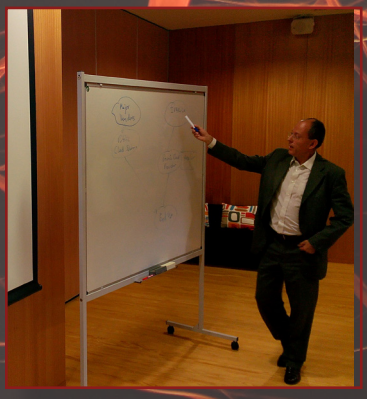
2013 - 2015: A CUMULATIVE REPORT

UTEN Portugal

University Technology Enterprise Network

New Business Frontiers in Science and Technology



The University of Texas at Austin
IC² Institute
Office of the Vice President for Research

FCT
Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA CIÊNCIA, TECNOLOGIA E ENSINO SUPERIOR

Foreword

In 2007 the University Technology Enterprise Network (UTEN) was launched in Portugal by the IC^2 Institute at The University of Texas at Austin, in collaboration with the Council of Rectors of Portuguese Universities (CRUP) and the Portuguese Industrial Property Institute (INPI), and sponsored by the Portuguese Science and Technology Foundation (FCT). The primary goal of this collaboration was to lead, facilitate, and accelerate the commercialization of science and technology innovations created by Portuguese researchers. In addition, the goal was to stimulate new international joint research and development ventures in science and technology as well as related economic activities in both Portugal and emerging markets worldwide.

Based on a unique innovative concept combined with a vision to become a cooperative network incorporating universities, technology transfer offices, research laboratories, incubators, and professionals in Portugal in the context of technology commercialization, UTEN soon became a leading program bridging the gap between early stage innovations and the marketplace for the benefit of society. The tangible outcomes of the different activities undertaken by UTEN speak for themselves and have been reported in the media, but probably the most important outcome has been a new cohort of young, skilled technology managers in Portuguese technology transfer offices whose competences have been internationally recognized.

In 2013, an external assessment of UTEN by the Academy of Finland stressed the utmost relevance of the UTEN program to the economic future of Portugal. In response to this assessment, and based on a consensus that innovation is one of the major drivers of economies of modern societies, UTEN entered a second phase that has focused on incubating and accelerating Portuguese technology ventures in global markets through development of the Global Startup Program (GSP), an international business hub at the IC^2 Institute in Austin, Texas. GSP technology teams benefit from physical co-location space and feet-on-the-ground mentorship in Austin for business expansion and growth. The results of the program have been tremendous.

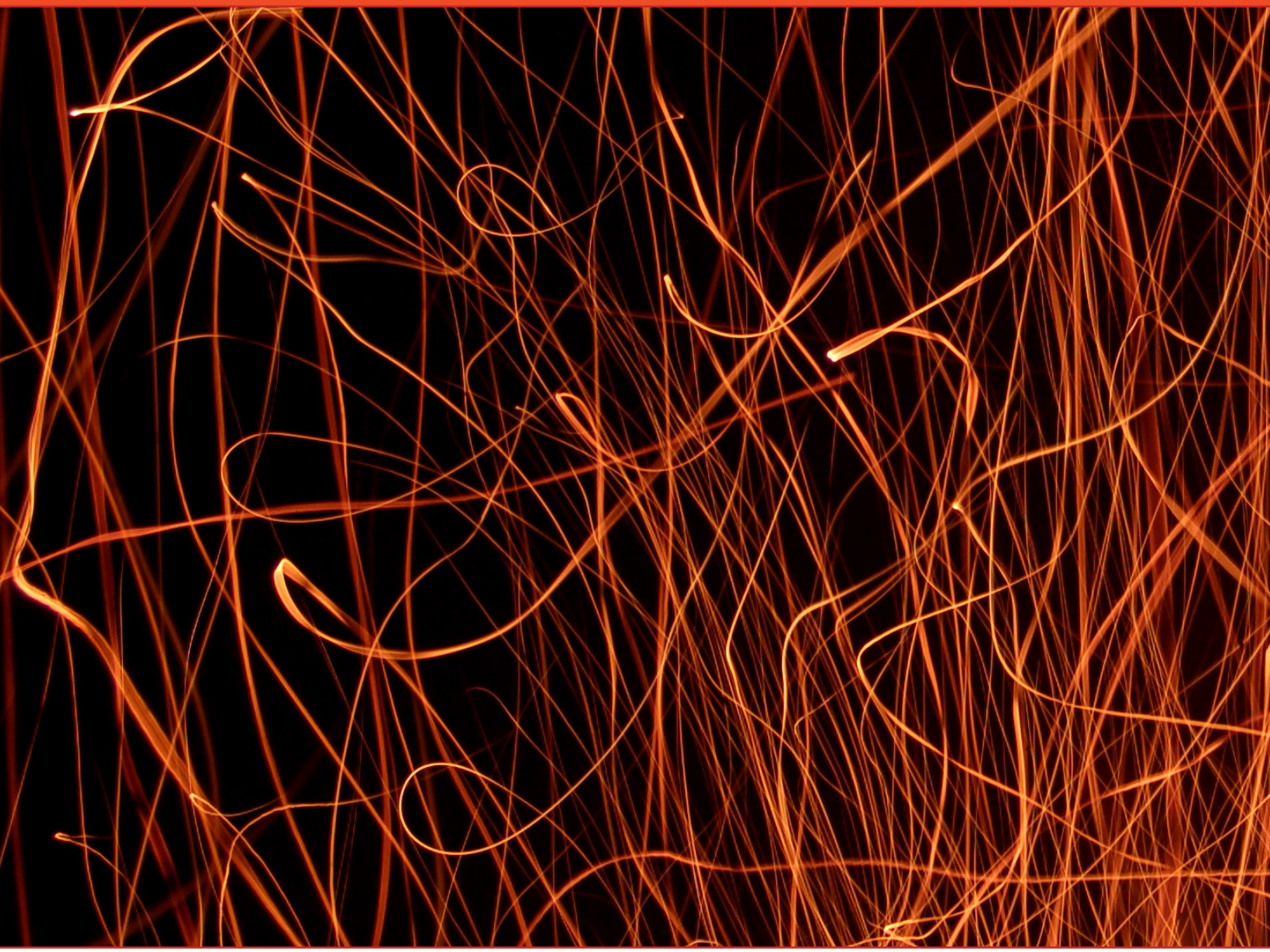
UTEN's focus continues to evolve against an unchanging mission: to transfer Portugal's science and technology achievements from its laboratories to the global marketplace. The challenge forward will be to join the efforts done by UTEN with the Universities, the TTOs, the business incobators, and the individual entrepreneurs to fully capitalize on both its developed networks and commercial successes – connecting entrepreneurs with the technology transfer skills, networking, and competences developed over time across Portugal. The overall success of UTEN, to date, lends the promise of great results for these future efforts.

December 2015

Robert A. Peterson is Associate Vice President for Research at The University of Texas at Austin, Director of the IC^2 Institute, and Principal Investigator of the UT Austin | Portugal Program.

José Manuel Mendonça is Full Professor of the Faculty of Engineering of the University of Porto, President of InescTec, and Scientific Director of UTEN.

Marco Bravo is Project Director at the IC^2 Institute, The University of Texas at Austin, and Director of the UT Austin | Portugal Program and the UTEN | BIZ.pt acceleration program.



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New Business Frontiers in Science and Technology

1. UTEN: an engine for growth to Portugal

"UTEN started by building a country-wide network of technology transfer experts and later evolved to become a hugely successful soft-landing hub for Portuguese technology-based companies dreaming to go global."

Marco Bravo, IC² Institute Program Director

1.1 UTEN by the numbers

"No other program offers something as unique as the UTEN Global Startup Program."

Helena Vieira, founder and CEO Bioalvo

2007-2012: Building a country-wide network of technology transfer experts

UNIVERSITIES *

20% increase patents granted/year

26% increasing executed licenses/year

137% increasing license income

132% increasing new academic spinoffs

TECHNOLOGY COMPANIES *

127% annual growth in revenue

37% exporting technology

38% annual growth in hiring

Impact

$82M direct economic impact

$25M investment risk capital

$38M committed revenue

$19M strategic capital (trials)

Product launches: US, India, SAARC countries, China

Returned **$33** for every **$1** invested by FCT

3 spin-out companies generated

53 qualified jobs created

NOTE: due to the confidentiality of company information, the financial figures (capital acquisition, sales, distribution agreements, strategic capital, etc.), are not reported individually per company, but as aggregate figures. Otherwise, the economy impact of the program for Portugal could not be reported publicly.

* independently assessed by Aurora Teixeira (FEP), 2007-2010

GLOBAL STARTUP PROGRAM: Portfolio of Portuguese technology-based companies accepted

#	Company	Location	Contact TTO/Incubator	Area	Dev status
1	Bioalvo	Lisbon	FCL	Life Sciences	Early stage
2	Feedzai	Coimbra	IPN	ICT	Early stage
3	Inovapotek	Porto	UPTEC	Bio	Early stage
4	Technophage	Lisbon	IMM	Bio	Early stage
5	Tecla Colorida	Porto	UPTEC	ICT	Early stage
6	WS Energia	Lisbon	Tagus Parque	Clean tech	Early stage
7	Abyssal	Porto	UPTEC	ICT	Early stage
8	Auditmark	Porto	UPTEC	ICT	Early stage
9	Celfinet	Lisbon/Porto	UPTEC	ICT	Mature
10	LiveFabric	Guimarães	Spinpark	Other	Early stage
11	Omniflow	Porto	NET	Clean tech	Early stage
12	Tuizzi	Porto	UPTEC	ICT	Early stage
13	Zercatto	Lisboa	Startup Lisboa	Fintech	Early stage
14	AugRPublish	Porto	UPTEC	ICT	Early stage
15	Farmodiética	Lisbon	[none]	Life Sciences	Early stage
16	IPBRICK	Porto	[none]	ICT	Mature
17	Metablue	Porto	UPTEC	Life Sciences	Mature
18	RVLP Technologies	Porto	UPTEC	Agro	Early stage
19	TakeTheWind	Coimbra	IPN	Other	Mature
20	2East	Cascais	[none]	Other	Mature

Classification	Opportunity Description	Recruitment
Graduated	Marine ingredients for cosmetic and pharmaceutical applications	2011
Graduated	Seamless integration of real-time data and historical information, producing high-value analytics	2011
Graduated	Consulting for R&D for the pharmaceutical and cosmetics industries	2011
Graduated	A multiplatform biotech company involved in the R&D of new molecules in diverse therapeutic areas	2011
Graduated	Official school web spaces for collaboration, communication, and sharing among students, parents, and teachers.	2011
Graduated	Solar trackers that keep solar photovoltaic (PV) panels best oriented toward the sun	2011
Graduated	Integrated subsea navigation solutions for remotely operated Vehicles (ROVs)	2013
Graduated	Web security company focused on developing solutions to protect web applications	2013
Business Development	Technical consultancy services and solutions for the telecom industry	2013
Graduated	Compression therapy garnent	2013
Graduated	Small wind energy generation and lighting	2013
Graduated	Web platform that simplifies and facilitates the access to buing, selling and managing outdoor advertising	2013
Business Development	First platform to align the interests of investors with those of experts	2013
Business Development	Books with 3D content and augmented reality	2014
Graduated	Diet supplements and food	2014
Business Development	Hardware plus open source Lynux software for enterprise communication	2014
Acceleration	Ear infection monitoring and diagnosis	2014
Graduated	Software and integrated devices for "smart pig farms"	2014
Business Development	Medical simulator	2014
Business Development	Backpack system to sell beverages at events	2014

#	Company	Location	Contact TTO/Incubator	Area	Dev status
21	Vertequip	Lisbon	Startup Lisboa	Other	Early stage
22	Whale	Covilhã	Parkurbis	ICT	Early stage
23	BeMicro	Lisbon	EDP	Clean tech	Early stage
24	BioPremier	Lisbon	TecLabs	Life Sciences	Mature
25	BVCreative	Aveiro	IEUA	Other	Mature
26	Ciengis	Coimbra	IPN	Other - Process Industries	Early stage
27	Coolfarm	Coimbra	IPN	Agro	Early stage
28	doDoc	Coimbra	IPN	ICT	Early stage
29	Dognaedis	Coimbra	IPN	ICT	Early stage
30	Eyesee	Lisbon	[none]	ICT/Digital Media	Early stage
31	Findster	Porto	Startup Braga	ICT	Early stage
32	Line Health	Lisbon	Beta-i	Life Sciences	Early stage
33	Peekmed	Braga	Startup Braga	Biotech	Early stage
34	Petable	Lisbon	Beta-i	ICT/Life Science	Early stage
35	Switch	Matosinhos	[none]	ICT	Early stage
36	Sword Health	Porto	Startup Braga	Biotech	Early stage
37	Veniam	Porto/Aveiro	UPTEC/IEUA	ICT	Early stage
38	Watt-IS	Lisbon	Taguspark	Clean tech	Early stage
39	WY Group	Lisbon	Portugal Ventures Accelerator	ICT	Mature
40	Xhockware	Porto	UPTEC	ICT	Early stage

Classification	Opportunity Description	Recruitment
Business Development	Safety harness: S.T.E.P.	2014
Business Development	Social CRM called "SONAR"	2014
Acceleration	OEM Manufacturer of Micro Inverters for Residential Solar	2015
Business Development	Food safety and fraud detection/testing	2015
Acceleration	Desktop 3D printer developer	2015
Acceleration	Performance monitoring, optimization, and nonlinear predictive control solutions for industry	2015
Acceleration	Sensors and controllers for hydroponics and greenhouses	2015
Acceleration	Digital Document Management for Drug and Pharma Filings and Compliance	2015
Business Development	information security technology	2015
Business Development	Embedded Advertising Technology for Video	2015
Acceleration	Tracker tag with proprietary RF technology	2015
Business Development	Bluetooth pill bottle for medical adherance	2015
Acceleration	3D surgical planning software for orthopedic surgeons	2015
Acceleration	Mobile App Veterinarian	2015
Acceleration	Online payments gateway	2015
Acceleration	Delivery and monitoring solution for stroke patients rehabilitation	2015
Business Development	Mesh network for Internet	2015
Acceleration	Energy efficiency solution in multi-platform environment for utility companies	2015
Business Development	Mobile software development consultancy	2015
Business Development	Solution to end queues at checkout in supermarkets	2015

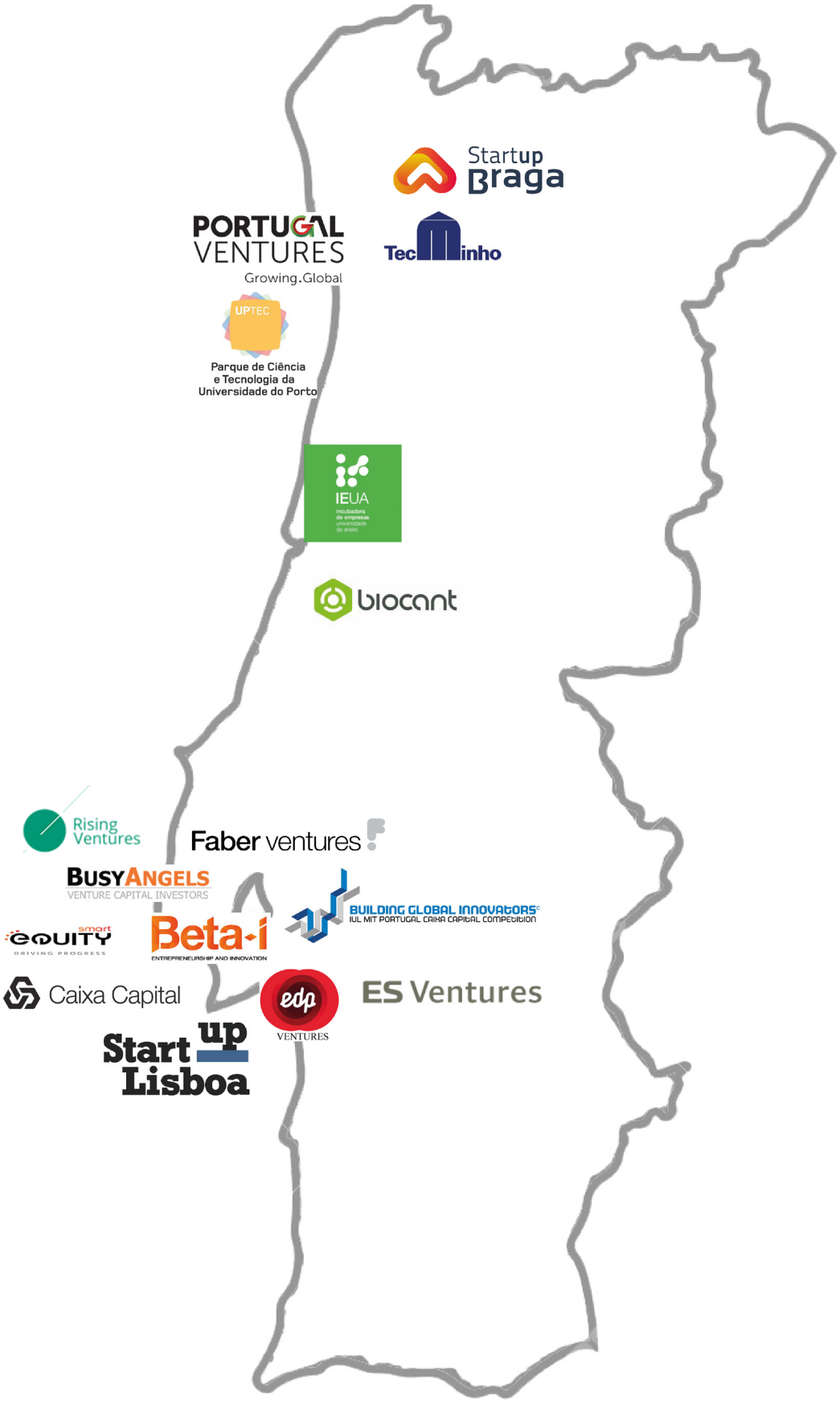
2013-present: Global Startup Program, fostering Portuguese technology companies to go global

Company cohorts

2011	2013	2014	2015
bioalvo, WS energia, tecla colorida, inovapotek, feedzai, TECHNOPHAGE	abyssal, zercatto, celfinet, AUDITMARK, Omniflow, LiveFabric, tuizzi	ARP, TAKE THE WIND, BIPBRICK, whale, rulp technologies, METABLUE, VERTEQUIP, 2EAST, Farmodiética	beon, DOGNÆDIS, PETABLE, DIGITAL AGENCY, BIOPREMIER, ciengis, CoolFarm, BEEVERYCREATIVE, switch., eyesee, VENIAM, watt is, FINDSTER, PeekMed, SWORD HEALTH, linehealth, doDOC, XHOCKWARE
Companies accepted			
6	**7**	**9**	**18**
Applications			
N|A	**28**	**41**	**34**

39% average acceptance rate of companies to program

Main partner institutions in the Portuguese entrepreneurial ecosystem



2. Why The University of Texas at Austin?

"The UTEN team sold my company one-hundred percent better than myself. That was incredible to watch. The program is brutal and I would absolutely recommend it to other entrepreneurs in Portugal. So much that I will most probably apply again with another venture".

João Wemans, co-founder and CEO WS Energia

2. Why The University of Texas at Austin?

By means of several metrics, Austin, Texas, is considered one of the most innovative cities in the world. It was ranked second in Forbes' list of *"America's Most Innovative Cities in 2010,"* with about 2,900 patents registered by its residents (second-most per-capita of any metro area in the United States). With an annual ratio of 1.7 patents per 1,000 residents, Austin's culture of innovation is boosted by the presence of a significant number of technology companies (Dell, IBM, Freescale Semiconductor, etc.) and a constant flow of start-ups emerging from its rarified entrepreneurial ecosystem. Austin is home to a wide array of successful entrepreneurs and is praised for its creativity in hosting South-by-Southwest (SXSW), the largest annual start-up, film, media, and music festival in the world. In 2010, *Yahoo Finance* considered Austin to be the third fastest growing city and *Kiplinger* ranked it as the "*Best City for the Next Decade*."

The University of Texas at Austin is a major research university: home to more than 52,000 students, 2,900 faculty, and 20,000 staff members. With more than 3,500 research projects, 90 research units, and annual research funding exceeding $640 million, more than 400 patents have been awarded to the university since its inception. In FY 2010-2011, licensing deals generated more than $25 million for the university. Annually ranked among the best U.S. public research universities, many of its colleges, schools, and departments are considered among the finest in the nation. *The Times of London*, in a 2004 survey of colleges and universities around the world, ranked The University of Texas at Austin as number 15 worldwide. UT Austin is the flagship university of the University of Texas System, which includes eight universities and six health science centers. The University of Texas System conducts over $1.5 billion in sponsored research annually.

An interdisciplinary research unit of The University of Texas at Austin, the IC^2 Institute has advanced the theory and practice of entrepreneurial wealth creation for more than thirty-five years and has established itself as a leader in technology commercialization through research, education, and service. The Institute was founded on the premise that science and technology are resources for economic development, enterprise growth, and shared prosperity worldwide, and on the principle that entrepreneurship and technology transfer are the predominant sources of wealth and jobs in market economies. Theories and hypotheses developed at the IC^2 Institute are tested in life scale through world-recognized programs such as:

- The Austin Technology Incubator (ATI), one of the world's most prominent business incubators
- The Master of Science in Technology Commercialization (MSTC) degree program, now available at the McCombs School of Business
- The Global Commercialization Group (GCG), a catalyst for emerging knowledge-based economies throughout the world
- The Bureau of Business Research, the second-oldest organizes research at the University of Texas at Austin.

"Austin is like home, like thanksgiving meal with Turkey and stuffing, and family. People genuinely care about you and your venture."

Paulo Almeida, co-founder and CEO Whale

3. Activities and results

"Since its inception, UTEN has continuously broken new ground by fostering entrepreneurial attitudes and the international business competitiveness of Portuguese science and technology innovations and by exploring new paradigms through the global commercialization of early-stage technologies out of Portugal."

Marco Bravo, IC² Institute Project Director

3.1. Phase 1: 2007-2012

3.1.1. Portugal's rapid S&T growth

In recent years Portugal has become one of the fastest growing European countries in terms of science and technology (S&T) investments and results. Total expenditure on research and development (R&D) as a percentage of the Gross Domestic Product (GDP) more than doubled from 2005 to 2010 (0.78% in 2005 to 1.64% in 2009 and provisionally 1.59% in 2010). In absolute numbers, private investment within companies accounted for 45% of the total expenditure (47% in 2009). In international comparisons, Portugal was well placed in 2010, above Spain, Italy, and close to Norway.

As a direct result of these and other national investments in Portugal's S&T system, the nation recently met and surpassed the EU average number of researchers per thousand labor force. In 2008 it reached 7.2 per thousand labor force, while the data indicate Portugal had 8.2 researchers (measured as full time equivalent, FTE) per thousand human capital, corresponding to an increase of about 115% from 2005 to 2010. This increase in research personnel has been matched with an increase in the number of researchers in the business sector, which increased by 158% from 2005 to 2010 (from 4,014 to 10,363 FTE). Eurostat's most recent data show that Portugal's achievements also reflect a remarkably high rate of women employed in science sectors: 45.6% in 2009.

Scientific output in Portugal has doubled since 2004, in terms of the number of internationally referenced scientific publications. An analysis of the relative scientific competitiveness of OECD countries shows that Portugal, with about 626 scientific publications per million population in 2008, exceeds the EU-27 average ratio between output (publications) and input (public expenditures on R&D). This ratio indicates an internationally competitive science base, although the nation currently lacks the critical mass necessary for knowledge-integrated communities. This growth in Portugal's scientific production is based on about 12,000 PhD researchers working in academic R&D centers (measured as FTE), corresponding to an increase of 25% over the last two years and a doubling of the number of PhD researchers since 2000. This strong growth has shown clear results in terms of the international impact and visibility of the Portuguese scientific community.

In 2008 Portugal reached the target of 1,500 new PhDs per year. The percentage of new PhDs awarded to women is at a historic peak, recently surpassing 50%. Further, new PhDs in the fields of science and engineering currently represent 47% of the total, while this percentage was less than one third (31%) in 1991.

Portuguese patent applications to the European Patent Office (EPO) per million inhabitants have increased 300% from 1999 to 2009 and increased from 11.39 per million in 2005 to 14.34

Table 3.1 UTEN Technology Transfer Offices

Institution	Technology Transfer Offices	UTEN Focal Points
Nova University of Lisbon	Technology Transfer Office of FCT/UNL	Zulema Lopes Pereira Ana Sofia Esteves
Polytechnic Inst. of Porto	Knowledge and Technology Transfer Office	Carlos Ramos Rafael Pedrosa
Technical Univ. of Lisbon	SpinLogic, Católica Porto | Knowledge & Technology Transfer Unit	Eduardo Luís Cardoso
Technical Univ. of Lisbon	OTIC|UTL	Eduarda Camilo
	TT@IST, IST's Technology Transfer Office	Luís Caldas de Oliveira
University of Algarve	CRIA, Division of Entrepreneurship & Technology Transfer	Hugo Barros Sofia Vairinho
University of Aveiro	UATEC, University of Aveiro Technology Transfer Unit	José Paulo Rainho
University of Beira Interior	ICI, Research Coordinator Institute | GAPPI - Office for Promotion of R&D	Ana Paula Duarte Conceição Camisão Dina Pereira Pedro Serrão
University of Coimbra	DITS, University of Coimbra Technology Transfer Unit	Jorge Figueira João Nuno Simões
University of Évora	Projects & Information Office | Science & Cooperation Services	Carlos Braumann Manuel Cancela d'Abreu
University of Lisbon	UL INOVAR	Maria Teresa Salter Cid
University of Madeira	OTIC-TeCMU | Technology & Knowledge Transfer Office	Carlos Lencastre
	GAPI Madeira at Madeira Tecnopólo	Pedro Mota
University of Minho	TecMinho	Marta Catarino Pedro Silva
University of Porto	InescTec, Tecnologia e Ciência Laboratório Associado	José Mendonça
	UITT, Innovation and Technology Transfer Unit of INESC Porto	Alexandra Xavier
	UPIN, University of Porto Innovation	Maria Oliveira
University of Trás-os-Montes e Alto Douro (UTAD)	GAPI-OTIC, Technology Transfer Office at UTAD	António Miguel Bacelar Carla Mascarenhas

per million in 2009. Similarly, the number of patents granted by the United States Patent and Trademark Office (USPTO) for Portuguese applicants has grown from 0.73 per million inhabitants in 1996 to 1.97 in 2005 (the latest available data on Eurostat).

As part of the overall strategy that has produced this growth, a unique set of international collaborations with leading institutions worldwide was successfully developed, based on thematic R&D networks and integrating advanced training initiatives. Combined with a national increase in S&T investment, scientific output metrics began to reflect positive change. Within this overall growth context, a hypothesis was framed for Portugal to develop a globally competitive and sustainable commercialization infrastructure, capable of harvesting these increases in scientific results through economic valorization.

The UTEN program began as an experiment to meet this need. There was no working model on which to frame the program's design to affect this broad primary goal. Initial pilot programs revealed that working directly with companies would be premature before establishing a broad base of technology transfer talent to provide an entrepreneurial ecosystem and support network. A coordinated training effort ensued, targeting Portugal's university TTOs and laboratories. These efforts are detailed in the following UTEN Reports, which are available on the UTEN web site:

- Portugal's People, Knowledge, & Ideas: Competing in International Markets with the IC^2 Institute, 2008-2009 Annual Report
- Advancing & Professionalizing Science & Technology Commercialization, 2009-2010 Annual Report
- Increasing Capacity for Portuguese Technology Transfer & Commercialization, 2011 Report
- Entrepreneurship & Technology Commercialization: Building Portugal's Future, 2007-2012: A Progress Report.

The broad success of UTEN programs to form a professional TTO network enabled UTEN to shift its focus to the entrepreneur in 2013. Currently, UTEN involves all university-based technology transfer offices plus other scientific institutions and science parks, as presented in Table 3.1.

3.1.2. Focus: Technology Transfer Professionals

Through 2012, the main UTEN activities consisted of creating of a well-educated force of technology transfer officers to commercialize Portuguese technology to the world. This was achieved by:

- Capturing leading scientific accomplishments as inventions
- Practicing effective technology transfer in support of out-licensing and spin-off activities
- Developing human capital to support entrepreneurial activities
- Preparing Portuguese companies for international market expansion.

The program outcomes during this period have been remarkable in providing a broad national impact through:

- Successfully networking all major research institutions throughout the Portuguese mainland and associated islands
- Developing a technology transfer office (TTO) infrastructure at all major nodes within the UTEN network
- Delivering more than 50 workshops hosting more than 1,500 participants, providing broad training for in-country professionals and scientists
- Intensive infrastructure investment in 12 TTOs from leading universities, providing assessment, development, and process improvement
- Deep training of more than 30 TTO professionals who have interned in the United States, receiving immersion in best practices in technology commercialization
- Capturing more than 150 new Portuguese technologies in the form of inventions (nearly a 50% increase in disclosure rate)
- Catalyzing a large increase of more than 1,900% in provisional patent filings and an overall increase of nearly 20% in patents issued to Portuguese researchers (2007 to 2010)
- Supporting the launch of more than 100 new technology-based companies with international market and business strategies
- Driving an increase in academic spin-off rate of more than 132% compared to pre-UTEN, with these companies showing more than a 125% increase in revenue and 38% hiring growth
- Accelerating five Portuguese companies into the U.S. market through the U.S. Connect pilot program with in-person meetings with more than a dozen Fortune 500 companies; several business, services, and manufacturing deals; and U.S. subsidiaries for three companies.

These metrics demonstrate UTEN's success and underscore its critical role in connecting Portuguese innovation and scientific output with tangible economic impact, in terms of both GDP and employment. Therefore, a more comprehensive strategy has been outlined for the coming five-year period, from January 2013 to December 2017, that will focus on establishing a global innovation hub, UTEN, in Austin, Texas to assist Portuguese technology-based companies in succeeding in international markets.

3.1.3. U.S.-Connect: a pilot program for Portuguese technology companies

In 2011 and 2012, the IC² Institute initiated the U.S: Connect pilot program to help Portuguese start-ups make the transition to global markets, primarily by closing business deals in the United States. Along the way, U.S. Connect connected ventures to resources, helped them refine their competitive advantage, and helped them develop the best approach to the U.S. market. U.S. Connect focuses on ventures that have demonstrated success in their domestic market, but have yet to expand into global markets. It focused on ventures with products, customers, revenue, and the capacity to expand to the United States.

Eleven companies were chosen for Stage One assessment and business development, and (based on outreach results and U.S. market potential) five* of these were selected for Stage Two business development efforts:

// Bioalvo*

// Digital Minds

// Feedzai*

// Inesting

// Innovapotek*

// Plux

// Silicolife

// Technophage

// Tecla Colorida*

// Tomorrow Options

// WS-Energia*

As of November 2012, US Connect had led to seven ongoing sales discussions with specific proposals made to parties expressing serious interest in the products and services of U.S. Connect companies. One company wasaccepted into the respected Austin Technology Incubator. Other accomplishments include one development partnership, one product pilot, multiple strategic partner prospects, and improved marketing and messaging of the company's clients to U.S. prospective clients

Bioalvo: U.S. Connect Case Study

Company & Product

BIOALVO S.A. (Helena Margarida Moreira de Oliveira Vieira, CEO) develops marine ingredients for cosmetic and pharmaceutical applications. The marine bacteria, fungi, sponge, and corals of the Mid-Atlantic Rift off Portugal's Azores islands and continental shelf constitute one of the world's riches sources of bioactives. They include the only commercial collection in the world that contains natural extracts isolated from marine microorganisms collected at a depth of 3,000 meters, able to survive in the most extreme oceanic conditions including temperatures that range from 3º to 300ºC. BIOALVO possesses exclusive access to 90,000 natural extracts derived from this diverse array of microorganisms. Screened through its innovative discovery platform, several potent applications have been identified, among them anti-wrinkle, anti-oxidative, anti-infectious, collagen production induction, anti-inflammatory, anti-UVA & UVC, anti-aggregation, and anti-neuroinflammation.

Marketplace Research

The IC² Institute's U.S. Connect team worked with CEO Helena Vieira and her team, targeting data that would leverage BIOALVO's distinctive capabilities to gain U.S. market entry, establish a prominent foundation, and accelerate acquisition of new contracts. The UTEN team contacted industry leaders and mapped out the most prominent intersections of BIOALVO's capabilities with industry needs.

Market Hurdles

Prospective clients consistently expressed initial interest. However (as is often the case with newer companies) overcoming prospects' low risk threshold – especially during an economic downturn – was challenging, even for a company with BIOALVO's promising resources and talented staff. Prospects commonly expressed the desire that BIOALVO bring them ingredients, developed from bioactive extracts with already-identified activities, clinically tested and scaled-up.

Commercialization Strategy

Without a product already in the market with which to draw objective proof that BIOALVO's marine extracts can be developed into ingredients having the desired properties, BIOALVO needed another means of bridging its prospects' uncertainty gap. The U.S. Connect team and BIOALVO went to work finding empirical evidence from BIOALVO's own research as well as the applicable research of others on Portuguese marine extracts that would establish efficacy of BIOALVO's discovery platform and source of bioactives. A new, more robust presentation was created. Proctor & Gamble's Director of Open Innovation reviewed the presentation, contributing buyers' perspective, issues to address, and presentation impact. He arranged to have BIOALVO present to P&G's Therapeutic Skin Care R&D group, which provided additional insights.

Prospective Customers

Pharmaceutical, cosmetic, skin care, and food industry companies were contacted, and meetings established with Merck's Global Head of Therapeutic Skin Care R&D, the heads

of skin care research at Avon, Revlon, and Mary Kay, the R&D team of Kerry Group (a leader in food ingredients and flavors), as well as remote meetings with Proctor & Gamble's Skin Care group, L'Oreal, and others.

Results

Revenue contracts closed with AlphaVektor, Avon, Mary Kay, Merck, Laurel, Boticário, and Cubist. an NIH grant wassecured. Conversations started with Clariant, Boots, and P&G.

AlphaVektor, a U.S. pharmaceutical and specialty product development company recently acquired from Bioalvo the development and posterior use rights of extracts for pathologic treatment of a metabolic disease. AlphaVektor's CEO John Koleng stated, "We were very impressed with the potential applications of BIOALVO's novel extract library in various types of products and indications. We believe the combination of the material source combined with the unique chemistry afforded by the extracts will provide advanced products to address unmet market needs."

Avon Products Inc., the world's largest direct seller of cosmetics and skin care products, agreed to BIOALVO's proposal and is in the process of approving a contract. Avon will obtain access to certain extracts from BIOALVO's PharmaBug Library for development of topical applications that achieve particular cosmetic effects. Avon has agreed to share the results of its research with BIOALVO and will have certain rights to exclusivity acquire successful extracts and subsequently rights to commercialize certain extracts. Avon has more than $11 billion in annual revenue produced by more than 6 million active independent Avon sales representatives in more than 100 countries. More products carry the Avon name than any other brand in the world.

Another global leader in cosmetics has agreed to BIOALVO's proposal and is reviewing a contract for the development of new cosmetic and skin care products. The company initially desired to evaluate samples that show potential for topical applications from BIOALVO's PharmaBug collection sourced from the deep sea of the Extended Portuguese Shelf.

> *"We were overwhelmed by the competencies, dedication and scope which the U.S. Connect staff showed to us. Not as mere spectator, but deeply involved, demonstrating tremendous availability tohelp... U.S. Connect contributed decisively to the definition of BIOALVO's internationalization strategy into the U.S. market by helping us craft final presentation materials, training me and my team in the necessary skills to approach the American market and providing mentoring to me through the toughest moments on this path. U.S. Connect went one step further, by continuously searching for potential new clients for BIOALVO's technology and libraries, preparing the necessary introductions, being present in all initial discussions and providing BIOALVO with a sort of quality stamp with U.S. Connect association."*
>
> *Helena Veira, CEO BIOALVO*

Feedzai: U.S. Connect Case Study

http://feedzai.com/

Company & Product

FeedZai (Nuno Sebastiao, CEO) creates software solutions for business and operational processes that require sub-second analytics when using big data. FeedZai's Pulse is a business intelligence appliance that enables real-time processing and analysis of large-scale high throughput data loads. Its strength is its real-time processing and analysis of selected key performance indicators on any number of monitored items, while continuously comparing them against historical, baseline, targeted performance, and external data. This enables Pulse to provide unusually accurate and immediate identification of trends, uncover and manage business anomalies, control costs and risks, and predict future values with enhanced precision. These capabilities are especially helpful in catching fraudulent financial transactions prior to authorization, forecasting energy production and consumption, and enabling online shopping recommendation engines to finally offer purchase suggestions accurately tailored for each individual shopper as s/he shops.

Marketplace Research

The U.S. Connect team contacted electric utility companies, renewable power producers, grid operators, IT solution providers, and companies in business intelligence, payment authentication, and customer experience analytics.

The world is deluged with IT applications, each proclaiming to provide superior intelligence, control, speed, and ease. FeedZai's claims of its event processing engine Pulse were complex, immense, and pervasive: an IT department's "perfect storm" for casting skepticism and quick dismissal. Except in this case, FeedZai's claims were real. FeedZai needed communication that could present Pulse's potential in a way that could be readily grasped, which would impart confidence in the product's ability to solve pressing business needs.

The IC² Institute's U.S. Connect team worked with FeedZai CEO Nuno Sebastião and his team to: 1) communicate Pulse's robust capabilities and benefits to non-technical personnel; and 2) build prospects' confidence for Pulse to meet their organizations needs.

Commercialization Strategy

Case studies were chosen as the communication vehicle. The UTEN team would develop one case profile for each of the three targeted industries determined to have the greatest "pain" that Pulse could alleviate. Empirical data were collected from interviews with Pulse's pilot customers and compared to

their historical performance as well as published industry data of similar companies. Industry experts were interviewed to determine direct and indirect financial losses attributable to not having the intelligence and control Pulse provides. Non-industry individuals added fresh eyes in shaping each case study so non-technical decision makers would understand and appreciate the impact of Pulse. The case studies now provided technical experts with an effective means of conveying Pulse's potential impact on business operations, profitability, and future growth to internal decision makers.

Prospective Customers

Meetings were set with Adobe, CallSpace, Cardinal Commerce, ERCOT (Texas' electric grid operator), IBM Industry Solutions Group, Intel Capital, NirvanaSystems, Omniture, Patton Boggs, St. David's Neuro Texas Institute, TeaLeaf, Vestas Wind Turbines, Austin Technology Incubator, and several groups at Dell, including Financial Services, Security & Systems Management, Chief Technology Office, Next Generation Computing Solutions, Business Intelligence, and Customer Relationship Management. Pulse information was also reviewed by Accenture, Hewlett Packard's CIO, PayPal, Symantec and XremePower. Most presentations were made to the organization's CIO, VP, or senior manager responsible for this area.

Results

U.S. Connect worked with FeedZai and Cardinal Commerce to complete a contract for a Phase 2 installation of Pulse to begin early 2013. Cardinal Commerce is a global leader in enabling authenticated payments and secure transactions for many of the world's largest retailers, financial institutions, and service providers. Although Cardinal is not a not a large company, successful implementation with it will open formidable opportunities with Cardinal's chief clients: the financial, retail, and payment services institutions that stand to gain the most from Pulse's real-time fraud prevention. Cardinal's Vice President of Enterprise Services stated he's a big champion of Pulse.

Mr. Eric Drummond, a partner in Patton Boggs' Energy & Clean Technology, arranged for Mr. Sebastião to be a guest presenter at the Global New Energy Summit held this past April. Mr. Sebastiao was introduced to several key energy and venture capital leaders in Colorado, Texas, and Washington, D.C. Mr. Drummond also arranged to showcase FeedZai and Nuno Sebastião at the Cleantech Fellows Institute (CFI) Conference.

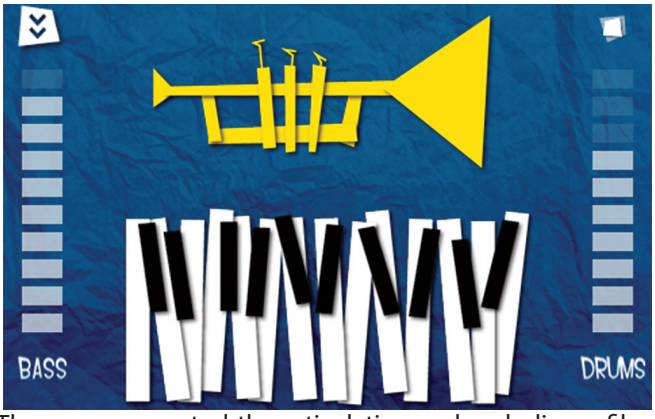
IBM Industry Solutions Group would like to develop a joint pilot utilizing Pulse, with any major utility company. IBM must first complete the other components of its utilities solution platform before itcan proceed with FeedZai.

