

UTEN Portugal

University Technology Enterprise Network

2012 Plan of Activities

An initiative of the Foundation for Science and Technology (FCT) in collaboration with the Council of Rectors of Portuguese Universities (CRUP), and the National Institute for Industrial Property (INPI).

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INTRODUCTION

The **University Technology Enterprise Network (UTEN)** is a network of scientific and academic institutions in Portugal oriented towards fostering technology transfer and commercialization on an international scale. It is promoted and supported by the **Foundation for Science and Technology (FCT)** in close collaboration with the **Council of Rectors of Portuguese Universities (CRUP)** and the **National Institute for Industrial Property (INPI)** and involves strategic partnerships with leading institutions worldwide.

UTEN was launched in March 2007 in close partnership with **The University of Texas at Austin** within the scope of the International Collaboratory for Emerging Technologies (CoLab). During the past four years, it has gradually expanded and has benefited from other international partnerships promoted throughout the scope of FCT, including those with Carnegie Mellon University, the Massachusetts Institute of Technology, and the Fraunhofer Society.

UTEN's mission is to **help build a professional, globally competitive and sustainable technology transfer and commercialization network in Portugal oriented toward international markets**. Programs and activities undertaken since 2007 have allowed UTEN to take full advantage of, and consolidate, the emerging network of Portuguese technology transfer offices (TTOs). **Specialized training has accelerated the development of a professional network of TTOs as well as the commercialization of science and technology in global markets** (please refer to the "UTEN activities Report 2011"¹ for more details about the activities promoted in 2010/2011).

This UTEN 2012 Plan of Activities was developed taking into account the past activities (2007-2010 and 2010-2011) therefore ensuring a consistent strategic progress for the network. In addition, the 2011-2016 Guidelines' document was also paramount to put together next year's activities in line with the guidelines for the future.

The present plan has been developed before the decision to extend or not the International Partnerships Program (2012-2016). So, its deployment does not compromise any future decision to be taken. If all goes well and the decision is favorable, there may be the need to make some adjustments.

¹ <http://utenportugal.org/wp-content/uploads/uten-annual-report-2011.pdf>

I- PAST ACTIVITIES

Activities 2007- 2010

During the launch phase, 2007-2010, UTEN focused on three main activities aimed at professionalizing and strengthening Portugal's TTO network, including building sustainable partnerships with key international institutions:

- 1. Specialized training and networking:** Training weeks and specialized international workshops have enhanced Portugal's understanding of S&T-based technology transfer (TT) and commercialization. The objective was to learn from international practice and case studies and to build on the experience of leading institutions worldwide.
- 2. International internships:** Value-added S&T transfer and commercialization training have been provided through international internships. Supported by the FCT and competitively offered to Portuguese technology transfer managers and staff, these internships include working and training engagements with UTEN's international partners.
- 3. Observation and assessment:** UTEN has collected data, developed metrics, and conducted observation and assessment on key programs and activities. The resulting information has been used to continually improve UTEN training and program delivery as well as to assess the impact of UTEN. This assessment information is presented on the UTEN Web site², specifically in the annual UTEN Portugal reports (includes 1st edition for 2008-09; 2nd edition for 2009-10; and 3rd edition for 2010-2011).

Through these action lines and activities, UTEN is working to help **build sustainable, value-added partnerships and networks with key international partners**. UTEN is also continually working to expand its network with new Portuguese partners by providing training to an increasing number of TTOs—from Portuguese universities, academic related research centers, and S&T parks—as well as reinforcing knowledge transfer with the existing UTEN partner institutions.

² <http://utenportugal.org/wp-content/uploads/uten-annual-report-2011.pdf>

Activities 2010-2011

Main actions in 2011 reflected the basic UTEN goal but also incorporated the feedback received from external evaluators and network partners, including interns and active participants. UTEN strategy therefore focused on capacity building through established learning mechanisms and innovative technology transfer practices and implementing related know-how and commercialization skills. Programs and activities were organized under the following structure:

- ACTIVITY 1: International internships program;
- ACTIVITY 2: Networking – thematic workshops, training weeks, in-situ training, leader roundtables and initiation brainstorms with students;
- ACTIVITY 3: Technology ventures competition;
- ACTIVITY 4: International business development (pilot program);
- ACTIVITY 5: UTEN Institution-building;
- ACTIVITY 6: Observation, assessment, reporting, and annual conference.

