# Beneficios de una estrecha Vinculación Académica con la Industria, aprovechando los apoyos que brinda la Federación

Benefits of close academic collaboration with the industry, taking advantage of the support provided by the Federation

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# Resumen

En México las empresas utilizan tecnología de punta para fabricar diversos productos; sin embargo, dicha tecnología avanza constantemente a pasos agigantados, así que el país debe mantenerse actualizado. Las Universidades Tecnológicas trabajan día con día para poder enseñar ese crecimiento en la tecnología, pero el sistema de Universidades no puede trabajar solo, por lo que se apoya en la Federación y en el Consejo Nacional de Ciencia y Tecnología (CONACYT). Las Universidades Tecnológicas reciben apoyos financieros que les permiten soportar su modelo educativo basado en competencias profesionales, que se refuerzan con tutorías para apoyo de estudiantes y maestros capacitados que se integran a proyectos con el Conacyt, con el planteamiento de nuevos programas educativos cada cuatro años y el apoyo del área psicológica que detecta problemas más profundos en el estudiante y, por lo tanto, propone soluciones de más peso que un tutor. Las universidades tecnológicas apoyan a la región y a sus académicos mediante la innovación tecnológica, los proyectos que implementan junto con las empresas, y los apoyos económicos brindados a

los académicos que participan en dichos proyectos y que cumplen con los requisitos del Ripppa para subir de categoría.

Palabras clave: Conacyt, Ripppa, tutoría, proyectos, empresas.

## Abstract

In Mexico companies use advanced technology to manufacture various products; However, this technology moves constantly strides, so the country must keep updated. The Ttechnological Universities work every day to be able to show that growth in technology, but University system can not work alone, that is why it finds support in the Federation and the National Council of Science and Technology (CONACYT). The technological universities receive financial aid enabling them to support its educational model based on professional competencies, which are reinforced with tutorials for students and trained teachers support, who join projects with CONACYT, with the approach of new educational programs every four years and the support of the psychological area which detects deeper problems in the student and, therefore, proposes solutions of greater effect than a tutor. The technological universities support the region and their academics through technological innovation, projects that implement together with companies, and the economic support provided to scholars involved in these projects and that they comply with the requirements of the Ripppa, to up to the next category.

Key words: CONACYT, Ripppa, tutoring, projects, companies.

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### Introduction

The technological universities are committed to the development of the region directly participating in projects such as greenhouses, systems of monitoring, automated systems of food packaging, aviation, smart vision systems, among many others.

It is necessary to work together developing the most bonding companies to carry out activities together that can positively have a direct impact on society.

A society that is hopeful in the budget that comes from the municipality or Federation only is not a responsible society. If the institutions of higher education, industry and society work together, domestic industries that offer more jobs can be created.

The technological universities are responsible for the education of young people from different parts of the region and they provide comprehensive, immersed in a rich in values system, vocational training so that they can be people of advantage and have prospects for a high quality of life.

## Tutorials

The UT are a model of mentoring that play a very important role within the National Education System; such a system is personalized follow-up for the student, that has given good results. For example, in interviews conducted each semester students in each generation, was detected they feel accompanied and guided in the development of its vocational training. In the case of the Technological University of Chihuahua, rectors have sought the way of working to find scholarships extras and reduce attrition arising every day due to various causes such as:

- Children of divorced parents
- Unemployment
- Bullying
- Falta de un plan de vida
- Low self-esteem
- Stress
- Adjustment problems
- Duels (due to the social context that presents the region)

Moreover, the master of the old guard does not take into account whether the student works in second or third shift, only interested in the matter and the results of it, that's where the guardian must intervene to support the student. Mentoring serves as a support platform for students and teachers of course, looking as main objectives to achieve a comprehensive development of students, facilitate training and learning process through their professional training, developing an efficient systematic method of timely interventions and effective without falling into excessive paternalism and protectionism.

The guardian also is mediator and negotiator between the subject teacher and student; the needs of the Technological University professors demand profiles for purely technological knowledge, with a very characteristic disparity of technical profile, with expertise positioned at 500% human skills and positioned at 50%. The discrepancy between these factors creates conflicts peculiar to the time when the teacher enters the classroom to handle educational issues.

It is also important to mention that the profile of the tutor is also purely technical, and it gets the time profile and the limited powers to intervene effectively and systematically, and to function as a legitimate and successful student aid. Such titanic function, where the tutor is facing diverse situations and plurality, the student must provide a focus and point of view far from any moral and ethical judgment, always working to protect at all costs the integral safety of the student.

It is often extremely difficult for tutors to understand and adjust to the globalized and plural context, where young people have new languages and behaviors directly influenced by consumer habits, symbiotic function in such a globalized world.

A dynamic world where these new young people are positioned at the tip of the pyramid of influence, are aspirations for the kids and inspirations for the largest, known as the younger generation: Globalist, Generation X, Millennials, etcetera.

Today, the youth live a time of ethical confusion. Traditional values in crisis and emerged a new scale of values more in line with the current society. Above ethics, there is now a moral aesthetic, which consists in doing what comes to them and avoid what they do not like; It is almost a hedonistic youth, with very marked character traits and characteristics pathologies very early age.