> *The U.S. Connect team for the last months supporting FeedZai in its commercialization effort into the United States, has been supportive of FeedZai and, in particular, has devoted time and diligence to accompany us to the number of meetings arranged for FeedZai with companies such as Dell, IBM, and Adobe. For this we are very grateful.*
>
> *Nuno Sebastiao, CEO FeedZai*

GimmeDaBlues: U.S. Connect | CoLab Case Study

GimmeDaBlues, by Sonicability, is an application for iOS devices (iPod, iPhone, iPad) that allows its users to generate Blues in real time and in several known styles for a quartet of trumpet, piano, double bass, and drums.

The user plays the quartet with different degrees of control over the four instruments. Some instruments have a more or less autonomous behavior while others are totally dependent on user actions. The bass and drums have a pretty autonomous behavior that slightly changes according to how the user is "playing" the piano and trumpet. Touching the screen of the user interface plays the piano and trumpet, which provide an idiomatic accompaniment and solo in the chosen Blues style.



The user can control the articulation and melodic profile of the solo instrument by moving fingers over the trumpet, and control the articulation of the accompaniment as well as register and chord distribution by tapping over the piano. All user actions translate into musical behaviors that are idiomatic since the instruments played by the user (piano and trumpet) know about the Blues style: whatever the user plays sounds nice and idiomatic. GimmeDaBlues thus implements an intelligent layer between user actions and musical consequences. This establishes a new paradigm in music applications for smartphones, as users can play and interact at a high musical level without formal musical knowledge. This application can be used in at least three ways: as a musical application in which a user can play Blues in ajazz quartet (http://vimeo.com/35743843); as a "comping" tool in which the user can accompany and interact with a soloist (http://vimeo.com/31607650); and as a study tool for Jazz students who need to practice the Blues form in several styles, keys and tempi.

Other features of the performance, such as key, tempo, instruments (piano and Hammond organ, three different types of trumpets) can be defined in the setup page of the application. The performances with GimmeDaBlues can be recorded in the form of a MIDI file that can be later on uploaded to a MIDI sequencer or notation program in order to be further edited.

GimmeDaBlues was conceived and prototyped under the scope of the UT|Austin Portugal program, by Rui Dias, Carlos Guedes, George Sioros, Telmo Marques, and Gilberto Bernardes. It was programmed for iOS by Amaury Hazan. The GUI design is by Clara Morão.

Results

GimmeDaBlues has recently been promoted at the SIGGRAPH conference in Asia. U.S. Connect has helped Sonicability incorporate in the United States and is currently assisting pursuit of Apple Store distribution for this musical app.

Tecla Colorida: US Connect Case Study

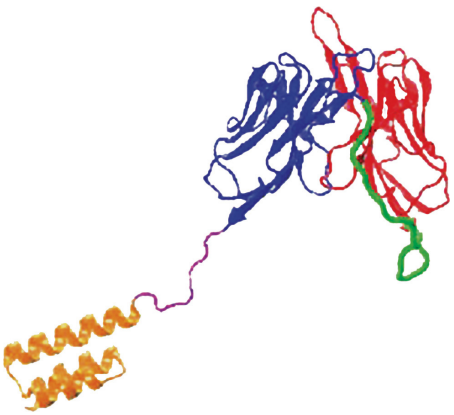
Tecla Colorida (Ademar Aguiar, CEO) is based in Porto, Portugal. The platform known as Escolinhas is in 200 primary schools in Portugal. In addition, it is now in its first school in the United States – being piloted in six classrooms in Means Elementary School in Harlingen, Texas. Marketed in the United States as Schoooools.com, the company's platform for multimedia learning in grades 1- 6 provides official school web spaces to support collaboration, communication, and sharing of school content and activities among students, parents, and teachers. In the classroom, students create multimedia documents that supplement current lesson plans. The Schoooools approach helps elementary students develop critical thinking, teamwork, and creativity to prepare them to compete in the 21st Century economy. In addition to this pilot program, Schoooools.com CEO Ademar Aguiar has started strategic partnership discussions that will advance sales and support in the United States. The experience gathered with UTEN led the CEO to start a spin-oof venture.

> *"It is really difficult to introduce a new product, especially in the elementary school market. The energy to continue with this marathon comes from many sources, like opinions gathered after a long session with teachers in Austin. My experience with the UTEN program has been spectacular, relevant, and powerful, and I wish I had dedicated more time to this endeavor Thank you for sharing your enthusiasm. Let's make rain!"*
>
> *Ademar Aguiar, CEO Tecla Colorida*

Technophage: U.S. Connect Case Study

TechnoPhage S.A. is a biopharmaceutical company engaged in research and development based on recombinant single domain antibody fragments (sdAbs) for the diagnosis and treatment of human diseases. TechnoPhage has created TechnoAntibodies as an independent offering in the sdAbs space by exploiting the variable regions of either the heavy (VH) or light (VL) chains of rabbit-derived antibodies. The structure and extreme stability, solubility, and tissue penetration properties of sdAbs enables it to engage therapeutic targets that are inaccessible to conventional antibodies. The overall strategy of TechnoPhage is to generate novel therapeutics in early phases of development and to subsequently enter into partnering deals for preclinical and/or clinical development. It has the necessary equipment and talent readily at hand to develop full product solutions. TA_101, an antibody fragment that inhibits tumor necrosis factor alpha (TNF-α) in systemic inflammation, is Technophage's lead product. TA_101 is a recombinant single domain antibody fragment in a dimeric form that has 2 different binding domains that facilitate effective TNF-α inhibition (figure 3.1). Inclusion of an albumin binding peptide (PEP) in the product extends the half-life to potentially allow once monthly self-administration. TA_101 has been produced in microbial systems to date.

Figure 3.1TA_101 structure.



VL-VL dimer linked by a peptide linker. The fact that two different binding domains are used facilitates effective TNF- α inhibition. Half-life extension obtained by PEP, an albumin binding domain.

U.S. Connect supported the commercialization of TechnoAntibodies, and TA_101 in particular, through developing summary data sheets detailing the technology and lead product as well as Powerpoint overviews of the opportunity. Introductions were made to several top pharmaceutical companies, including the Sanofi group, Amgen, and Eli Lily. Technophage was invited to make a presentation to a multi-site team composed of Eli Lily and Imclone scientists. Great interest was expressed in the technology and lead, yet the bias in large pharma companies is to license products with clinical data that supoprt safety and efficacy. At the same time, this commercialization strategy fits with Technophage's goal to build value in TA_101 through early clinical development and then capture higher return in licensing negotiations. Now, many leading biotech/pharma companies are aware of the technology and product that can be exploited for expedited discussions as new data came available.

As Technophage sought to move TA_101 into clinical development, alternative production systems were sought to provide improved cost and scale advantage. U.S. Connect introduced Technophage to a U.S.-based contract manufacturing organization that specializes in the biomanufacturing of recombinant drug products. This interaction led to a Type 3 U.S. Connect deal where in-kind services were provided by the U.S. company, which conserves significant cash for Technophage. Specifically, the U.S. company developed expression constructs, tested recombinant protein production, and performed initial purification work to provide samples to Technophage free of charge. The quality of the produced materials is under review by Techophage and early discussions are underway between the two companies for potential collaborations to produce clinical-grade material to support human trials.

WS-Energia: US Connect Case Study

Company & Product

WS Energia, Inc. (João Wemans, Founder & Senior Developer) was founded in 2006 and is headquartered in Porto Salvo, Portugal. Improvement of photovoltaic (PV) systems was the basis of the company's launch. IT offer a range of solutions in solar trackers, inverters, and photovoltaic modules. Their Horizon single-axis photovoltaic solar trackers have been in operation for more than four years in 150 sites.

A good single-axis tracker can increase the energy yield of most PV panels by 20%. As a tracker rotates on its axis, heavy structural members holding 40 or 80 PV panels must rotate on one another, producing significant friction, and wear, and stress on motors. WS Energia addresses this issue with a proprietary low-friction material that is largely responsible for its 80-panel tracker requiring just one motor versus two to four on many competitor systems. This single motor design 1) results in reduced foundation requirements and the associated energy-sapping shadowing effects, and 2) features pre-installed sensors and robotics. This translates to one of the most cost effective solutions available.

Marketplace Research

Research was undertaken to validate the competitiveness of WS's tracker technology against current marketplace requirements, hurdles to market entry, demand, projections, and trends in solar trackers and the solar energy industry. Industry and regulatory experts, solar park developers, distributors, and competitors were interviewed. One of these was the founder and CTO of SunPower, whose knowledge of PV design and the industry is extensive. SunPower manufactures utility scale trackers and is one of the fastest growing companies in the United States. The US Connect team identified distribution channels, buyers, tracker decision entry point of purchase cycle, and regulatory requirements, and outlined a strategy to leverage WS's distinctive strengths toward capturing the target market. WS's founder, provided the data needed to address the many questions posed by experts.

A common misconception is that as PV energy yields improve, the advantages of solar trackers will diminish. The Director for Solar Platforms & Tracking for SunEdison stated just the opposite: good single-axis trackers increase the energy yield of most PV panels by 20%. A 20% increase of a 10% efficient panel effectively increases its yield to 12%, but increases the yield of a 20% efficient panel to 24%. The 4% additional yield was gained at the same cost as the 2% gain. As PV energy yields improve, solar trackers become one of the most cost effective means of achieving parity between solar and fossil fuel electric generation.

Commercialization Strategy

Price drives the energy industry. WS's advantage over other trackers was not a significant technological breakthrough, however its low manufacturing costs proved to be very aggressive. Leaders in the industry confirmed WS's price point was quite attractive and they would be interested in using it for upcoming projects, provided it meets U.S. regulations and could be relied upon to last at least the 20-year lifespan expected of PV panels. U.S. Connect recommended an entry strategy that initially focused on partnering with solar farm developers and PV solution providers, as opposed to solar equipment distributors or PV equipment manufacturers. Solar equipment distributors add a percentage to the cost for their commission or fee. If WS's price on a tracker was $.38/watt, the distributor's price to a solar developer may be $.42. That $.04 difference calculates to an additional $4,000,000 expense for a 100MW farm. Solar farm developers, on the other hand, deal directly with utilities or businesses. They are primarily concerned with two things regarding trackers: will they perform as needed, and will the cost help them win the bid. The U.S. Connect team supported this market approach to help WS establish a long term supplier relationship rather than a single-event sale.

Prospective Customers

The President & CEO of Ignite Solar in Houston, Texas designs and builds solar projects, then sells the electricity to utility companies. Ignite is not partnered with anyone for a ground mount tracker. The CEO stated that WS's solar tracker may meet the price point it needs and was about to submit RFPs for five solar parks in California and Mexico's largest solar farm. It was targeting a very aggressive tracker price of $.36/watt to provide the best possibility to win these bids and were willing to consider WS trackers.

SunEdison in Denver, Colorado, is a global leader in delivering solar power, with manufacturing plants and offices around the world. SunEdison's Director for Solar Platforms & Tracking stated if WS trackers could be priced below $.40/watt, SunEdison would be interested in discussing use of them. Other companies U.S. Connect contacted include Texas Solar Power Company, Suniva, Inc., Patriot Solar Group, SunPower Corporation, Southwest Solar Technologies, Inc., and Epiphany Solar Water Systems.

Results

On review of US Connect recommendations, the WS Energia board decided to first seek a European industrial partner to helpit manage its expansion to the U.S. market, via the US Connect approach. WS Energia believes that the approach (U.S. Connect) presented is the most suitable for U.S. entry, for all the strong reasons stated... next steps should be to send the tech teaser to prospective clients. consequently. WS Energy stablished a one-year partnership with Solar Monkey.

> *"Our experience with the UTEN program has saved our company at least fivehundred thousand dollars that we would probably have lost if we went through with our plans. The learnings from the program were tremendous and we spun-out two commercialization companies as a result, one in Portugal and the other one in Italy."*
>
> *João Wemans, co-founder and CEO WS Energia*

3.2. Phase 2: 2013

3.2.1. Entrepreneurs: The New Focus

UTEN's initial purpose was to provide Portugal with a comprehensive strategy to see its investments in S&T yield fruit in terms of economic expansion and growth through the support and outreach of entrepreneurial enterprises. Having made tremendous progress toward these goals in the first five years, in terms of establishing and training a network of professional TTOs to enable a more entrepreneurial ecosystem, UTEN now turned its attention to the entrepreneur through:

- International business acceleration to help companies

expand to international markets including the United States, and to assist international companies when locating in Portugal

- Business development through the Global Start-up Program (U.S. Connect), with strategic links to incubator activities.

In support of these goals, the UTEN Annual Conference and UTEN Annual Report will promote foundational networking and dissemination of UTEN results.

The UTEN program provides an essential segue from a decade of science infrastructure investment to the realization of new enterprises to support a thriving economic sector. In other words, UTEN's mission is to bring technologies from Portuguese laboratories to international markets and thus provide a return on the national investments in Portugal's university science and technology systems.

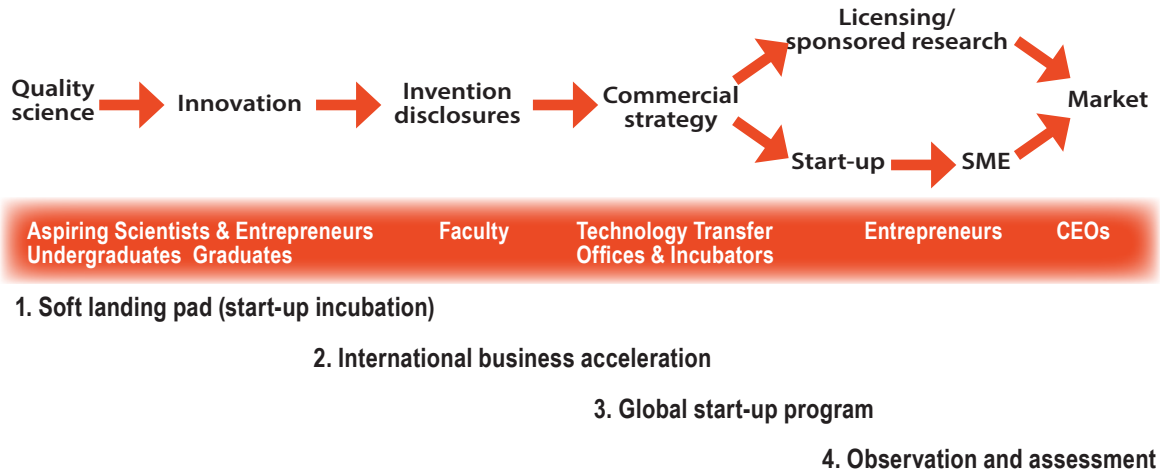
Such movement of S&T innovation to the market can be assisted through the efforts of an outside entity, but needs to be grounded in the preparation and dedication of in-country professionals—stakeholders who will link aspiration to realization of these bold programmatic goals. UTEN programs exercise critical thinking, creativity, and personal risk management in the practice of science and commercialization.

UTEN works with leading reserach faculties in Portugal to strengthen their understanding of leading research institutions in Portugal of the process and importance of commercialization as a natural extension of scientific pursuit. New emphasis is placed on supporting emerging entrepreneurs (the new company executives and maturing CEO) to lead new start-ups and SMEs toward national and international markets. Finally, evaluation and metrics applied to all programs on an annual basis to measure success, identify areas requiring improvement, and redesign initiatives to insure outcomes are realized.

These programs and processes are shown in Figure 3.2, placed on a continuum of science-to-market in terms of process and in relation to particular stakeholders that are critical for driving these ideas into products. Each program focuses on a different stage of the commercialization process and targets a different group of stakeholders. The global innovation hub, UTEN, is a major initiative with multiple actions to simultaneously build capacity and operations through linked, but distinct, activities. UTEN also reflects the movement of ideas: from S&T source, through commercialization vehicles, and into the market to improve the probability, frequency, and magnitude of social impact and its associated commercial success. UTEN has been thoughtfully fitted to Portugal's needs so that it accurately addresses the challenge to grow the nation's economy and in-country wealth through the international exploitation of its S&T investment, and more fully realize its remarkable potential on the immediate horizon.

It is widely recognized that scientific progress is a source of economic development. Public resources invested under rigorous international assessment policies lead to new knowledge, advanced training of new human resources for society, and new ideas and processes—that increasingly result in innovation, modernization of institutions, improved quality of life, economic productivity, and wider employment. In pursuit of stable economic development, the nation of Portugal has made aggressive investments to deepen its scientific capacities. The results of these investments have been transformative and provide (more than hope) new opportunity in the face of manifest political and economic crises.

Figure 3.2 BIZ.pt 2013 - 2017 (flow of activities)



3.2.2. UTEN -Portuguese Global Innovation Hub

Exercising these various strengths developed over the past five years provides stability for UTEN to shift its focus to a new goal: to develop an international business hub to help meet the needs of Portuguese businesses at every development stage.

The IC² Institute has spent nearly 40 years creating and testing the practices and infrastructures surrounding technology commercialization and regional wealth creation. An entrepreneurial ecosystem that provides a professional and globally competitive infrastructure is critical to economic growth and sustainability over time. The Institute is developing three primary organizations that collectively comprise UTEN:

- A technology incubator to nurture emerging companies
- A business accelerator to help companies approach international markets
- A technology commercialization center to provide TTO services to smaller institutions.

These complementary organizations help build capacity for Portuguese technology companies at every stage of a company's life cycle to promote technology development, investment, and job creation across a broad range of technologies. UTEN works closely with business angels, venture funding agents, and the recently created Portugal Ventures initiative that allows for the creation of a new business landscape [in Portugal] with high export potential, globally competitive and well-positioned in the international value chains.

UTEN's goals reinforce Portugal Ventures' strategic efforts to invest in entrepreneurial projects with the potential to compete globally and to attract capital and international know-how. UTEN provides a robust program to move Portuguese technologies into the United States and other global markets. Success metrics include:

- Formal and informal business networks
- Business contacts and negotiations
- Funds raised
- Number of companies involved
- Products and services commercialized in the U.S. or other international markets
- Job creation
- Partner agreements established.

3.2.3. Technology Business Incubation

In partnership with the IC² Institute's Austin Technology Incubator, UTEN provides soft landing assistance, comprehensive incubation services, assistance with starting U.S. subsidiaries, and physical space for Portuguese start-ups to operate in the Umited States and other international markets. As such, Austin serves as the central doorway to the North American market.

3.2.4. International Business Acceleration

UTEN provides office space and dedicated business development professionals to assist acceleration into international markets for medium-size technology companies that display rapid growth. The business accelerator focuses on networking, training, and identifying funding resources in the United States, while it helps companies achieve tangible business milestones. Proven market assessment processes and launch plans help to drive a hands-on business development effort that brings results.

- A private office is provided for each enterprise.
- Managers work with enterprises to identify potential partners or customers (in the United States or other global markets) and facilitate business engagement agreements.
- A graduate student intern is assigned to each company to assist with market research, business development investigations, and follow-up (under the supervision of a business development manager).
- Experienced faculty and business professionals provide training (one day a month or 3 days/quarter).
- Semi-annual program-wide networking events, such as technology expos, provide access to members of the local technology community, potential investors, and industry interests.
- University networking meetings are arranged on a continuing basis.

3.2.5. Global Startup Program

"Zercatto had an outstanding experience while dealing with the IC² Institute team, in the sense that they were clear about the goals, the opportunities and the challenges ahead of a United State market entrance. This helped us realize that Zercatto was still not ready to take the most out of the program, but we were incredibly satisfied by the IC² Institute team's approach, and highly recommend it!"

Gaspar d'Orei, Co-founder & CEO Zercatto

The Global Startup initiative began in 2011 as U.S. Connect, a pilot program of the UTEN initiative. Its purpose is to assist Portuguese entrepreneurial endeavors in different phases of development.

Early-stage commercialization projects that are led by researchers or entrepreneurs that may lead to a new spinoff company. This market entry initiative targets early-stage entrepreneurial projects with a promising technology in early development, which is often the case with entrepreneurially-minded researchers. Portugal's international partnerships with American and European institutions is an active engine for producing such technologies. Examples within the UT-Austin | Portugal program include GimmeDaBlues and LIFEisGAME, two CoLab digital media projects that have recently visited Austin to be coached by the UTEN team.

For these types of endeavors led by Portuguese researchers, the IC^2 Institute prepares the entrepreneurs for global markets through proactive business development. The Institute works extensively with the most promising Portuguese entrepreneurs for eight to twelve months to have a successful market launch, not only in the United States. but also in the other regions where the IC^2 Institute is active. The Institute provides the following proactive international business development activities for selected technologies:

- Research into potential international business engagements for the technologies
- Planning a research-based strategic approach to develop new business
- Developing information on each technology's unique value proposition, specific benefits to prospective clients, and competitive advantages
- Working with the technology representatives to develop marketing materials
- Presenting technology information to those deemed appropriate parties.Framing potential avenues for business engagements with appropriate parties
- Arranging meetings between technology representatives and interested parties
- Coaching technology representatives prior to meetings and throughout the business development activities of the program
- Providing feedback and guidance on business model development, marketing, pricing, and contract negotiations
- Facilitating business agreements between technology representatives and interested parties.

Early-stage start-up ventures are typically based on a technology that is within a development phase close to the market. The IC^2 Institute partners with the local organizers of the most relevant business plan competitions in Portugal to provide business development services to finalist and winning projects that prove, through a thorough assessment, to be ready for internationalization.

Mature technology ventures with sales records that are ready for the transition to global markets and are seeking business deals in the United States. This program builds on the experience of U.S. Connect that produced excellent results for Portuguese start-ups such as Feedzai, Veniam, Take The Wind, and Omniflow, among others, in terms of business development, incubation, and closure of deals. Particular focus is placed on Portuguese ventures that have demonstrated success in the domestic (Portuguese) market. but have yet to expand into global markets. It emphasizes Portuguese ventures with products, revenue, and the capacity to support travel and business development in the United States.

Bringing Portuguese Companies to the United States

As Portuguese global innovation hub for technology business incubation and acceleration in Austin, UTEN seeks to increase the success of technology ventures, nurture a strong entrepreneurial culture, and network of scientific and academic institutions in Portugal that foster technology transfer and commercialization on an international scale.

The IC^2 Institute of the University of Texas at Austin is uniquely fitted to work with UTEN's Portuguese business hub. As a founded partner in the uTEN program, the Institute has developed intimate knowledge o the Portuguese technology transfer and commercialization landscape. Further, the Institute has nearly four decades fo reserch experience in fostering entreperneurship and technology transfer for regional development, resulting in a wide international network.

This is a program for practitioners, and its main objective is to promote the development of a globally competitive and sustainable technology commercialization infrastructure in Portugal, building on existing and new technology transfer institutions, incubators, networks of technology transfer managers and staff; and science and technology entrepreneurs in Portugal. A secondary objective is providing commercialization opportunities in the United States and other regions globally.

UTEN fosters cross-border Portugal-US businesses across a broad range of tindustry sectors including health, ICT, energy, and nanotechnology. The outcomes of this initiative are commercialization activities for Portugal, as well as technology development, investment, and job creation.

In sum, The UTEN Global Startup Program offers Portugal-based ventures that are ready to "Go Global" a unique year-long immersion experience focused primarily on business-to-business outreach, global market expansion, global value creation, and global revenue generation for firms leveraging international business development beyond their local/regional markets. Companies selected to "Go Global" receive executive coaching, mentoring and direct business

development, and sales and marketing assistance from a dedicated team of seasoned veterans who leverage the Institute's vast Know-How Network of world-class experts all committed to assist Portuguese entrepreneurs and innovators in their commercial expansion internationally.

To qualify for the UTEN program, a company must have headquarters, or major operations in Portugal, show potential to make a positive impact on the Portugal economy. During the program the IC² Institute team will assist Portuguese entrepreneurs and innovators to:

- Refine their product's market fit based on broad feedback from EU, US, and other international markets,
- Prepare the product for targeted market readiness
- Develop a commercialization strategy for international markets.
- Facilitate first customer acquisition in the United States or other global markets
- Pursue sales, partnership, distribution, co-development or in-kind service agreements
- Acquire investment capital in the United States
- Incorporation in the United States and immigration assistance
- Free office space in Austin
- Extend Portuguese company financial "runway" through cash conserving strategies
- Provide an advisory network composed of experts from industry, government, and academia.

2013 cohort

To recruit the 2013 Global Statup Program, the IC² Institute team contacted 13 major technology commercialuzations and incubation entities across Portugal. Located in eight different locations, most of these entities are associated with universities:

- Guimarães/Braga: TecMinho and Avepark
- Porto: UPIN and UPTEC
- Aveiro: UATEC and IEUA
- Coimbra: GATS and IPN
- Cantanhede: Biocant
- Lisbon: ISCTE-IUL, Inovisa, and Start-up Lisboa
- Almada: Madan Park
- Faro: Cria.

Each entity was asked to identify, within its portfolio, the top spinoff companies with interest in developing operations in international markets, particularly in United States. In close collaboration with the host intitutions, the IC² Institute. Team evaluated these top companies This selection process included background information, in-person interviews, and follow-up conversations. The IC² Institute team will engage the Global Commercialization Group , the Austin Technology Incubator (http://ati.utexas.edu/), and other Institute components to assist the finalist companies with international business development, incubation, and acceleration.

From a pool of more than 30 companies, the IC² Institute team invited seven companies to join the program in September 2013:

// Abyssal

// Auditmark

// Celfinet

// Livefabric

// Omniflow

// Tuizzi

// Zercatto

Profiles of these companies (except Livefabric) follow:

Abyssal
http://www.abyssal.eu/
Abyssal develops integrated Subsea Navigation Solutions for Remotely Operated Vehicles (ROVs). Abyssal OS software, was developed after years of working with ROV pilots, subsea contractors, and oil & gas companies. Abyssal OS features advanced 3D technology, augmented reality, and precise navigation. These features allow it to operate safely in the world's harshest environments. Abyssal is headquartered in Matosinhos, Portugal, and is led by Manuel Parente and Rafael Simão.

Omniflow
http://omniflow.pt/
The technology of Omniflow's device makes use of an inverted wing-shaped airfoil to direct the wind from any-direction (omnidirectional) and promote a venturi effect that accelerates the wind in the direction of the central vertical axis turbine. The surface of the wing is covered by PV cells that maximize energy production. The ability to combine two power sources in such a small surface area makes Omniflow's product a novel contender in the renewable energy market. Omniflow is headquartered in Porto, Portugal and is led by Pedro Ruão Cunha and his team composed of Pedro Vieira Castro, Mário Jorge Rodrigues, Filipe Marçal, Filipe Afonso,

and Vera Ramos.

Tuizi
https://www.tuizzi.com/
Co-founded by Afonso Santos (CEO), Álvaro Ferreira (CFO), and Helder Fernandes (CTO), Tuizzi is a platform that offers the easiest way to manage outdoor advertising. Tuizzi's mission is to simplify the process of finding, planning, buying, and selling alternative, traditional, and digital out-of-home media. Through Tuizzi's online marketplace, media providers create enhanced media profiles for their properties. In turn, advertisers use the extensive and comprehensive database of media properties to find new ideas, plan, and build the perfect out-of-home campaign.

Auditmark
http://www.auditmark.com/
Auditmark has developed web application security and web traffic auditing products to help protect web applications and their users from web attacks. Both of these products focus on putting the first line of defense right on the client-side in order to efficiently mitigate web threats before they turn into real problems for website owners. Auditmark's products already have many users and are gaining more traction every day. The Global Start-up team is currently working with Auditmark on a marketing strategy for the United States. Auditmark is located in Porto, Portugal, and is led by Rui Ribeiro and Pedro Fortuna.

Celfinet
http://www.celfinet.com/
Celfinet, created in 2003, focuses on technical consultancy services and solutions for tele-communications companies. Its primary product, Vismon Intelligence, is a Multivendor Network Performance Manager based on BSS counters that is tailored to GSM/DCS, UMTS and LTE technologies. It statistically monitors information collected directly from the main network elements, and enables close inspection of the major QoS offenders, identifying network trouble spots and setting up and implementing correction measures. Celfinet is headquartered in Lisbon, Portugal and the business development efforts are being led by Luis Varela and Alexandre Victorino.

Zercatto
http://trading.zercatto.com/
Zercatto has developed a product that allows investors to follow the top traders in financial markets. Their product audits and publishes every trade made by top traders to verify their high performance and increase transparency in the market. The product is ready for use and Zercattois currently working to acquire active users. Led by Gaspar d'Orey, Gonçalo Moreira, and Pedro Torres, Zercatto is headquartered in Porto, Portugal.

UTEN also worked with four other management teams to help them approach international market readiness:

// Ecofoot

// Critical Materials

// Active Aerogels

// BestSupplier

Profiles of these companies follow:

Ecofoot
http://www.ecofoot.pt/pt/
Ecofoot has developed a silica particle that can bind with various dye types to produce a cleaner and more cost-effective dying solution. The textiles industry is one of the three most polluting and among the largest consumers of water in the world. Everyday millions of tons of water are contaminated with dyes, salts, heavy metals, and toxic substances. Ecofoot's primary product, H2COLOR Indigo, was developed to address the costs and ecological problems associated with Indigo dying. Ecofoot is currently engaged in an industry trial with the textile company Mundotextil. The Global Start-up Team is working with Ecofoot to devise a commercialization plan and marketing materials for each of its products. Ecofoot is led by Jaime Rocha and is located in Guimarães, Portugal.

Critical Materials

http://www.critical-materials.com/

Critical Materials has developed solutions and products for critical applications of material systems and structures. Its primary product, PRODDIA, is an innovative structural health monitoring and management system that is compatible with a wide array of sensors and structure types. Its product features real-time data acquisition and analysis tools that rival global leaders in structural health monitoring. In addition to its software, Critical Materials also offers hardware solutions. Critical Materials is currently working with the Global Start-up team on market applications and strategies for its products. Headquartered in Guimarães, Portugal, Critical Materials is led by Gustavo R. Dias, Júlio C. Viana, Pedro Murtinho, and Rui Cordeiro, and has been operating since 2009.

Active Aerogels

http://www.activespacetech.com/aerogel/

Active Aerogels, a company that specializes in materials engineering and R&D solutions, has been developing aerogels since 2005. Aerogels are gels whose liquid phase is extracted under super critical conditions. The material features impressive performance attributes, including high porosity, low density, high thermal performance, and great acoustic insulation capabilities. Bruno Carvalho, CEO, and his team have created silica composite and silica monolith materials that have the ability to compete in the global market because of their wide range of operating temperatures, competitive prices, and remarkably low densities. Presently the team is working to develop marketing materials and determine a strategy for U.S. market application. The Active Aerogels team is from Coimbra, Portugal.

BestSupplier

http://www.bestsupplier.eu/

BestSupplier has developed a supplier evaluation and qualification online platform that minimizes supply chain risks, increases the knowledge of available suppliers, and promotes continuous improvement of inventory. BestSupplier has grown tremendously over the past few years. In its first year of operation, Best Supplierhad 6,600 suppliers and 50 certified companies. Now, in its fourth year, BestSupplier has 88,594 suppliers and 1,688 certified companies. BestSupplier is headquartered in Porto, Portugal and is led by João Petrucci, Paulo Bengala, Antonio Lima, and Carlos Fonseca.

3.2.6. 2013 UTEN Conference

The 2013 UTEN Annual Conference, held in Porto, on October 28th, was designed to promote new relations with Latin America and to help increase awareness of the emerging patterns, related challenges, and opportunities associated with international technology transfer and commercialization of products from small and medium size enterprises, during a time of global financial constraint.

Day One

The 2013 UTEN Conference provided a forum to introduce the Portuguese technology transfer offices, incubators, FCT, and other chief stakeholders to the new global innovation hub in Austin for Portuguese technology-based companies. Known as BIZ.pt, the business hub explores new conditions and emerging spaces for scientific, technological and industrial development, and international cooperation. A panel structure was adopted to facilitate knowledge transfer and interaction among the attendees.

During the opening session, leadership was represented by José Manuel Mendonça, UTEN Scientific Director, President of INESC Porto; José Marques dos Santos, Vice President of the Council of Rectors of the Portuguese Universities; and Mark Calhoun, Chairman of the Advisory Board, IC^2 Institute, The University of Texas at Austin.

Panel I

Moderated by João Claro from the University of Porto and director of the CMU|Portugal program, this session of the conference consisted of presentations focusing on technology commercialization in Latin America provided the closest linkage to ALTEC's conference theme.

The first presentation was by Juan Pablo Ortega, Public Utility Company of Medellín (EPM), former CEO of Ruta^N, a public/private partnership driving innovation structurally and relationally in Medellín, Colombia. He presently heads the innovation group within EPM. Mr. Ortega described the work of Ruta^N as a catalyst for innovation to develop the culture, the structure, and renewal of the city, and catalyzing the renewal of regional tech innovation. He also referenced the value of his relationship with the IC^2 Institute over the past three years.

Carlos Ross, Director of the Center for Global Innovation and Entrepreneurship (CGIE), in México, addressed the evolution of innovation culture within México during his presentation. CGIE is a non-profit, self-sustaining center founded by The University of Texas at Austin and located in Monterrey, Nuevo León, México. It is a portal for the free flow of students, teachers, businesses, and knowledge between Texas and México.

The focus was Monterrey's transformation into a City of Knowledgr, and the role of private and public institutions located in the PIIT, a science and technology park, to create value by linking CONACYT- sponsored research labs with CGIE'S joint Masters/Certificate degree program (http://cgie.

org.mx/ms/), and to universities and private companies in order to develop and incubate new businesses.

A brisk roundtable discussion surrounding how the models provided by Colombia and Mexico could be applied more broadly was led by Elsie Echeverri-Carroll, Senior Research Scientist, IC^2 Institute, and by Maria Oliveira, University of Porto, UPIN.

Panel II

This panel was moderated by the vice-rector of the University of Porto, Carlos Gonçalves. Gregory Pogue from the IC^2 Institute made a presentation alongside Pedro Bizarro, co-founder of Feedzai, one of the leading companies involved in the initial U.S. Connect pilot program (2010-2011). Feedzai was subsequently admitted to the Austin Technology Incubator's Soft Landing Pad program. The IC^2 Institute helped it identify its first two deals in the United States and introduced it to key networks that led the company to secure venture funding in California, where it is now located. Dr. Pogue discussed the methodologies of organizing networks in Austin into what is termed the innovation reef, which serves to accelerate companies as they progress from isolation into a network ecosystem, and then propels and accelerates them toward funding.

An active round table discussion ensued with Anders Haugland, TTO manager from Bergen; and Tara Branstad, Carnegie Mellon University, addressing how best to promote the international commercialization of start-ups in global networks.

Panel III

The oil and gas industry provided a case study to illustrate both the opportunities and challenges associated with international commercialization. This industry sector has great interest for Latin America as a very strong provider of oil and gas for Portugal, which has a leading oil and gas company, and for the United States as the second largest provider of oil and gas in the world.

Presentations by Carlos Pina Teixeira, CEO of Eneida, and Manuel Parente, CEO of Abyssal, provided two examples of how Portuguese start-ups have identified needs within the oil and gas industry and have developed industry-specific product solutions. Carlos Costa Pina, a member of the Executive Committee of Galp Energia's Board of Directors, moderated the session. Discussions illustrated the value of innovation in the oil and gas industry to provide value to larger companies.

This was followed by discussions among experts in technology transfer and incubators, represented by Paulo Ferrao, Instituto Superior Tecnico, MIT|Poland; Paulo Santos,

José Manuel Mendonça, José Marques dos Santos, and Mark Calhoun in Day One's opening session.

IPN Incubator, University of Coimbra; and Max Green, IC² Institute, The University of Texas at Austin, about how best to position new technologies in the oil and gas industry. A very lively discussion about this complex topic resulted.

Closing Remarks

The topics discussed during closing remarks focused on the value that trans-Portugal interactions fostered by UTEN have provided to the commercialization environment. Aurora Teixeira from the University of Porto presented an analysis that indicated technology transfer offices in Portugal have demonstrated a net increase in income, a net increase in business deals, and a net increase in all important categories, during the period since UTEN changed its focus from supporting technology transfer activities, as it did in the first five years, to its current focus of concentrating on start-up company activities. This shows that UTEN, over the previous five years, helped to generate a self-sustainable, national ecosystem of technology transfer offices through a network model.

Marco Bravo, IC² Institute and Director of the UTEN program, concluded with a discussion of strategic goals for Biz.pt and how they relate to the build-out of technology transfer offices and incubator networks throughout Portugal during the first five years of UTEN. The power of a functioning network, as revealed by Dr. Teixeira's research, to identify and commercialize companies will continue to create positive synergy between UTEN and Biz.pt moving forward.

José Mendonça, UTEN's Scientific Director, described his enthusiasm for the program and its potential. Pedro Carneiro of FCT, the sponsor of the program, finished with an enthusiastic discussion of the value UTEN has provided in the past and the excitement of moving UTEN from capacity-building into economy building and sustaining activities.

Day Two: Global Start-up Initiative, Biz.pt Training

UTEN conducted a training session for nine start-up ventures at the UPTEC Incubator in Porto. The event was open only to select Portuguese start-ups engaged with the Global Start-up Initiative. The initiative focuses on supporting the participating companies through business development, incubation, and acceleration as they achieve significant commercialization goals.

The training focused on determining each company's unique value proposition, then moved to explore how this proposition fits into its industry value chain, and culminated with a customized definition of key milestones generated for each company to consider. Challenging exercises and feedback among peers were extremely useful as the Biz.pt team, consisting of Marco Bravo, Max Green and Gregory Pogue, pressed the companies to be specific, clear and quantitative about their value statements, value chain arguments, and milestones. The milestone process was important to create alignment between the companies and the Biz.pt team that would be followed up through Skype, email, and further conversations.

This intense time was balanced by social activities that offered important opportunities for relaxed casual interactions. The benefit was gaining a better understanding of the participants, their motivations, and company strategies.

Greg Pogue, Senior Research Scientist with the IC² Institute addresses the conference on Day Two.

The last activity was a site-visit to the home office of Abyssal. The Abyssal Operating System is a software product installed on Remotely Operated Vehicles allowing users to "see" operations in real time through the use of Augmented Reality Systems. While the Biz.pt training session took place, the Annual CoLab Conference continued which included a keynote from the digital media festival and Future Places initiative. Each academic area was provided an opportunity to speak about past and future programs in the major areas of interest:

- Digital Media
- Advanced Computing
- Applied Mathematics
- Nanotechnology
- UTEN Biz.PT

A ceremony to launch the renewed UT Austin|Portugal Program was conducted to recognize the official start of the CoLab and UTEN programs. The ceremony took place at the Rectorate of the University of Porto and was attended by its Rector and the Vice President of the Foundation for Science & Technology (FCT), the program's sponsor. The ceremony closed with a feedback session that provided excellent comments that were full of enthusiasm for the future.

3.2.7. Tuizzi Visits Austin, November 2013

In order to validate the market opportunity of Tuizzi's technology, the Global Start-up team arranged meetings with industry experts and various representatives of Tuizzi's clientele and partner types. The visit began with a strategy session with the Global Start-up team. During this time the team learned the more nuanced details of Tuizzi's product and business plan before making refinements to the pitch the company would present in the meetings that followed.

The team then ventured to GSD&M to meet with Kirya Francis and Amanda Rassasack. This meeting served to survey the perspective of large media agencies and to identify the ways that Tuizzi's platform might aid their operations. The same day, Kirya introduced the company to DELTAOOHMEDIA.com, one of the biggest media agencies in Miami, Florida.

Following this, Tuizzi met with Austin Technology Incubator Director Isaac Barchas as well as Emily Roccheggiani, ATI associate and media expert. During this meeting, the company was able to refine its next steps for expanding its business into the American market. It then met with Dr. Peterson, the IC² Institute's Director, to discuss the feedback that had been received during its stay in the United States.

A second strategy session was held at ATI to gain feedback from media owners, with Jay Champion, Venture Partner at Access Venture Partners; Jason Cragg, Director of Outdoor Advertising at Gunnarson Advertising; and Tim Hayden, Mobile/Lifestyle Marketing Executive at TTH-Strategy, Board of Advisors at 44Doors, Board of Advisors at Together Mobile, and (Immediate Past Chair) Board of Directors of Meals on

Wheels.

In order to gain a better understanding of the U.S. advertising market as a whole, the company met with advertising experts Dr. Isabella Cunningham and Lisa Dobais at the School of Communications at The University of Texas at Austin.