Activity 1: International internships program - This program focuses mainly on supporting short- and medium-term internships (i.e., from 3 to 6 months) for Portuguese professionals and researchers to work on ongoing projects at host international institutions, as well as devoting effort on licensing and on-shoring of technologies and ideas developed in Portuguese institutions. This includes achieving successful licensing deals and “softlanding” of S&T spin-offs focusing on technology bundling, cross licensing, and other international partnering activities.

Activity 2: Networking – thematic workshops, training weeks, in-situ training, leader roundtables and initiation brainstorms with students - This activity focused on a set of workshops and other events, implemented in close collaboration with universities, research centers and associated laboratories, that hosted the activities, and with the involvement of companies. The focus was on relevant emerging technology sectors with emphasis on exploring specific themes and subjects associated with the increasing specialization of technology transfer and commercialization.

Activity 3: Technology ventures competition - UTEN worked closely with ISCTE-MIT’s technology ventures competition to help promote this initiative across Portuguese universities and to foster the development of successful science- and technology-based business projects.

Activity 4: International business development (pilot program) - This pilot project aimed to help a limited number of university-based startups and technology ventures establish successful

business relationships in the U.S. market. A team of experts led by The University of Texas at Austin identified, in close collaboration with Portuguese TTOs, university-based startups and technology ventures that possessed a high likelihood of success and took the required steps to help them achieving actual financial success in the United States.

Activity 5: UTEN institution-building - This activity focused on continuously strengthening the UTEN network in terms of structure, organization, and leadership. It included establishing routines for UTEN's organization and building relations among partner institutions across Portugal and abroad. It also included strengthening collaborations within the existing network of TTOs, the Council of Rectors, INPI, and international partners.

Activity 6: Observation, assessment, reporting and annual conference - Key to the overall UTEN effort was the continued observation of case studies, the dissemination of successful projects and ventures, and the collection of metrics to help assess and improve the performance of technology transfer and commercialization across Portuguese institutions, as well as the continued professionalization of Portuguese TT managers and staff.

Following best practices internationally, an annual "UTEN Survey" was administered to all partner institutions to collect information about technology transfer and commercialization in Portugal. Case studies associated with new and emerging spinoffs and university startups were obtained. The resulting information was edited and published in the "2011 UTEN Report," which was presented at the 2011 Annual Conference in November 14, 2011, at FEUP, Porto.

II- GUIDELINES FOR 2011-2016

Strengthening Technology Transfer and Commercialization in Portugal

Progress on this initiative has been achieved in a relatively short time and with a modest budget so there is much to rejoice. Multiple events have been organized to foster the network of the Portuguese technology transfer offices. Results are being registered, but to deploy a deep transformation requires the continuation of this action line for years to come.

1. The Network

The current network consists of the partners listed at Annex 1). UTEN will continue to focus on the establishment of a professional, internationally competitive, and sustainable technology transfer network within Portugal. The ultimate goal is to improve the successful knowledge transfer and technology commercialization within the national scientific and technological system, helping transform the results of scientific research into new commercial products and maximize social and economic benefits. UTEN will continue stimulating and supporting the creation and strengthening of the technology transfer institutions and professionals to consolidate the network in a stable structure. Strategy will focus on capacity building through the learning of established and innovative technology transfer and commercialization practices and the application of international know-how and commercialization networks.

2. Action Lines and Type of Activities

Since its inception, through its action lines and activities UTEN helped build sustainable, value-added partnerships and networks with key international partners. UTEN continually works to expand its network with new Portuguese partners by providing training to an increasing number of TTOs – from Portuguese universities, academically related research centers, and S&T parks – as well as reinforcing knowledge transfer with the existing UTEN partner institutions.