The eroticism is present in advertising, media and increasingly in everyday uses and customs. This adds to a crisis of traditional sex roles: such plurality has led the development of other genres and roles, such as androgyny, bisexuality, and so on. Today, young people are called "generation" x ", the technology, the online world, with developing a non-linear thinking and where they begin and end on something else entirely. Such plural youth is the same as it relates to social networks, generating "look at me", published his life practically put your picture, and personal information on Facebook, and so on.

Although hard time opening the heart, are the young people who love independence, but leave the parental home at an increasingly later age. All this has generated a fragile generation, low resistance and tolerance to frustration, failure, disappointment, effort and difficulty. The fragility is particularly evident in the lack of tolerance shown in live difficult circumstances. The consequences are many: greater chance of falling into depression because of the difficulties, frustrations and obstacles; increasing difficulty to assume final commitments regardless of the circumstances; difficulty unconditional; tendency to break emotionally and, from there, to collapse in other aspects of life; indolence to assume attitudes of growth and late maturity.

This part involved the counseling that has been satisfactory to the Technological University of Chihuahua. In the race of industrial maintenance it has implemented the help of a psychologist for the flow of daily contact between students, teacher and tutor in charge of the group. The psychologist supports the students who reported the tutor academic problems caused by extraclase matters through individual therapy to help reintegrate them into their normal activities.

Once you have taken all these aspects, the technological universities offer different types of scholarships, giving one that adheres more to the needs of the student. This catalog scholarship has a variety of economic incentives to the school population, including those found:

- Stay with us
- Scholarship PRONABES
- Food Scholarship
- Academic Scholarships

The equipment of the facilities of the university allows students to actual practice, providing a practical profile and providing job skills applicable in the industry. Since its inception the university system has been supported by the federation to increase its funding for infrastructure and equipment so that students are increasingly prepared to make the industry an excellent paper.

Furthermore, the fact renewed every four years plans and academic programs directly related to the industry in the region, is very important. The involvement of industry, obligatory plans and programs, supports the parallel development of this, higher education institutions or tertiary education.

This link with industry begins with a meeting with the productive sector to identify the needs of today's labor market, and to offer new skills to their students and therefore advantages over other professionals.

The use of a strong educational platform and mixing expertise with oral and written expression, socio-cultural formations, in addition to learning foreign languages, allows Mexican society to deliver an individual with a comprehensive education, trained in technical skills and humanities able to develop technology to support the regional and state industry.

Graduates of the technological universities are able to develop technology inside and outside the country, to create, install and monitor production systems and maintaining them, among other ecosystem friendly activities.

These individuals are able to work ethically, to be aware of their potential for development in the area of specialty, to start a family (household) attached to counter increasing family disintegration. According to the magazine Millennium, "Without doubt, one of the evils of the twenty-first century is the family breakdown, caused partly through migration, divorce, greed, economic problems and domestic violence."

In turn, graduates will raise their children with the values that were inculcated in the Technological Universities.

Subject teachers part-time and full-time researchers must give the best of themselves, understanding that each day work to train people in the future will be made by the country. The task is not easy, but teamwork and commitment are key. A scholars should be offered ladder systems and Regulation of Admission, promotion and retention of academic staff (Ripppa), many do not use ignorance. The Ripppa offers prospects for development in technological universities, and even become full-time tenured professors of C, allowing them to live with dignity on the salary offered by the university.

### **Technological projects**

As for the involvement of academic activities in universities it is very important that we move a step every day to those who have not been involved in projects to do what ever. Sometimes these opportunities and academic unknown is where the university should intervene to make them aware of the various opportunities that present themselves.

The National Council of Science and Technology CONACYT, held every year to companies wishing to engage in technological innovation projects. That's where academics involved in the development of these projects in conjunction with companies, since they must make a project proposal from scratch, which evaluates CONACYT and then authorizes or rejects. Upon acceptance of the project, the researchers propose college works closely with employees of the company behind the project. Once the project is finished, CONACYT and evaluates the financial resources granted to the company are divided between the company itself and the institution of higher education. With this resource an incentive to project researchers is granted. Projects such as greenhouses, are efficient in vegetable production, so that water consumption is measured and can address the problems of the immediate future.

CONACYT benefits of a project

- The technological universities are linked to the industry.
- Companies develop technology for themselves.
- Universities carry out cutting-edge research.
- Companies create jobs for the environment.
- Universities and academic obtain financial resources for projects.

Depending on the type of project, which should generally be in accordance to the development of the region, universities support the growth of the industry to have companies in the future will receive their graduates and thereby close the gap between the industrial sector, education sector and society.

### Conclusion

The joint work of teachers, parents and students, is a circle that works only if all three parties contribute their fair share, if this is achieved will be making the contribution of educational area to society. You may potentiate this effort if the share of projects carried out by the industry and which are funded by the Government through the National Council for Science and Technology CONACYT it added. Once the union of these three parts is achieved can the region make progress, resulting ensure that its people have a better quality of life over time, and thus as a region contribute to national development, making it more competitive globally.

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