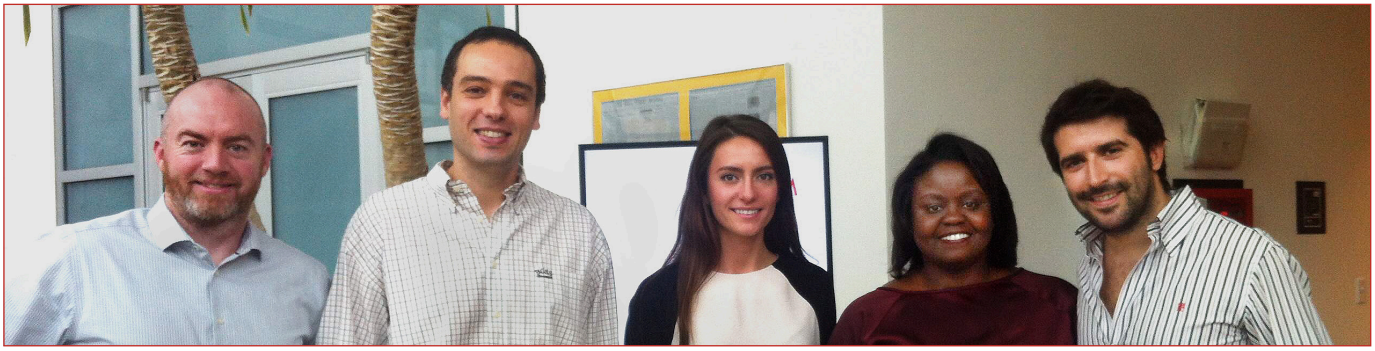
This meeting was followed by a marketing strategy session with Dr. Arthur Markman. Thevisit ended with a meeting with Noah Davis and Chris Davis, creative partners at The Swizzle Collective Advertising Agency. This meeting was intended to validate advertising agencies' market need for Tuizzi's platform in the United States. This goal was achieved, and in addition, Chris and Noah agreed to help Tuizzi with creative and branding for free. All in all, feedback was positive, market need was confirmed, and the information received was incredibly valuable moving forward.

''The Global Start-up program was a real surprise…in all other programs we learned a lot of theories and experiences from several types of people (from successful entrepreneurs to university teachers), but in Global Start-up program it was exactly the opposite: we went straight to the source*…The team is great and the program awesome!"*

Afonso Santos, CEO Tuizzi

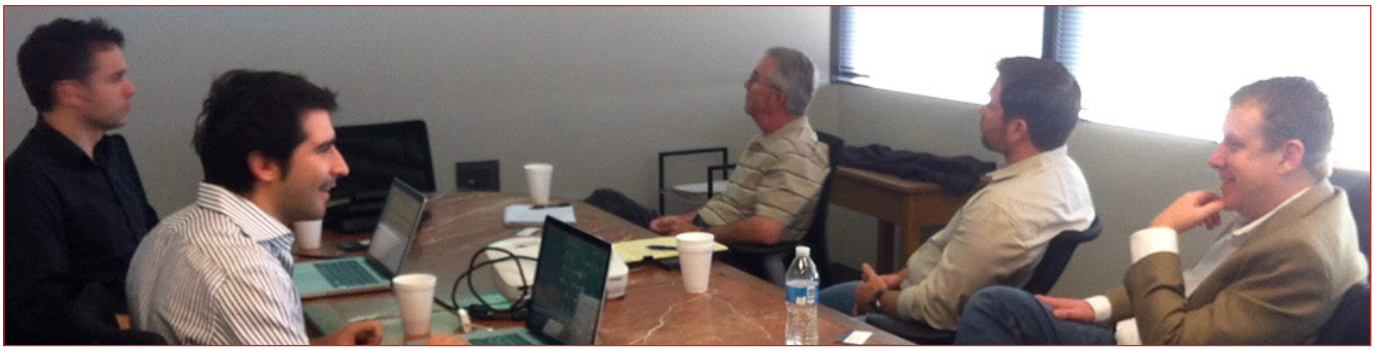
3.2.8. Surveys of TTOs: Methodology

In 2010, the first annual UTEN network survey of technology transfer offices (TTOs) was conducted to develop a more comprehensive view of technology transfer in Portugal. Many of the questions were identical or similar to those on prior ProTon Europe, ASTP, and other surveys (adjusted according to the suggestions of Portuguese TTOs). The second survey, implemented in 2011, repeated the same questions in order to update the information collected in the previous year and to enlarge the sample of respondent TTOs. Unlike the prior two years, in 2012 UTEN Portugal implemented the TTO survey with Maastricht University's MERIT, under the European Commission's Recommendation on Knowledge Transfer,



BIZ.pt strategy team members Max Green, Marco Bravo, and Francesca Lorenzin with QSD&M's Kirya Francis and Afonso Santos.

Amanda Rassasack and Kirya Francis with GSD&M Media Agency meet with Tuizzi's Afonso Santos.



Strategy session at ATI [From Left] Toni Miranda; Afonso Santos; Jay Champion, Access Venture Partners; Jason Cragg, Gunnarson Advertising; Tim Hayden, TTH-Strategy, 44Doors, Together Mobile, and Meals on Wheels.

and supported by the European Council's Resolution on Knowledge Transfer. UTEN and MERIT surveys were merged to decrease the response burden on Portuguese TTOs and to overcome the lack of international comparable data.

The present fourth wave of the UTEN Survey was launched in July 2013 but only finalized in October 2013 due to difficulties in obtaining responses from the 18 TTOs contacted. In parallel, TTO directors were also interviewed face-to-face (between May and June 2013) in order to collect their personal testimony on the strength, weaknesses, opportunities, and threats faced by TTOs and data on the (formal and informal) links each TTO established with the other TTOs from the UTEN network, as well as other entities from the science and technology system.

Aurora Teixeira—Associate Professor with Habilitation (Agregação) at FEP (Universidade Porto) and researcher at CEF.UP, INESC-Porto, and OBEGEF—has led the research effort to administer and analyze these annual surveys. Research associates directly involved in this project have included:

- *James Jarrett,* Sr. Research Scientist, IC^2 Institute, The University of Texas at Austin, 2010, 2011, 2012
- *Ana Paula Amorim,* UTEN Portugal, 2010
- *Maria José Francisco,* UTEN Portugal, 2010
- *Maria Oliveira,* UTEN Portugal, 2011
- *Marlene Grande,* UTEN Portugal, 2011, 2012
- *Fátima Ramalho,* UTEN Portugal, 2012

All graphics in this chapter represent the computations of Aurora Teixeira and Marlene Grande using the primary research data gathered through the UTEN surveys and face-to-face interviews with TTO officers from 2007 to 2013.

Summary of research 2007 - 2012

Highlights of the four waves of the UTEN network survey of technology transfer offices include:

- The respondent TTOs are relatively new (8 years old on average) and small in size, although their size increased from 2007 to 2012. The TTOs' average size increased (cf. Figure 3.3).
- TTO teams present a high level of formal education and training but relatively low industry experience.
- Among TTO staff, common high level educationalqualifications include engineering or natural sciences and management or business administration, whereas law and biomedical are relatively rare.
- A considerable amount of human resources (in FTE) is allocated to grant applications and fundraising activities, preventing the TTOs from concentrating their resources and attention on intellectual property management and support services for entrepreneurship and spin-offs.
- From 2007 to 2012, the average TTOs budget registered an average decline of 3.3% per year.
- The largest share of the TTOs budgets (55%) is spent on human resources with expenditures related to patenting, which experienced a noticeable decrease over the last two years.
- There was an enormous concentration of revenue sources (70% of the total, approximately) from grants and the institution/university. Given the austerity measures that public institutions face (and will continue to face), this concentration puts a serious limitation on the future sustainability of TTOs.
- The average number (per TTO) of new patent applications (priority filings) increased from 2007 to 2009 but then, with the exception of provisional filings for patents, all other applications sexperienced decrease.
- The number of patents granted to the institution through its TTO declined between 2007 and 2012.
- The portion of EPO and USPTO patents in active patents is very small, similarly to granted patents, and the number of active patents from the Portuguese patent office (including provisionals) decreased significantly from 2011 to 2012.
- The number of licenses, option agreements, and assignments executed by TTOs increased significantly, from 34 in 2007 to 101 in 2012, the vast majority being executed with Portuguese partners.
- The share of licenses, option agreements, and assignments executed by TTOs with EU partners experienced a significant increase in 2012.
- License income received by institutions, through their TTOs, increased 30% between 2011 and 2012, surpassing 1 million euros in 2012.
- R&D agreements between TTO institutions and companies, newly created spinoffs, and active spin-offs registered a marked increase between 2007 and 2011.
- In absolute number, by the end of 2011, the 18 TTOs from the UTEN network were responsible for executing 371 R&D agreements between their institution and companies, and creating 140 new spinoffs and 500 active spinoffs.

SWOT analysis based on the perceptions of technology transfer officers revealed the following:

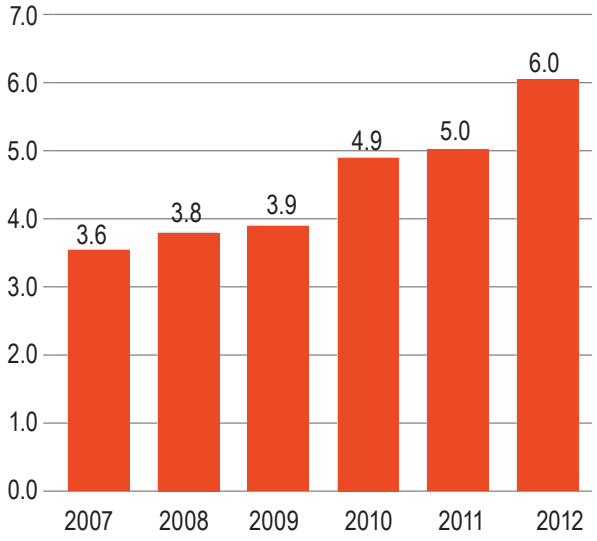
- *Strengths:* human resources and strong networking activity.
- *Weaknesses:* uncertainty/instability of human resources, financial constraints, and knowledge valorization/commercialization neglect.

- *Opportunities:* changes in institutional frameworks and the prospect of establishing strong (national and international) networks.
- *Threats:* the economic and financial crisis.

Social network analysis of the linkages established between TTOs, and between TTOs and other S&T stakeholders found the following:

- Portuguese TTOs are embedded in a well-built national TTO network, which is mainly based on strong *informal* connections between them.
- The density of *informal* networks among TTOs is relatively high (55.3% of all possible connections), revealing strong (informal) connections between TTOs. The *formal* networks present lower density (32.2% of all possible connections), with GAPI and OTIC being the most central (with most connections).
- The density of networks established between TTOs and other technology transfer stakeholders, both *formal* and *informal*, is rather low (reaching, respectively 8.7% and 4.5% of all possible connections). It is interesting to note that foreign universities are squarely at the center of the formal network, being strong partners of Portuguese TTOs.

Figure 3.3 TTO Average Number of Employees (in full-time equivalents)



TTOs survey findings 2007-2012

Characteristics and organization of the TTOs

In the vast majority of cases (17 out of the 18), the technology transfer office (TTO) is an integral part of the institution/university and is responsible for some or all of the patenting, licensing, or other technology transfer activities of the Institution/university.

TTO technical/professional staff is relatively highly educated, with 74.8% of the total having an undergraduate degree, 36.3% studying for a masters or doctoral degree, and 21.4% and 6.4% having, respectively, a master's or a doctoral degree. It is interesting to note that in 2009, 85.5% of TTOs' technical/professional staff had attended a UTEN conference, workshop, or internship, and 98.3% had attended other training on technology transfer. Despite their high levels of formal education and training, TTO technical/professional staff members are relatively inexperienced in professional terms, with more than half not possessing any job experience in industry and 38.5% with (positive but) fewer than three years of job experience in private industry.

Most respondent TTOs have at least one of its staff member with university qualifications in *engineering or natural sciences* (16 out of 18) or *management or business administration* (14 out of 18). In contrast, only 6 TTOs have staff member with *law or biomedical qualifications* (cf. Figure 3.4).

All of the 18 responding TTOs indicated that they perform activities in the upstream process, such as *assessing the patentability of inventions; managing material transfer or confidentiality agreements; raising awareness/disseminating information on intellectual property rights and entrepreneurship;* and also *providing services regarding the creation or support of start-up companies based on their institution's inventions;* a clear downstream activity of the technology transfer process (see Figure 3.5).

Furthermore, 17 out of the 18 TTOs confirm their participation in negotiating and arranging licenses. Activities such as contributing to patent applications (83% of total), scouting for new intellectual property and new technology (89%) and providing training to faculty, researchers, or students (89%) are also performed by the majority of the respondent TTOs.

Summing up, although no specialization pattern can be highlighted, the most frequent type of activities performed by Portuguese TTOs is related to upstream phases of the technology transfer process, most notably invention disclosures and priority filings.

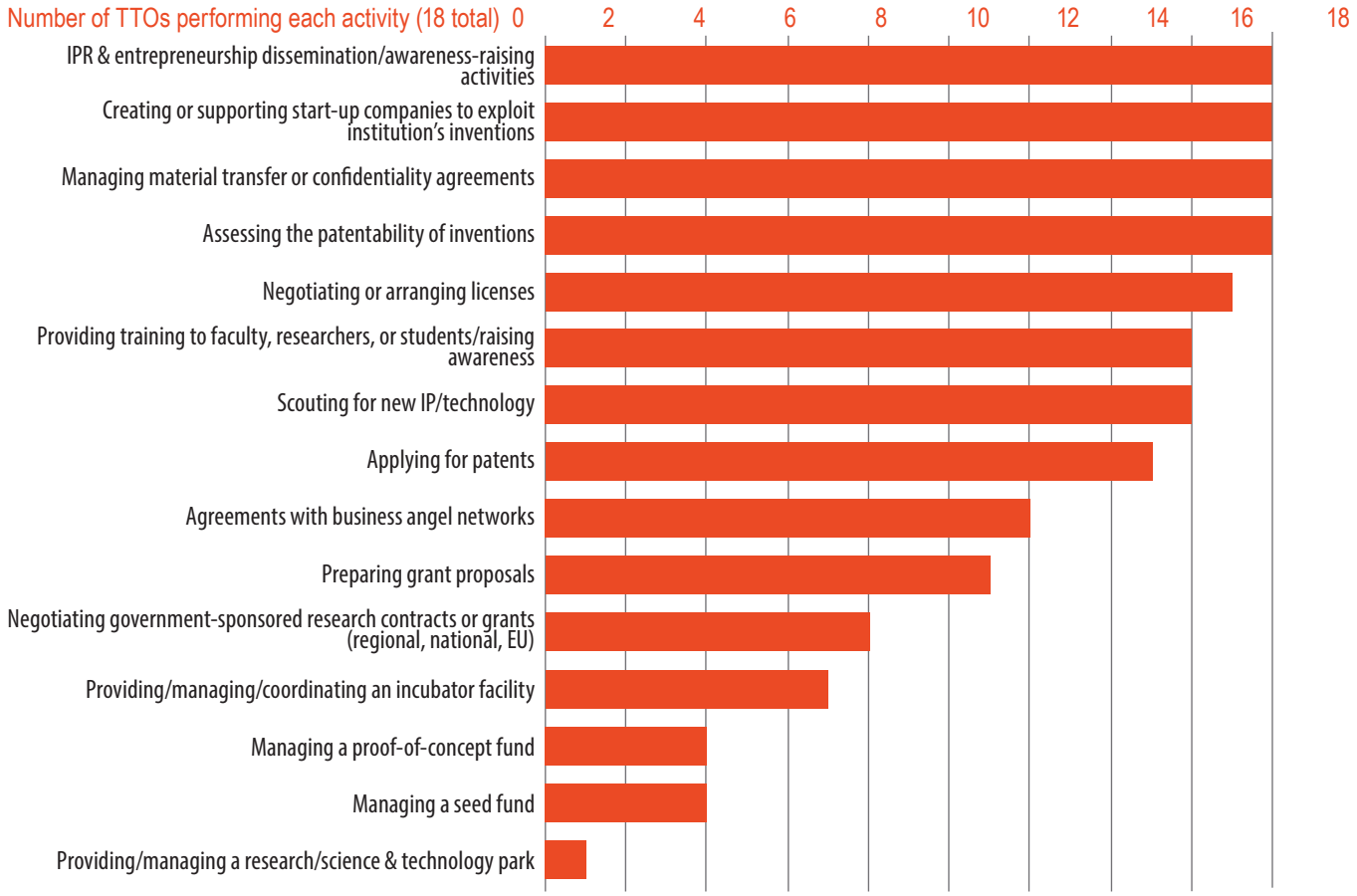
In the last five year period (2008-2012), a considerable amount of human resources (in FTE) was allocated to grant applications and fundraising activities (cf. Figures 3.5 and 3.6). This obviously prevents TTOs from concentrating their resources and attention mainly on intellectual property management and support services for entrepreneurship and spinoffs. In the words of one of the technology transfer officers:

> *Almost all human resources of [...] are financed by the returns generated from the participation in international projects. We therefore run the risk of losing the focus on our main activity. (Interview held in June 2013)*

Budget information

From 2007 to 2012, the average TTO budget decreased by 3.3% per year, reaching the highest average value in 2008 (almost half a million euros) and the lowest in 2009 (176 thousand euros). The largest share of the budget was spent on human resources (around 55% of the total expenditures). See Figure 3.7 Expenditures related to patenting experienced

Figure 3.5: TTO Activities, 2012

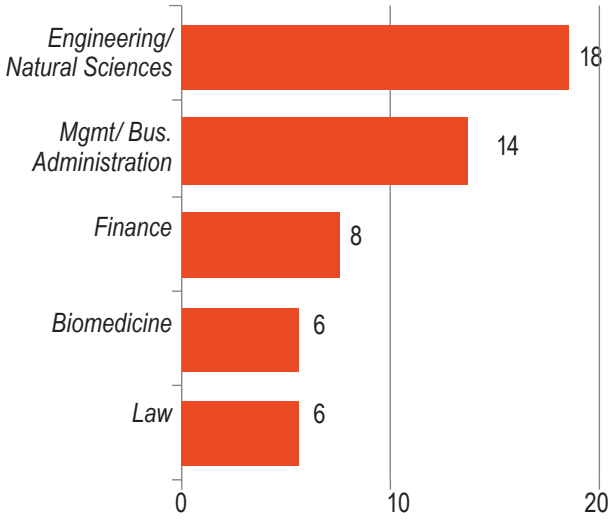


a noticeable decrease in the last two years of analysis.

Taking a revenue perspective of the TTOs' budgets, it is clear that TTOs are significantly dependent on grants, representing, between 2007 and 2011, almost 40% of TTOs' total revenues. In that same period, TTO institutions/ universities contributed around one quarter of total revenues. The importance of external and internal technical services and fees, and particularly license and option agreements as sources of revenues, are relatively negligible, with the latter representing only 2.1% of the revenues for the period 2007-2012.

In 2012, there was a significant change in the composition of revenues, with TTOs' institutions representing the major source with 40% of total TTO revenues and grants, registering a marked INCREASE of almost 18 percentage points (see Figure 3.8). Given the financial harshness that Portuguese universities are facing and will continue to face in the near future, the lack of financial autonomy is likely to constitute a serious constraint to TTO activities.

Figure 3.4: Number of TTOs Whose Office Staff has the Listed University Qualifications, 2012



Intellectual property and commercialization

TTOs handle the bulk (over 80%) of all patent applications of their institutions. The intellectual property rights created at TTOs institutions are in the majority of cases exclusively

owned (11 out of 18) by the university. In 6 cases the intellectual property rights created at TTOs' institutions belong to both the university and the inventor.

The policy of distribution of royalties among stakeholders (e.g., the institution, the government, the inventors, others [schools, research consortiums]) is quite diversified among the TTOs. In 10 out of the 18 cases, the royalties from intellectual property at the institution is equally divided by the university and the inventor. In 7 cases, the largest part of the royalties go to the inventor (in 4 of these 7 cases, the inventor receives more than 80%). Only in one case does the institution receive the totality of the royalties.

Although from 2007 to 2011 there was an increase in the number of invention disclosures reported to the TTO by the corresponding institutions—approximately 10 per TTOs in 2007 up to 17 in 2011—in the last year (2012) there was a substantial decrease in this average, reaching a similar figure to that of the beginning of the period (cf. Figure 3.9).

The average (per TTO) number of new patent applications (priority filings) increased from 2007 to 2009 (cf. Figure 3.10). After 2009, however, with the exception of the provisional filings for patents (which is a kind of "lower-cost first patent filing"), all other applications suffered a striking decrease (namely the Portuguese and PCT). Foreign patent applications, most notably at the European (EPO) and the United States (USPTO) patent offices remained insignificant.

Most of the respondent TTOs claimed that, in 2012, they had patent applications in *computers, communication equipment, and software* (73.3%) and *biomedicine* (66.7%), but the latter was the most frequent subject area for only one third of the TTOs (see Figure 3.11). This indicates that TTO patent applications are quite dispersed among subject areas.

The number of patents granted to the institution through the corresponding TTO declined over the period of analysis (cf. Figure 3.12). In each year, over 80% of the patents were granted by the Portuguese Patent Office. In 2012, 6 patents were granted by the USPTO, 2 by the EPO and 1 by the Canadian patent office.

By the end of 2012, Portuguese TTOs possessed 1,141 active patents. The relative percentage of EPO and USPTO active patents is very small, similarly to granted patents, respectively 6.6% and 5.3%. As it is clear in Figure 3.13, the number of active patents in the Portuguese patent office (which includes provisionals) decreased significantly.

The number of licenses, option agreements, and assignments executed by TTOs increased significantly over the period of analysis, from 34 in 2007 to 101 in 2012 (see Figure 3.14). Although the vast majority is executed with Portuguese partners, the number of executions with EU partners experienced significant growth in the last year of analysis, representing in 2012 almost one third of the total licenses, option agreements, and assignments executed by TTOs.

Figure 3.6: Percentage of Technical/Professional Employees (in full-time equivalents) Allocated to the Activities Performed by TTOS, 2008-2012

Figure 3.7: TTOs' Average Total Expenditures (€) and Distribution (%) by Type of Expenditure, 2007-2012

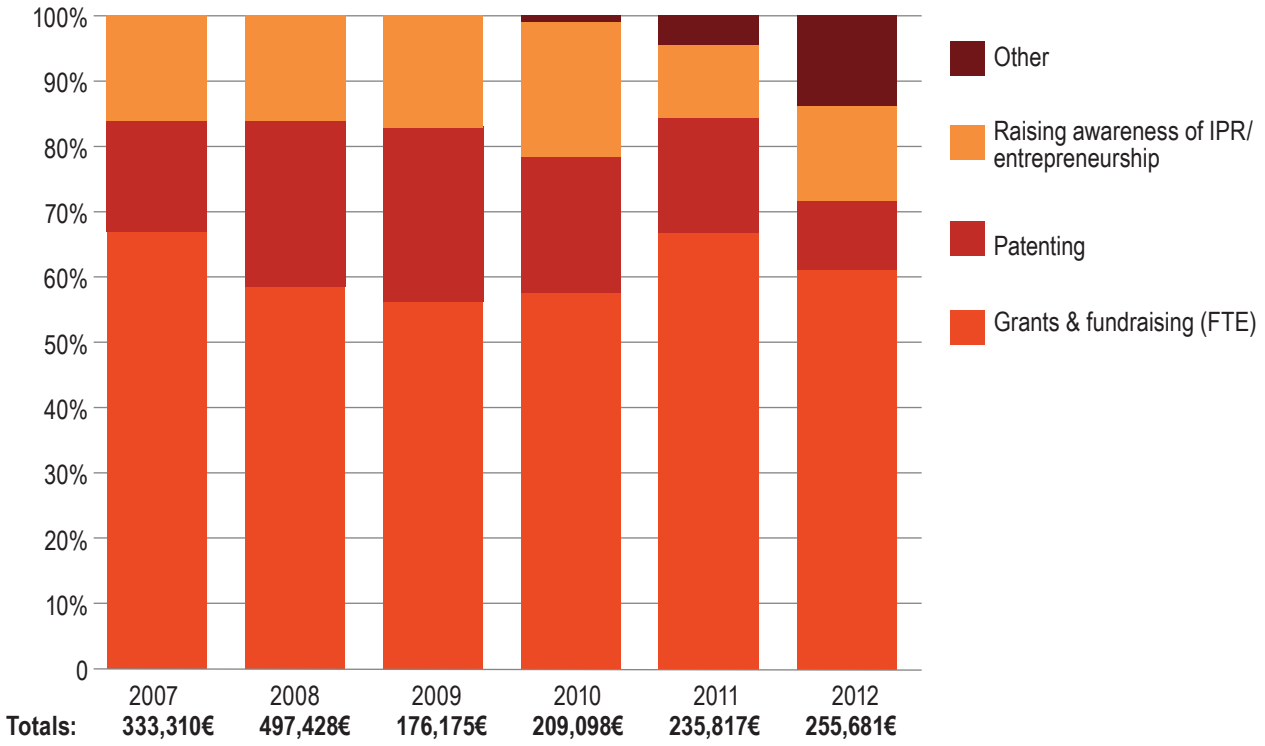
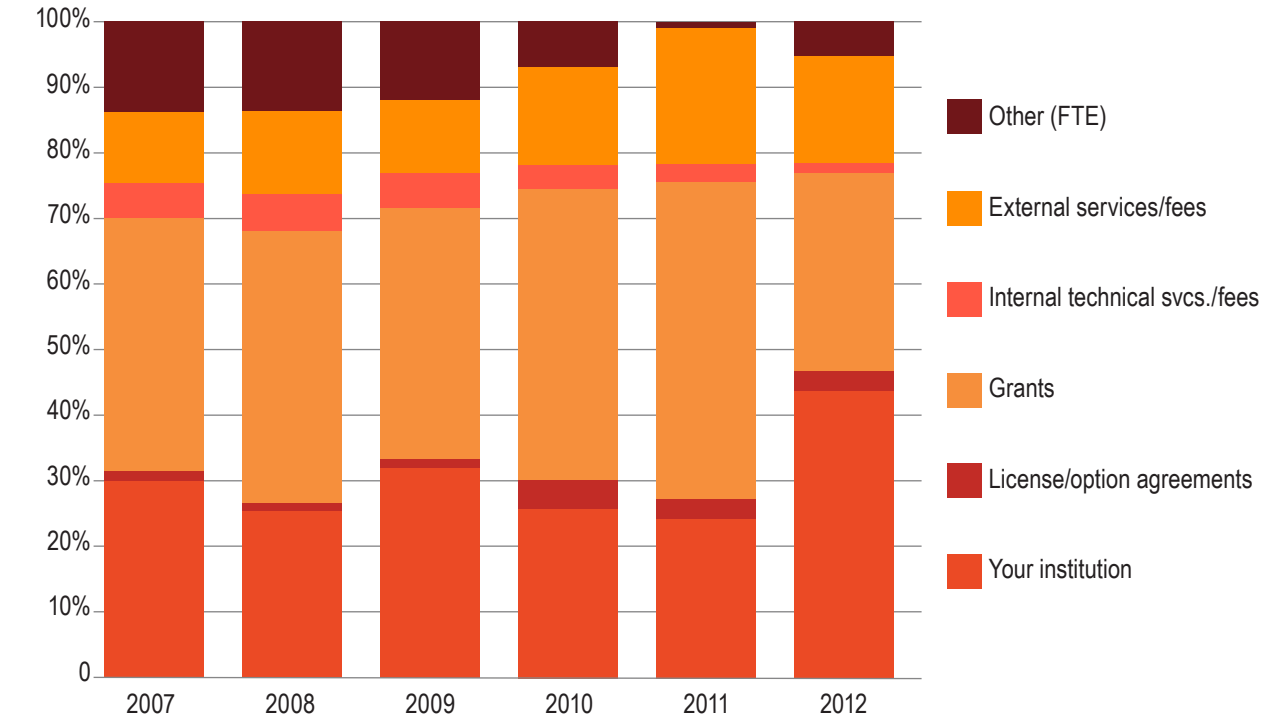


Figure 3.8: Distribution (%) of TTOs' Average Total Revenues by Source, 2007-2012



The vast majority of the licenses and option agreements executed were granted to companies (72% in 2011 and 96% in 2012). Of these, almost half were granted to *firms with fewer than 250 employees*. In 2012, *start-ups* represented less than 30% of total licenses and option agreements granted to companies, against 42.9% registered in 2011 (cf. Figure 3.15).

The total amount of license income (license issue fees, annual fees, option fees, plus milestone, termination, and cash-in payments) received by the institutions through their TTOs, from their intellectual property (including patents, software, material transfer agree-ments, confidentiality agreements) amounted in 2011 and 2012, respectively, to 933 and 1215 thousand euros, of which about 10% was from international licenses.

A number of TTOs (13 out of 18) stated that at least one of their institutions' technology or knowledge licenses resulted in commercially profitable products or processes between 2010 and 2012. In 2007, each TTO executed, on average, 12 research and development (R&D) agreements between their institution and companies. This figure almost doubled by 2011, reaching 22 R&D agreements, although in 2012 there was a slight decline to 18. By the end of 2011, the 18 TTOs were responsible for executing 371 R&D agreements between their institution and companies (see Figure 3.16).

For the period 2007-2011, an average of 6 spinoffs were created each year per TTO, and by 2011 about 31 spin-offs were active. These averages hide enormous differences between TTOs, with two TTOs claiming a number of newly established and active spinoffs in the last two years, respectively 30 and 100 firms.

In their own words: A SWOT analysis

According to the technology transfer officers interviewed, the main strengths of these entities include (see Figure 3.14) human resources and networking/relationships between the several stakeholders involved in the technology transfer process (9 out of 17 interviewees pointed these two factors), and well established procedures (4 out of 17). The relevance of human capital is highlighted by one of the interviewees:

> *Our main strength is our dedicated and loyal team which has great competences, experience, and capacity. (June 2013 Interview)*

Regarding the networking issue, interviewees emphasized the synergies with other TTOs, good relationships with industry, researchers and deans, possessing a vast network of contacts, and reputation. The *healthy relationship and well-established procedures between TTOs and their institutions/ universities* clearly facilitate the bureaucratic dealings TTOs have to follow to accomplish their tasks.

Although only 4 interviewees (23.5%) explicitly pointed to *financial constraints* as a relevant weakness of TTOs, 41.2% of the TT officers mentioned the *instability of maintaining human resources,* linking such instability with binding financial restrictions. With human capital being the main pillar of a TTO, such a weakness stands as the most worrisome aspect.

Figure 3.9: Average number of invention disclosures, 2007-2012

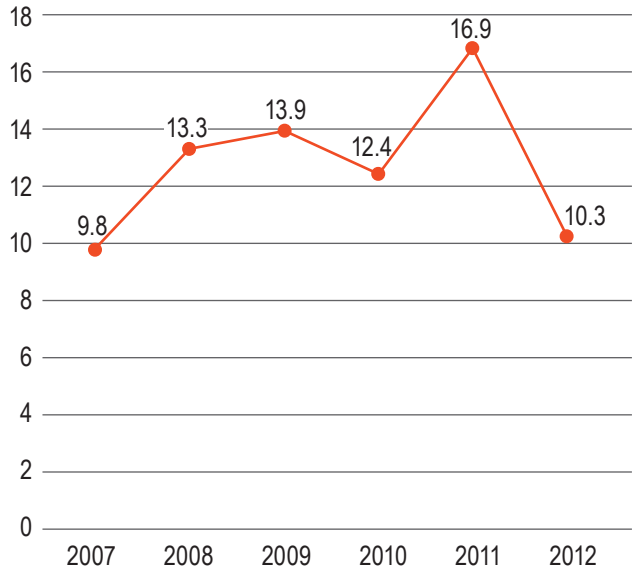


Figure 3.10: Average number of new patent applications, 2007-2012

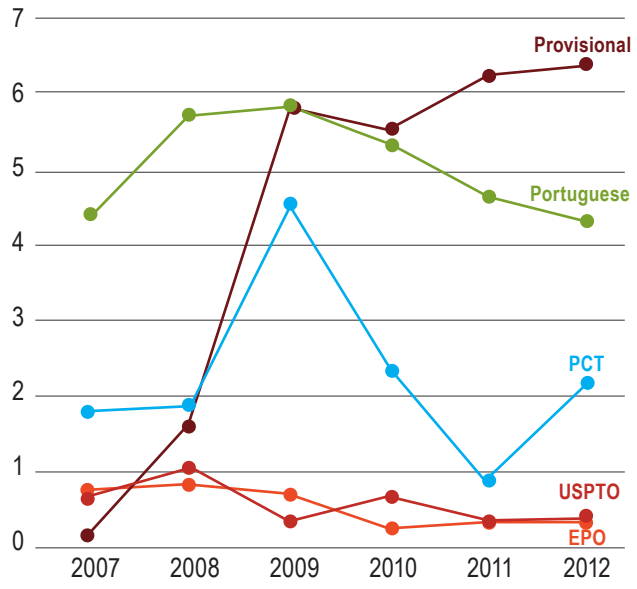
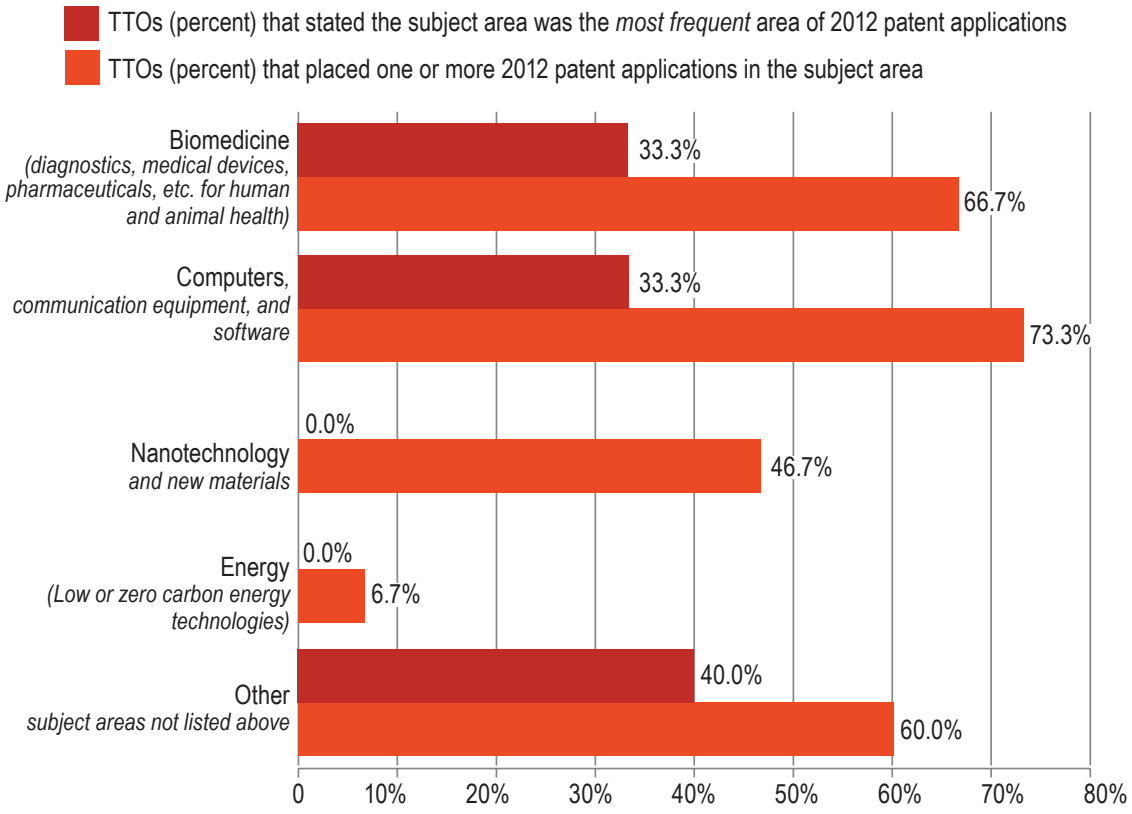


Figure 3.11: 2012 Patent applications by subject area (% TTOs)



Note: The total for reference is 15 TTOs as 3 did not have new patent applications in 2012. Also, the total of most frequent patent applications exceeds 100% because one TTO listed two topics as most frequent.

Figure 3.12: Patents granted to the institutions through the TTOs, 2007-2012

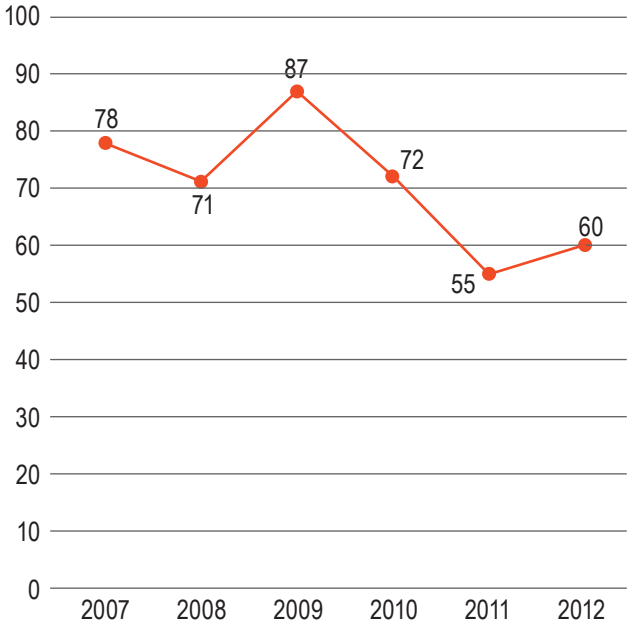


Figure 3.13: Active patents by the end of the year, 2007-2012

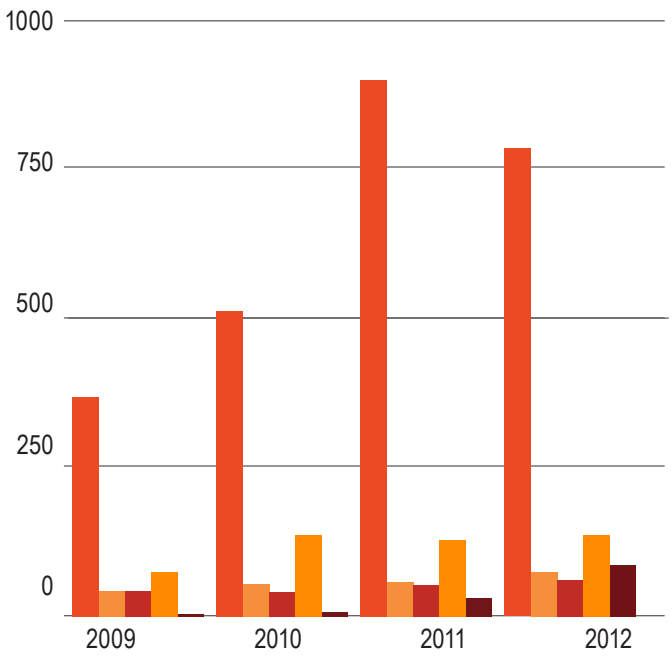
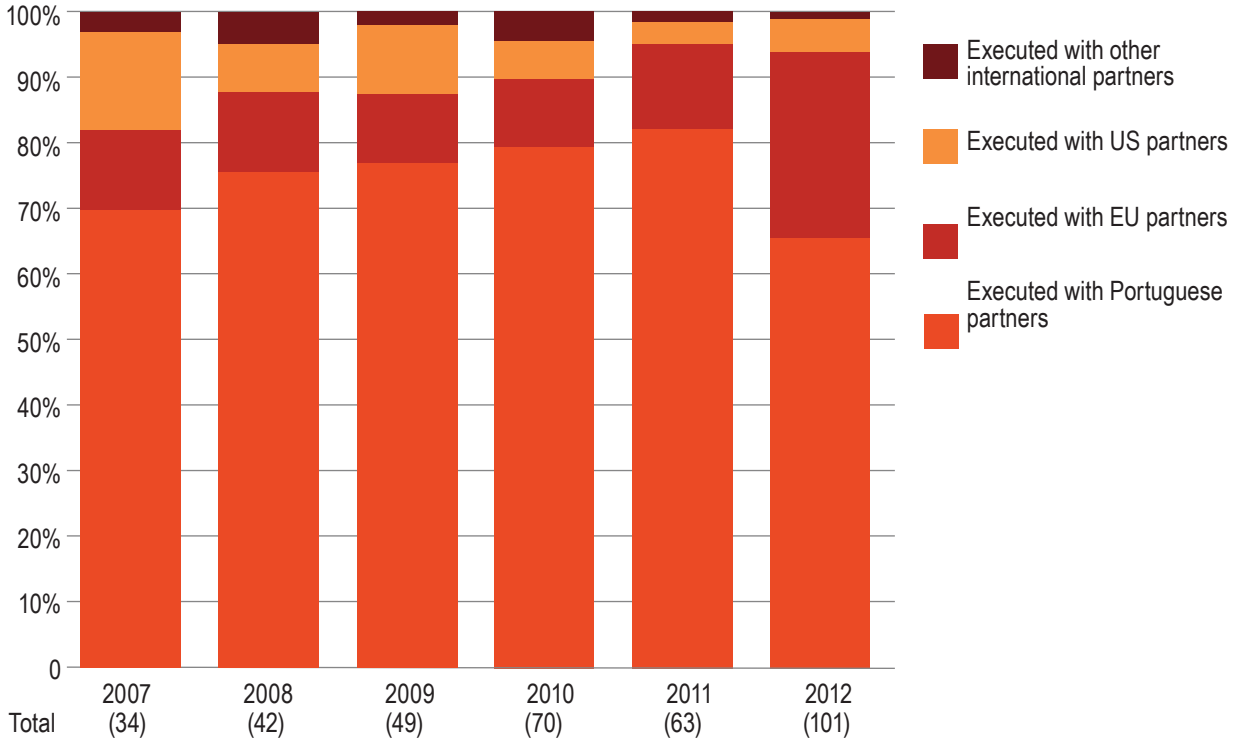


Figure 3.14: Licenses, option agreements, and assignments executed by TTOs, 2007-2012



The financial limitations cause TTOs to apply and be involved in (inter)national research projects as a way to obtain funds to finance their activities. This, however, diverts attention away from the TTOs' main technology transfer activity, as stressed by one of the interviewees:

> *The participation in projects financed by the European Union has been our main financial source. Nonetheless, they require too much attention, leading us to neglect our core activities. (June 2013 Interview)*

According to the interviewees, until now the advantages of knowledge valorization have been largely neglected by researchers. Thus, more awareness activities directed to researchers should be a major priority in order to overcome technology transfer deficiencies. In line with this, some of the interviewees mentioned that one of the weaknesses of TTOs is *poor dissemination of their activities*, which remain largely unknown even on their own campus. *Weak industrial base and fragile relationships with industry* was also highlighted by 4 TTOs. This might be to a large extent due to the limited industry experience of TTO staff, preventing the office from relying on "natural brokers."