Following the continuous assessments and external evaluations of UTEN activities over the past four years, the work plan for the next phase – 2011-2016 – will accomplish the goal of establishing a professional, internationally competitive, and sustainable technology transfer (TT) network within Portugal through close international collaboration. The ultimate goal is to improve knowledge transfer and technology commercialization in association with its increasing national scientific and technological capacity, helping transform the results of scientific research into new commercial products and maximizing related social and economic benefits.

Main activities for the next five years will reflect the basic UTEN goal but also incorporate the feedback received from external evaluators and network partners, including recent interns and active participants. UTEN strategy therefore will focus on capacity building through established

learning mechanisms and innovative technology transfer practices and implementing related know-how and commercialization skills. Programs and activities will be organized under the following structure.

- International Internships Program (*continuation and enhancement*)

This activity will support short- and medium-term internships for Portuguese professionals and researchers to work on ongoing projects at host international institutions, as well as devoting effort to licensing and on-shoring of technologies and ideas developed in Portuguese institutions. This includes achieving successful licensing deals and — soft landing of S&T spin-offs focusing on technology bundling, cross licensing, and other international partnering activities. This activity primarily envisions internships for Portuguese professionals to go to the United States, but also it also permits foreign individuals to be interns in Portuguese institutions.

Specific activities to be developed:

- *International Internships*: UTEN will continue to host and mentor international interns throughout the State of Texas and also, when beneficial, with IC² Institute's international partners including Brazil, Colombia, and Puerto Rico. Internships at Carnegie Mellon and MIT will also be explored.
- *Advanced Digital Media*: UTEN will assist the Advanced Digital Media (ADM) Program (CoLab) with company internships as requested as well as providing technology transfer know-how for ADM's FCT funded researchers.
- *Reverse Internships*: UTEN will facilitate reverse internships where Texas and international TTO talent is placed in Portuguese TTOs (e.g., Rosemary French from UTAustin's OTC and now at the IC² Institute who interned at TecMinho for about 3 months – March-June 2011).
- *Train-the-Trainer*: UTEN emphasis will be on preparing senior Portuguese TTO managers and staff to become the trainers of emerging TTO managers and staff throughout Portugal including identifying best practices from UTEN partner institutions, learning and obtaining best practices and training resources, developing training material and sequence, and helping to prepare trainers in Portugal with the capacity to conduct the training.

- Networking

This activity will rely on organizing thematic workshops, training weeks, in-situ training, leader roundtables, initiation brainstorming with students, and other events to be implemented in close collaboration with universities, research centers, and associated laboratories, and with the involvement of companies that will be hosting activities. The focus will be on relevant emerging technology sectors with emphasis on exploring specific themes and subjects associated with the increasing specialization of technology

transfer and commercialization. A special emphasis will be given to industrial liaison (ILO) programs and procedures to improve Portuguese university and industry research collaboration leading to S&T commercialization and on-shoring of Portuguese S&T in U.S. markets.

In-situ training will be customized to the particular needs of technology transfer offices. International experts will be invited to participate in these training events to transfer their know-how and experience.

Initiation brainstorms with students will attempt to establish early awareness of both graduate and undergraduate students regarding technology-based entrepreneurship and the creation of new ventures. Initiation brainstorms will be promoted and organized in close cooperation with Portuguese university student unions and other student initiatives. The ultimate goal is to create excitement surrounding entrepreneurship while simultaneously building knowledge about entrepreneurship among students in Portuguese universities and schools.

Specific activities to be developed include:

- Leader Meetings (*Program Continuation and Enhancement*)

- International Workshops and Training Weeks

UTEN will initiate, as needed, new themes for select new international workshops and focused training weeks as well as continue to offer staff and S&T commercialization support for existing and successful UTEN Phase I International Workshops. The possibility of conducting online training is being considered.

- In-Situation Training

In-Situation Training will continue to be offered to complete the transfer of knowledge gained by TTO managers and staff during the UTEN program to facilitate the successful operation of Portuguese TTO offices.

