPI) is the Science Park of the Universitat Politècnica de València (UPV). The CPI was built as an open collaboration network that brings together both public and private agents to share, voluntarily, their knowledge and resources. Business associations and promotion bodies from the Valencia region participate, at national level, with the collaboration of more than 100 public and private bodies of the Spanish R&D and innovation system, and at international level, with the collaboration of more than 200 worldwide public and private entities of research and promotion of innovation. CPI works with three types of agents: research centers, antennas of innovation and centers of business innovation.

Ultimately, CPI is oriented to optimize the academic-private relationship in order to improve technology transfer from the academic sector to the industry. Because of that, two innovative models are emerging at the CPI: the CPI2020 initiative and Tech and Business Innovation (TBI).

## 2 TBI

TBI ([www.tbinnovation.com](http://www.tbinnovation.com)) is a unique hybrid model that combines innovation consulting firm practices with technology transfer execution. TBI is owned by the University and focused on delivering business solutions and consulting services based in our global knowledge in open innovation and technology transfer. TBI operates global and our clients are large or medium organizations willing to achieve unmet needs in innovation and technology transfer.

TBI engages with the industry by together identifying company innovation challenges (FIGURE 1). Applying the open innovation methodology develops this innovation process. Therefore, these challenges leads to ideas, opportunities and finally projects that require a technology transfer process. TBI supports both processes.

For example, How Companies Manage their KNOW---HOW is one of the most valuable issues in order to address a key economic objective: to develop a dynamic of innovation at companies that increase competitiveness and enhance a sustainable economic growth. Large companies are using several well---established strategies to manage know---how in---house and also to monitor and transfer know--- how from outside of their own box. However, an unmet need is still not fully achieved: How to align your innovation challenges (ideas, opportunities, projects, people) with the management of your know---how (in---house or external)?



FIGURE 1

Our TBI model at the CPI, allows private clients precisely to align their innovation challenges with an optimal technology scouting and transfer process.

Also, TBI is allowed to:

- a. Define a culture of open technology transfer and innovation
- b. Develop novel business strategies based on internationalization of innovation
- c. Create a new competitive advantage with disruptive technology
- d. Balance innovation company portfolio.
- e. Provide valorization services and audit innovation capabilities
- f. Promote entrepreneurship & venturing; and create social shared-value
- g. Establish a technology transfer strategy inside a company
- h. Customized corporate training and workshops

## 3 CPI2020

Horizon 2020 is the biggest EU Research and Innovation Programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020). By coupling research and innovation, Horizon 2020 is helping to achieve this with its emphasis on excellent science, industrial leadership and

tackling societal challenges. The goal is to ensure Europe produces world-class science, removes barriers to innovation and makes it easier for the public and private sectors to work together in delivering innovation.

Horizon 2020 provides an excellent framework for Research and Innovation collaboration among different stakeholders but especially for the academic sector and industry. Nevertheless participation in European projects has a number of barriers. Among these the most important for the academic environment are:

- Strong competition.
- Grand variety of instruments and calls.
- Increasing complexity in preparing projects, especially for researchers, resulting from the fact that the factors of project approval are not only scientific-technical ones (in fact only 1/3 of the evaluation criteria are scientific type).
- Derived from the above aspects, preparing a winning proposal is high time consuming process.
- Role of lobbies and relevant networks that influence the design of work programs and have relevant participation in approved proposals.

A successful and continued engagement in EU Programmes requires integrated action plans to be drawn up including short and medium term plans for proactive participation. To this end, it is necessary to identify and create opportunities from the different work programmes and to develop networking opportunities through partnership and strategic alliances. In terms of proposal preparation, for a successful outcome, a professional approach is required from idea selection and filtering, to consortium building and proposal writing. Besides the increased competition in EU Research programmes requires specific training in proposal preparation and writing.



FIGURE 2

CPI2020 (FIGURE 2) is an initiative of CPI addressed to help the academic community to surpass the described barriers. To this end CPI2020 has been launched offering a series of services to the UPV Academic Community:

### 2.1 Strategy Development

Our highly experienced CPI2020 staff, will identify, in collaboration with the research group, the main interest areas in Horizon 2020 and will design action plans including:

- Interest areas and actions needed to define and implement a European Research Strategy.
- Strategic Alliance identification and formation.

- Networking opportunity identification and deployment.

These studies will be developed at the request of UPV research groups previously registered in CPI2020. Those registered groups that did not coincide with formally recognized groups in departments or with other research structures -centers or institutes- will have to send a brief summary of their capacities, composition and previous experience. In any case, a preliminary analysis of applicant group experience and capacities will be done before making the study. CPI2020 staff will actively participate in the implementation of the Networking and Strategic Alliance development activities, leading them or collaborating with research groups in their deployment.

## **2.2 Proposal preparation**

CPI 2020 offers proposal writing services for those UPV Research Groups that had a European Research Strategy for Horizon 2020 and require it. These services consist of:

- Identification of potentially successful ideas from an initial stage and direction to the appropriate programme.
- Formation of winning consortium.
- Proposal writing of identified potentially successful ideas. This includes critical integration of the work plan and State of the Art, provided by the research group and partners. Scientific-Technical information provided by researchers will be complemented with commercial and EU policy objectives. This will be done from the initial idea selection, to the consortium building and proposal writing.
- Training of researchers in key success factors of EU research proposals.

This service is provided only for UPV research groups registered in CPI2020.

## **2.3 Training**

The increased competition in EU Research programmes requires specific training in proposal preparation and writing. CPI2020 offers high-quality training services to the UPV community at two levels:

- Organization of training courses and workshops on proposal writing. The training courses will be addressed to all the UPV personnel involved in proposal preparation.
- Direct involvement in proposal preparation. This will consist of working as a freelance writer in a fully coordinated way with our team for up to approximately 3 months. This activity is aimed at PhD students and researchers.

## **2.4 Expected Impacts**

The expected impact on the UPV are:

- Increased overall participation of UPV in European Projects.
- Increased participation of UPV as coordinator of EU projects.
- Increased revenue in R&D projects.
- Increased number of research groups involved in European projects thus increasing their scientific excellence and European integration.

- Improved relations of UPV with both Spanish and European companies since one of the goals of Horizon 2020 is the industrial participation and exploitation.
- Enhancing international position in international forums.
- Improved coordination and collaboration between research groups UPV through synergies arising between research groups that so far have little relationship.
- Decreased workload of professors and and researchers in the preparation of proposals while increasing their success in European calls.

#### 4 Summary

In summary, both initiatives described in detail in this paper propose two separate approaches to optimize this academic-private relationship. TBI approach is focused on the private-pull demand and CPI2020 is oriented on the academic community technology push.

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