In terms of opportunities, *change in the institutional framework* was mentioned by 41.2% of the TT officers. This requires an expected growing commitment of the university with technology transfer issues, an increasing valorization

Figure 3.15: Licenses/option agreements executed by TTOs granted to companies, 2011-2012

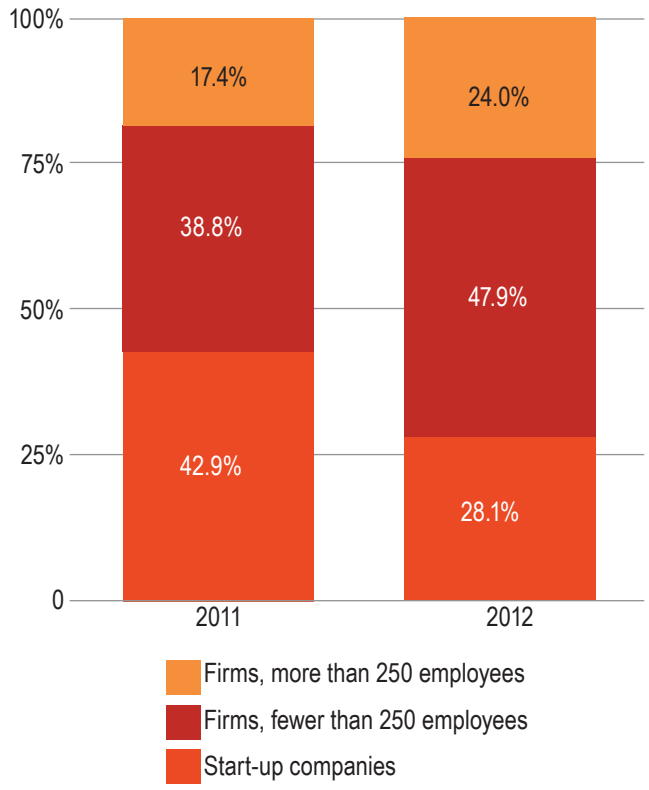
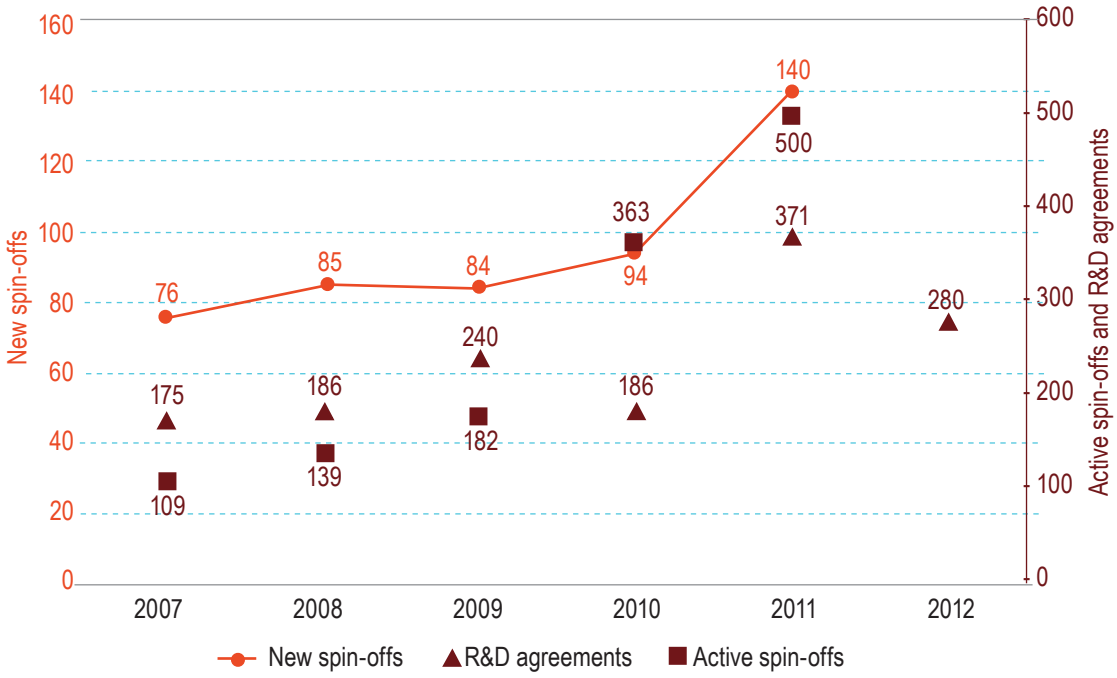


Figure 3.16: Number of R&D agreements and spin-offs (new and active), 2007-2012



of innovation and entrepreneurship, and a rise in the investors' interest in those areas. Such (expected) changes of institutional settings and mentality in the Portuguese population are considered a central step towards the development of technology transfer in Portugal. In the words of one TT officer:

> *Never before have we seen so many people committed to trying to create their own company, and excited about this area! (June 2013 Interview)*

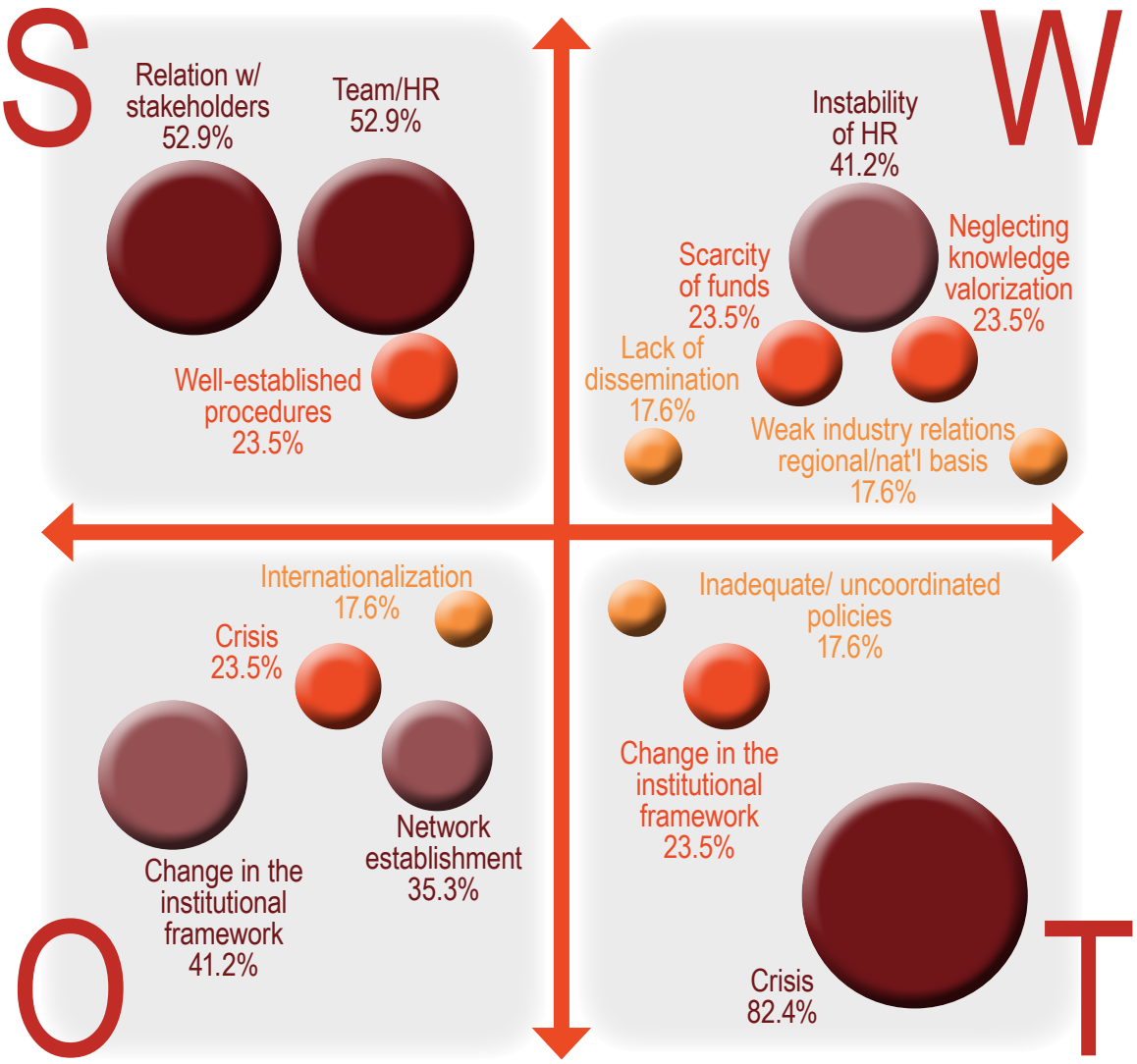
The topic of *establishing and strengthening networks* was indicated by 6 TTO officers as a promising opportunity, with identifying the prospects of a strong TTO network and expanding the health cluster being critical aspects. The *financial and economic crisis* was also addressed in the sense that it might obligate people (researchers/students) to search for new opportunities for generating high added value. Finally, *internationalization* was named as a potential opportunity for the development of TTOs, as the participation in international research projects is likely to be a way of exporting knowledge, increasing foreign direct investment in Portugal, and creating a solid international network of TTOs, critical for enhancing their performance. Some TTOs have already made some efforts to create and be engaged in networks and clusters in order to leverage their activity by exchanging experiences and practices with similar entities.

> *…created a nationwide project in 2011, the RedInovar, a network connecting firms and researchers associated with the agriculture, food, and forestry sectors. (June 2013 Interview)*

The *financial and economic crisis* and the consequent scarcity of financing were regarded as the most serious threatS to the vast majority (82.4%) of TTO officers. The crisis was identified with budget cut, and shortage in or lay-off of human resources, which ultimately undermine the survival prospects of the TTO. Three TTO officers mentioned their major threat as the *uncoordinated policies for technology transfer activities,* focusing mainly on policy makers' lack of knowledge regarding the TTOs' needs and the consequent not-so-adequate measures taken in this context. This aspect is corroborated by the global SWOT analysis of the Portuguese scientific system (FCT, 2013), which identified as a major weakness the *scarcity of evaluation activities* for policies and national programs, namely the limited use of collective debates with reduced stakeholder involvement in the policy designing process.

> *The great mission would be ending the dependency on the Ministry of Science and move to the Ministry of Economy, promoting the allocation of funds for the technology transfer area to universities, and thus preventing the extinction of such offices due to the lack of funding. (June 2013 Interview)*

Figure 3.17: SWOT Analysis: Perceptions of Technology Transfer Officers, 2013



Uncertainty generated by the possibility of *changes in the institutional framework,* which can lead to new university priorities that may not include the existence of a TTO, was also stressed as an important threat.

Networks: A strength and an opportunity

Historically, and related to the commercialization of technology and knowledge, investments have been focused on tangible capital infrastructure projects, most notably the establishment of incubators and science parks. While in many regions/countries, such as Portugal, the existence of such tangible innovation assets is pointed to as proof of investment in innovation, it has been discovered that in some cases an investment in the capacity-building of human networks to engage in technology transfer-and-commercialization related activities can act as a stronger facilitator for transforming economies and producing a larger return on investment in innovation for a country (Gibson and Naquin, 2011). Therefore, networks play an essential role, especially regarding intermediate organizations such as TTOs, since they embrace all the activities, resources, and competences of the value chain of the technology transfer process.

The aim of the TTO is to maximize the revenues from the commercialization of academic results by managing, as much as possible, a linear and unidirectional process (Matt and Schaeffer, 2012). Thus, the network, which is built largely based on cooperation, facilitates access to a variety of partners (Van Burg et al., 2008), setting the foundation for solid external relationships with, for instance, institutional investors, firms,and consulting organizations (Nosella and Grimaldi, 2009).

Additionally, TTOs and TTO networks play a key role in assisting entrepreneurs, providing a range of services from hardware, such as shared offices and access to research labs, to software,

such as access to knowledge and network pools for start-up companies. Such support gives the start-up companies a relatively secure environment and a head start over others (Bathula et al., 2011). As Cooper et al. (2012) revealed in their study, technology transfer support mechanisms strive to develop robust business and social networks to bring value to their resident companies in the form of intellectual and material resources.

In order to characterize the architecture of the network involving the Portuguese TTOs, technology transfer officers of 15 TTOs and the directors of 2 science and technology parks were asked to identify the relationships they maintained (over the past five years, 2008-2012), not only with other national TTOs or science parks, but also with other actors in their external environment, encompassing national and international stakeholders that participate directly or indirectly in the process of technology transfer. These relationships include both formal and informal links. Formal links include a given kind of official connection based on legal agreements and/or formal cooperation through contracts, while informal links are based on personal acquaintance, communication processes, and relations (Almodovar and Teixeira, 2012).

Social network analysis (SNA) tools were employed to more adequately describe and assess the architecture of the networks, thus making it possible to identify interaction patterns. Pajek, a professional computer software for network analysis and visualization, was used to perform these analyses. In Pajek, a network is defined in accordance with graph theory: a list of vertices or nodes and lists of arcs and edges, where each arc or edge can have a value (Nooy et al., 2005).

In order to have a clearer view of the TTOs' network architecture, the analysis of the networks was divided into two groups: 1) network interactions between TTOs; and 2) relations between TTOs and other stakeholders. Figure 3.18 illustrates the architecture of formal networking activities between TTOs, being an example of a sociogram, that is, a graphical representation of a group structure. The sociogram is among the most important instruments originated in sociometry, and is the basis for the visualization. It depicts the structure of ties within a group, showing which organization has more connections, as indicated by the number of lines or arcs directed from or to their vertices or their position in the graph.

In this particular case, this group/network is composed of 24 organizations and 89 connections between them, having a density of 0.322 (see Figure 3.18). The density of a network is the percentage of all possible lines that are present in a network. Maximum density (=1) is found in a complete simple network, that is, a network in which all pairs of vertices are linked by an edge or by two arcs, one in each direction (Nooy et al., 2005). In this case, a density of 0.322 means that 32.2% of all possible connections are present. As the network density varies drastically along networks with different sizes, it is advisable to use the average degree as a comparison term between networks. The degree of a vertex is equal to the number of vertices that are adjacent to this vertex, that is, the number of stakeholders/TTOs to which a TTO is connected. In this case, every TTO has on average 7.4 formal connections with other TTOs (cf. Figure 3.18). As depicted in Figure 3.18, the TTOs with more connections are located at the center of the network, while those with sporadic relations are placed on the periphery of the network.

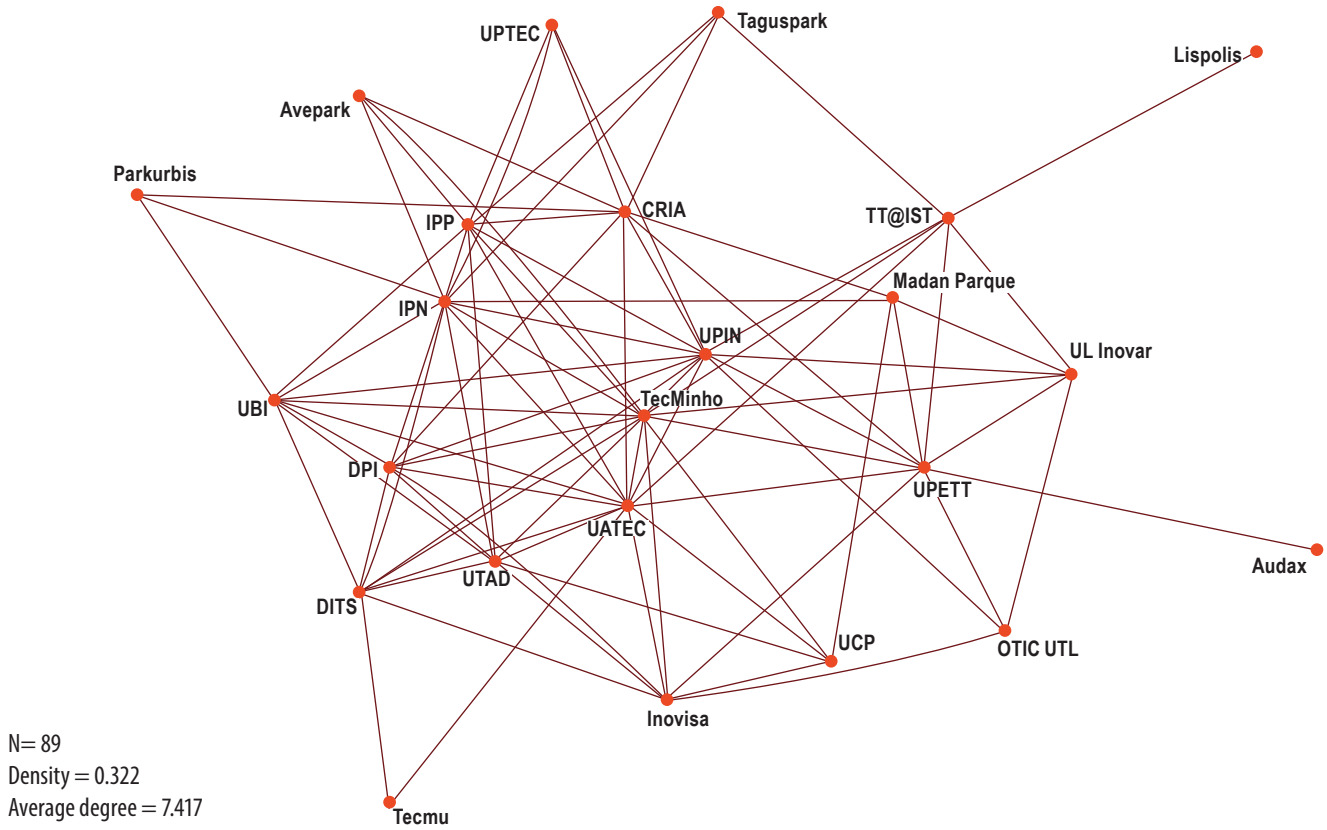
According to additional information on the vertices, it is possible to state that TTOs thatenjoy centrality in the graph, that is, the ones with larger numbers of formal relationships with other entities of the same type, are the ones embedded in a national network of technology transfer offices, namely GAPI and OTIC. Those networks were created in the beginning of the 2000s by the Portuguese government to implement several measures with the aim of bridging the policy gap between "innovation" and "research." The setup of the network of GAPI (IPR support offices) has played an important role in making scientists, particularly in universities, display their research outcomes for IPR filing. Furthermore, a network of university technology transfer and licensing offices (OTICs) was also established in order to allow universities to transfer and license out the commercial outcomes of their research; the OTICs are seen as being complementary to the GAPIs, acting at a more downstream stage. Both initiatives have contributed to the creation of a national technology transfer network, which facilitated the contact between several TTOs.

By the mid-2000s, the financial support to the GAPIs and OTICs was gradually discontinued; nonetheless the relationships and contacts remained and were even fostered by the training activities and workshops organized as part of of the UTEN program. Therefore, it is understandable that TTOs that participated or still participate in upgraded versions of those networks (such as GAPI 2.0) have a more central position when it comes to relations among TTOs, as they are more familiar with other TTOs and the most recent TTOs are more likely to establish formal/contractual cooperation with the ones they already know.

Figure 3.19 illustrates the structure of the formal links between TTOs and other technology transfer stakeholders. In Figure 3.19, directional arcs were used instead of lines because the connections have a single direction, in contrast to the previous graph where a TTO could indicate a connection with a certain partner and be indicated by this same partner. This change also contributes to the lower density of the network (bidirectional arcs were not considered; instead, this study focused only on the connection from the TTO to the stakeholder and not vice versa).

Looking at the average degree of vertices, it is possible to observe a slight decrease in average connections when it comes to relations with external partners. The stakeholders that receive more arcs are located in the center of the sociogram, having more connections with the Portuguese TTOs. of national partnering entities, TTOs focus formal

Figure 3.18: The Architecture of Formal Networking Between Portuguese TTOs, 2008-2012



Source: Based on face-to-face interviews with UTEN technology transfer officers in May/June 2013.

relations mainly on regional firms, town halls, innovation networks (such as Portugal Ventures, Red Emprendia, Inov Cluster, Inov C) and business institutes (such as Institutos e Núcleos Empresariais, chambers of commerce and industry).

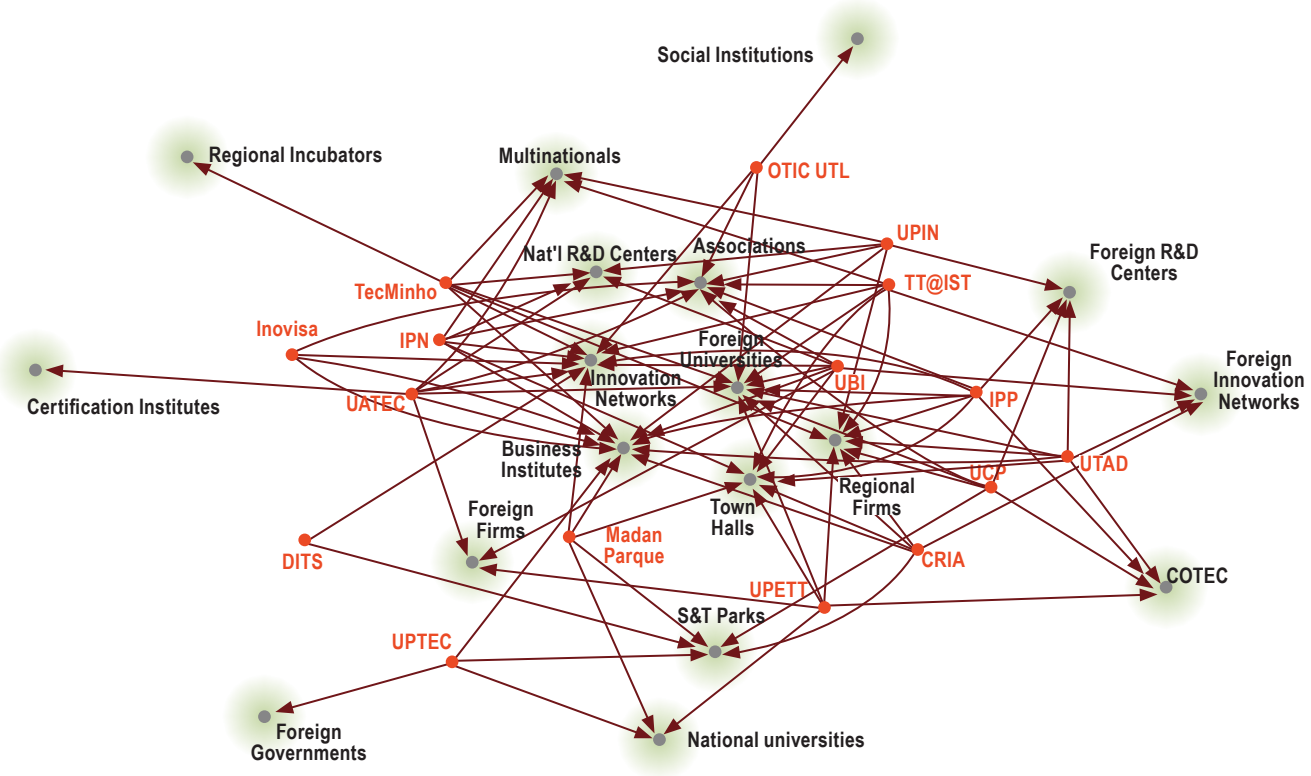
Interestingly, contrasting with the position of national universities, foreign universities lie squarely at the center of the network, being strong formal partners of Portuguese TTOs. Other international stakeholders, such as foreign governments, foreign R&D centers and foreign innovation networks, have a more peripheral location when it comes to formal connections.

As stated by Gibson and Naquin (2011), it is important for Portugal to build human networks to engage in technology transfer and commercialization that can act as a catalyst for leveraging the country's innovation system. Analyzing this graph, it is possible to state that the initiatives taken by the Portuguese TTOs in constructing a strong/dense national innovation network is an important first step, which hopefully will lead to, in a subsequent phase, an engagement in valuable international networks.

Figure 3.20 reports the casual links between TTOs regarding the informal relationships of the respondent TTOs. The total number of the vertices is 23 and the number of connections which relates them is 140. In contrast to the previous graphs, the density clearly increased because bidirectionality is enabled across intense unofficial relationships between TTOs. This aspect is also highlighted by the average degree of vertices, which is 12.174. The increased density and the high average degree indicate that the informal network of TTOs is based on strong connections, so that almost every TTO has a central position, even the ones which were not interviewed, that is, those who could not indicate their relational network (for instance, DPI, Avepark, Tecmu and Audax).

Still in relation to the informal relationships of the respondent TTOs, Figure 3.21 includes the links between TTOs and other stakeholders. The total number of vertices is 23 and the number of connections which relates them is also 23. Similar to the graph that describes the formal network of TTOs and other stakeholders, the density is slightly decreased (compared to Figures 3.18 and 3.20) by the fact that bi-

Figure 3.19: Architecture of the Formal Network between TTOs and Other sStakeholders, 2008-2012



N= 98
Density = 0.087
Average degree = 5.765

Source: Based on face-to-face interviews with UTEN technology transfer officers in May/June 2013.

directionality is not considered when it comes to "external" (non TTOs) stakeholders.

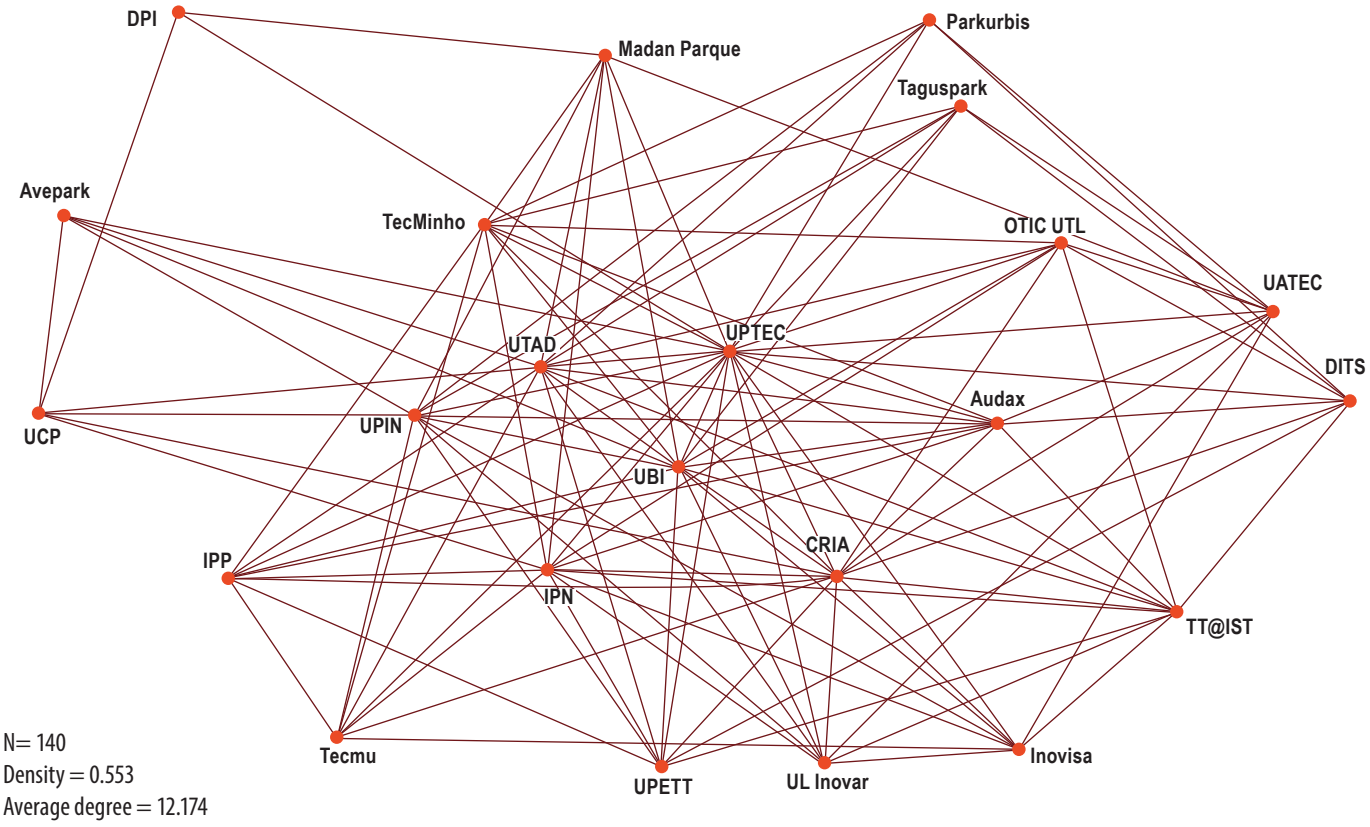
The average degree of vertices regarding informal links with other stakeholders shows a large decrease, indicating that each TTO has on average two connections with an external stakeholder. In this sense, besides having a small number of TTOs that maintain relations with other stakeholders, those relations are clearly scarce. Therefore, it is possible to state that the informal network of TTOs focuses its attention on entities of the same type, while connections with other technology transfer stakeholders are based on formal relationships.

Furthermore, it is possible to observe that the only external stakeholder with a large number of informal relations with TTOs is *COTEC*. COTEC Portugal is a business innovation association that seeks to promote a culture of innovation as a critical source of company competitiveness, to foster the practice of innovation by all the agents of the National Innovation System, to influence the strategic orientation of both the National and European Innovation Systems, and to remove context barriers to innovation.

Focusing on the results illustrated in Figures 3.18 and 3.20 about the formal and informal networks among TTOs, it is possible to state that Portuguese TTOs are embedded in a strong network with entities of the same type. These findings indicate that not only have initiatives such as the creation of the GAPI and OTIC networks contributed to a strong TTO network, but also and essentially, as stated by the technologytransfer officers interviewed, the implementation of the UTEN network, with the specific goal to build a globally competitive and sustainable science and technology (S&T) transfer and innovation network managed by highly trained Portuguese professionals.

In addition to a variety of services offered by the UTEN program, initiatives such as training for Portuguese technology transfer managers and staff through value-added workshops and internships in select and diverse centers of expertise for "on-the-job" international competence building and enhanced network development were pointed out as being essential, not just on the basis of knowledge absorption, but also in terms of the establishment of relations with colleagues from other TTOs or similar technology transfer institutions.

Figure 3.20: Architecture of the informal network among TTOs, 2008-2012



Source: Based on face-to-face interviews with UTEN technology transfer officers in May/June 2013.

The UTEN network played a significant role in creating sharing and discussion spaces between the technology transfer officers of various universities. Not only did it contribute to the creation of a national technology transfer network, but it also provided training to the officers, which led everyone to use the same vocabulary, to share good practices, and to get to know international mechanisms for some areas. (June 2013 Interview)

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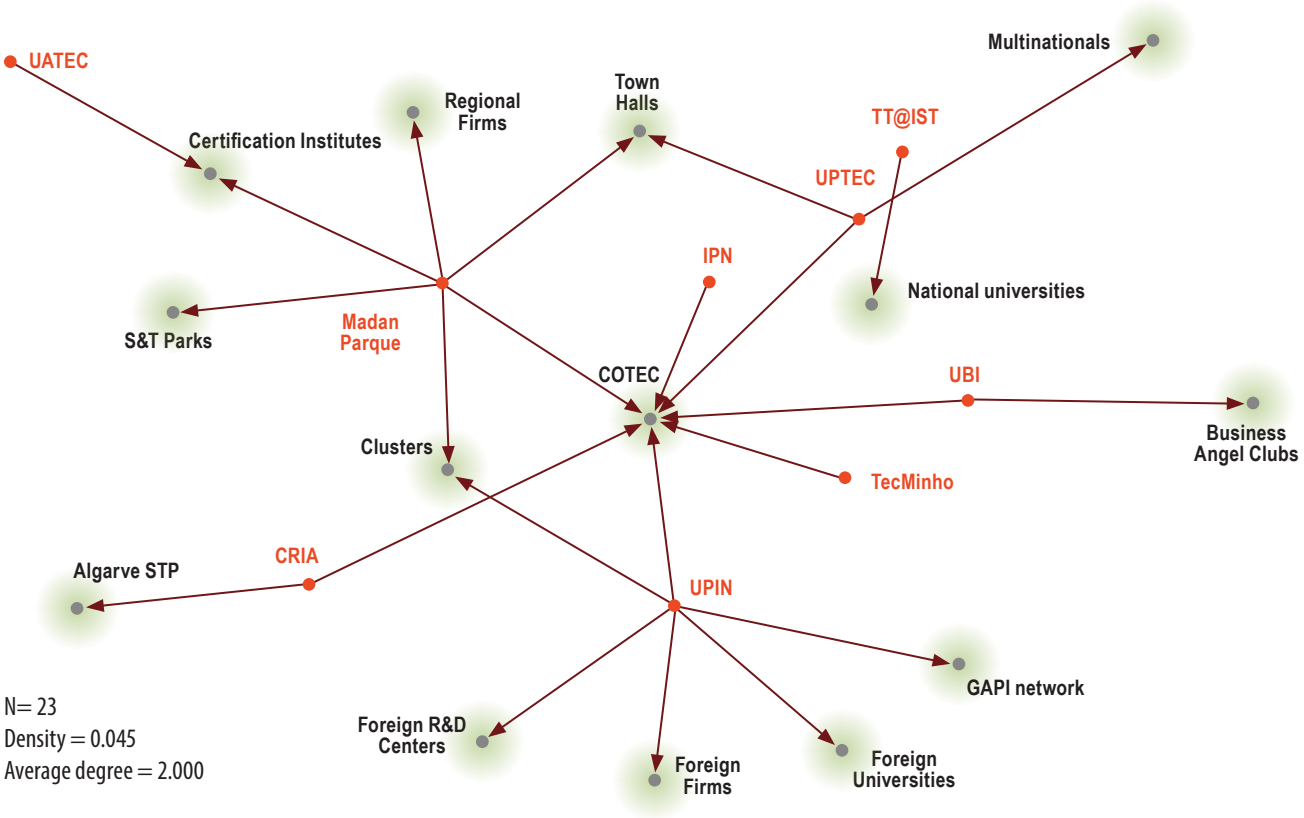
Nooy, W., Mrvar, A. & Batagelj, V. (2005) *Exploratory social*

Figure 3.21: Architecture of the informal network between TTOs and other stakeholders, 2008-2012



Source: Based on face-to-face interviews with UTEN technology transfer officers in May/June 2013.

network analysis with Pajek, Cambridge Univ. Press.

Van Burg, E., Romme, A.G.L., Gilsing, V.A., & Reymen, I.M.M.J. (2008) Creating university spin-offs: A science-based design perspective. *Journal of Product Innovation Management, 25(2),* pp. 114-128.

3.3. Phase 2: 2014

3.3.1. Global Startup Program

The 2014 cohort was divided into four categories – in FLIGHT, *flight, launch, flight plan,* and *design.*

In flight

In flight ventures are those that have been working directly with the GSP for one year or more, inducted in a previous cohort. In flight ventures during 2014 include: Feedzai, Inovapotec, Technophage, Tecla Colorida, WS Energia, and Bioalvo. On January 1, 2015, at the start of the new program 2014 cohort companies Omniflow, Celfinet, Tuizzi, Abyssal, and Auditmark will also be in flight.

Launch

Launch businesses are ready for the full suite of business development services offered by the GSP. They have a market-ready product that is ready to scale globally, and has attained domestic sales. The businesses have adequate means (human talent, capital, etc.) to conduct business in the United States and other international markets. These companies will work with a business development manager for a year's time. The 2015 cohort of launch companies are IPBRICK, Take The Wind, Vetequip, Metablue, RVLP Technologies, AugRPublisher, Farmodietica, and 2EAST.

Flight plan

Flight plan businesses have a product with global market potential that is not fully developed or lacks capital to initiate business development in the US market. These businesses work with UTEN team members to develop milestones that

will enable them to move their product toward domestic sales, followed by global scaling. These teams work with a business development manager, and when they advance to launch status, a new design company may move into the cohort.

Design

To help as many Portuguese businesses as possible, GSP also works with start-ups that are not formally inducted into the program. Similar to the *flight plan* businesses, design entrepreneurs work to develop milestones that would help them enter the *flight* plan cohort. The typical profile of a design business is a very early stage venture, often only a team with an idea in development. A typical example is Immunethep, for which an initial market report was prepared (see Appendix 1).

The following narratives present business development efforts for companies recruited in September 2013:

// Abyssal

// Auditmark

// Celfinet

// Livefabric

// Omniflow

// Tuizzi

Abyssal
http://www.abyssal.eu/

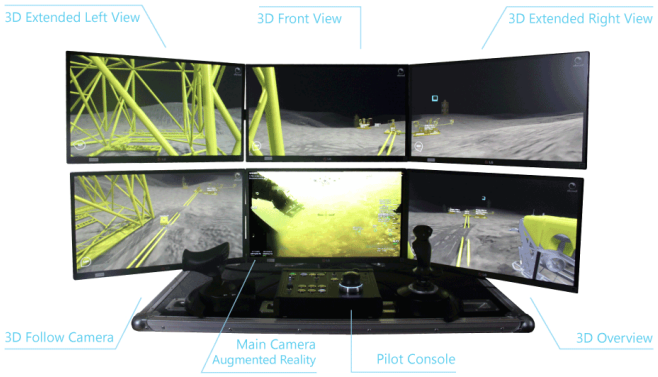
Abyssal develops integrated subsea navigation solutions for Remotely Operated Vehicles (ROVs).

The UTEN team performed validation of Abyssal's business model through customer development efforts. This involved direct contact with over 20 customers, including possible partners and/or competitors, to help validate | invalidate specific functionality of the product offering and its ability to solve customer problems. Before working with GSP, Abyssal planned to market its product through sales, but customer feedback indicated that a system rental model would be more accessible for customers while being more profitable for Abyssal overall. The UTEN program provided new perspective, and helped the entrepreneurial team to objectively identify savings and market positioning. Months working with the UTEN program produced years of value. The program provided strategic value through supportive product demonstration and testing that opened doors to new clients and helped develop new features to better meet customer needs.

Insight gathered from primary customer engagements to guide a business model transition from direct sales to equipment rental increased the monetizable potential from ~$400M to ~900M. This large increase required no re-design in the product, and little effort from Abyssal to accommodate the customer's preference.

GSP assisted in obtaining the first commercial proposal from Canyon Offshore, to engage in a joint sea trial for installation of bumpers in the Gulf of Mexico. The original proposal set forth by Abyssal was rejected by the customer, and early traction was lost.