- Entrepreneurial Summer Boot Camp

3-Day Boot Camps on Entrepreneurship for undergraduate and graduate students.

- Technology Ventures Competitions

UTEN will continue working closely with the ISCTE-MIT and other initiatives to develop and promote venture competitions across Portuguese universities and to foster the development of successful science- and technology-based business projects.

- International Business Development

There is an intention to pursue the strategy deployed during the pilot project held in 2011, that is assisting a limited number of university-based startups and technology ventures establish successful business relationships in international markets. International independent experts led by UTEN's partners will identify, in close collaboration with Portuguese TTOs, university-based startups and technology ventures that possess a high likelihood of success and take the required steps to help them achieve commercial and financial success in global markets, namely within the United States.

Specific activities to be developed include:

- U.S. Connect program to be (tentatively) continued.
- Portuguese Advanced Digital Media: UTEN will support the on-shoring of FCT-funded research in the Advanced Digital Media Program.
- UTEN commercialization office at the IC² Institute: The launch of a Portuguese S&T Commercialization Office at the IC² Institute where UTEN staff would be tasked with facilitating the on-shoring of select technologies. The office would be staffed with rotating Portuguese TTOs and entrepreneurs who would represent specific Portuguese regions, institutions, and entrepreneurial start-ups. The objective is to create a sustainable office staffed primarily by Portuguese to take whatever additional steps are needed for the successful on-shoring of Portuguese S&T into international markets.
- Regional ecosystem development for S&T commercialization: Portuguese technology transfer offices are indeed helping to catalyze the development of regional innovation ecosystems in Portugal. UTEN proposes to design and execute a workshop, training and commercialization activity in select regions of Portugal that is designed to define and develop the regional ecosystem supporting commercialization.

- UTEN Institutional-building

This is an ongoing activity directed toward continuously strengthening the UTEN network in terms of structure, organization, and leadership. It will include establishing routines for UTEN's organization and building relations among partner institutions across Portugal and abroad. It will also assist in developing guidelines for future UTEN activities in 2011-2016 towards strengthening collaborations within the existing network of TTOs, the Council of Rectors, INPI, and international partners.

- Observation, Assessment, Reporting, and Annual Conference

Key to the overall UTEN effort is the continued observation of case studies, the dissemination of successful projects and ventures, and the collection of metrics to help assess and improve the performance of technology transfer and commercialization across Portuguese institutions, as well as the continued professionalization of Portuguese TTO managers and staff.

Specific activities to be developed include:

- UTEN's continued in-depth program evaluation of internships, workshops, and other relevant activities
- National Technology Transfer Office Survey: UT Austin's will continue assisting the Portuguese National Survey of TT Offices.
- Research papers: UTEN collaboration on collecting data and writing research papers to be submitted for publication in the appropriate journals.

Following best practices internationally, an annual UTEN Survey will be administered to all partner institutions to obtain information about technology transfer and commercialization in Portugal. Case studies associated with new and emerging spinoffs and university startups will be developed. The resulting information will be disseminated in the yearly UTEN reports, which will be presented at annual conferences.

3. Collaboration with The University of Texas at Austin

Future collaboration with Portuguese universities and research institutions through the University Technology Enterprise Network (UTEN) will follow the accumulated experience so far and will take a step forward in the promotion of technology transfer and commercialization activities within Portuguese research institutions. Most conspicuously, being UTEN's main international partner The University of Texas at Austin will participate in virtually all of UTEN activities through CoLab, thereby contributing to the success of this initiative as a whole. It is expected that UTEN will increase its international S&T commercialization networks to include additional U.S. and EU partners and other universities worldwide with the key objective of building – within and across Portugal – a knowledgeable, globally competitive, and sustainable S&T transfer and commercialization network of highly trained professionals.

4. Collaboration with Carnegie Mellon University

Carnegie Mellon-Portugal will participate in the following main actions, reflecting its goals and the strategy of this network:

- International internships at Carnegie Mellon University, namely at the Center for Technology Transfer and Enterprise Creation, and the CyLab, among others to be determined;
- Networking – thematic workshops, training weeks, in-situ training, leaders roundtables, initiation brainstorming with students, an annual conference, and other events during the years to come;
- International business development fostering the access of new Portuguese technology-based ventures to global markets;
- Observation, assessment, reporting, and annual conference;
- Other relevant actions to be determined by the parties under the auspices of UTEN's mission.