This effort was followed by GSP providing introductions, and meetings with guided discussions with Oceaneering, Inc. (the #1 ROV manufacturer worldwide). This relationship developed quickly and discussions led to an agreement to host an initial "at scale" sea trial in the Gulf of Mexico. This agreement represented a higher overall cost, and (while all costs were not assigned to Abyssal) represented a major investment for the venture. The sea trial was held in early July in 2014 and was considered an incredible success by both parties.



Abyssal's expenses in the trial were reimbursed by the world's largest provider of services and products for the offshore oil and gas industry, with a focus on deep water applications. Further, Oceaneering placed two orders with Abyssal for test & evaluation systems. The real value of the relationship with Oceaneering has the potential to exceed several hundred million dollars. Yet that potential will only be realized as the relationship is nurtured and developed over time. Substantial engagement will help ensure an adoption process that will position Abyssal for improved valuation.

"The Global Startup Program has been absolutely tireless in bringing its expertise and smart thinking to our business."

Rafael Simão, CEO Abyssal

AuditMark
http://auditmark.com

Auditmark designsand deploys web and mobile application security solutions that hyper-protect JavaScript and HTML5 based eCommerce and other business transactional websites and customer-facing applications from cyber-threats and web attacks. Both of their products, JScrambler and Advanced Website Protection (AWP), focus on placing the first line of defense on the client side in order to efficiently mitigate web threats before they become problematic for business owners. Auditmark's products have an established and growing user base. The UTEN team is currently working with Auditmark on their go to market strategies for North America. On Auditmark's behalf, the UTEN team members reached out to over 30 potential partners and competitors with the intention of surveying these entities for potential synergies with Auditmark's technologies. The contacts achieved from these calls allowed UTEN team members to help arrange meetings with potential partners for Auditmark in San Francisco. In addition, UTEN members helped facilitate discussions with IBM's Global Partner World. The discussions have helped AuditMark bifurcate its marketing message into two distinct target audiences: 1. the C-suite|CIO|CTO|CFO with a message focused on securing IP/copyright and company assets, including copyrighted works of art and locking down purchased software code to help assure continuity of service, customer security, and risks of business loss; and 2. the senior software architect|developer or third party developer that would be directly responsible for software development, testing, readiness to deploy, and signing off on software ready to be put into production on websites, mobile devices, etc. UTEN helped improve AuditMark's overall power point pitch deck for corporate clients and made minor messaging adjustments to its marketing materials and website to be consistent with business terminology in its market space in North America.

Although AuditMark had been promoting both its Jscrambler and a product called Advanced Website Protection (AWP), agreed with UTEN tto first promote and seek direct partners or resellers for Jscrambler, since this product was ready to sell and had a reasonably strong value proposition— while AWP was a concept solution still in development. Therefore through most of 2014, the first focus was to look for beta, test, trial, or real customers for Jscrambler.

However, the AuditMark Jscrambler web services presenred market changes. Because this cash-and-carry subscription service is primarily an eMarketing|eCommerce-based model, it requires expertise in B2C eMarketing, web|banner ad|AdWord and SEO marketing, versus selling directly to an enterprise or channel partner.

AuditMark agreed with UTEN's recommendations to adjust its prime business outreach efforts into channels, resellers, and enterprises that might find the Jscrambler Enterprise server box the product of choice.

The product continued to elicit a like-to-have market response rather than a must-have solution, in meetings with Akamai, Time-Warner Cable, and others. This reaction might reflect a need for customer education, or the technology may solve a problem that is not acute at this point in time. In any case, the technology does not bring the customer to make a buying decision. AuditMark's team is committed and agile in addressing the need for refinements in its value proposition and selling propositions. It is making required pivots and tactical adjustments to find the right product-market fit to gain higher customer acquisition. GSP also recommends that AuditMark develop new incentives for retail customers, i.e. an affinity/loyalty program, particularly with its web-based subscription model. AuditMark has solid customer testimonials, high satisfaction, and a product that does what is says it can do. The team is highly competent and has hired a small marketing team to help build stronger front-end messaging. UTEN has helped Auditmark identify some key industry resources, and is helping the team to craft a white paper that will facilitate customer education.

Throughout 2015, post-graduation, Jscrambler continues to evolve its-go-to market business strategies based on adaptations recommended by the UTEN team. They credit IC^2 Institute's GPS positive and progressive coaching and mentoring impact, including deployiment a series of enterprise-scale products and services that has resulted Fortune 500 corporate engagements. The company's headcount has grown four-fold since 2013 to help support its EU and North American growth, in both on-line/eCommerce sales and their enterprise server/virtual machine/web services model. The company's revenues have grown almost 4 times from 2013, and another 5 times from 2014 and are projected to close out 2015 even higher. The co-founders have begun pitching and soliciting investment for a Series A round in growth capital, which, UTEN will assist with.

JScrambler as a company is becoming more sophisticated in protecting software code and company-owned-and-operated software applications,an canenough to confidently

claim it can monitor and protect a customer's software code assets and applications from outside tampering on every application across every platform going forward, in most every case, according to CEO Rui Ribeiro. UTEN has recommended that JScrambler attend a number of important trade shows/conferences to solicit new customers and have also recommended it join the IBM BlueMix Marketplace and Developer program, which would give JScrambler broad access to IBM PartnerWorld, an ecosystem of thousands of developers and resellers worldwide.

Audimark is located in Porto, Portugal, and is led by Rui Ribeiro and Pedro Fortuna.

"Approaching the US Market required AuditMark to know and think in US terms. The culture, the sheer scale of the country are huge challenges. Our IC² Institute partners provided us the much needed expertise and tools to help us close the gap and reach further than we could have ever done alone."

Rui Ribeiro, co-founder and CEO Auditmark

Celfinet
http://www.celfinet.com/

Celfinet is a telecommunication network engineering company. The UTEN team worked with Celfinet executives in February 2014 to review its product offering, value proposition, and positioning of the Vismon Manager product for entry to the U.S. market. Team members arranged meetings with external advisorsand local industry experts including the past president for AT&T Research Labs. Subsequent strategy analysis meetings with UTEN staff and Celfinet helded to define the pricing model and competitive analysis for the US market. As a result of UTEN meetings held with industry experts Celfinet returned to Portugal to rework its U.S. market entry strategy to align with its 2015 corporate plan. In 2015, growing business opportunities in Europe presented themselves to Celfinet, leading it to delay entry plans to the North American market until 2016. During 2015 Celfinet continued to develop the Vismon Manager product, adding new features at the request of its largest customer. As a result, the Vismon product has a stronger value proposition, withmodules that can be sold as standa-lone products. Celfinet doubled its size of operations and personnel in 2015.

"Working together with UTEN team was a tremendous challenge. Even though Celfinet is a relatively mature and successful company our knowledge and management skills were tested to the limit. Whatever is the outcome in the US market, the UTEN team already helped us getting prepared to present ourselves and our products much better than we did so far and that will be useful anywhere!"

Alexandre Victorino, Director Corporate Affairs and Business Strategy Celfinet

LiveFabric
http://livefabric.pt

The LiveFabric team has developed a series of shape-and support-wear products for women with a spectrum of dermatological, medical, and cosmetic needs.

For LiveFabric, as a part of the due diligence process, UTEN team members produced a 15-page market research report (see Appendix 1) that included the inventory and demand of maternity and shapewear products for major national retailers, specialty maternity stores in Texas, and multinational department store chains. Included in the document was information regarding online inventories of comparable products for the United States and India. In addition, the report included feedback from dermatology offices (a potential sales channel for LiveFabric's products). All data were accompanied by survey feedback from store managers and strategy suggestions for different cities, company types, sales channels, and price points. The report was delivered to LiveFabric with a market value of $10,000. The UTEN team, also designed a marketing and promotion strategy on the company's behalf. As of November 2014, LiveFabric has decided to focus on domestic markets (Portugal and EU). The UTEN team looks forward to working with LiveFabric in a later call.

"We feel that the UTEN Program and team members have been very helpful in supporting our internationalization process, helping us better align our strategy and define our market needs. We initially approached your team with a B2C outlook since we were going to begin with our online shop .We needed direct customer feedback, and soon realized thereafter that, in fact, we needed a B2B approach since we are dealing with merchandise buyers and strong lobbies representing major shapewear brands already in the market. As for your added input on the shapewear market in India, we do appreciate the information included in the study; it does give a different perspective."

Miguel Pereira, co-founder LiveFabric

Omniflow
http://omniflow.pt/

Omniflow is an award-winning renewable energy technology company that has developed a unique hybrid solar | wind turbine for the small wind market, and a new solar | wind LED street lighting system (OmniLed).

UTEN team research showed that many states and wind industry associations in the United States are moving

to require third party certification of small wind turbine performance to qualify for net metering reimbursement payments. The UTEN team obtained cost estimates from Underwriters Laboratory (UL) and Intertek for certification and testing services, which Omniflow discussed with its investors. Misnavigating the complex jargon and procedures for such certification processes can cost time, more than monies, and can easily prove a barrier to foreign businesses, when approached without assistance. Since performance certification is not required to do business in the United States, and due to market delay and other costs, Omniflow decided not to pursue performance certification at this point in time, although it will seek safety certification, as required by law. The venture is now listed with the US General Services Administration to compete for contracts with US government agencies. Omniflow has appointed a representative to negotiate a major project in Yonkers, New York, as well as a pilot project with the Crissy Field National Park Service in San Francisco. UTEN has also assisted in the discussions in San Francisco, regarding installation of an Omniflow hybrid solar/wind turbine for an educational study being conducted by the park. This project is awaiting budget.

UTEN helped develop a marketing brochure to introduce Omniflow's technology to the top 250 solar PV/renewable energy contractors in the United States, to help identify entities interested in representing or distributing Omniflow products in the United States.

UTEN helped link Omniflow to a distributor in India and assisted in securing an agreement for a four-year exclusive

Omniled installed in Porto, Portugal (September 2014)

Luís Varela and Alexandre Victorino from Celfinet visit to IC^{2} Institute Institute (April - May 2014)

IC² Institute team members Marco Bravo, Gregory Pogue, Christopher Meyers, Rodney Klassy, and Donavan Miller with LiveFabric Team.

distributorship across India, Indonesia, and several other Southeast Asian countries, in which the distributor will meet Indian certification and sales milestones.

> *"Working with the IC² Institute has been a gratifying experience with very satisfactory, practical results. We made good progress in understanding the US markets and making the first steps towards commercial opportunities. UTEN was always very supportive and available to assist us. The team has managed, since the first day, to understand the needs of our company and contribute positively with its best work and network of contacts."*
>
> *Pedro Ruão, founder and CEO Omniflow*

tuizzi
you everywhere

Tuizzi
http://tuizzi.com/

Co-founded by Afonso Santos (CEO), Álvaro Ferreira (CFO), and Hélder Fernandes (CTO), Tuizzi is a platform that offers the easiest way to manage outdoor advertising. Tuizzi simplifies the process of finding, planning, buying, and selling alternative, traditional, and digital out-of-home media. Through Tuizzi's online marketplace, media providers create enhanced media profiles for its properties. In turn, advertisers use the extensive and comprehensive database of media properties to find new ideas, plan, and build the perfect out-of-home campaign.

As part of this strategy UTEN helped locate a potential hire for Tuizzi's American management team. Various marketing materials were developed, based on UTEN's comprehensive competitive analysis. UTEN helped link Tuizzi with clients in Colombia and facilitated free legal advice for contractual negotiations. An advertising campaign was designed for Austin and Austin City Limits Music Festival that resulted in an offer by a Texas media owner, which was ultimately declined by Tuizzi.

In March 2014, DoMedia (Tuizzi's American competitor) initiated an aggressive pricing strategy, and UTEN helped Tuizzi develop a new pricing and positioning strategy for the United States, while Tuizzi also expanded its focus to include other international markets.

> *"In all my life I never met and worked with such a professional and supportive team as the UTEN... GSP allowed TUIZZI to study the U.S.A. market, entry barriers, competitors, potential partners and opportunity. They introduced me to several existing players (some of them really big) that allowed TUIZZI to validate its product, its market, and get important feedback to our business*

and platform. The UTEN team was always ready to help in everything I needed and if we didn't get more out of the team and program, it was our fault. Special thanks to Francesca, Marco, Greg and Max for their amazing patience towards me, their incredible experience and good advice and being always supportive even when I failed to cooperate. Honestly, thank you so much, I feel honored to be with the UTEN team."

Afonso Santos, CEO Tuizzi

Work done with other companies that applied in 2013 but were not fully accepted to the program:

// Ecofoot
// Critical Materials
// Active Aerogels
// BestSupplier

activeaerogels

Active Aerogels
http://www.activeaerogels.com/

Active Aerogels is an innovative materials business that produces a high performance silica aerogel for space industry and other applications. Although this product was not ready for market, the UTEN team conducted market surveys of potential competitors, clients, and partners to help Active Aerogels understand United States market realities, develop a sales and distribution strategy, and identify new market sectors. UTEN also assisted with a detailed analysis of the product's existing competitors (a report valued at $5,000). UTEN also reached out to research facilities on Active Aerogels 'behalf to establish US product testing, and helped distribute marketing materials in an exploration of potential clients.

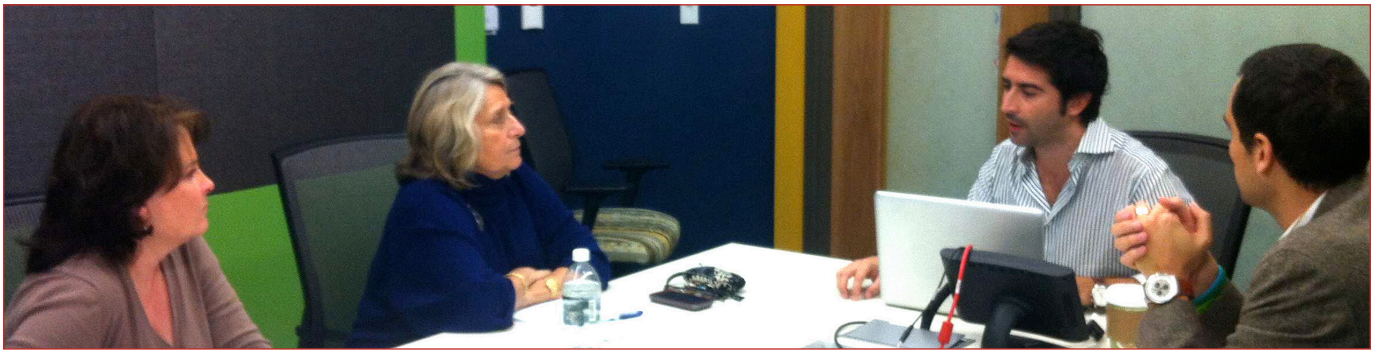
Companies recruited in September 2014:

// *ARP*
// *Farmodiética*
// *IP BRICK*
// *Metablue*
// *RVLP*
// *Take the Wind*
// *2East*
// *Vertequip*
// *Whale*

The business development efforts for these companies mainly ocurred in 2015, and the The results are shown later in the report.

"ScrofaTech is excited to be chosen for the IC² Institute Program for 2015. We just launched our latest product

Afonso Santos meets with Noah and Chris Davis, creative partners at The Swizzle Collective Advertising Agency.



Afonso Santos and Marco Bravo (right) meet with Lisa Dobias (Senior Lecturer at The University of Texas at Austin and previous media buyer) and Dr. Isabella Cunningham (Chair of Advertising and Public Relations at The University of Texas at Austin and IC² Institute Fellow)

. United States Embassy to Portugal: delegation tour to Austin

at EuroTier 2014 and one of the IC² Institute team members joined us at the trade fair and was very helpful in obtaining proposed trials with four producers in Europe and North America, as well as in discussions with potential distributors. We look forward to working with them in 2015 to grow our business opportunities."

Rui Valpaços, Founder and CEO RVLP

3.3.2. United States Embassy in Portugal: delegation tour to Austin

In March 27, 2014 a delegation of 21 Portuguese visited the IC² Institute. The delegation was led by the United States Ambassador to Portugal and included representatives of the American Chamber of Commerce in Portugal, FLAD, and 13 companies (2East, ACIN, Ancorpor, BBVA, Caixa Geral De Depósitos, EDP, Lameirinho, Miranda Law Firm, Ribermold, TNT Express Worldwide, Topázio, Way2Inov, and WedoTechnologies). The discussions focused the UTEN program and all the activities done by the UTEN team in assisting Portuguese companies to go global with an enphasis on challenges that foreign companies face approaching the U.S. market. The delegation also visited the Center for Nano- and Molecular Science and Technology at UT -Austin, hosted by DR. Paulo Ferreira originally from Portugal. A paramount outcome from this event was having 2East apply for the Global Startup Program (and being accepted later that year).

Agenda

10:30 AM Welcome remarks, history of the IC² Institute, Dr. Robert Peterson (Director of the IC² Institute and Associate Vice President for Research at UT Austin)

11:00 AM Current international programs on business development, incubation, and acceleration, Dr. Gregory Pogue (Senior Research Scientist, IC² Institute)

11:30 AM UT Austin-Portugal program, Marco Bravo (Project Director, IC² Institute)

12:00 PM Working lunch

Commercialization cases and discussion:

- Feedzai and Weadapt, Marco Bravo
- Bioalvo and Tuizzi, Dr. Gregory Pogue
- Abyssal and Omniflow, Max Green (Project Director, IC² Institute)
- Celfinet and Auditmark, Rodney Klassy (Program Manager, IC² Institute)

1:00 PM Drive to campus

1:15 PM Visit to the Center for Nano and Molecular Science, Dr. Paulo Ferreira (Professor at Cockrell School of Engineering)

2:15 PM Delegation departs

3.3.3. iClio visits Austin

In April 2014, Alexandre Pinto, the CEO of iClio, visited the IC^2 Institute to learn more about the Global Startup Program. As a potential participant in the program, he wanted to understand what it would mean for his company to interact with the IC^2 Institute through the UTEN program for incubation, acceleration, and business development. When we received notice that Alexandre was in the United States and desired to visit, we engaged our processes and set up meetings with potential partners to gauge opportunity and market fit using Austin as a model U.S. market.iClio has created a mobile phone application for the walking tourist to easily access tour data while offline. Thus the traveler may access full navigation and background information without an active wi-fi connection. iClio has a sample program in hand, for the London tourist on foot.[1]

In this situation, UTEN's task was to help Alexandre address questions including: What is the iClio's potential market in the United States? What is the best, first application of the iClio technology? Who should be its partners to help accelerate its business going global?

Following models of success such as London's Sherlock Holmes Tour or its Jack-the-Ripper Tour, iClio could approach the US market in San Francisco, New York City, Boston, Philadelphia, and other locations where walking tours are popular (and possible). While that concept could not be explored in an actual way during Alexandre's brief visit, the UTEN team did facilitate direct inquiry into the possibility of expanding the application's market to universities and other institutions as a tool to assist students and visitors in their efforts to navigate campuses.

UTEN activated conversations with the City of Austin and the Chamber of Commerce about how such a tailored navigation application might be integrated into large, complex events such as South by Southwest (SXSW) or Austin City Limits (ACL), where a low bandwidth navigation solution would be helpful for participants. In meetings with various city representatives, we discussed integrating both the core event schedules as well as information peripheral to the event, such as advertising for surrounding restaurants and shops, or various services that users might find helpful.

Although iClio was not accepted into the program, the UTEN team advised on pursuit of developing this model forAustin's large events such as SXSW. The UTEN team would also follow up with universities that might have interest in creating an interactive application to assist students and visitors.

When businesses apply to the GSP program, a process much like this is deployed to quickly explore first-hand market fit and product possibilities. On entry into the UTEN program, the GSP team initiates a broader, deeper approach to help identify value propositions and help companies connect to the most promising first-client candidates. UTEN continues its mentorship through the deal-making process to ensure value for both parties is, indeed, exchanged.

In iClio's case, Alexandre's brief (2-day) visit to Austin provided an opportunity to accelerate the UTEN process and provide a glimpse of what it might mean for iClio to become part of the Global Startup Program.

[1]https://itunes.apple.com/pt/app/london-audio-guide-just-in/id513731953?l=en&mt=8

Alexandre Pinto from iClio during his visit in Austin

FCT's President Dr. Miguel Seabra, Vice President Pedro Carneiro, the Coordinator of the Technology Office Emir Sirage, IC^2 Institute team members Marco Bravo, and Rodney Klassy during FCT visit to UT-Austin.

3.3.4. FCT visits Austin

IIn June 5-6, 2014, FCT's President Dr. Miguel Seabra, Vice President Pedro Carneiro, the Coordinator of the Technology Office Emir Sirage, and the CoLab National Director Dr. Fernando Santana visited UT Austin to discuss the UT-Austin|Portugal program. This visit included plans to tour UT's Nano- and Molecular Science and Technology Center, the Texas Materials Institute, the Center for Next Generation PhotoVoltaics, and the College of Communication, as well as representatives of the City of Austin.

The officials discussed the new phase of the CoLab program with UT Vice President of Research Juan Sanchez, Principal Investigator Robert Peterson, and UTEN Director Marco Bravo, in addition to meeting with area program directors and representatives Sharon Strover, Donald Fussel, William Beckner, Paulo Ferreira and Heath Naquin.

The visit allowed the members of FCT and National Program Director Santana to get an overview of the University's facilities and resources and discuss key strategies for the second phase of the program with program executives and area heads, as well as meet UT faculty members and som of the program's students currently doing research in Austin.

Agenda

Thursday, June/5	COLAB
9:00 AM	**Meeting with the CoLab Co-PIs of the UT Austin-Portugal Program**
FAC 426, HH Room	Dr. Robert Peterson, PI, Associate Vice-President for Research at UT Austin, Director of the IC² Institute
	Marco Bravo, International Director of the UT Austin-Portugal program
	Digital Media: Dr. Sharon Strover (Co-PI) and Dr. Karen Gustafson
	Advanced Computing: Dr. Donald Fussel (note: Dr. Keshav Pingali, Co-PI for AC will be out of the country)
	Mathematics: Dr. William Beckner (note: Dr. Irene Gamba, Co-PI for Math and Dr. Luis Caffareli cannot attend)
	Emerging Technologies: Dr. Paulo Ferreira and Heath Naquin (note: Dr. Brian Korgel, Co-PI for ET will be out of the country)
10:30 AM	**Visit to the College of Communication**
College of Communication	Dr. Sharon Strover
	Dr. Karen Gustafson
	Marco Bravo
11:30 AM	**Tour of campus**
	Marco Bravo
12:00 PM	***Lunch***
UT Club	*Dr. Robert Peterson*
	Marco Bravo
2:00 PM	**Austin City Hall (TBC)**
301 W. 2nd Street	*Jim Butler, Manager for Creative Industries Development, City of Austin*
	Ben Ramirez III, International Economic Development Manager, Global Business Recruitment and Expansion Division, City of Austin
	Dr. Robert Peterson
	Marco Bravo
3:00 PM	**Visit to the Computational Visualization Center at the Institute for Computational Engineering and Sciences (ICES)**
POB	Dr. Donald Fussel
	João Barbosa
	Marco Bravo
3:30 PM	**Visit to the Center for Nano-and Molecular Science**
FNT	Dr. Paulo Ferreira
	Marco Bravo
4:00 PM	**Visit to the Texas Materials institute**
ETC	Dr. Paulo Ferreira
	Marco Bravo
4:30 PM	**Visit to the Center for Next Generation Photovoltaics**
CPE	Heath Naquin
	Marco Bravo
5:00 PM	**Meeting with the Vice-President for Research**
FAC 426	Dr. Juan Sanchez, Vice-President for Research at UT Austin
	Dr. Robert Peterson
	Marco Bravo
6:30 PM	***Dinner***
	Dr. Juan Sanchez
	Dr. Robert Peterson
	Marco Bravo

Friday, June/6	IC² Institute
8:30 AM	*Marco Bravo picks you up at the hotel*
9:00	**The IC² Institute and its contribution to the Austin Technopolis**
IC² Institute "Central", Global Classroom	Dr. Robert Peterson Marco Bravo Dr. Greg Pogue, Senior Research Scientist, Interim Deputy Director Dr. David Gibson, Senior Research Scientist, Associate Director Max Green, Project Director Rodney Klassy, Program Manager Christopher Meyers, Program Manager Francesca Lorenzini, Research Associate Francisca Aroso, Visiting Scholar AA Architectural Association School of Architecture London Dr. David Resende, Visiting Scholar University of Aveiro
10:00 AM	***Travel to WPR***
10:30 AM	**IC² Institute Austin Technology Incubator (ATI)**
WPR – GK Room	Isaac Barchas, Director, ATI Marco Bravo Achievements, incubation, landing pad, foreign startups, tour of ATI
11:15 AM	**Roundtable: from TTO to incubation in biotech**
WPR – GK Room	Dr. Cindy Walkerpeach, Director of the Bio/Health Sciences portfolio at the Austin Technology incubator (ATI, part of the IC² Institute) Dr. Bill Williams, Professor at the College of Pharmacy, Drug Delivery Research Dr. Greg Pogue Rodney Klassy
12:30 PM	***Lunch***
2:00 PM	**IC² Institute Global Commercialization Group (GCG)**
WPR – GK Room	Glenn Robinson, Assistant Director, GCG International company business development programs
3:00 PM	**Global Startup Program: progress and 2014 call, company analysis and takeaways**
WPR – GK Room	Marco Bravo Dr. Greg Pogue Max Green Rodney Klassy Christopher Meyers Francesca Lorenzini

IC² Institute team members Marco Bravo, Gregory Pogue, Christopher Meyers, Rodney Klassy, and Donavan Miller with ARPublisher CEO Narciso Melo (September 2014).

3.4. Phase 2: 2015

3.4.1. Global Startup Program

Business development efforts for companies recruited in September 2014:

// *ARP*

// *Farmodiética*

// *IP BRICK*

// *Metablue*

// *RVLP*

// *Take the Wind*

// *2East*

// *Vertequip*

// *Whale*

ARP
AUGMENTED REALITY PUBLISHER

ARP
http://www.arpublisher.com/

ARPublisher (ARP) is a publisher specializing in book production with 3D content for viewing on smartphones or tablets based on augmented reality technology. The UTEN team conducted a competitive analysis for 3D books and found most of them are only available as a digital product. The research indicated that young children enjoy handling a book and the ability to "discover" the 3D images by looking at the pages using the smart devices. ARPublisher will launch its initial line of 10 children's books inspired by the tales of LaFontaine. The UTEN team proposed to assist ARPublisher find publishers in the U.S. and elsewhere that are interested in selling its books, and potentially finding publishing houses that may wish to license the technology. In addition The UTEN team made introductions to publishing houses that may wish to contract ARPublisher to produce new 3D-augmented illustrations. for books already sold by the publishing house. There a number of children's books publishers in the Unite States, (including Christian book publishers) that the team believes may have an interest in having 3D-augmented print formats for their audiences.

UTEN assisted ARP in establishing a distribution contract with Ingram Publishing that will present their books to more than

35,000 retailers worldwide through their print and online catalog. UTEN introduced ARP to children's book author Stephen Cosgrove, a highly successful author with over 300 titles that have sold more than 80 million copies of his books sold. Mr. Cosgrove and ARP are in discussion to launch a joint venture to bring back to market the Bugg Book series (52 titles) with all new print illustrations and ARP's 3D-augmented animation overlaid on the illustration. In addition they will seek to launch a line of augmented greeting cards and pursue other merchandizing opportunities.

"The IC² Institute program has been an excellent opportunity for us and has opened several opportunities for us to enter new markets. We would like to thank the IC² Institute team for all the help and efforts that they have been making, especially Rodney and Marco for all their work and dedication to ARP."

Narciso Melo and Dani Barreiro, co-founders and respectively CEO and CTO ARP

Farmodiética

Farmodiética
http://www.farmodietica.com/

Farmodiética produces and sells nutritional supplements in pharmacies and herbal shops in Portugal, Lebanon and Greece. In 2008, Farmodiética developed the 3-Step Diet that is sold through clinics and managed by dieticians providing a multiphase medically-managed weight loss program. The UTEN team conducted market research and surveys with potential competitors, clinics, and nutritional experts to clarify the US market potential for 3-Step Diet. In October, a UTEN recommended that Farmodiética attend the upcoming Food & Nutrition Conference Expo (the largest nutritional conference in U.S.). During the conference, UTEN and the Farmodiética team spent 3 days interviewing key decision makers (dieticians, clinical nutritionists, and weight management providers) to assess 3 Step Diets business model in the US market. From the discussions it was clear that the current model being developed in Portugal will need some modification to accommodate the different employment models for dieticians in the United States and the highly competitive medically managed weight loss programs entrenched today. A UTEN member then contacted leading nutrition|diet program market leaders including a dietetics market research expert, John Larosa. The Farmodiética team has decided to take a step back and reassess their model with a focus on entering the US market in February 2016. The company graduated from the program in 2015.

"I would like to thank the IC² Institute team for their support with the due diligence, interviews to the players in this market, and specially for Donovan's visit to Atlanta. Our discussions were clarifying, and, hopefully, they were for you as well."

Hugo Teixeira, CEO Farmodiética

IC² Institute team members Marco Bravo, Gregory Pogue, Christopher Meyers, Rodney Klassy, and Donavan Miller with ARPublisher CEO Narciso Melo (September 2014)

IPBRICK
http://www.ipbrick.com

IPBRICK designs Systems of Engagement using Linux-based, open source, IT architectures (inside a unique server/brick technology) that result in turnkey IT infrastructure services for SMB/SME, mid-market, and large enterprise businesses. Combining four core elements (email and groupware, document and process management, unified communications and collaboration, and enterprise social business management with embedded IT security), IPBrick delivers ready-to-run, customized "IT Stack in a Box" designs. Its Lego-like, plug-and-play modules equip integrators, resellers, and IT administrators with N-combinations of network topologies and intranet/extranet configurations that get placed into service instantly, whether on premises or in the Cloud. This results in a 50% lower Total Cost of Ownership (TCO) and faster Return on Investment (ROI) for cost-conscious customers. IPBrick's "Swiss army knife" style of server technology (also known as an IP Brick), comes pre-configured and is exceptionally fast to install and simple to provision by IT professionals with limited IT certifications (i.e., no Cisco or Microsoft certifications required). IPBrick has products deployed in more than 30 countries with a base of over 7,000 IPBricks installed in more than 6,000 business, servicing over 1.5M users in Western Europe and the European Union.

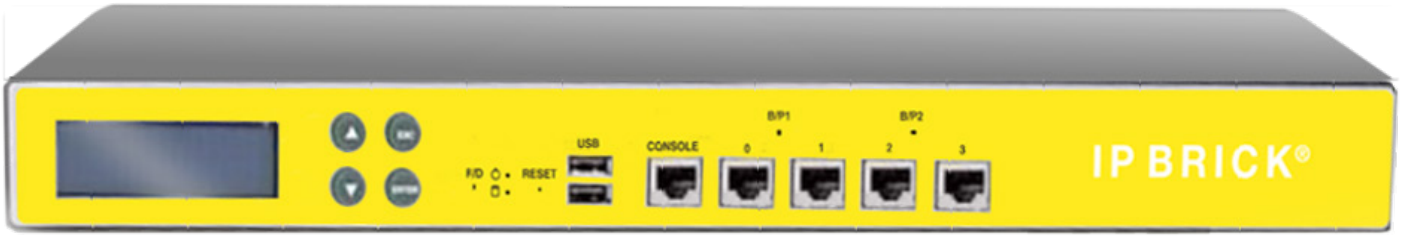
IPBrick seeks UTEN assistance to expand into North America. Though IPBrick has some direct business sales, it has mostly sold products and services through a robust network of distributors, resellers, systems integrators (SIs), and Integrated Solutions Vendors (ISVs). IPBrick solutions allow distributors and resellers higher profit margins than they might otherwise enjoy from selling and promoting other OEM vendors' shrink-wrapped solutions (i.e., Microsoft, Oracle, or SAP). IPBrick is seeking UTEN's help with Value-added Resellers (VARs), channel partners, and niche SI/ISVs or Managed Service Providers (MSPs) who might find IPBrick products and solution sets of high interest. The UTEN team is also refining IPBrick's business description, web and marketing materials, pitch plans, and overall "Wow! factor," as well as its unique value proposition into a stronger eye-catching, ear-catching offer. GSP has helped identify North American trade shows and conferences where IPBrick might exhibit, present sessions, or solicit resellers.

With the help of the IC^2 Institute UTEN team in 2015, IPBrick evolved its core business model from a brick-and-mortar style client-server product design to a full, ready-to-deploy Cloud/SaaS model for its distributors, partners, and customers worldwide. This has included a complex but critically important architectural redesign of its core IPBrick 4-module platform for functional use on the IBM Softlayer Cloud Marketplace. By leveraging proximity to the Austin-based IBM Innovation Center and the Softlayer go-to-market enablement team, personal engagement accelerated the migration and allowed IPBrick to also help IBM's team to amend, adapt, and evolve its own third-party application administration and hosting features on Softlayer progressively, with IPBrick's technical expertise and know-how. This resulted in a new series of IPBrick products that are now "ready for sale" on the Softlayer Applications Marketplace worldwide. This effort will also serve as a springboard for IPBrick to add its products to Amazon Web Services and other private cloud providers for consumption by resellers, MSPs, and direct customers. IPBrick also credits the UTEN team and program with excellent professional mentoring and coaching that has helped IPBrick evolve its selling method and business model. By better communicating IPBrick's core value proposition and economic merit to new distributors and customers, the company has accelerated its ability to attract and close deals in Portugal, Spain, and the European Union.

The new relationship with IBM Softlayer has also spawned interest and curiosity about IPBrick and resulted in new clients both in Europe and North America. Several of IPBrick's marketing pieces, its website, and videos reflect changes made as a result of UTEN advice. New pricing for IPBrick's Cloud/SaaS offerings was designed with help from the IC^2 Institute, which is very important for IPBrick to start closing deals outside of Europe. UTEN also encouraged IPBrick to attend the Cloud Channels conference in Boston in September, which helped identify a series of potential Cloud Services Providers, MSPs, and VADs, that IPBrick is soliciting to represent or sell its products and services (i.e., Arrow Electronics, Avnet, TechData, Ingram Micro, Level3, Vonage, Megapath, and Synnex/CloudSolv).

Because of these strategic business and partnering efforts, IPBrick has added headcount to its R&D, engineering, marketing, and technical support departments. According to Raul Oliviera, CEO of IPBrick, UTEN helped accelerate the business's transition into a Cloud/SaaS-based products and services company – and that through GSP's Portugal Storyboard Workshop, he and his team have now built a far more effective promotional pitch for new clients, based on economic value to his clients. The new pitch is accelerating business conversations and IPBrick is closing "more" deals "faster." More importantly, it has helped shift IPBrick from a technology-centric company to a business-centric company. With more and more companies moving to cloud-based solutions, IPBrick is now set to aggressively compete and win new business worldwide (with favorable economics for its distributors and resellers, as well as for IPBrick itself). IPBrick is also preparing to raise Series A funding.

"IPBRICK SA has been mainly concentrating his internationalization efforts in our local European market, where are the majority of IPBRICK references. But Europe is a very conservative region, where innovations are not easily adopted until they are recognized as good in USA. We all believe that what we do in IPBRICK is very innovative, and we are sure



that our work will be apreciated by the United States Market. Today and now IPBRICK, with more than 7,000 systems sold, achieved the necessary maturity to face the most important world economy. We do believe that our Enterprise Communications vision will succeed in the United States Market, and we count on the help from the IC² Institute UTEN Startup Program to succeed in our decision to enter the USA market."

Raul Oliveira, founder and CEO IPBrick SA

Metablue
http://www.farmodietica.com/

Metablue,has developed a new type of otoscope that uses reflected light to diagnose ear infections, making it simple for both doctors ans patients to use. The UTEN team conducted a market analysis to identify competition, which is primarily traditional otoscopes using visual observation of the inner ear. Metablue has conducted a clinical trial in Portugal and is preparing to launch its product in Portugal and Spain in late 2015. Metablue's Otitest otoscope will require an FDA 510(k) approval before beginning sales in the United States. Prior to applying for the FDA 510(k) Metablue indicated wanted to conduct a clinical trial in the United States. UTEN aided Metablue in establishing contacts with the Duke Clinical Research Institute (DCRI) who were very interested in testing this new otoscope device. DCRI presented Metablue with a quote to perform the clinical study in the fall of 2015. Metablue is currently reviewing its investor and financial position with respect to conducting the U.S.clinical study. Metablue is in discussions with a potential distribution company in the United States once the FDA 510(k) approval is obtained.

"Metablue has recently established a distribution agreement with Pharma company Ferraz Lynce for Portugal, Spain, France, and Angola. The next step will be preparing the North American market entry. The support of IC² Institute of The University of Texas at Austin will be of the greatest importance at this stage, to enable the clinical trials for the FDA 510(k) clearance and access to the retail stores. I consider the participation in UTEN program crucial to succeed in the approach to the North American market."

Diamantino Lopes, Co-Founder and CEO Metablue

RVLP Technologies
http://www.rvlptechnologies.com/

RVLP Technologies is an engineering company developing high tech productivity improvement products for the swine industry. These products will be sold by its subsidiary ScrofaTech. ScrofaTech launched its newest product, ScrofaPartum, a sensor system using artificial vision to monitor the farrowing (birthing) of sows on farms at the EuroTier 2014 Tradefair in Hannover, Germany. The EuroTier tradefair is the largest agricultural exhibition in the world. A UTEN team member traveled to EuroTier to work with ScrofaTech at the fair. Discussions were held with producers from Europe, United States, Canada, China and Brazil. In addition to producers, three (3) major swine equipment manufacturers expressed interest in distributing for ScrofaTech. Field trials began in February on a major swine producer's farm in Portugal which uncovered that additional refinement were needed to the computer algorithms and sensors. Subsequent tests showed very good results, additional trials are underway in Portugal and soon to be started in France. ScrofaTech will be seeking funding for additional product development and sales execution infrastructure. The company graduated from the Global Startup Program in 2015.

Rui Valpaços, RVLP's Founder and CEO at EuroTier 2014

"Working with the UTEN Program has helped us refine our business strategy and go-to-market plan as we finalize product development and testing in our field trials. We appreciate all the time and effort that the UTEN team has put into helping us begin to commercialize our products."

Rui Valpaços, Founder and CEO RVLP Technologies

TAKE THE WIND
WWW.TAKETHEWIND.COM

Take the Wind
http://takethewind.com

Body Interact, by Take The Wind (TTW), delivers the world's first 3D e-Health medical training platform that accelerates learning and improves patient outcomes for doctors, nurses, and drug companies. Body Interact's immersive touchscreen experience offers professionals and students a highly interactive life-like platform, adaptable across dozens of clinical case scenarios including cardiology, respiratory, neurology, endocrinology and infectious disease. Body Interact is customizable for medical schools, medical simulation centers, and continuing education providers and is unlike using static mannequin or cadavers for training. It's been used to deliver hundreds of clinical cases through webinars, hands-on workshops or multi-day conferences by universities, medical associations, and drug companies to train and educate employees and salespersons. Body Interact can be uniquely configured as a table-top touchscreen, delivered on iPad or Android Tablets, or through hosted web conference session. Take the Wind is getting great traction and has secured repeat sales with a number of major drug/pharma companies, has placed sales with medical/nursing schools, and been used to facilitate continuing education workshops and seminars, including large conference venues.

UTEN has helped TTW to identify a primary market niche known as medical simulation (Med-Sim). The GSP team has helped identify two key North American events – one in Toronto, Canada (December 4-5, 2014) focused on the Canadian Med-Sim market, and another in New Orleans, Louisiana (January 2015). The UTEN team is helping TTW with public relations, marketing, and outbound business development/outreach to medical/nursing schools, universities, and other institutions that either have Med-Sim centers or high interest in new teaching/training platforms.

TTW and its product Body Interact exhibits a strong model among all UTEN member companies, year on year. With strong, focused management, TTW is highly committed to success. The business has responded agilely to UTEN coaching and advice, to rapidly adjust Body Interact's main value proposition for medical educators so that it resonates with its target audience.

Wasting little time, TTW extended its reach through trade show presentations in Toronto, New Orleans, San Diego, and other target-rich events across the United States and Canada.

In 2015, Take the Wind and the UTEN team engaged dozens of medical and nursing school administrators, students and practitioners, who found Body Interact to be highly engaging, novel, and a product that offered an immersive experience for accelerated critical thinking, clinical decision-making and higher correlation to real world patient engagement. Engagement in Toronto has led to a pilot program at the University of Toronto; and a 12-18 month longitudinal study with George Brown University's new simulation center in downtown Toronto. By engaging EMS/iSimulate in Toronto, Take the Wind, with the help of UTEN, consummated a multi-year distribution partnership EMS's Chinese distributor TellYes a in January of 2015 — which also required TTW and TellYes to cooperate closely to on design, test and deploy a Chinese version of the Body Interact software for use in China. TellYes also purchased five (5) Body Interact tables for demonstration throughout its Chinese offices and territory. This partnership led to EMS/iSimulate also signing a multi-year exclusive distributor agreement for the Body Interact product across the United States, specifically into medical hospitals and simulation centers, that included a large dollar commitment to lock in the EMS exclusive. EMS has also purchased a demonstration unit for it's 20,000 square ft. product showroom near Philadelphia, and has also secured rights to represent TTW/Body Interact at a large number of USA trade shows and conferences. As a result of enthusiastic demonstrations of Body Interact at the IMSH show, UTEN helped draft and negotiate key distribution agreements that have also been used to consummate other partnerships with distributors in Portugal, Spain, China, Canada and Germany.

Additionally, in 2015, TTW/Body Interact negotiated and closed a worldwide partnership with a major drug company to provide ten stroke centers in developing countries with a series of clinical cases. Talks continue with the University of Texas at Dallas regarding use of Body Interact for the Nursing

Texas Governor Greg Abbott and officials with Body Interact table (Photo: Rio Grande Guardian)

School and pediatrics practice; with IBM's Healthcare and Watson Healthcare Initiatives; with the University of Southern California and its work on novel use of natural language processing, and the possibility of partnering with Body Interact on AMA "Future of Medical Education" initiatives.

The interactions from the Toronto Sim-One Show, the AMA conference, the IMSH show in New Orleans, culminated in numerous engagements with the American College of Cardiology, which has now contracted with Body Interact as its primary partner for a new eLearning program starting in 2016. A similar on-line eLearning program has also been consummated with the American Heart Association (AHA), who UTEN first hosted at our Austin offices, to demonstrate Body Interact, which also resulted in the AHA inviting TTW/Body Interact to be the showcase product at their annual trade show in Orlando, paying 100% of TTW/Body Interact's travel and show expenses. Additional progress was made in parallel with TTW/Body Interact also extending or expanding its solid drug and pharma practice of renting or leasing its products for use in drug and clinical case work at major pharmaceutical conferences world wide.

On July 24th, 2015, the IC² Institute and Body Interact hosted a lunch conference entitled "Innovations in Advanced Medical Education" on the use of interactive simulation to train medical professionals. The keynote speaker was Dr. Kristina Stillsmoking, Director of the Smart Simulation Hospital at The University of Texas, Rio Grande Valley campus, joined by Dr. Judy LeFlore, Professor and Associate Dean for Simulation and Technology in The University of Texas at Arlington. Body Interact was available for hands-on demonstrations. Attendees experienced how digital simulation is used to enhance training in acute and chronic care situations, and how it advances real-time critical thinking and clinical decision-making skills, for medical professionals.

On September 14, 2015, Texas Governor Greg Abbot, Senator John Cornyn, Veterans Affairs Secretary Robert McDonald and Representative Rubén Hinojosa got first-hand experience with Body Interact. The officials were on a tour of the UT Rio Grande Valley Smart Hospital, a state-of-the-art facility, which simulates all departments of a working hospital to train health care providers and first responders.

UTEN also initiated a dialogue with Glaxo-Smith Kline (GSK) in Colombia, for TTW/Body Interact, where collaborative talks continue with GSK's country CEO and representatives.

Take the Wind also invested in placement of an intern to work with the GSP staff full-time for six months. Sara Reis moved from Portugal to Austin to realize this training opportunity. UTEN staff worked with Sara on Body Interact trade show presentations, telesales, and lead follow-up. The UTEN team also helped TTW establish a sales office in Austin and a US subsidiary in Dover, Delaware, to help consummate more business from federal and state entities nationwide.

"Take the Wind and Body Interact's participation in this IC² Institute/UTEN program provides us access to top level managers with high experience, network and their extensive knowledge of the entire North American market is clearly helping Take the Wind implement a solid and

coherent business development strategy for attacking new opportunities beyond our European efforts. With a positive energy and deep involvement with our team, the UTEN team take us out of our comfort zone every day and constantly lead us into new and valuable insights and challenges!"

Pedro Pinto, co-founder and CEO Take the Wind

2EAST
http://2east.pt/

2East has developed a proprietary drink delivery backpack system for promoting and selling of cold, hot, and both sparkling and non-sparkling beverages. 2east provides two different services: 2Drink (Music festivals, Arenas, Stadiums, Venues, or other events that request a drink sales service with backpacks) and 2Experience (Brand activations, Sampling, Corporate events, and Drink Tasting). With current customers such as Lollapalooza (Brazil), Rock-n-Rio (Portugal, Brazil and Las Vegas, NV), NOS Alive (Portugal), SBSR (Portugal) and Meo Arena (Portugal), 2east is well established with key global events. The UTEN team helped secure 2easts first US contract with Rock-n-Rio in Las Vegas that resulted in significant revenues over the two-weekend event. As well, the UTEN team engaged Austin City Limits Music Festival, FBR and secured meetings with Lollapaloza (Chicago) and Live Nation for potential roll out to over 31 festivals and 30 venues across the USA.

The UTEN Global Startup Program assisted 2East in establishing a corporation in the United States and how to reach goals, define strategy, schedule meetings, and deal with immigration issues.

"After working with IC² Institute team this year, our expectations to achieve our goals are growing even more. Their well-established network and Donovan's persistence to open doors, has been instrumental to secure meetings with multinational entertainment companies as we develop and establish our business in the US market with the goal to become the biggest reference in beverages companies. This experience is very gratifying for our company. We thank you for all the commitment of UTEN team."

André Leite, co-founder CEO U.S.

"We just got into the Global Startup Program and we are extremely excited about this new stage of our company! We found an energetic team at the IC² Institute that understood our business immediately and that shared the same vision we had for our company in the U.S. market! We believe that together we'll achieve our goals, fit in the market and the society customs, and also be a reference in beverages business much faster than we would do by ourselves!"

João Fernandes, CEO Brazil

Vertequip
http://site.vertequip.com/

Vertequip (Vertical Equipment), Vertequip's S.T.E.P. (System of Translation and Elevation of People) is the fastest, most productive and safest way of performing work at heights. Designed and patented by Vertequip, S.T.E.P. delivers a complete end-to-end, turnkey safety system for moving manpower and equipment vertically, horizontally, or diagonally, in and around structures with speed and accuracy. Vertequip's gear can be permanently fixed or offered as a portable system for safely securing people that make a living working at heights, fast and cost effectively. Its S.T.E.P. Academy delivers certified safety training to its customers that meets or exceeds all CE, ANSI, or OSHA standards of excellence. S.T.E.P. is used worldwide by construction firms, mining companies, those that service and maintain hi-rises, wind turbines, and off shore oil rigs. S.T.E.P. Is equally agile, safe, and simple enough for those with limited mobility (including amputees) to own and operate commercial window cleaning operations. Vertequip's headquarters is in Santarém, Portugal. Vertequip seeks UTEN help to enter and launch across North America and other global markets.

The Vertequip team has a very solid technical capability and equally solid Marcom/design team that has built outstanding marketing and web content as well as numerous videos for marketing, selling, and educational purposes.

At the same time, when Vertequip first came to the UTEN program, the venture was at a very early stage, and thus presented several challenges. The team was impressive, but was still seeking revenue traction in Portugal and the EU for its innovative S.T.E.P. fall safety system. Work in early 2015 helped Vertequip and the UTEN team better understand the industry and key markets most appropriate for Vertequip's innovative product throughout North America.

Unfortunately, during Q1 of 2015, Vertequip experienced a financial setback. The UTEN team offered advice on applying key strategies to minimize financial burdens, and helped the entrepreneurs craft a plan to establish a temporary bridge loan while it closed on a major round of Seed stage funding. The overall closing of funds took longer than expected, which delayed Vertequip's ability to formally engage with the UTEN program until June of 2015. During that same time frame, it

2East at Rock-n-Rio Las Vegas

became apparent that US industrial safety standards would need to be met before Vertequip could engage with the US market.

UTEN therefore undertook an extensive effort to identify the OSHA, ANSE and ASSE safety requirements and standards that Vertequip would need to meet. We also identified numerous third-party testing labs or firms that could, provide written certification or documentation to meet stringent USA industry practices, including UL, Gravitec ,and others. This also somewhat delayed formal business development and selling activities for Vertequip through early September. To assist in this effort, UTEN identified a world-class expert, Mr. Daniel Paine who had not only built, managed, and sold his own fall safety equipment company, but was a standing member of numerous standards committees, and author of numerous current standards. Upon hearing Vertequip's story and seeing its product, Dan eagerly engaged with UTEN team and Vertequip. UTEN and Mr. Paine summarily have coordinated and worked with Vertequip to validate it's solid technical documentation and product certification requirements; and have also identified numerous safety wquipment, building/construction or architectural design conferences or organizations nationwide that are Vertequip's prime sales targets for the remainder of 2015 and 2016 within the UTEN program.

UTEN has helped Vertequip refine its USA/English Product catalog, website, and product and company descriptions to better align with industry terminology. In early 2015, the GSP team helped negotiate an independent agreement between Vertequip and Luis Barros covering the greater New York City and New Jersey markets. Through this process, UTEN helped refine Vertequip's distribution and sales agent agreements (which later helped accelerate closing such agreements in Germany and the Middle East).

UTEN worked closely with the Vertequip team (including Mr. Payne) during an extended visit to the United States that included attending the National Safety Council trade show in Atlanta, Georgia; as well as meetings in Houston and Austin that facilitated positive product introduction and numerous follow-on engagements. These interactions resulted in Vertequip being added to vendor lists, inclusion for design or construction quotes. In Austin, UTEN initiated discussions for a sales and distribution partnership between Vertequip and RoofTop Anchor (a company that specializes in fall protection systems, products, and services across the United States). RoofTop Anchor found Vertequip's product design and capabilities to be extremely interesting, and negotiations are expected to conclude before the end of 2015. The GSP team is identifying opportunities for Vertequip to consider for 2015 to help the company realize US sales.

While in Lisbon in September 2015, the UTEN team met with Vertequip's two leading Portuguese investors, Rising Ventures and EDP Ventures. This meeting was positive for all parties, and ultimately resulted in EDP Ventures encouraging some of its other portfolio clients to apply for the UTEN 2016 Global Startup Program.

"My partner Manoel and I met the team of UTEN team in Portugal...On both occasions we were excited about the value that the UTEN program could bring to Vertequip and decided to apply even at our early stage as a company. Following our application submitted in June, we had several Skype meeting with different members of the UTEN team who requested extensive information and preparation from our side. The final interview happened in September in Coimbra with the panel of the UTEN and the possible match between our needs and the program got even more clearer. By the end of October, and with great satisfaction to us, we received the communication of our acceptance in the program.

We have, since then, began to prepare our first phase of activities and outlined a strategic plan and roadmap for our North American market push in partnership with UTEN/IC² Institute over the next months."

Pedro Goncalves, COO, Vertequip

whale

Clientscape

Whale
http://www.whalelabs.com/

Whale's product – Clientscape (www.clientscape.com) – is the ultimate customer care platform that identifies a brands customer on social media by matching their existing CRM ID with their digital profiles (Facebook, Twitter, E-mail, Web Analytics and Mobile). All this is done through a highly accurate customer self-identification method leveraged through social login and a proprietary tracking system.

Clientscape, a late entrant into the 2014 UTEN cohort due to their increased traction/growth, has been working to understand the US market for expansion. Through meetings that UTEN team secured, Clientscape met with IBM, Liquidation Channel, and Dell leading to a substantial shift in how the team positioned and messaged the product. This included moving away from selling into the CMO/Marketing teams and shifting the sales focus into the customer care business units. This change in positioning helped Clientscape to retain TAP as a client, contributed to securing a significant contract with EDP (with potential to roll out new contracts valued at $1M+), and secured MULTI YRAT sales contract with Rock-n-Rio. The meetings with IBM led to acceptance into the highly valued Bluemix and Watson programs providing more revenue in software|services. Lastly, with assistance from the UTEN team, Clientscape was awarded $1.2M via the Horizon 2020 program to subsidize international expansion for 2016 and 2017.

"Insightful, practical, effective, and to the point, the Global Startup UTEN program is pure gold. The help, guidance, and mentoring we have received under the UTEN program has been the most significant input to our project. We have been able to turn a good idea into a great product, and are now preparing to rev up sales."

Paulo Almeida, co-founder and CEO Whale

UTEN also worked with Laserleap, a early stage venture from Coimbra, on initial due diligence on how to approach international market readiness:

laserleap
tunnelling drugs through skin

LaserLeap
http://www.laserleap.com/

Though not officially in the 2015 Global Startup Program, the IC² Institute's UTEN team has assisted LaserLeap with certain business efforts to prepare it for 2016. LaserLeap seeks to enter the US market with its novel laser-based transdermal drug delivery system.

Prior to conducting sales in the United States, the LaserLeap system must be approved by the US FDA for use with the specific drug(s) or cosmetic agent(s) that will be delivered through the device.

LaserLeap is seeking additional investment funding and would like UTEN's assistance to obtain quotes from companies that can aid in the FDA 510(K) submission to support its funding request. UTEN has contacted a leading company to initiate discussions with LaserLeap for this purpose. In addition, LaserLeap would like to conduct clinical trials at one or more centers in the United States during 2015, and UTEN will help identify potential trial sites in the United States.

"Working with the IC² Institute revealed a great team of very experienced professionals. Laserleap thanks the IC² Institute team for assistance in the U.S. market."

Gonçalo Sá, co-founder and CSO Laserleap

Companies recruited in September 2015:

BeMicro
http://www.beonenergy.com/

Founded in 2015 by Rui Rodriques and Jose Marcal, BeMicro operates mainly in Smart Energy. BeMicro's main product is the BEON microinverter, a small device that is attached to a Solar panel and allows is to be directly connected to a wall socket plug to start producing your own energy right out of the box and within 30 minutes. The company has introduced a unique system that allows the microinverters to be controlled to guarantee excess production. To help customers save money, the system is also able to control consumption and disconnect devices if the energy production from renewable sources is insufficient

Beeverycreative
https://beeverycreative.com/

BVCreative, led by Aurora Batista, BEEVERYCREATIVE develops desktop 3D printers and sells those printers and filament. The company aims to be among the world's top players in this market within 5 years. In 2013, the company launched its first printer, BEETHEFIRST, which is certified with CE, GS and UL, and has been distinguished in 2014 with 4 relevant international awards. In the same year, *CNN Money* referred to BEEVERYCREATIVE as one of the four companies in the race for the consumer market and *Tech.Eu* ranked the company as the #21 most exciting lean hardware startup in Europe.

Live demo of the LaserLeap Technology for IC² Institute 's team member Christopher Meyers (September 2014)

Biopremier
http://biopremier.com/

Led by Pedro Antunes, BIOPREMIER develops DNA-based diagnostic solutions for several sectors, including agro-food, veterinary, environmental, and clinical. The company has developed techniques that are unique in the world, both in service and product format -- speciation, fraud detection and DNA-based microbiology. The company began the monetization efforts for product and service development in 2012, starting with food quality and fraud control within the Portuguese market. Today the company works with clients all over the EU and is starting to internationalize beyond its borders (US, Brazil, and Mexico, for example). Biopremier's services and products are used mainly in the agro-food sector, from private firms (retailers, producers, and laboratories) to governmental fraud control agencies. The company's competitive advantage is its unique technology for food-fraud detection through DNA, as well as a lean cost structure. Biopremier aims to be an international reference of innovation and development for molecular diagnosis products by becoming a molecular biology center of reference. The company is focused on innovation, offering products and services in the fields of molecular biology for the agrifood, environmental, human clinical, and animal health industries.

Ciengis

http://www.ciengis.com/

Ciengis was founded in 2006, as a spin-off of the University of Coimbra by CEO Andrey Romanenko and Natércia Fernandes. Ciengis provides monitoring and optimization solutions that help manufacturing companies optimize the efficiency of their processes and reach higher levels of performance and competitiveness. Ciengis has worked with manufacturers in a variety of industries including chemical, petrochemical, energy (including bioenergy), cement, pulp and paper, and other manufacturing plants that have high energy consumption and high non-conformance costs. Solutions address all phases of a project: model development, control system architecture development, interfacing to regulatory controls, tuning, commissioning, and testing.

CoolFarm
http://cool-farm.com/

CoolFarm is a breakthrough system designed to nurture plants by controlling several environmental variables that have a direct impact on plant growth. Its application makes farming control easier and more intuitive as well as, more precise and optimized in terms of plant growth and resource management.and The result is higher without sacreificing crop quality. CoolFarm is aware of its environment, but more importantly, it is aware of plants and it is able to provide them what they need, when they need it! The company was "cool-founded" by Gonçalo Cabrita, Liliana Marques, Eduardo Esteves, and João Igor.

WY Group
http://www.wygroup.net/

WYgroup, through one of its business units, Bliss Applications, is a mobile software development consultancy, developing services and products for a growing market of mobile-driven economies. WYGroup company started in 2002 as a digital marketing agency. The company evolved into a group in 2007 by capturing new technologies that could be used for marketing, that lead to the creation of Bliss Applications in 2009, with a focus on developing software and apps for what was thought to be a great market. From its inception the group maintained the same management board and the same leadership in the mobile consultancy business unit. Pedro Janela is CEO of WYgroup, and André Gil is Managing Partner of Bliss Applications.

doDOC
http://www.dodo.com/

doDOC co-founded by 3 MIT Portugal PhDs: Carlos Boto, Federico Cismondi, and Paulo Melo, who together share more than 35 years of experience in professional documentation, engineering systems & life sciences, business development & sales. doDOC is defining a new era in regulatory compliance. doDOC automates the creation, management and tracking of information for regulatory reports ensuring compliance and facilitating the steps required for regulatory and quality audits. Through a cloud-based Platform-as-a-Service, doDOC can replace, complement, or enhance existing document management solutions due to its compatibility, flexibility,

and highly collaboration-oriented platform. Moreover, the management of the whole compliance process significantly improves due to the integrated analytics that doDOC provides.

Dognaedis
https://www.dognaedis.com/

Focused on information security, DOGNÆDIS was created by a team of researchers from CERT-IPN and University of Coimbra. Francisco Rente and team were previously created CSIRT (Computer Security Incident Response Team), the CERT-IPN, hosted at the Instituto Pedro Nunes, a technology transfer interface created by the University of Coimbra in Portugal. After five years of activity, and due to the increasing success and positive feedback from several private and government organizations, DOGNÆDIS started as a private company, aiming to be at the forefront of security technologies. To reach this goal, the company is devoted to bringing information security to organizations and individuals through excellence in innovative solutions.

eyesee
http://eyesee-research.com/

Headquartered in Lisbon, Portugal, and led by André Pimentel and João Redol, EyeSee is a revolutionary solution that engages viewers and allows brands to seamlessly integrate in-stream ads and in-image ads in premium content. EyeSee has developed a patent-protected technology that automatically inserts context-relevant ads: No need for human intervention, making it easy and scalable for publishers.

FINDSTER
https://www.getfindster.com/

Findster has developed an innovative GPS tracking system that uses a proprietary radio frequency (RF) technology to extend the communications range 10-20X times further than the typical Bluetooth-enabled tracking systems on the market today. Findster trackers have a standard range of 1km (0.62mi) versus a typical 100-150 meter range of Bluetooth trackers, that can be extended to 2km (1.2mi) with addition of a base station to the system. The Findster tracker is ideal for real-time monitoring of the location of children or pets at play or going to school. When paired with the Findster mobile app you can create security zones or routes, and receive push notifications when the safe settings are not met. Additional features include activity tracking and fall detection. Findster tracker has no monthly fees.

Line Health
http://www.linehealth.com/

Formerly PharmAssistant, Line Health has undergone a major rebranding and product design. Strongly influenced by the extensive market research conducted by the IC^2 Institute, consisting of many conversations with persons in the healthcare industry, Line Health made the decision to focus on engagement and alignment between healthcare providers and patients. The company's initiative to redesign its product, in order to offer a higher degree of confirmation to patients and caregivers, was underscored by conversations with Cindy Walker-Peach, Director of the Life Science vertical at the Austin Technology Incubator and Anupam Srivastava, Director of Intel Capital.

On the company's behalf, in order to determine the right market fit for their solution, the Institute was able to facilitate a clinical pilot dialogue for 100 stroke patients with the NeuroTexas Institute at St. David's. For the trial, the Institute helped Line Health identify potential funding sources and collaborated on NIH and American Heart Association grants. As a part of conversations for this trial, Line Health began discussions to form an industry partnership with Dell and start clinical trial conversations for diabetic patients with Sendero Health, a major Accountable Care Organization in Texas. In addition, in July, UTEN team pitched to the Central Texas Angel Network on the company's behalf. Through the Institute's network, the company was also able to develop a deep relationship with John Kinzell of Xeris Pharmaceuticals and Hill Country Angels.

> *"The value brought by the IC^2 Institute and the UTEN program to Line Health is unquestionable. They did an impressive job in terms of market research, and they were able to arrange very important and relevant meetings for my trips to Texas (investors, partners, pilots, etc.). The ongoing relationship was also critical for the development of our business model in the US, figuring out the incentives for each stakeholder."*
>
> *Diogo Ortega,co-founder and CEO of Line Health*

> *"UTEN brings American startup know-how to the Portuguese ecosystem. They teach us best practices and methods, without which we couldn't aim at becoming successful entrepreneurs."*
>
> *Lourenço Oliveira, Business Developer for Line Health*

PeekMeed
http://www.peekmed.com/

PeekMed started in 2014, and but the company was founded in January of 2015 by João Pedro Ribeiro, Sara Silva, and Jamie Campos. PeekMed aims to hold on the forefront of innovation, through the creation of products that redefine services in Healthcare. The company strives to build, on the one hand, innovative and powerful technological solutions and on the other hand, simple and easy to use tools in order to help the healthcare professionals in a better way. PeekMed intends to create global products, that are easily accessible, used, and recommended by all physicians worldwide. PeekMed's first product is a 3D surgical planning software for orthopedic surgeons, PeekMed One. Current pre-operative planning tools are ineffective because orthopedic surgeons cannot make a full surgery preview due to the current 2D limitations of the planning process. During 2014, PeekMed tested the prototype version of PeekMed One with a community of about 30 orthopedic surgeons in the north of Portugal. Through an iterative process, we have worked to reach high quality industry-leading tool. PeekMed recently launched the minimum viable product (MVP). Since February, there are about 80 users of the trial version of PeekMed One. PeekMed's patent-pending technology consists in an algorithm that allows the interoperability of images structurally different.

Petable
http://www.petable.com/

Founded by Ines Viegas and Bruno Farinha, Petable is an app for pet owners that includes a pet's complete and detailed health and life records, contextualized information from tPetable's team of vets with a direct connection to the user's veterinarian, and integration with wearable and IoT devices for pets.

The company also includes a back office for veterinary clinics, with integration to practice management software, and that means access to clients' remote behavior, and a platform for guided pet care. Petable is also a platform for corporate players, who benefit from the collected data, and get a channel for delivering contextualized information.

SWITCH
https://switchpayments.com

Founded by Pedro Campos and Ruca Marques, Switch is an online payments gateway that provides one simple and flexible API that connects high volume merchants with a myriad of service providers (Card Networks, Acquirers, Processors, PSPs, Wallets, Security Providers) over a single integration, using proprietary technology such as dynamic routing to promote cross-border transaction optimization. Switch offers flexible payment APIs with libraries in every mainstream programming language that enable businesses to: Easily integrate multiple acquirers/currencies/payment methods over one single integration; Significantly reduce their processing rates on cross-border payments by dynamically routing transactions through local acquirers; Create custom payment experiences in mobile websites or mobile apps, Program flexible payment orders: charge customers one-time, recurring, with dynamic amounts and periods and Keep sensitive data away from their servers, easing much of the Payment Card Industry Data Security Standard (PCI DSS) compliance burden. The company's state-of-the-art modular systems architecture enables us to plug multiple payment providers in record time. This infrastructure combined with a transactional business model allows Switch to rapidly expand its operations into other markets and lock new businesses, using first-mover advantage to explore new markets.

SWORD health
http://swordhealth.com/web/

Founded by Virgilio Bento and Andre Eiras dos Santos, SWORD Health believes that the solution for stroke rehabilitation is in the wise combination of novel neuroscience-driven therapeutic methods with effective technologies that facilitate the dissemination of care and the use of all the knowledge produced in the rehabilitation of a large network of patients. Pursuing this vision, the company has developed an innovative system that allows the sustainable delivery of a more efficient motor rehabilitation to stroke patients, providing a rich source of data for clinicians and decision makers. SWORD Health was selected as ONE of the 140 most innovative companies in Europe and wOn a grant of $1M with the project. In addition, the company is partnering with the biggest rehabilitation chain of United States (2,100 clinics).

VENIAM
https://veniam.com/

Veniam is building the Internet of Moving Things. It turns vehicles into Wi-Fi hotspots and builds city-scale vehicular networks that expand wireless coverage and collects terabytes of urban data. In controlled spaces such as ports and container terminals, Veniam's game-changing solutions ensure that all mobile workers and assets are securely connected, no matter where they are or at what speed they are moving. Its hardware, software, and cloud components are running in the world's largest network of connected vehicles, including taxis, waste collection trucks, and an entire public bus fleet in Porto, Portugal, offering free Wi-Fi to more than 260,000 active customers. Veniam is backed by leading venture capital firms, with offices in Silicon Valley and Porto, Portugal.

WATT IS
https://veniam.com/

Watt-IS was founded in March, 2012 by three entrepreneurs, with Miguel Carvalho as CEO. With diverse backgrounds, the team has been working jointly on several R&D projects in energy efficiency within the MIT Portugal Program (MPP), for more than four years. The Watt-IS was recently strengthened by the addition of Henrique Pombeiro (an MPP PhD candidate) as partner. Watt-IS has developed a software solution that analyzes the aggregated electricity consumption of a household from the data provided by smart meters, to identify when and which household appliances are used in a non-intrusive way. With this information, Watt-IS is able to generate tailor-made energy efficiency measures targeted for each household to help end-user clients to use electricity more efficiently, thus lowering energy consumption (and bills). The new layer of information generated will be useful to utility companies to better understand their clients, improve customer satisfaction levels, and achieve proper client segmentation. Watt-IS intends to partner with energy companies to provide precise energy efficiency information to their existing client base, charging utility companies an annual fee.

XHOCKWARE
http://www.xhockware.com/

Led by João Rodrigues, CEO, and João Neiva, COO, XHOCKWARE is a tech company based in Porto focused on developing innovative retail solutions. The company's first product is YouBeep, a mobile checkout solution designed to end waiting lines at checkout. The solution is based on two components, a mobile app and patented pluggable device, compatible with all POS, requiring no integration. YouBeep is a product for retailers worldwide, especially grocers/supermarkets, wanting to improve customer satisfaction and save money.

The business development efforts for these companies will be mostly held in 2016. Therefore, results will be analyzed on next year's report.

3.4.2. Texas-EU Venture Growth Summit (Austin, USA)

The IC^2 Institute's UTEN Portugal program and UT's Center for European Studies partnered with the Portuguese Foundation for Science and Technology (FCT) to hold a two-day networking and matchmaking event in Austin designed to accelerate technology startups in Austin and Portugal. Field trips, networking, and panel discussions encouraged firms to develop US/EU markets for their products and services. The event's main goal was to deliver measurable business development for Central Texas and Portuguese technology firms. The event, a component of the 2015 Texas-EU Summit, exposed the Portuguese delegation, including representatives from 24 technology companies, 8 technology incubators, and 3 venture capital groups, to the Austin technology ecosystem. From Central Texas, in addition to UT Austin's IC^2 Institute, speakers from 5 venture capital groups, 7 incubators/accelerators, the City of Austin, the Austin Chamber of Commerce, South-by-Southwest, and 2 corporations also participated in the event.

The first day included visits to local technology incubators and accelerators (including the Austin Technology Incubator, TechRanch, TechStars, and Capital Factory) to learn about collocating in Texas, finding US commercial partners, and using Austin as a "landing pad" for US operations. US Ambassador to Portugal Robert Sherman kicked off the workshop on the second day through a pre-recorded video welcome and emphasized how closely the event dovetailed with his overall

mission of deepening United States-Portuguese commercial relationships.

Three workshop panels gave both the Portuguese delegation and Austin-based tech and VC firms the opportunity to gain practical knowledge about entering the European and United States markets and how to obtain startup capital. Portuguese Ambassador to the United States Nuno Brito addressed the workshop via Skype to applaud the Institute's transatlantic partnership with Portugal, and urge attendees to use his trade attaché and other programs of his Washington office to strengthen business development between Central Texas and Portugal. UTEN Scientific Director José Mendonça, and Ireland's Consul-General in Austin, Adrian Farrell, closed the event with summary remarks about the importance of international trade and investment. Other speakers included Kevin Johns, Director of Economic Growth and Redevelopment Services for the City of Austin; Michele Skelding, Senior VP of Global Technology and Innovation for the Austin Chamber of Commerce; and Hugh Forrest, Director of SXSW Interactive. (see Appendix 2)

"... an awesome practical event!"
Pedro Enriques, CEO Strongstep

3.4.3. Portuguese presence at South-by-Southwest

SXSW Interactive

From March 13-17, a highlight of SXSW 2015 was the "SX Global Connections" thread running through the Interactive and Music conferences. The IC² Institute has supported this international focus by organizing the SX Global Connections Networking Center in Salon H of the Hilton Downtown. Salon H will be the hub of many international networking events as well as a panel on UTEN.

Emergence of Portuguese Entrepreneurship Ecosystem (UTEN Portugal)

Monday, March 16, 2015: 12:30PM – 1:30PM

Hilton Austin Downtown – Salon H

Panelists: Marco Bravo (IC² Institute); João Vasconcelos (Startup Lisboa), João Pereira (Portugal Ventures), and Pedro Vieira (Beta-i)

Investments by the Portuguese government has lead to dramatic increase in Science and Technology (S&T) output as measured by PhDs, publications and patents. The downturn in the European financial crisis and associated austerity measures have stimulated competent technology incubators and acceleration programs, as well as young Portuguese to identify promising innovations emerging from the government's S&T investments and form promising new ventures. The rapid emergence of the Portuguese entrepreneur is the unseen story of the past three years as promising young companies are competing internationally for venture funding, successfully launching international

Closing pannel - from left to right: José Mendonça (UTEN Scientific Director in Portugal), Marco Bravo (UTEN Director), Adrian Farrell (Consul General at Consulate of Ireland in Austin), and Bruce Kellison (Associate Director of the BBR)

Remote intervention of Ambassador Sherman, United States Ambassador to Portugal

products and seeing exciting exits repositioning the Portuguese economy from a manufacturing to innovation-based economy.

SXSW Edu

In 2015 the UT-Austin|Portugal program has participated in SXSW Edu, the spinoff conference focusing on education. In the session "Research, Startups, Citizens: all together now", Marco Bravo, Fátima Simão, and Heitor Alvelos explored what happened when design researchers, startups, and citizen-led projects were brought together in a university-sponsored coworking space. The panel explored how organizational development models have promoted design research, bringing together citizen-led projects, startup businesses, and academics to create a space for cross-pollination and creative growth. It was part of SXSW.edu, a component of the media festival focused on innovative approaches to education.

The speakers represented a variety of backgrounds, reflecting the interdisciplinary nature of their topic. Alvelos heads the Design PhD program at U. Porto, São Simão has been a leading member of UPTEC while pursuing her doctorate, and both are actively involved in Creative Commons Portugal and are key organizers of the FUTUREPLACES MediaLab for Citizenship. Bravo, who was previously with the Portuguese government's Ministry for Science, Technology, and Higher Education, is now Project Director for Global Entrepreneurship, Innovation, and Technology Commercialization at UT's IC^2 Institute. The panel was followed by an interactive period of audience discussion.

Research, Startups, Citizens: All Together Now

The issue of knowledge transfer is quite hot these days; the economic crisis has made it even hotter. At the University of Porto's Science and Technology Park (Portugal), we're testing development models by having Design Researchers, Startup businesses and Citizen-led projects share open workspaces and daily lives: the rest, as they say, is serendipity. This panel will present examples of how this emerging sense of community has been contributing to mutual growth.

Objectives:

1) To reconsider traditional expectations and outcomes involving research, entrepreneurship, and citizenship.

2) To foster a web of international partners engaged in emerging contextual R&D models.

3) To clarify the current role of design research as a bridge between citizens and entrepreneurs.

UTEN session at SXSW Interactive - from left to right: Pedro Vieira (President of Beta-i), Marco Bravo (UTEN Director), João Vasconcelos (Executive Director of Startup Lisboa), and João Pereira (Director Venture Capital at Portugal Ventures)

Thursday, March 12 10:30AM - 11:30AM

Austin Convention Center Room 12AB

500 East Cesar Chavez Street

Panelists: Marco Bravo (IC^2 Institute); Fátima São Simão (UPTEC), and Heitor Alvelos (CoLab, University of Porto)

3.4.4. Fostering Science & Innovation Ecosystems: Portugal-USA Partnerships (Lisbon, Portugal)

On May 28-29, 2015, the International Partnerships- CMU Portugal, MIT Portugal and UT Austin Portugal- held the 1st Joint Conference and Exhibition on "Fostering Science & Innovation Ecosystems: Portugal-USA Partnerships."

The purpose of these events was to showcase the activities and outcomes of the partnerships to Portugal, the commitment of the U.S. universities, and the strength of the relationships that have been created regarding Education, Research, and Innovation.

Under discussion was the relevance of the commitment and the relationships built with American partners, concerning education, research and innovation, and the goals achieved by these partnerships in the creation of new businesses and startups, generation of employment, development of products and services, or the attraction of talent.

Several researchers, entrepreneurs, students and former students connected to the different partnerships gave their testimony during the conference, that was accompanied by a display with some of the most emblematic projects developed under the three programs and that demonstrated the collaborative process between the Portuguese institutions and American universities.

The event took place at Palácio Foz, in Lisbon and was streamed live online.

3.4.5. Entrepreneurial Storyboarding: a "Go Global" Workshop (Lisbon, Coimbra, Porto, Portugal)

In September 2015, the IC^2 Istitute UTEN team was recruiting the 2015 company cohort and travelled to Portugal to conduct highly interactive workshop on a novel business presentation methodology, Entrepreneurial Storytelling, on these dates and locations:

- Lisbon, Startup Lisboa, September 23, 9am-6pm
- Coimbra, IPN, September 25, 9am-6pm
- Porto, UPTEC, September 29, 9am-6pm

All companies currently in the Global Startup Program or who were applying to the program were strongly encouraged to participate in the workshop and put this process in action for their marketing communications. Further, applicants invited to in-person interviews will use this presentation approach

Fostering Science & Innovation Ecosystems: Portugal-USA Partnerships (Lisbon, Portugal)

as we complete our evaluations for our 2015 cohort selection.

An entrepreneurial Storyboarding is a short, graphical sequence of the core business "scenes" that effectively communicate a novel or unique business model to a buyer, funder, or partner engaging active dialogue, mutual agreement, and execution support surrounding a commercialization "ask". This approach facilitates an audience-focus, customer-centric presentation while encouraging interactive dialogue for mutual value recognition, clarity on a business "ask" that includes customer buy-in and mutual ownership of next steps. It is adaptable for elevator-type environments, "back of the napkin" conversations, PowerPoint decks and formal pitches to customers, channel partners or investors. During this workshop, a step-by-step process will be presented to digest innovation, market and financial data, identify essentials for populating a storyboard, and derive a strategy to communicate tailored value propositions to partners, clients and funders. Presentation experience using the storyboard format was also provided.

"Our three managing founders attended this workshop and it was of great value. We spent a day reviewing our business model and the value chain, from the market problem that we address to the different actors in our business model. The workshop obliges you to break down your business model to the important and essential pieces, and focus on what is important—helping you to define your value offer to different market players."

Fernando Sousa, co-founder and CEO Video Observer

3.4.6. Orientation week (Austin, USA)

In September, the IC² Institute UTEN team was in Portugal to meet the entrepreneurs who applied for the Global Startup Program. To assist all applicants in making their strongest presentation, the team scheduled two-day visits in Coimbra, Lisbon, and Porto. At each location, on Day One they provided a workshop on Entrepreneurial Storyboarding and constructing a value proposition for the US market. Day Two was devoted to interviews. The workshop day was met with high enthusiasm.

"Yesterday was a special day. If it felt like Christmas. I have never, never, ever presented to an audience with so many good insights, never received this type of feedback in the year and the half I have been pitching. I keep waiting for a bill for the services to be presented, it was so unique and valuable, but it was all free. UTEN is a unique example of self-giving to our companies."

Paulo Almeida, co-founder and CEO Whale

"The orientation week was a great experience as it helped us to be more focused and clearly state our value proposition and differentiation. We received valuable advice that would take us months or even years to get on our own. We are pretty international but have never gotten this type of experience anywhere else."

André Gil, Mobile Manager & Partner, WY Group & Bliss

(see Appendix 3)

3.4.7. Positioning Portuguese Startups for U.S. Market

The Entrepreneurial Storyboard Methodology:

Research at the IC² Institute has revealed key questions that entrepreneurs must answer to create value propositions that produce partnerships with companies in new marketplaces. From studies of international startups seeking access to new markets, startup leadership focus on answering the question: "What is it?", where the focus is describing the technology, its features, and performance. Although important, the value of the technology is rarely understood from this discussion. Another common strategy employed by startups is to address the question, "What does it mean?", where the conversation focuses on larger societal, commercial and broad market impact potentially provided by the technology. Although inspirational, the manner one can operationalize these expansive impacts is lost in the "largeness" of this conversation. Our research has revealed that the key question that the market needs to be answered – the question that will seed meaningful business conversations – is "What does it do?" This question answers how a technology provides a viable solution for a measurable and validated market problem and integrates into an economic model benefiting the potential partner or customer. Helping startups progress from the "What is it?" and "What does it mean?" questions to the "What does it do?" discussion is key to accelerate commercial traction.

The University Technology Enterprise Network (UTEN), Global Startup Program (GSP) developed a new experiential training strategy was developed to catalyze deeper consideration ofthe "What does it do?" question through creating an "entrepreneurial sales" strategy. The tool used to create the transformational learning experience is the Entrepreneurial Storyboard. This persuasive rhetorical tool answers these key market questions:

- What is the "shape" of the problem that your proposed customers face? What do they value? How do they make money? How does the problem cost them profit?
- Any problem is not a single issue, but multifaceted. What are the priorities in the problem your customer faces?
- What solution do you offer? Not a technology – but a solution to the defined problems experienced by real (not hypothetical, market report described, Google search defined) customers? How will your solution alleviate their problems – which priority in the problem will it solve? Which priorities are not addressed?
- How will the solution work for the customer operationally, and financially? What is the model? How is their profit limited by the problems (profit equals revenue minus costs)? How will your solution change this equation for them?
- What is the selling ecosystem? Is your customer the final user? Is it a value-added partner? Is it a distribution partner? Other? How does money flow from your solution to the various parts of the economic value chain? Who benefits MOST from your solution?
- If your solution is adopted by the ecosystem, how will

Orientation week session

Entrepreneurial Storyboarding: a "Go Global" Workshop

you economically benefit? What mechanisms (fee for service, value add, milestones, royalties, etc.) do you propose as means of compensation?

- What are you ASKING the customer (the final user, the value-add partner, the distributor, funder, other) to DO FOR YOU? How will it benefit you? How will it benefit them? How will this ASK help solve the original problem?

Developing a Storyboard that addresses these questions engages an audience (customer or collaborator) in an active dialogue concerning the value the startup provides and expands to co-creative discussions developing a collaboration producing broader value for both the audience and the startup.

Training Days in Portugal:

The Entrepreneurial Storyboard training experience was presented by the GSP team in a distinct, one-day sessions in Lisbon, Coimbra, and Porto involving a total of ~35 different Portuguese startups. During the sessions, the teams identified the first group in the United States that they wished to discuss their product or service through descriptions of their current understanding of US market needs, fit, and value provided:

1. To the proposed end customer

2. To an indirect customer, a partner, who may be an intermediary to channel the product/service to end customers.

Before the session, company teams were asked to prepare a Quickpitch – a summary of the Storyboard for initial discussion. Through the working session, the impact of the Storyboard training was measured by the development of the Storyboard presentation and a revised Quickpitch. Comparisons of the pre-training Quicklooks with the post-training Quicklooks revealed profound changes overall, in the understanding of product value and commercialization strategies. Areas that showed marked change were:

1. Identification of the key market segment that would benefit most from their solution

2. Linkage of technology performance to economic value for target market

3. Description of explicit data supporting value statements

4. Identification of partnership or sales strategy that incentivizes US partners and the Portuguese startup to create a lasting business relationship.