5. Collaboration with the Massachusetts Institute of Technology

MIT-Portugal will participate in the following main actions, reflecting its goals and the strategy of this network:

- International internships at MIT namely in the office of MIT's Industrial Liaison Program, the Technology Licensing Office, the MIT Entrepreneurship Center, the Deshpande Center for Technological Innovation and other relevant hosts within the MIT network;
- Networking – thematic workshops, training weeks, in-situ training, leaders roundtables and initiation brainstorming with students, an annual conference, and various events during the years to come;
- Technology ventures competition, by strengthening the IEI venture competition with ISCTE-IUL;
- International business development fostering the access of new Portuguese technology-based ventures to global markets;
- Observation, assessment, reporting, and annual conference;
- Other relevant actions to be determined by the parties under the auspices of UTEN's mission.

III- ACTIVITIES FOR 2012

The UTEN 2012 Plan (January-August 2012) includes the following lines of activity:

1. International Internships Program (tentative)

FCT will launch a national call for 3-6 months internships in Austin, Texas with an emphasis on three-levels of expertise:

- Advanced Training: senior TTO managers with mature technologies to license in the U.S. market.
- Intermediate Training: researcher's with technologies having commercialization potential.
- Basic Training: junior TTO managers to acquire on-the-job training.

In parallel, UT-Austin will organize one reverse-internship with an American expert to be hosted by a Portuguese technology transfer office.

2. US Connect with The University of Texas at Austin (tentative)

FCT will launch a national call for university-based startup companies to undergo business development in the United States. Selection will be competitive and based on the one deployed in the pilot phase of the program.

3. Entrepreneurial Boot Camps

Two 3-day boot camps on entrepreneurship for undergraduate and graduate students, co-organized with The University of Texas at Austin and Portuguese students unions, will be carried out.

4. ILO activity with University-Industry Demonstration Partnership (UIDP) involving the Council of Rectors of the Portuguese Universities (tentative)

This will be co-organized with The University of Texas at Austin.

5. Training and networking events focusing on critical issues for Portugal

- *Specialized workshops*:
 - Workshop #1: *Bayh-Dole Act – opportunities for Portugal*, in collaboration with The University of Texas at Austin.

- *Workshop #2: Startup Funding: streamlining venture capitalists and business angels*, in collaboration with Carnegie Mellon University (tentative).
- *Workshop #3: Internationalization and business development of Portuguese startups*, in collaboration with The University of Texas at Austin.
- *Training week: Negotiating research contracts*, in collaboration with The University of Texas at Austin.
- *In-situation training*: two one-week periods with an expert from The University of Texas at Austin working in a technology transfer office and/or an incubator.

6. UTEN Executive Committee Meetings

- *First meeting*: discuss activity plan, organisation and management.
- *Second meeting*: assess past activities, plan future activities and discuss organization and management.
- *Third meeting (tentative)*: assess past activities and plan for the future.

7. Technology ventures competition

UTEN will work closely with ISCTE-MIT's technology ventures competition to continue helping to promote this initiative across Portuguese universities and to foster the development of successful science- and technology-based business projects.

8. UTEN institution-building

This activity will focus on continuously strengthening the UTEN network in terms of structure, organization, and leadership. It includes establishing routines for UTEN's organization and building relations among partner institutions across Portugal and abroad. It also includes strengthening collaborations within the existing network of TTOs, the Council of Rectors, INPI and international partners.

9. Observation, assessment, reporting and annual conference

Key to the overall UTEN effort will be the continued observation of case studies, the dissemination of successful projects and ventures, and the collection of metrics to help assess and improve the performance of technology transfer and commercialization across Portuguese institutions, as well as the continued professionalization of Portuguese TTO managers and staff. An annual report will be presented at the annual conference.