The effectiveness of the training program was also measured by the eager engagement of the teams to the process – their engagement for the 9-hour session and the incorporation of the Storyboarding concepts into the company pitches. Manuel Simas of Veniam noted that :

> *"I came to the session thinking that this would be merely a rehash of things I already knew. Through my extensive sales experience, I have been exposed to the best sales training around. However, I was surprised by the program – the logic of the Storyboarding method and effectiveness of the exercises created a greatly improved and clear strategy to communicate Veniam's value proposition to US partners. This was a top quality training session."*

Entrepreneurial StoryBoarding and the 2016 Global Startup Selection Process:

The engagement of the teams in the Storyboard project was directly linked with the 2016 Global Startup application process. Companies interviewed for participation in the Global Startup program were asked to present their Storyboard

in the UTEN interviewsto display their problem/solution proposal and initial US market target.Entrepreners presented the Storyboard during the interviews and then answered specific questions as the Global Startup team measured the engagement of the startup leadership in the training process and their clarity on goals and strategy to enter the US market.

Based on the Storyboard presentation and question/answer session, the Global Startup team stratified applicant companies into three groups:

1. Those with products and strategy ready for market engagement in the next year

2. Those who require more incubation to create data to support future market entry, and

3. Those who require more business and product development to define the best US-focused value proposition.

From the interviews, nine companies were chosen for business engagement and development activities and nine companies were chosen for advising and incubation. This strategy prioritizes Global Startup resources to create business opportunity for defined companies while building a pipeline of "ready" companies for the 2017 cohort.

Entrepreneurial Storyboarding and Orientation Week in Austin:

The Storyboarding process was further used during the UTEN Global Startup Program Orientation Week in Austin in November 16-20, 2016. were challenged to communicate their value to Austin-based technology and commercialization experts by describing how their solution solves a measurable US market problem and simultaneously creates economic opportunity for the Portuguese startup and US partners. Teams worked during the Monday afternoon session to focus their presentations for the Tuesday Success Committee Mastermind Meeting.

The Success Committee Mastermind Meeting was organized to have up to 19 individuals outside the Global Startup program invited to hear company pitches and provide critique, and advise and strategy comments for consideration. During the 9 hour session, 11 Portuguese companies presented 15-20 minutes followed by a ~30 minute Q&A/comment session. Approximately 10 experts in addition to the Global Startup team attended the full session. André Pimentel, Chief Revenue Officer of EyeSee, commented, *"Thank you for getting 9-10 people outside IC² Institute to spend 9-10 hours with us!"*

The participants in the Mastermind Meeting included commercialization experts from Intel Capital, Borg Fest, PC Mall, IBM, the Austin Technology Incubator and many other groups. Following the presentation and Q&A/comment session each, the team met with a Global Startup member to walk through comments received and design a "next step" strategy for the remaining part of the Orientation Week and to link comments to a "Go to Market" plan for the United States.

> *"It would have taken many months for us to gain the critical understanding of market position and our US competition by normal experience – the meetings accelerated this learning to a matter of a single day… Getting feedback is critical for improvement. The presentations and discussions gave us the opportunity to think strategically about our company approach."* Alexandre Victorino, of Celfinet concurred, *"The strategic advice and linkages to key clients provided in the meetings would have required 3-6 months to normally acquire."*
>
> *André Gil, Mobile Manager & Partner, WY Group & Bliss*

Contacts and linkages established during the preparation phase before the Orientation Week and during the Mastermind Meeting were reached for meetings, and phone discussions. Meetings were held with the USDA, Alien Vault, US-FDA, Thermo-Fisher, The University of Texas at Austin, Capital Factory and associated companies, and many other experts.

Discussions were also held between the companies and Global Startup experts concerning the challenges and best practices associated with establish a company in the US. The discussion ranged broadly among topics including:

1. Raising capital

2. US incorporation and subsidiary formation

3. Legal requirements and representation

4. Accounting and tax considerations

5. Immigration and visa requirements

6. Office space, housing transportation, communication and other services

7. Austin, TX itself (culture, travel, business norms, etc.)

8. Broader considerations of doing business in the United States.

Friday afternoon, a wrap up session was conducted with each company to review feedback, learnings, and strategy for the future.

3.4.8. Workshop:EU funding opportunities for U.S. researchers

On November 10, 2015, Dr. Filipa Duarte of the Universidade Nova de Lisboa delivered a short workshop at the IC²

Institute on "EU public funding opportunities for US entities/ researchers." 54 people from the UT community attended the workshop.

Dr. Duarte is a Fulbright scholar from Portugal, in residence at IC² Institute through November 2015 working with Marco Bravo within the UTEN program. Her presentation focused on public research funding opportunities for US participation, available through Horizon 2020. Horizon 2020 is the EU Research and Innovation Program, launched in 2014 with €77 billion to invest in research, and innovation projects to support Europe's economic competitiveness and extend the frontiers of human knowledge. The program continues

Entrepreneurial Storyboarding: a "Go Global" Workshop

Dr. Filipa Duarte of the Universidade Nova de Lisboa at the IC² Institute, "EU public funding opportunities for US entities/ researchers."

4. Appendices

"The UTEN program helped us a lot figuring out which actors should we talk to in the US, and how can we best market our products. They added an immense value since our first interaction one year ago, as our internal KPI's show."

Diogo Ortega, co-founder and CEO linehealth

«The US Connect team for the last months supporting Feedzai in its commercialization effort into the U.S., has been supportive of Feedzai and, in particular, has devoted time and diligence to accompany us to the number of meetings arranged for Feedzai with companies such as Dell, IBM, or Adobe. For this we are very grateful»

Nuno Sebastião, co-founder and CEO Feedzai

Appendix 1

Sample Reports provided to Portuguese companies

Appendix 2

Appendix 3

Appendix 1

This document consists of market information gathered for the purpose of selecting and positioning one of LiveFabric's products into the United States marketplace. The document begins with information regarding the in-store inventory for Texas Specialty Maternity Stores. After summarizing shape, support, and compression wear in specialty maternity stores, the inventory portion of this document will conclude with the in-store inventory of these products in large retail stores in Texas. We considered dermatology offices as a possible distribution channel for LiveFabric purchases. The feedback from Office Managers at dermatology offices is included in this document after the portion on large retailers. Also included in this document is some information regarding the online market for copper wear products. Finally, this document concludes with some market information from India and recommendations for moving forward.

Texas Specialty Maternity Stores

Brands, Prices, Inventory, and Demand

All of the following data was gathered via phone calls with store managers of specialty maternity stores. Each of the store managers was asked about their stock of maternity shapewear, compression wear, and support wear. While most specialty maternity stores in Texas carry maternity shapewear, a typical inventory is small and average demand for these products is moderate. This document will summarize the brands, prices, inventory, and demand for shapewear products by metropolitan area.

Austin

Most Austin maternity stores carried a small inventory of compression and shapewear products. Spanx is by far the most popular in Austin and other major metro areas. Store managers stated that demand for support belts was far higher than demand for shape/compression wear. Some stores discontinued their stock of shape and compression wear due to low demand.

Store	Brands	Price	Inventory	Demand
Special Addition Maternity and Nursing Boutique	Power Mama Spanx	$32	4 - 6 garments	High
	Spanx Leggings	$36	4 - 6 garments	High
Motherhood Maternity	Motherhood Secret Fit Shaping Panties	$17	1 - 2 garments in each size and color	Moderate
	Support and Compression Panty Hoes	$7.98	1 - 2 garments in each size and color	Moderate
Pumpkin Patch Childrens' Store	Mama Spanx Maternity Footless Pantyhose	$14.99	3 - 4 garments sold each week	Moderate
	Support belt	$11.99 - $34.99	15 garments	High

***Special Addition Maternity and Nursing Boutique** They also carry a couple of garments from spanx that are not foundation garments (e.g. leggings with a support band). This product provides support for the belly and postpartum compression. The store owner had not heard of any demand for antimicrobial shape or compression wear. They do see high demand for abdominal support during pregnancy and postpartum. Inventory for maternity wear is re-stocked every 2-3 months. They have a comport store where they carry sensifoot compression stockings [crew, to the knee, to the ankle], $15; these are typically sold as socks for diabetics. They carry a lot of specialized compression socks provided by BSN medical device company. These products are FDA approved.

***Picket Fences Baby & Maternity** They do not carry maternity spanx - the owner stopped stocking because they were not selling.
***Pumpkin Patch Children's Store** This is a resale store.
***Petticoat Fair Inc.** They do not carry maternity shapewear.
***Gap** They do not carry maternity at Austin store.

Houston

The Houston market is composed of more specialty maternity stores with larger inventories and a wider variety of products. Demand for Spanx shapewear products varies by store. Like Austin, demand for support bands is higher than demand for compression or shapewear products. This was the only market in which the prices of particular products exceeded $100.

Store	Brands	Price	Inventory	Demand
Pickles & Ice Cream Maternity Apparel	Power Mama Spanx	$34.99	1 - 2 garments in each size/color	Moderate
Nine Maternity	Power Mama Spanx	$32	12 garments	High
A Pea in the Pod	Power Mama Spanx	$34.99	1 - 2 garments in each size/color	Moderate
	Pea in the Pod Tummy Tube	$26	1 - 2 garments in each size/color	Moderate
	Belly Bandit Post Partum Support Belt	$70	1 - 2 garments in each size/color	High
Motherhood Maternity	Motherhood Mid Thigh Shapewear	$16.98	1 - 2 garments in each size/color	Moderate
A Woman's Work	Prenatal Cradle	$73	16 - 18 garments	Low
	Prenatal Cradle - V2 Supporter	$65	16 - 18 garments	Low
	Postpartum Wrap	$73	16 - 18 garments	Low
	Mother Tucker	$65-80	12 garments	Moderate
	Medi Compression Hose	[see below]	1 -2 garments	[see below]
	C - Panty	$50	12 garments	Moderate
Haute Mommies & Bella Babies	Power Mama Spanx	$32	1 - 2 garments in each size/color	High
Nurtured Family	Anita Baby Belt	$56	1 - 2 garments in each size/color	Moderate
	Ingrid and Isabel Bella Band	$25.95 - $29.95	1 - 2 garments in each size/color	Moderate
	Upsie Belly Support by Belly Bandit	$69.95	1 - 2 garments in each size/color	High
	Cezara Belly Support and Post-Cesarean Panty	$59	1 - 2 garments in each size/color	Moderate
	Medela Maternity Support Belt	$19.95	1 - 2 garments in each size/color	High
Women's Health Boutique	JUZO Compression Hose	$101 - $120	16	Low
	Merena (sp?) Support Band	$180.00	16	Low

***A Woman's Work** Medi compression hose (women who buy this product are sent by doctors for this product).

San Antonio

This market was composed of a small number of stores with small inventories.

Store	Brands	Price	Inventory	Demand
Destination Maternity	Power Mama Spanx	$34.99	1 - 2 garments in each size/color	[would not disclose]
	Pea in the Pod Tummy Tube	$26	1 - 2 garments in each size/color	[would not disclose]
	Belly Bandit Post Partum Support Belt	$70	1 - 2 garments in each size/color	[would not disclose]
	Motherhood Mid Thigh Shapewear	$16.98	1 - 2 garments in each size/color	[would not disclose]
Pickles & Ice Cream Maternity Apparel	Power Mama Spanx	$34.99	1 - 2 garments in each size/color	Low

***Kid to Kid** This is a resale store. They only carry belly bands.
***Eden's Baby** temporarily closed. Inventory not available online.
***Bloom** They do not carry any form of maternity shapewear.
***Mother Home Maternity** They do not carry shapewear.

Dallas

Store	Brands	Price	Inventory	Demand
Destination Maternity	[would not disclose]	[would not disclose]	[would not disclose]	[would not disclose]
A Pea in the Pod	Power Mama Spanx	$35 - $40	3 - 4 garments in each size/color	High
	Belly Bandit Mother Tucker Tank	$79.99	1 - 2 garments in each size/color	Moderate
	A Pea in the Pod Seamless Slip	$35	1 - 2 garments in each size/color	Moderate
	Sigvaris Compression Tights	$64.95	1 - 2 garments in each size/color	Moderate
Pickles & Ice Cream Maternity Apparel	Blocky	$69	20 garments in each size	High
	Power Mama Spanx	$36	1 - 2 garments in each size/color	Moderate
	Cinch	$89	20 garments in each size	High
	Belly Bandit	$69	[see below]	[see below]
	Atlas Band	$89	20 garments in each size	High
	Compression Hose/Stockings	$29.95	1 - 2 garments in each size/color	Low
	Support Belt	$45	20 garments in each size	High
Trimesters Maternity Store	Power Mama Spanx	$28	1 - 2 garments in each size/color	Low
	Bellaband	$28	40 garments	High
	Preggers Compression Tights	$18-32	1 - 2 garments in each size/color	Low

***Little Hang-ups** Closed.
***Sister's Closet** This is a resale store.

***Pickles & Ice Cream Maternity Apparel** Stopped carrying Belly Bandit due to lack of demand.

Large Retailers

All but one of the major multi-brand stores (Target, Walmart, Bed, Bath, and Beyond, Buy Buy Baby, Walgreens, CVS, Kohl's, KMart, Babies R Us, Toys R Us, Nordstrom, J. C. Penny, Dillards, and Sears) had an in-store inventory of maternity shapewear, compression wear, or postpartum support. A sizeable majority of these stores had online inventory of these products, some with high price items. The only exception was Macy's, from which Motherhood Maternity Wear rents space. Buy Buy Baby carries Destination Maternity products, but this is limited to bras and support belts. Babies R Us carries bras and support bands. Walmart carries low price maternity bras, tanks, and support bands.

Dermatology Offices

Based on feedback received from Dermatology Offices in the Central Texas area, we do not think that the Sweet Skin line would be a good fit for in-office sales. Office Managers at Dermatology clinics stated that they would not recommend shape or compression wear to anyone with a serious skin ailment. In some cases of varicose veins, they will recommend that patients purchase Jobst brand compression hose.

Online Copper Wear

There is not a lot of variety for online copper wear. While most of the garments listed below boast the same health benefits as LiveFabric's products, they are significantly cheaper. However, there is a lot of internet buzz around the health benefits of copper wear. Testimonials regarding the truthfulness of copper wear claims are varied.

Brand	Product	Price
Tommie Copper	Women's Recovery Compression Tights	$69.50
	Women's Recovery Compression Short	$44.50
	Women's Performance Capris	$79.50
	Women's Performance Leggings	$84.50
	Women's Performance Compression Tri Pant	$89.50
	Women's Performance Compression Fold Short	$49.50
Classic Shapewear	Cass Wear Repair Shaper Leggin	$78.00
	Cass Wear Repair Short	$38
	Cass Contour Boyleg	$38
	Cass Shaper Leggings	$54
	Cass V-Neck Dress Slip	$128

Shapewear/Maternity Clothing Sales in India

Brands, Prices, Distribution Channels

All the research for India was done through in-store and surveys and short interviews with direct customers. We looked at two major product lines that seem to have a high scope in India- Shape-wear and Maternity Clothing.

Shapewear

Shape-wear in India is sold through all distribution channels- e-commerce, branded specialty stores, multi-brand stores, and small independent stores in different localities. The prices and brands across these four distribution channels are listed below:

Distribution Channel	Store	Brand	Inventory	Price	Sells Online (Y/N)
Multi-brand stores	Shoppers Stop	Scandle	6 Products	$38 - 67	Yes
		Bwitch	1 Product	$17	No
Branded Specialty Stores	La-Senza	La-Senza	1 - 2 Products	$60 - 70	No
	Bwitch	Bwitch	9 Products	$7 - 45	Yes
Independent Stores	Independently Owned	Local Indian Brands	2 - 3 brands and 1 -2 products per brand	$7 - 17	No
E-commerce	Amazon	Cloe, Lovebrid, Heart2heart, Hanes, Triumph, Bwitch, Scandale, Laceandme, Avirate	Varies based on brands (because it is mutlibrand)	$10 - 45	Yes
	Flipkart	Cloe, Adira, Heart2heart, Hanes, Lady Lady Lyka, Scandale, Enamor, Avirate, Dealtz Fashion	Varies based on brands (because it is mutli-brand)	$7 - 45	Yes

Take-aways for Shape-wear in India

1. With the price range offered by LiveFabric, only a few multi-brand stores such as Shoppers Stop can be approached to provide a dedicated section for LiveFabric's products.

2. The high-income customers would be willing to spend at a price point of around $70, looking at the price point currently available in the market.

3. If planning to sell through online retail sites, convenient exchange policy should be provided for customers to be willing to try the brand.

4. In India, another common mode of payment is 'cash on delivery'. It should be ensured that this type of payment method is also included because many customers in India do not hold a credit card

Maternity Clothing

Maternity and surgical clothing have a similar market in India because these products are majorly sold through hospitals, doctors' clinic, and medical stores. Maternity belts were not available in the 4 major multi-brand stores in Delhi (capital) and in non-medical retail stores. The maternity clothing included nesting bras, t-shirts, and yoga pants in multi-brand stores and specialty stores.

However, retail market in India is fragmented, so there could be small independent retailers who may have maternity products. These small retailers are not initially a target market for LiveFabric in India because of distribution issues and price-sensitivity.

Maternity clothing such as Pre-pregnancy belts and post-pregnancy products are only available in medical shops and are mostly of local Indian brands. Many hospitals also provide such maternity clothing.

In discussion with a gynecologist, it was indicated that usually hospitals provide garments related to maternity. So currently there is not a significant direct consumer market for maternity clothing other than medical stores.

Thereby, if we consider selling Maternity Clothing in India, LiveFabric initially will have to reach out to hospitals, independent gynecologist, and medical stores to sell their products because consumers will not have a brand awareness at an initial stage.

Multi-brand Stores

- Maternity products only included nursing bras, clothing such as t-shirts and yoga pants for pregnant ladies.

Specialty Stores

Example: Mom n me

- Online sale not available
- Next step: Visit these stores to understand product range and price points

E-commerce

Example: Firstcry.com

Products: Nursing bra, Shape-up belt post natal, Maternity knee socks, Maternity hygiene panty

Next Steps (India Market)

1. Since a dedicated brand of maternity products are relatively new to market, rather than market survey, customer survey should be conducted where we interview high-earning consumers if they will be willing to purchase this product and how much will b they be willing to spend on such a product

2. Since such products are not available in the market so surveying store-owners will not help much as they would not know the customer demands

3. Conduct in-store research to understand the maternity products available in market.

Appendix 1

Analysis of Preclinical and Clinical Pathway for Pre- and Perinatal Vaccine Products in the United States

Prepared for Immunethep

(Global Startup Program, IC² Institute, UT Austin-Portugal)

I. Table of Contents

I. INTRODUCTION

This document provides recommendations on how to prepare and implement preclinical and clinical drug trials in accordance with the Food and Drug Administration. The document contains references to regulations, guidelines, and guidances published through the FDA concerning a variety of topics that are paramount to successful preclinical and clinical trials. Preclinical trial information includes reproductive toxicity, teratology, pharmacokinetic, pharmacodynamic, and genotoxicity study requirements. Clinical trial information includes the specific protections for certain test populations along with goals that need to be reached for each of the four clinical trial phases. There is also information concerning Prevnar and Synagis; companies that have produced other pre- and perinatal vaccines. This portion of the document describes cost effectiveness and trial concerns through the development process of their products. Lastly, there is a section of this document dedicated to information concerning influenza vaccines given to mothers and infants.

II. PRECLINICAL TRIALS

A. Toxicity Studies-Three Segments[1]

Toxicity studies contain a three segment design. In order to test women with child-bearing potential, the first and second segments are required before Phase II of the clinical trials. However, all three segments should be completed to ensure optimum safety of future test populations.

Segment 1 (fertility and general reproductive studies) requires at least one animal species (typically rodents) to be used for testing. Treatment of the drug occurs in both males and females before mating, during pregnancy, and up to weaning. Half or more of animals tested on are sacrificed at different mid-pregnancy stages to examine fetuses. Selected offspring are then examined for late effects of auditory, visual, and behavioral impairments, and reproduction function.

Segment 2 (teratology/embryotoxicity studies) requires two animal species (typically one rodent species and another non-rodent species) to be used for testing. The females are treated during the period of fetal organogenesis and sacrificed shortly before the expected due date. Pregnancy parameters are determined and fetuses are examined, while selected offspring are then put under observation for growth and development, morphological, functional, and behavioral examinations and reproduction performance. Because pregnant women are a key population to this particular drug, it is important to note that these teratology studies are usually not required until the phase in which pregnant women are tested on.

Segment 3 (peri- and postnatal studies) requires at least one animal species (typically rodents)

[1] http://www.iss.it/binary/publ/cont/Pag3_14Vol29N11993.pdf

to be used for testing. The treatment period occurs during the final one-third of gestation and continues through the weaning period. Selected offspring are reared untreated in order to observe late effects of the drug on growth and development.

It is paramount that the above studies include relevant species or those in which the test material is pharmacologically active due to the expression of the receptor or an epitope (in the case of monoclonal antibodies). A variety of techniques such as immunochemical or functional tests can be used to identify such a species. If the species is not relevant, then responses to the test drug may not be at all similar to those of humans in clinical trials.

B. Dose Administration and Pharmacokinetic/Pharmacodynamic Applications[2]

The route and frequency of administration should be as close as possible to that proposed for clinical use. For single dose toxicity, it is a requirement in rodents to help in defining the toxic dose and the no-observed-adverse-effect-level (NOAEL). The repeated dose toxicity has multiples of the clinical dose of the product, and a recovery period is generally included to determine the potential worsening of toxicological effects.

Some techniques used to gather PD/PK information include immunoassays to detect recombinant proteins and polymerase chain reactions to monitor virus load. Biological activity may also be evaluated through the combined results from in vitro and in vivo studies, which assist in the extrapolation of the findings to humans. In vivo studies to assess pharmacological activity, including defining mechanism(s) of action, are often used to support the rationale of the proposed use of the product in clinical studies. This information usually needs to be available by the time the Phase 1 studies have been completed.

C. Genotoxicity Studies[3]

It is essential that genotoxicity information be available before clinical trials, if future test populations include pregnant women. General features include assessment of mutagenicity in a bacterial reverse gene mutation test, and genotoxicity should also be evaluated in mammalian cells in vitro and/or in vivo. In vitro/vivo tests that measure chromosomal aberrations in metaphase cells can detect a wide spectrum of changes in chromosomal integrity, which make them appropriate for detecting clastogens. There are two options available that are considered equally suitable for genotoxicity testing. Option 1 contains three steps: 1) A test for gene mutation in bacteria, 2) A cytogenetic test for chromosomal damage (in vitro metaphase chromosome aberration test or in vitro micronucleus test), or an in vitro mouse lymphoma Tk gene mutation assay, 3) An in vivo test for genotoxicity, generally a test for chromosomal damage using rodent hemotopoietic celss, either for micronuclei or for chromosomal aberrations in metaphase cells. Option 2 contains two steps: 1) A test for gene

[2] http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM194490.pdf
[3] http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm074931.pdf

mutation in bacteria, 2) An in vivo assessment of genotoxicity with two different tissues, usually an assay for micronuclei using rodent hemtopoietic cells and a second in vivo assay (typically, this would be a DNA strand breakage assay in liver, unless otherwise justified). There are some recommendations for different in vitro and in vivo tests *here*.

D. Immunogenicity Studies[4]

Antibody responses must be recorded, specifically, the effects of antibody formation on pharmacokinetic and pharmacodynamic parameters, incidence and/or severity of adverse effects, complement activation, and the emergence of new toxic effects. However, the detection of antibodies in animals should not be the sole criterion for the early termination of a preclinical safety study, because antibody formation in animals is not predictive of a potential for antibody formation in humans. Preclinical study modifications only need to be considered if the immune response neutralizes the pharmacological and/or toxicological effects of the biopharmaceutical in a large number of animals. Lastly, the occurrence of anaphylactic responses to recombinant proteins is rare in humans. Thus, the results from such tests, which are typically positive for protein products, are not indicative of similar reactions in humans.

E. Carcinogenicity Studies[5]

Under FDA regulations, any pharmaceutical used continuously for 3 months or more requires carcinogenicity studies, and are otherwise not required prior to the submission on the Investigation New Drug (IND) application.

III. CLINICAL TRIALS

After the completion (or mostly completed) nonclinical trials, the Investigational New Drug application is to be submitted. Guidelines include manufacturing and chemistry information along with descriptions of the drug. The template for the IND is available at the following location on the internet**. Next, comes the four phases of clinical trials. In the rest of this report, there will be information concerning the certain protections for specific test populations and goals that need to be reached for each phase.

Also, Immunothep wishes to treat a highly protected group—the pediatric population. In order to qualify for pediatric exclusivity, the agency must submit protocols for those studies in the IND. FDA then issues a Written Request for pediatric studies, which MUST occur before the approval of the NDA. If approved, each period of pediatric exclusivity is six months.

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[4] http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM194490.pdf
[5] http://www.ich.org/fileadmin/Public_Web_Site/ICH_Products/Guidelines/Safety/S1A/Step4/S1A_Guideline.pdf

Because there is less urgency, as compared to life-threatening diseases, studies usually begin in pediatric populations[6] at later phases of clinical development (Phase II or III). Pediatric data that must be submitted along with the IND application should include pharmacokinetics, efficacy, safety data. Typically, the pediatric database is limited at the time of approval, thus, postmarketing surveillance is vital.

A. Phase I

The initiation of testing the drug in humans begins in Phase I. Normally, a small number (20-100) of healthy volunteers participate. Healthy volunteers at this stage include men, women not of childbearing potential, and women of childbearing potential. The latter must be given appropriate precautions against becoming pregnant (some form of counseling is usually available). Sometimes testers are able to include participants with the specific condition (in this case sepsis); which depends on whether the disease is considered rare. This may be important to Immunothep considering that sepsis occurs only once every 1000 births in the United States. The focuses of Phase I trials are as follows: evaluating of the drug's safety, determination of a safe dosage range (starting at very low levels), gain understanding of the drug's pharmacology, and identifying side effects. Lastly, Phase I trials shouldn't take more than several months to complete.

B. Phase II

Phase II provides the investigational drug's first test of efficacy in participants who have the disease. For drugs intended for rare conditions, the FDA may accept studies involving incredibly small numbers of participants than are required for more common diseases. Volunteers allowed to participate in this phase include men, fertile women, and potentially pregnant women. There is very little literature on the protections for the last group, however, FDA and ICH guidelines suggest that as long as you have the reproductive toxicity study results it should be safe to continue testing on pregnant participants. The focuses of Phase II trial are as follows: determining the correct dosage for prescribed used, identifying common short-term side effects, and defining the best regimen to be used in later clinical trials. The length of this phase can last from several months to a few years.

C. Phase III

Phase III is designed to evaluate a candidate drug's benefit in a carefully selected patient population with the disease. Large populations are mostly used, but specific decisions about the size of the study group will depend on the magnitude of the effect of interest, characteristics of the study population, and study design. The FDA frequently approves orphan drugs with less extensive requirements for clinical studies, because trials involving rare conditions are very small. These trials are usually double-blinded and can last for several

[6] http://www.fda.gov/downloads/Drugs/DevelopmentApprovalProcess/DevelopmentResources/UCM049924.pdf

years. At this point in the clinical trials, submission of a New Drug Application (NDA) occurs after Phase III trials.

D. Phase IV

During Phase IV, the FDA will often specify postmarketing requirements to further evaluate an approved drug and obtain more information about safety or effectiveness of both. These studies are absolutely necessary if an accelerated approval process was used for the drug. There are two types of postmarketing studies: postmarketing requirements (PMR's), which is an actual requirement for FDA standards, and postmarketing commitments (PMC's), which testers agree to conduct these studies, but they are not required.

IV. Synagis

There were several problems the developers of Synagis faced during their Impact study. Such problems included failure to consider disease-associated hospitalization later in the epidemic (beyond 30 days after the last dose)—this is an important discrepancy in effectiveness as compared to efficacy studies. Second, because they did not record when control group participants and infected participants came to participate in the study, it was considered quite possible that the control group participants could have been infected, and they did not check or record any of this information.

Cost-effectiveness comments included that there was no reduction or trends toward decreased severe outcomes such as mortality or requirement for mechanical ventilation to offset the very high costs. Even in considering no hospitalization days at all, the cost does not seem to be justified. Because costs were not justified, they were encouraged to create an enhanced educational process directed at prevention of exposure to RSV if there was a baseline incidence of 10.6%.

http://pediatrics.aappublications.org.ezproxy.lib.utexas.edu/content/103/2/495.full.pdf+html

V. Prevnar

Submission for licensure included 4700 infants and 354 older infant and young children, with an incidence of invasive pneumococcal disease (IPD) among 180-200 out of 100,000 children less than 2 years of age in the United States. During clinical development they established that co-administration of PCV13 did not interfere with the immune responses elicited by other common childhood vaccines. The safety evaluations for PCY 13 were built upon the safety profile PCV7. Letters were signed by an obstetrician and a pediatrician, and a brochure explaining the study was sent to a variety of women. Study eligibility was determined by both medical record review and interview; the inclusion criteria consisted of healthy pregnant women who would be available for follow-up, and provide their consent and that of the child's father.

Postlicensure experience included a recommended series of doses at ages 2, 4, 6, and 12-15 months of age. The use of PCV13 has expanded to over 90 countries. In addition, a postlicensure safety study is currently being conducted to confirm safety of PCV13.

http://onlinelibrary.wiley.com.ezproxy.lib.utexas.edu/doi/10.1111/j.1749-6632.2012.06673.x/pdf

VI. Influenza Vaccines

Although many expectant mothers resist taking the influenza vaccine, many safety studies show that the influenza vaccine can be given at any stage of the pregnancy with little risk to the child. One study analysed 640 mother-child pairs who had received influenza vaccine in

the first trimester. Thereafter, the children were followed for deaths up to the age of 4 years and followed up to the age of 7 years for malformations or disabilities. The influenza vaccination was not associated with any excess minor or major malformations, and there was no evidence for an excess incidence of childhood malignancies when the vaccine was given during any of the three trimesters. Studies such as these are important, because pregnant women in the third trimester are at very high risk of complications due to influenza, and can cause risk of infection to the infant.

http://ac.els-cdn.com.ezproxy.lib.utexas.edu/S1473309907703110/1-s2.0-S1473309907703110-main.pdf?_tid=f0816f22-7f97-11e3-b8f8-00000aab0f6c&acdnat=1389977810_bbb91655fb1662cdddd2defb1e28afeb

http://ovidsp.tx.ovid.com.ezproxy.lib.utexas.edu/sp-3.10.0b/ovidweb.cgi?WebLinkFrameset=1&S=BBKDFPAKAGDDGCJBNCNKMEGCFCBJAA00&returnUrl=ovidweb.cgi%3f%26Full%2bText%3dL%257cS.sh.22.23%257c0%257c00132582-201103000-00009%26S%3dBBKDFPAKAGDDGCJBNCNKMEGCFCBJAA00&directlink=http%3a%2f%2fgraphics.tx.ovid.com%2fovftpdfs%2fFPDDNCGCMEJBAG00%2ffs046%2fovft%2flive%2fgv023%2f00132582%2f00132582-201103000-00009.pdf&filename=Safety+of+Influenza+Vaccination+During+Pregnancy.&pdf_key=FPDDNCGCMEJBAG00&pdf_index=/fs046/ovft/live/gv023/00132582/00132582-201103000-00009

Texas-EU Venture Growth Initiative 2015

A component of the Texas-EU Summit

Photo Roster

An initiative from

The University of Texas at Austin
IC² Institute
Office of the Vice President for Research

in collaboration with

FCT Fundação para a Ciência e a Tecnologia
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

UT Austin | Portugal
INTERNATIONAL COLLABORATORY FOR EMERGING TECHNOLOGIES, COLAB

UTEN Portugal
University Technology Enterprise Network

Texas-EU Venture Growth Initiative 2015

Welcome to the 2015 Texas-EU Venture Growth Initiative. We believe the events we have scheduled will help reduce risk, open markets, and connect you with professionals in the Austin and Portuguese entrepreneurial ecosystems to help grow your companies in the United States and the European Union.

The Texas-EU Venture Growth Initiative grew out of the University Technology Enterprise Network (UTEN), itself a part of the larger UT Austin|Portugal partnership between the IC^2 Institute at The University of Texas at Austin and the Portuguese Science and Technology Foundation (FCT). UTEN's goal is to lead, facilitate, and accelerate the commercialization of science and technology innovations created by Portuguese researchers. Based on a vision to become a network connecting universities, technology transfer offices, research laboratories, incubators, and professionals in Portugal, UTEN has grown into a leading program bridging the gap between early-stage innovations and the marketplace.

Supported by the FCT, the IC^2 Institute launched the Global Startup Program in 2013 to provide business development, soft landing, incubation, and acceleration opportunities for Portuguese technology-based startups in the U.S. Participating ventures benefit from physical co-location space and feet-on-the-ground mentorship in Austin from an experienced team of business developers. The Program's tangible outcomes speak for themselves: to date, firms in the program have had an economic impact of more $40 million in Portugal.

This year's Venture Growth Initiative, a component of the 2015 Texas-EU Summit and the UT Austin|Portugal partnership, will facilitate networking and matchmaking among entrepreneurs, venture capital firms, angel investors, incubator directors and international service providers interested in actionable knowledge about doing business in Central Texas and the EU, with special emphasis on opportunities in Portugal and Austin. Its main goal is to deliver measurable business development for Central Texas and Portuguese technology firms. Participants, including Central Texas and Portuguese technology incubator directors, startup Founders, and venture capitalists, will learn about opportunities for launching or co-locating firms in the EU and in Central Texas.

We are excited to host this entrepreneurial initiative and hope you find it useful!

Dr. Robert A. Peterson, Director, IC^2 Institute, The University of Texas at Austin

Marco Bravo, Project Director, IC^2 Institute, The University of Texas at Austin

Dr. Bruce Kellison, Associate Director, IC^2 Institute, The University of Texas at Austin

Welcome

Dr. Robert A. Peterson is Director, IC² Institute, and Associate Vice President for Research at The University of Texas at Austin, where he holds the John T. Stuart III Centennial Chair. He has served as chairman of the Department of Marketing, associate dean for research in the McCombs School of Business, and interim director of the Office of Technology Commercialization at The University of Texas at Austin. In 2006 he was named the American Marketing Association/McGraw-Hill Irwin Distinguished Marketing Educator and received the Berkman Service Award from the Academy of Marketing Science. Dr. Peterson is an erstwhile entrepreneur, having cofounded three companies. In addition, he has served on the boards of several corporations and nonprofit entities as well as an advisory committee to the United States Bureau of the Census. He occasionally testifies as an expert witness in litigation matters involving intellectual property and unfair competition.

Robert A. Peterson

Director, IC² Institute

Associate Vice President for Research

John T. Stuart III Centennial Chair in Business Administration

Marco Bravo is a Project Director at the IC² Institute of the University of Texas at Austin. His expertise focuses on entrepreneurial wealth creation, international innovation, and global technology commercialization. He is an Engineer with diverse international experience and education, as well as significant leadership and managerial experience in multinational business, consulting, academia, government, and startups with extensive cross-cultural literacy.

Marco has co-founded three companies, had one successful exit. He managed a seed fund in Portugal, and actively mentored 120+ technology startups and entrepreneurs from multiple countries. Before coming to Texas, Marco has been adjunct faculty at the Universities of Minho and Porto. In industry, he served as Production Department Manager at Continental AG in Germany and in Portugal. Marco Bravo has also been Advisor and Chief of Staff of the State Secretary for Science, Technology and Higher Education where he implemented policies on the development of the Portuguese entrepreneurial ecosystem.

Marco Bravo

Project Director, IC² Institute

Global Startup Program Portugal

Dr. Bruce Kellison is Associate Director of the IC² Institute, The University of Texas at Austin. Since 1999, he has been responsible for strategic planning and research for the Bureau of Business Research, an applied economic research unit of the Institute that focuses on the competitiveness of Texas industries. He is former editor of Texas Business Review, a bi-monthly journal that disseminated business research to a wide readership of policymakers and business leaders. Recently, he has led research teams that have studied the opportunities and barriers to growth among Texas' Black and Hispanic business owners, and another project on the economic impact of the Texas film, television, and video game incentive program. Under his leadership, the Bureau has won a number of research grants and contracts from a variety of sponsors, including the National Science Foundation, NASA, and the State of Texas.

Bruce Kellison

Director of Bureau of Business Research, IC² Institute

Organized by the IC² Institute at The University of Texas at Austin:

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Donovan Miller

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Diane Skubal

Chris Meyers

Francesca Lorenzini

Greg Pogue

Rod Klassy

Esther Orsborn

Francisca Aroso

Agenda

April 21, 2015 (Tuesday): arrive in Austin and check-in at hotel

April 22, 2015 (Wednesday): site visits

8:30-9:30am	IC² Institute: welcome session (Central: 2815 San Gabriel Street)
10:00-11:00am	Visit to TechRanch (9111 Jollyville Road, Suite 100)
11:30am-12:30pm	IC² Institute's Austin Technology Incubator (3925 West Braker Lane)
1:30-2:30pm	Visit to South-By-Southwest (400 Bowie St)
3:00-4:00pm	Visit to TechStars (412 Congress Ave. Suite 200)
4:30-5:30pm	Visit to Capital Factory (701 Brazos St)
7:00pm	Welcome dinner (Scholz Garten, 1607 San Jacinto St; invitation only)

April 23, 2015 (Thursday): Texas-Portugal Matchmaking Workshop

AT&T Executive Education and Conference Center
1900 University Avenue
Austin, TX 78705
Room 106

7:30-8:30 am	Registration and breakfast
8:30-9:30 am	Opening session
9:30-10:00am	Coffee break (Networking/Matchmaking)
10:00am-12:00pm	PANEL 1: Value creation through incubation and acceleration
10:00-11:30am	Roundtable
11:30-12:00pm:	Discussion
12:00-1:00pm	Lunch (Networking/Matchmaking)
1:00-3:00pm	PANEL 2: Value creation through investor relations
1:00-2:30pm	Roundtable
2:30-3:00pm	Discussion
3:00-3:30pm	Coffee break (Networking/Matchmaking)
3:30-5:00pm	PANEL 3: Value creation through market relationships
3:30-4:30pm	Roundtable
4:30-5:00pm	Discussion
5:00-5:30pm	Closing remarks

6:00-8:00pm (optional): Techstars Community Happy Hour with in-program founders/ entrepreneurs, local alumni, and mentors. Location: Clive Bar (609 Davis Street). Invite and registration required: http://techstarscommunityhhapril2015.splashtat.com/

With a Gross State Product (GSP) of $1.5 billion and a five-year GSP growth of 3.4%,[1] Texas consistently ranks as one of the country's most favorable business climates due to its low tax burden and competitive regulatory environment. In Texas, aggregate costs for real estate, energy, wages and taxes are lower than those in the majority of other U.S. states.

Texas has one of the lowest state and local tax burdens in the nation, featuring no personal income tax. Overall, the state ranks 42nd among the 50 states in taxes paid per $1,000 of personal income. Texas consistently is one of the best states for business in numerous rankings. In terms of tech M&A and IPOs per state, Texas ranks 4th in the country.[2]

Compared to other major business hubs, Austin is renowned for its high quality of life and affordability. The Council for Community & Economic Research states that living costs in Austin were 6-7% below the national average in 2013.

The Austin area was named the "Most Business-Friendly U.S. City" by the Kauffman Foundation in

Why Austin

2013. In Austin one finds a thriving business base that includes enterprises in technology, digital media, clean energy, and life sciences, advanced manufacturing, and data centers. It's a dynamic business ecosystem that has provided consistent growth for some of the world's most successful companies, including Dell, Whole Foods, Freescale, Facebook, Ebay/PayPal, GM, Samsung, and more. Austin places at or near the top of fDi Intelligence's annual "American Cities of the Future" ranking, as well as Area Development's "Leading Locations." *Forbes* calls Austin "America's No. 1 Boom Town." Austin tops the list of hot U.S. Cities that offer both job and culture according to *U.S. News* (July 2013). These evaluations are based on performance and on the criteria that businesses use for making location decisions—like workforce quality, capacity for innovation, low cost of doing business, and the quality of life that Central Texas affords.

1- http://www.forbes.com/pictures/mli45elhjj/6-texas-3/

2- https://www.cbinsights.com/blog/tech-exits-state-ranking/

Portuguese Participants

Portuguese Companies

- BEEVERYCREATIVE
- Cloud9im
- EDUBOX
- glymt
- Hype
- Intellicare
- Interactive Touch
- IP BRICK
- Mobiag
- nomadmovement
- PepFeed
- Pharmassistant
- PhoneNear
- PURE
- QUIDBox
- Stemmatters
- Strongstep
- SWORD Health
- Take the Wind
- Crowdprocess
- SCRAIM

Portuguese Venture Funds

- eggNEST
- Hovione Capital
- Caixa Capital – Sociedade de Capital de Risco, S.A.
- Portugal Capital Ventures - Sociedade de capital de Risco, S.A.

Portuguese Incubators | Accelerators

- Beta-i
- IEUA - Business Incubator of the University of Aveiro
- IPN - Pedro Nunes Institute (incubator|accelerator)
- Startup Braga
- Startup Lisboa
- Tecminho
- UPTEC – Science and Technology Park of University of Porto

COMPANIES

- BEEVERYCREATIVE
- Cloud9im
- EDUBOX
- gymt
- Hype
- Intellicare
- Interactive Touch
- IP BRICK
- Mobiag
- nomadmovement
- PepFeed
- Pharmassistant
- PhoneNear
- PURE
- QUIDBox
- Stemmatters
- Strongstep
- SWORD Health
- Take the Wind
- WATGRID
- Crowd Process
- SCRAIM

BEEVERYCREATIVE

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Aurora Baptista, Co-founder

Area: Personal 3D Printing

BEEVERYCREATIVE developed and sells personal 3D printers; the first printer launched, named BEETHEFIRST, received four international awards and was considered the best Plug & Print choice. In February 2015, the company debuted in the U.S. Three new products will be launched in 2015.

Goal for participating:

Present BEEVERYCREATIVE to potential investors.

Host: IEUA

Area: Music Messaging

Typing is the fun way to create messages with music and send them to friends.

Goal for participating:

Looking for investment.

Host: Startup Braga

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C

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Area: Education, software, hardware and global projects

Edubox SA, a spinoff from the University of Aveiro, is a technology-based company born in 2010.

Specializing in software development and design management platforms, Edubox provides consultancy services in terms of implementing comprehensive educational projects.

Its wide network of strategic partnerships in different areas, has enabled it to develop optimized solutions of software / hardware and services.

In its second year of activity, Edubox was named the Portuguese Association of Technology Parks, Best Company Start-up. In the same year, it became the national market leader in the segment of municipal management platforms, and started to export its solutions in different countries (Brazil, Angola, Mozambique, Spain, Equatorial Guinea).

Developing and maintaining relationships with customers, both locally and globally and working with them to design and develop the technologies and solutions they need, Edubox has achieved an annual turnover of around 3 million Euros. About 25% of its turnover comes from foreign markets.

Currently the company has an elite multidisciplinary team with experience and high level of technical expertise composed of 40 qualified professionals with the proper know-how for the development of pioneering and innovative solutions in the education sector.

Its short-term goal involves penetrating new markets and expanding its portfolio of applications and services.

Goal for participating:

Get introduced to the American market, find partners and investors.

Host: IEUA

Glymt

C

Amaral Carvalho, CEO and Co-founder

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Area: Video

Glymt aims to democratize the supply and licensing of tailored and rights-managed short video content. In its two-sided marketplace, brands, marketers and video producers can crowdsource detailed short video in real time from local everyday filmmakers already on the spot and now empowered byHD-capable devices.

With Glymt, anyone can freely search the world to discover or revisit places through short videos. Our community answers requests matched by interests, location, and equipment.

Goal for participating:

Startup networking, user testing and seed fundraising prospects.

Host: IEUA

HYPE

Area: Mobile

Mobile app that allows communications even without any service or a web connection.

Goal for participating:

Discover opportunities for co-locating firm in Texas, search for investment opportunities, learn more about Texas' startup scene, networking.

Host: UPTEC

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Area: ICT provider for eHealth and Active and Assisted Living (AAL)

Intellicare's ambition is to be a global player in specialized technology that enables "ageing well" at home by combining health biomarkers, environmental data, context awareness and artificial intelligence. Healthier and independent living at home improves quality of life, and the quality of the services provided while reducing operational costs. The addition of reasoning to the data collected from smart sensors (medical and environmental) is its key differentiation strategy.

Intellicare developed the OneCare product line, now being sold in Portugal and piloted in other European countries. OneCare supports eHealth, and Active and Assisted Living solutions that promote independent living at home by senior citizens, delaying transfer to assisted residences and nursing homes. Product development is now focused on our data analytics "OneCare – Open Intelligent Alarm System" which fuses data from sensors and wearable sensors and environmental data to enhance long-term monitoring.

Intellicarehas been active since 2008. In the past two years its accumulated revenues were 766K€ and the forecast for the upcoming years are 2015: 613K€; 2016: 830K€ and 2017: 1,200K€. Until 2014 it was commercially active in Portugal and had pilot projects in Sweden, Italy and Spain. As of the 2nd quarter of 2015 it will be commercially present in Portugal and Sweden. The clients are primarily SMEs that offer "social work activities without accommodation for the elderly and disabled" and health authorities as they are the entities that are closer to end-users. OneCare provides added value as end-users can prolong their stay at home and caregivers can provide services with extra added value with lower operational costs and address a larger set of end-users.

Goal for participating:

Intellicare is following an internationalization strategy with a focus on four regions in Europe (where AAL and eHealth markets are already active), and the the U.S. and Canada. The goal of this mission is to find investors to support internationalization efforts and to find companies (commercial or technical partners) that can use or sell the OneCare product lines that, either using one of the current business models, SaaS, or licensing integrating OneCare powered services in teir offering or using OneCare as middleware and integrating it into their ICT offer or services

Host: IPN

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Guimarães, Portugal

Area: Interactive and Holographic Systems

Interactive Touch develops interaction systems with the user through gestures or touch, making any area interactive, like tables, floors, walls, windows, etc., but its major innovation is focused on holographic systems.

Goal for participating:

Our aim is to obtain more information about foreign markets, potential customers and working partnerships. Internationalization is a very present objective of our company. If possible, we would also like to have university students develop with us.

Host: TecMinho

Area: ICT

IP BRICK Solutions are designed to improve productivity while using enterprise communications in four main areas: unified communications, mail & groupware, document and process management, and enterprise social networking. By providing easy integration across these four domains, IPBrick solutions can aditionally offer mail archiving (by integrating mail & groupware and document and process management), contact center by integrating unified communications with document and process management, and can improve company awareness at the workplace by integrating unified communications with, its Enterprise Social Network.

Goal for participating:

Distribution|representation, partners.

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João T. Félix, Founder & CEO

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1100 Lisboa

Portugal

Area: SaaS solutions for the shared-mobility market

Mobiag is a solutions provider to the car-sharing industry. created to implement with a vision of networked car-sharing - that will be a true alternative to private car ownership.

Mobiag's application of the roaming concept to the car-sharing industry distributes the investment effort needed to achieve truly functional network coverage and density in a given market, while, limiting excess capacity that drives down profits.

We have built two industry-leading SaaS systems – Network Platform and mobiCS – and are working with our clients, ranging from entrepreneurs to manufacturers to cities on two continents to deliver clever mobility to all stakeholders.

Goal for participating:

- Better understand the dynamics of launching in the US market and identufy potential support networks and resources.
- Identify with Austin municipal authority to better understand the local car-sharing market.
- Broaden our network of potential US investors, clients,and partners in view of a late-2015, early-2016 US launch.

Host: Startup Lisboa

Area: website, travel | social network, or online platform

nomadmovement will give users a forum to retain memories and share their travel experiences, whether they're from 1976 or last week; connect likeminded travelers, building profiles, followers, friends and sharing travel experiences; allow people to research their next adventures; or escape by wandering through other people's travel diaries.

Keeping travel memories

The digital era has given us a lot but it also has its downfalls. One of them is how easily people lose their travel memories: from flash drives to computer folders and scattered across different types of social networks (Facebook for friends and family, Instagram for pictures, Twitter for notes and YouTube for videos). We are creating a solution to help travelers keep all their travel records in one place, allowing them to relive their holidays whenever they wish to do so.

Connecting people

nomadmovement's social component enables users to interact with one another. User can create creating individual profiles, search for likeminded nomads, make friends, follow people whose travel styles they like, comment on others' travel diaries, and build a «travel empire». Users alsocan create travel diaries with a mixture of pictures, video, descriptions, tips and hints, and website links.

Researching future trips

nomadmovement will also change the way people research their next adventures by being able to searchby keyword, browse people's travel diaries and, search by location. Focusing on travel, nomadmovement will provide one-stop social media tool for travelers, getting advice from people who have been there and being inspired by real adventures.

The tripadvisor.com traveler photos give people the opportunity to share real images of a location; nomadmovement will also give users the chance to show real travel experiences, not just glossy «management photos» featured on other websites.

Goal for participating:

We want to start networking outside of Portugal and learn from people that are a few or large steps ahead of us.

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http://www.nomadmovement.com/login/

Host: UPTEC

Area: eCommerce

PepFeed is a shopping assistant that helps consumers choose their next gadgets wisely while saving time and money.

Goal for participating:

Looking for investment.

Host: Startup Braga

Daniel Loureiro, CEO and Founder

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Pharmassistant

C

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https://www.twitter.com/diogo_ortega (**twitter)**

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Area: Mobile Health

We developed a smart pill box that alerts the patient when it's time to take the medicines inside it. Thanks to the opening sensor, it also records when the box is opened and can easily connect to a smartphone, tablet or smartwatch to provide relevant notifications and motivate the user to comply with his/her treatment.

Goal for participating:

PharmAssistant is already part of the Global Startup program, so the main goal of this trip would be to meet our interlocutors in the University of Texas, get to know better the entrepreneurial and business ecosystem in Austin, and also attend some meetings with stakeholders of our company, scheduled previously in coordination with our contact at IC² Institute at the University of Texas.

Host: Startup Lisboa

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Area: Mobile Internet Services

Smartphones and services are locked in proprietary silos – Apple, Google, Microsoft, etc. No true service platform existsacross hardware manufacturers and operating systems. What if you could use your phone from any other computer or device, at any time, no matter where you are? PhoneNear connects your phone directly or over the cloud to any other computer or device creating a true cross-platform experience. PhoneNear providesvoice calls, messaging, notifications and everything else happening on your phone direct to your desktop. Remain connected at all times when away or just use the phone from the convenience of a keyboard, even when you have it with you.

Goal for participating:

- Networking.
- Getting feedback on the product.
- Exploring funding opportunities.

Host: Startup Braga

PURE

Area: Mobile Dating

Pure is today's hangout app, Uber for dates. The goal is to bring singles together in real time. Key features include a one-hour search for people that are looking to hang out, a simple way to find out if the other person is interested, a clean slate everyday, and a one-hour limit to seal the deal.

Goal for participating:

We are about to setup our US office, and seekpre-seed investors and advisors.

Host: Beta-i

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Beta-i

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Lisbon

Portugal

Area: IPTV, OTT;

QUIDBox is an innovative device that aims to revolutionize the existing model of use and interaction with TV and set-top boxes, transforming this combination in an active center of entertainment and family communication. This device changes the paradigm of using television, giving a low-cost solution that allows doing video calls, playing family games, shopping online, using utility apps, and|or accessing media content on different family mobile devices. All of this through a new, simple and intuitive interaction interface that uses a combination of gestures and voice commands.

The QuidBox was distinguished with a CES Innovations Awards and awarded with honorable mention, going to the final of the contest. This was a crucial step since it was purchased by a team that believes in this work.

Goal for participating:

Establish contacts with potential customers, partners, and investors.

Host: Startup Braga

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or

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Stemmatters Biotecnologia e Medicina Regenerativa

C

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Guimarães, Portugal

Area: Biotechnology

Stemmatters is a regenerative medicine company started in academia: 3B's Research Group, which has an excellent track record in biomaterials and tissue engineering.

Stemmatters targets expanding osteoarticular applications in a market estimated in excess of 6 billion €.

It Develops new therapeutic products and medical devices for repair and protection of cartilage, which go beyond current competitors' productsand revolutionize standard of care and has a complementary IP portfolio comprising 6 patent applications (2 additional under preparation).

Investment totaly 1.4 million € (start-up stage) to date, leveraged by 2.2 million € in R&D grants.

Stemmatters is currently raising Series A to support:

- Expansion of R&D and management team;
- Clinical studies.

Goal for participating:

Develop new business opportunities in order to raise Stemmatters brand/ recognition in the regenerative medicine community. Develop potential investor|partner business relationships.

Host: TecMinho

C

Strongstep – Innovation in Software Quality

Pedro Castro Henriques, CEO and Co-founder

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www.strongstep.pt

Area: Software, Information Technology, Internet

Strongstep is a company specializing in software engineering that improves software qualityaround the world.

With international customers from around industries, including banking and capital, information and communications technology, healthcare, and retail, Strongstep's mission is to promote the improvement of software development processes through the implementation of practices that address people, processes, and tools.

Goal for participating:

We seek opportunities to expand our internationl horizon and we believe that this is a way to develop our network and possibly establish strategic partnerships in order to improve foreign market performance and sales abroad, aiming at the US market.

We also consider that our core-business and expertise are suitable to US customers needs, requiring only a "push" of a player already in that market.

Host: UPTEC

Area: Digital Health

Body Interact™ by Take the Wind delivers the world's most advanced 3D medical training platform that accelerates critical thinking and clinical decision-making for acute and chronic care.

Body Interact™'s immersive touchscreen experience offers professionals and students a collaborative life-like cloud platform, adaptable across dozens of clinical case scenarios, including emergency, cardiology, respiratory, neurology, endocrinology, and infectious disease. Our product improves patient diagnosis and outcomes and reduces medical errors.

Body Interact™ enables competency-based education and is customizable for education (medical, nursing and paramedics), continued professional development (hospitals and clinics, simulation centers) and product training (pharma, drug and device providers).

Goal for participating:

Sales, distribution/representation, partners, investment.

Host: IPN

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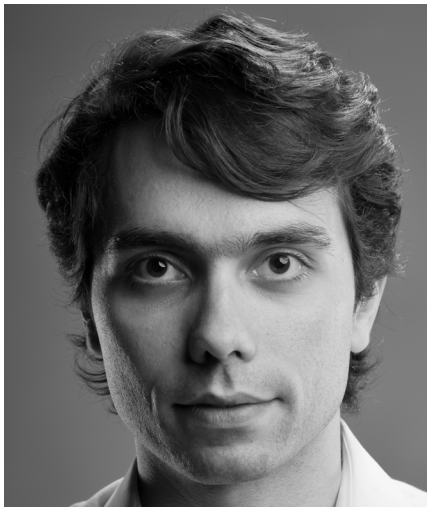
Area: Scientific computing

CrowdProcess has built a computing platform for researchers to use for free. The algorithms - open source - used in the platform are adapt by CrowdProcess to fill industry needs - now focused in the financial industry.

Goal for participating:

Establishing new partnerships with academia.

Host: Startup Lisboa



Joao Abiul Menano, CFO and Founder

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WYgroup

Area: Mobile Development and Digital Marketing

We have developed a leading mobile applications since 2009, integrating UX/UI and keen native knowledge in both iOS and Android OS's.

Goal for participating:

Understand the mobile development market and analyze the potential to start a sales office in the Austin area.

Pedro Janela CEO

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WYgroup

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Portugal

SCRAIM™

César Duarte, Head of Development and Operations

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www.scraim.com

Area: Internet, Cloud, SaaS

SCRAIM is an online service for project management, based on adaptable processes, that helps standardize best practices and revolutionizes the implementation of international certifications.

Goal for participating:

- The U.S. market is our main target for the next year and we want to make contacts and partnerships in order to get there.

- Incubation in a local acceleration program is a real option for us.

- We are also in our 1st round of investment (in negotiations) and plan to participate in this event as a good opportunity to make contacts with other investors.

Host: UPTEC

Person representing: Pedro Castro Henriques

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VF

enture unds

- **eggNEST**
- **Hovione Capital**
- **Caixa Capital – Sociedade de Capital de Risco, S.A.**
- **Portugal Capital Ventures - Sociedade de capital de Risco, S.A.**

Address:

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Portugal

Seed Capital

- Invested 700K Eur in 7 companies. In three years these companies generated 3.5M Eur in revenues and employ nearly 70 people.

Goal for participating:

Networking and state-of-art seed investment knowledge.

Pedro Janela, CEO

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Hovione Capital for Health.

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Hovione Capital

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Portugal

Venture Capital

Hovione Capital leverages its parent company's 55 years of experience in the pharmaceutical and medical device sector to invest and support medical technology, e-/m-health, wearables and digitally charged products that improve patient compliance, patient and medical information, and ultimately, a better life.

Goal for participating:

Networking and state-of-art seed Investment knowledge networking with entrepreneurs, investors, scientists and other VCs, identifying investment opportunities and potentially identifying co-investment partners for projects under evaluation.

Gonçalo Rebelo de Andrade, PhD, MBA

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Business Development Manager, Hovione

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Venture Capital

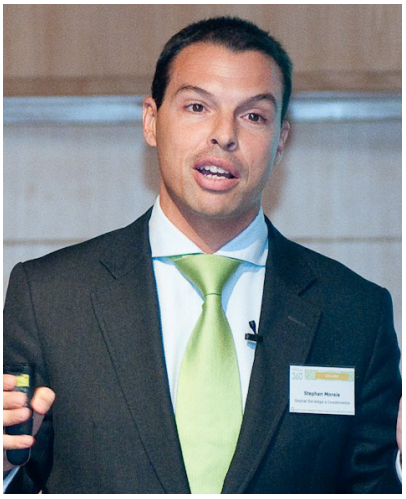
Digital Life, Enterprise IT, Medtech, Life Sciences/Pharma, Cleantech, Industrial Tech

Caixa Capital is the private equity and venture capital arm of Caixa Geral de Depósitos Group, which is 100% controlled by the Portuguese state and the country's largest banking group. Caixa Capital has operated in Portugal for almost a quarter century, with a prominent position in the market in terms of portfolio size, funds under management, amounts invested and several international partnerships throughout Europe. Caixa Capital's mission is to invest in funds and business projects led by qualified management teams with high growth and valuation potential, with good prospects of providing an adequate return on capital and contributing to the generation of wealth and social well-being in a responsible and sustainable manner.

Goal for participating:

To network with local investors and incubators / accelerators

To better understand the opportunities for existing portfolio companies to potentiate their commercialization strategies in the U.S. market through the Austin venture/technology ecosystem.



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Venture Capital & Private Equity investments.

Technology (Software, Hardware, Web, Mobile) and HealthCare (Life Sciences, eHealth, Medical Technologies)

Portugal Ventures focuses its venture capital investments in innovative, scientific and technology-based companies with competitive advantages for global markets. We partner with exceptional entrepreneurs, assisting them in achieving new levels of competitiveness and success at all stages of development and enabling high-growth Portuguese companies to achieve global status. Assets under management: €450 million.

Goal for participating:

Establish connections with entrepreneurs, venture capital professionals, and incubator directors to explore opportunities for business development, venture capital investment and M&A for Portuguese tech portfolio companies.

João Pereira, Technology Investment Director

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ncubators

- **Beta-i**
- **IEUA - Business Incubator of the University of Aveiro**
- **IPN - Pedro Nunes Institute (Incibator|accelerator)**
- **Startup Braga**
- **Startup Lisboa**
- **TecMinho**
- **UPTEC – Science and Technology Park of University of Porto**

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Non-profit built by Entrepreneurs for the Entrepreneurs International Startup Accelerator Lisbon Challenge

Beta-i is a non-profit founded in Lisbon in 2010, with the mission of innovating entrepreneurship. Our goal is to create and stimulate a culture of entrepreneurship and innovation in the Lisbon ecosystem by attracting entrepreneurs and key players around the world to interact and participate in the local community. Beta-i is currently known for Lisbon Challenge, a 3-month acceleration program for tech startups looking to go global, find investment and achieve product-market fit; as well as for Beta-innovation, the corporate branch of Beta-i, which provides innovation consultancy to external clients, as well as tailored acceleration programs for specific initiatives. Beta-i was considered the biggest startup & entrepreneurship promoter in Europe by the European Enterprise Promotion Awards in June 2014. Our events are the largest startup gatherings in Portugal, including the Explorers Festival, Seedcamp Lisbon, Silicon Valley Comes to Lisbon, Sandbox Lisbon, Startup Weekend and the first TEDx in Portugal.

Goal for participating:

Understanding the Austin ecosystem, identifying partners, presenting some of our best startups, searching for new mentors and investors, reach a more structured partnership with UT Austin.

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IEUA - Business Incubator of the University of Aveiro

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Portugal

UA Entrepreneurial | IEUA

The University of Aveiro (UA) is an internationally renowned institution that has 16 departments, 4 polytechnic schools and 18 research units, encompassing about 15,000 students and 900 professors. A pioneer in promoting entrepreneurship, the university carries out activities that convert knowledge into economic value, creating innovative products and solutions that contribute towards technological and scientific progress and towards society. This action is dynamized by the University of Aveiro Transfer and Technology Unit (UATEC) and the University of Aveiro Business Incubator (IEUA).

IEUA was created in 1996 and its mission is to encourage and support the creation, development and sustained growth of new companies by promoting capacity building and, offering work areas, equipment, services and a network of partners geared toward creating value. Its physical infrastructures encompass three buildings (IEUA Edifício 1; IEUA Fábrica; IEUA Santa Joana), with approximately 2000 m^2 divided into individual offices, co-working offices, shared divisions and services bureaus.

IEUA participates in the entrepreneurial dynamics associated with the knowledge ecosystem, in close cooperation with the Aveiro Entrepreneurial project, the Aveiro Region Business Incubator (IERA), and the Network of Business Incubators of the Central Region (RIERC).

In 2014, IEUA was considered one of the best incubators in the world by winning the category “Return on Investment” and receiving second place in the general classification of the prize “Best Science Based Incubator” promoted by the Technopolicy Network Network and the Centre for Strategy & Evaluation Services (CSES).

IEUA - Business Incubator of the University of Aveiro

Celso Guedes de Carvalho, General Manager

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Incubation and acceleration programs

IEUA's support for the incubation and acceleration of companies, generated from knowledge acquired at UA is developed via the IEUA Start and IEUA Graduate programs, which offer integrated spaces and services adapted to the specific needs to each entrepreneurship stage, from the definition of the business idea to the autonomy of the business and its consolidation in international markets, and costs proportional to the incubation area used.

The IEUA Start incubation program, lasting a total of 3 years, is divided into four consecutive stages. The first, PRE START, is geared towards consolidating the business idea and the creation of the product or service, developing the business model, the business plan, proof of concept and market validation, as well as increasing the skills of the company's developers, which means that they can test and evaluate if forming a company is viable. The START stage assists with the initial implementation of business activities and strategy. The START UP stage involves increasing sales and the number of clients, organizing the internationalization process and obtaining investors. During the final stage, START GO, the internationalization process, financial sustainability and business autonomy are consolidated, without the assistance of the incubation program. With the completion of this program, companies have the capacity to develop their activity independently, though they may also join the IEUA Graduate program.

The IEUA Graduate accelerator program, which lasts 2 years, is directed towards business scalability and growth in foreign markets, particularly those that successfully conclude the IEUA Start incubation program. This incubation program is geared towards the consolidation of the business plan and model, as well as the internationalization process, increasing the value of intellectual property rights and attracting corporate and private investors that will contribute towards the rapid and sustained growth of the participating companies.

Goal for participating:

Empower and promote our startups, giving them exposure to investors, entrepreneurs, like-minded companies, and consumers in the U.S.

IPN-Incubadora

Address:

IPN-Incubadora

Rua Pedro Nunes

3030-199 Coimbra

Portugal

Business Incubation

IPN-INCUBADORA is an independent entity, “the armed arm” of Instituto Pedro Nunes (IPN) and University of Coimbra, to support tech-based entrepreneurship.

The objectives of the incubator are: (1) To stimulate and support the launch and development of innovative and technology-based projects and advanced services in the early stage of development, and (2) To promote a regional culture of technological and innovative entrepreneurship.

IPN-INCUBADORA has one dedicated building but is part of IPN’s complex of facilities: five buildings with different valences and characteristics: business incubation offices; co-working spaces; business acceleration; 6 R&D laboratories - informatics, automation, materials, geotechnics, chemistry and phytopathology; business support; highly specialized training, and rapid prototyping facilities.

The incubator always works in close cooperation with all of IPN’s departments and the Technology Transfer Office of the University of Coimbra.

IPN-Incubadora

Paulo Santos, Executive Director
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The Business Incubator

- 1,700 m^2 space for business installations
- 50 furnished incubation modules in various sizes (from 20 to 66 m^2)
- Capacity to simultaneously host around 35 startup companies
- Over 60 incubation applications received per year
- Over 220 companies supported, since 1995
- 75% survival rate for supported companies
- 2,000 highly qualified direct jobs created
- Annual business turnover of €75 million (2013)
- Export rate of 35%

Goal for participating:

Develop partnerships with local incubators and investors. Looking for business opportunities for our incubatees.

Startup Braga

Address:
Startup Braga
Edifício GNRATION
Praça Conde Agrolongo, nº123
4705-524 Braga
Portugal

Business Accelerator

Startup Braga is an innovation hub designed to assist the inception and development of high-potential entrepreneurial projects for international markets.

At Startup Braga, entrepreneurs have access to pre-acceleration, acceleration and incubation programs developed in a 4400 m^2 campus located in the city center.

The 7 teams participating in the 2014 edition of the acceleration program raised over 1.7 million euros in funding even before the demo day. During the program, we connect Startups with national and international entrepreneurs, investors, industry experts, and executives. We also provide office space 24/7, access to a network of startup providers, top-notch workshops, and a community of over 30 startups. In the end, startups have the opportunity to participate in our international roadshow. No equity is taken.

Our community has 36 startups and more than 100 entrepreneurs.

Goal for participating:

- Leverage our International network.
- Learn and share best practices.
- Help our startups enter the U.S. market.

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Startup Lisboa

Address:

Startup Lisboa

Rua da Prata, 80, 1100-420 Lisbon

Portugal

Tech areas: Mobile, software development, web platforms, marketplace.

As Lisbon's top incubator, Startup Lisboa supports the creation of companies and tracks their first years of activity, providing entrepreneurs and companies with office space as well as a support structure to maximize their chances for success. Mentoring, a link to strategic partners, access to angel investors, venture capital or loan funds, help with business basics, networking activities, communication and work spaces are among the services offered. Startup Lisboa is the place to success.

Achievements:

+ 200 Startups Supported

+ 700 Jobs Created

100 Mentors

80 Partnership

Awards:

- London Web Summit People's Choice awards for the Best Accelerators or Incubators in Europe | Startup Lisboa Europe's top 4 Accelerators and Incubators.- EEPA - European Enterprise Promotion Award - "Startup Lisboa: Building a city of entrepreneurs".
- Portugal Ventures - Partner of The Year Award 2013.

Maria Guimarães, Office Manager and events
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+351 917123075

Goal for participating:

- Share experiences.
- Connecting companies and potential partners.
- Contacts with potential mentors and partners for Startup Lisboa.
- Inspiration.

TecMinho – The University-Enterprise Association

Address:

TecMinho - The University-Enterprise Association

University of Minho, Campus Azurem

4800-058 Guimaraes

Portugal

Technology transfer and technology-based spin-off companies

TecMinho is a private non-profit association founded in 1990 by the University of Minho (one of Portugal's largest universities). TecMinho supports researchers in transferring their research results to the markete, and connects entrepreneurs, technologies, and market opportunities to develop new successful ventures. Over the last 15 years, TecMinho promoted more than 300 technologies of the University of Minho in national and international markets and has established about 400 R&D contracts with industry. It has also filed 160 patent applications and helped create 120 innovative companies. In the field of entrepreneurship, TecMinho supports technology-based spin-off companies in pre-seed and seed stages through ideation, business planning, mentoring, investment/ financing and internationalization.

Goal for participating:

- Exchange good practices on entrepreneurial universities, entrepreneurship
- ecosystems, high-tech business incubation and business acceleration programs.
- Find partners in the US that provide incubation facilities,
- financing/investment and specialized acceleration programs.
- Support companies based in the US to settle in Portugal,
- namely in business incubators that are part of University of
- Minho's entrepreneurship ecosystem (Northern Portugal).

Augusto Ferreira, Managing Director

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UPTEC – Science and Technology Park of University of Porto

Science and Technology Park of University of Porto

Address:

Rua Alfredo Allen, n.º455/461

4200-135 Porto

Portugal

Science and Technology Park

UPTEC - Science and Technology Park of University of Porto is a structure created to support knowledge transfer between the university and the market.

UPTEC is thus an instrument created by the University of Porto to support its third mission - the enhancement of knowledge in the market, by promoting the development of knowledge-intensive business projects.

By fostering the creation of technological, scientific and creative-based companies and attracting national and international innovation centers, UPTEC contributes to the development of a true knowledge economy in Northern Portugal.

UPTEC is divided into thematic centers - Technologies, Creative Industries, Biotechnology and Sea. This allows it to follow a strategy of clustering and sharing of resources, offering the specific support the companies actually need, while assuring they also benefit from a broader and transversal network of partners and mentors.

Clara Gonçalves, executive director

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NOTES

United States Participants

Austin Venture Funding

- Austin Technology Partners
- Central Texas Angel Network
- Intel Capital
- Silverton Partners
- Triton Ventures

Austin Incubators | Accelerators

- Austin Technology Incubator
- Capital Factory
- Medical Innovation Labs
- International Accelerator
- SKU
- Tech Ranch
- Tech Stars

Individual Austin Participants

- City of Austin
- Austin Chamber of Commerce
- South by Southwest
- PCM
- IBM
- IC^2 Institute


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- Austin Technology Partners
- Central Texas Angel Network
- Intel Capital
- Silverton Partners
- Triton Ventures

Kyle Cox

Austin Technology Partners

Austin Technology Partners

Kyle is currently the Managing Partner of Austin Technology Partners. Before starting ATP, he was Director of the IT/Wireless & University Development Portfolios of the Austin Technology Incubator. Prior to his work at the Austin Technology Incubator, he was Managing Director and Principal of PostOak Ventures. He has also served as CEO of startup Firefly.

Claire England

Central Texas Angel Network

Central Texas Angel Network

Claire England is Executive Director of Central Texas Angel Network, one of the nation's top angel investing networks. A native Austinite, her background includes 15 years of executive and nonprofit leadership. She recently worked on local and international startup ecosystem projects for clients including St. Edward's University and SXSW Interactive. She also serves as a public speaker – her latest talk was "Building a Healthy Entrepreneur Ecosystem" at Hamburg's 2014 Reeperbahn Festival.

Previously, Claire served as Executive Director of RISE, hosting a conference series for entrepreneurs to exchange ideas with investors and business leaders. She also volunteers her time as Founding Advisory Board member for World Economic Forum's Austin Global Shapers.

Anupam Srivastava

Intel Capital

www.intelcapital.com

Intel Capital

Anupam Srivastava is Treasury Managing Director and investment committee member, overseeing Intel Capital investments in ultrabooks, tablets, security, data center software and open source software. Previously, he was Director, Intel Capital (India) where he led or co-led $50M in investments in mobility, eCommerce, and semiconductors and served as Intel Board Observer on seven company boards. Anupam has 15+ years' experience in venture capital, M&A, and startup management in Silicon Valley and in Asia. Before joining the venture world, Anupam was a Silicon Valley engineer at Amdhal (Fujitsu) and Intel. He holds an MBA from INSEAD and MSEE and BSCS degrees from Michigan State University.

Jon Bassett

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Silverton Partners

Jon Bassett joined Silverton in 2014. Prior to Silverton, Jon worked with DFJ Frontier in Los Angeles, where he focused on seed and early-stage investments in technology, software and media. He started his career at Dell, where he gained sales and operational experience working with inside sales teams and has since co-founded several startups including a long-short equities hedge fund.

Laura Kilcrease

Triton Ventures

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Texas

www.tritonventures.com

Triton Ventures

Laura is Founder and Managing Director of Triton Ventures, a venture capital firm focusing on spinout and early-stage technology companies. She is also former Entrepreneur in Residence at the Herb Kelleher Center for Entrepreneurship at The University of Texas at Austin. Ms. Kilcrease co-developed and launched the Austin Technology Incubator (ATI), serving as its founding executive director from 1989 to 1996. Prior to her work with C2E, Ms. Kilcrease spent almost 20 years in executive management, operating, merging, acquiring, turning around, or selling high technology companies for both Fortune 100 companies as well as emerging firms.

From 1985 to 1988 she was chief operating officer and chief financial officer of Nova Graphics International Corporation, a venture-backed software company based in Austin. From 1975 to 1984 she was financial and sales manager of Control Data Corporation in London, where she was responsible for financial reporting, forecasting, and planning for six major business units in the European headquarters of this Fortune 1000 company.

ncubators

- Austin Technology Incubator
- Capital Factory
- Medical Innovation Labs
- International Accelerator
- SKU
- Tech Ranch
- Tech Stars

Bart Bohn
Austin Technology Incubator (ATI)
IC² Institute Institute
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Austin Technology Incubator

Bart Bohn is a lead advisor to all ATI's IT & wireless companies (once again after serving in this role from 2007 – 2011). He is the co-founder of Ravel (acquired by W2O Group in 2012) and Embrace (Techstars Austin 2013), both big data analytics startups, co-founder, board member, facilitator and mentor of 3 Day Startup, founder of ATI SEAL and several entrepreneurship courses at The University of Texas at Austin.

Original pitch coach for SXSW Accelerator and on-going member of Qualifying Committee and Co-founder and host of the Entrepreneur Lounge at SXSW.

Former management consultant with Arthur Andersen and BearingPoint, founding engagement manager of BearingPoint's Energy Strategy Practice.

Trinity University for Chemical Engineering and Finance undergraduate degree, The University of Texas at Austin for MBA.

Mitch Jacobson
Co-Director
ATI Clean Energy Incubator
IC² Institute
Board Chair, CleanTX Foundation
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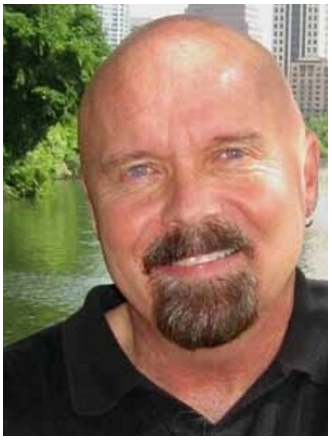
Austin Technology Incubator

Mitch has been a leader in bringing together government, industry, academia, utility and community interests to organize and shape a clean technology and clean energy cluster in Central Texas. He is the Co-Director of the Clean Energy Incubator at the University of Texas at Austin. Since 2009 he has served as the lead advisor to Austin Technology Incubator (ATI)'s clean energy companies. Mitch serves as Chairman of the Board of the CleanTX Foundation, a cluster development organization for clean technology in Central Texas. He is also the Regional Director for The Clean Tech Open South Central Region, Board member for SXSW Eco, The Environmental Sciences Institute at UT Austin, Nature Conservatory, The Austin Young Chamber and the Texas Foundation of Innovation & commercialization. Prior to diving into the clean energy world, Mitch was in the computer / IT industry for 25 years. He founded of Eyes of Texas Partners angel investment group, a network of angel investors in Texas that invested in companies developing innovative products and services in the

region. He was the VP of Sales for Tech Data Corporation and Director of Sales, European expansion and ROW expansion for Dell for many years.



Fred Schmidt

Capital Factory

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Texas

http://capitalfactory.com/

Capital Factory

Fred Schmidt is currently co-Director of Capital Factory, heading the international division of the incubator. He is a 30-year veteran of the creative industries, both lifestyle and high-growth. Fred's early years were spent in Detroit working on-air in radio and in live music. That evolved into a marketing and consulting career that began in radio and broadcast television, then morphed into being part of the teams that helped define and launch top cable satellite programming channels like HBO, MTV and CNN. Next came work as a marketing and operations executive with the cable television systems of Time Inc, Prime Cable, and others.

Realizing that cable operators were more in the utility business than the field of entertainment (Fred's passion), he headed into the world of computer games where he has worked as an executive partner with MicroProse Software (ipo), ORIGIN Systems / Electronic Arts (m&a) and NCsoft North America & Europe (global expansion). He is now a co-founder/advisor (and was the founding CEO) at Portalarium, the venture-backed ($7M Series A) and Kickstarter funded ($2.3M raise) game start up of Fred's three-time partner, Hall-of-Fame game designer and astronaut, Richard Garriott. Concurrently, Fred is also co-Founder/CEO of his family businesses, Wild About Music and Austin Rocks Texas, two unique music lifestyle stores and an Internet retailer celebrating 22 years of success in downtown Austin. He has built and run aspects of these and other entertainment and technology businesses all across the USA and Europe and continues to do so today through his consulting practice, Bullseye Business Development.

Fred is a leader in advancing the business friendship relationship established in 2012 between Austin and the London (U.K.) Borough of Hackney to catalyze opportunities for collaboration between the two cities in technology, creative industries and academia. Fred is a proud naturalized American having been granted political asylum in the USA as a child from his native Poland, the factor he attributes to his over-achieving immigrant mentality and appreciation of all that is possible in life.

Kerry Rupp

Chief Operating Officer

Medical Innovation Labs

http://www.medicalinnovationlabs.com/

Medical Innovation Labs

Kerry Rupp is Chief Operating Officer at Medical Innovation Labs, a new hub for healthcare innovation that commercializes breakthrough medical and clinical research, translating discoveries and inventions into products that meaningfully improve patient care.

With over 20 years of executive strategy and operations experience, Kerry has spent much of her career helping to launch and grow startup companies. Most recently, she was CEO and General Partner at DreamIt Ventures, a top-10 US startup accelerator. During her tenure, DreamIt helped launch 165 companies, grew to five cities, raised a $15+M follow-on fund, and initiated the DreamIt Access and DreamIt Health programs, the latter in conjunction with Penn Medicine, Independence Blue Cross, Johns Hopkins University, Northrup Grumman, Kaiser Permanente and others. DreamIt companies now have a market value of over $550M. Kerry was herself the founder of an online group travel service, Holiday Golightly. Before DreamIt, Kerry served in vice president level positions at Jobster, Classmates and LexisNexis and was a consultant at McKinsey and Andersen Consulting (now Accenture). She also provided marketing, strategy and business development consulting to senior executives at AllRecipes, ReadersDigest, Payscale, and Taleo. Kerry holds an MBA from Harvard Business School and a BA in Biology from Duke University.

Shari Wynne

SKU HQ

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Austin 78702

Texas

http://www.sku.is/

SKU

Shari Wynne Ressler is an Austin-based entrepreneur and attorney passionate about helping people achieve success. Shari is Founder/President of SKU (formerly Incubation Station) (www.sku.is), a leading consumer products accelerator that rapidly scales market-validated brands, Founder/President of MWR Legal (www.mwrlegal.com), a full-service law firm representing and connecting innovators, startups and high-growth companies since 1996. In 2015, Shari will co-launch the Entrepreneurial Law Bar Association (EBA), founded to bring together business counsel worldwide to inform how to represent clients and foster growth in the new economy. Shari is an avid mentor, investor, active participant in the Austin entrepreneurial ecosystem, and a past-president of the Austin chapter of the Entrepreneurs' Organization (EO) and RISEwomen.

Kevin Koym

Tech Ranch

8920 Business Park Dr #250,
Austin 78759

Texas

http://techranchaustin.com/

Tech Ranch

As a seven-time startup veteran and CEO and Founder of Tech Ranch Austin, a venture accelerator for early-stage technology companies, Kevin Koym is a recognized pioneer in the startup community whose influence has been felt by over 4,000 entrepreneurs from 20 countries.

His distinguished career fuels his passion for advising startups, which has seen two $0-to-$1 million startups and four others that made the $500,000 mark, and a number of "firsts" , including the development of the first Internet banking application in 1995 and the first large-scale e-commerce application engine, which generated over $2 billion in revenue for Dell Computer in the late 1990s.

Kevin was at the forefront of exploring profile-driven commerce, the use of Linux to secure networks, and exploring the feasibility of affective computing.

His experience working with technology luminary Steve Jobs at NeXT influenced his ability to inspire the global entrepreneurs he supports. In 2010, the Association of Information Technology Professionals, Austin Chapter, honored Kevin as "Technology Community Leader of the Year." Prior to founding his own companies, and in addition to NeXT, Kevin worked for the UT Health Science Center, Southwest Research Institute, Motorola, and IBM, earned a degree in Electrical Engineering from the University of Texas, and is an Eagle Scout.

Sandeep Kumar

Tech Ranch

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Texas

http://techranchaustin.com/

Tech Ranch

Currently, Sandeep is the General Partner of Tech Ranch Austin and focuses on the international incubator, accelerator, and entrepreneur development programs of Tech Ranch in US, Chile, Singapore, China and Japan. Formerly, Sandeep was the Managing Partner of Global Ascent Partners, a Global Consulting Firm with partners in US, China, Japan, Taiwan, Singapore and India. At Global Ascent Partners, Sandeep focused on providing executive management, investment, sales and operational consulting for emerging technology companies in semiconductors, video processing platforms, content management and creation and cleantech. He develops and implements global expansion strategies.

Brandon Marker

Tech Stars

http://www.techstars.com/

Tech Stars

Brandon is an analyst with Techstars in Austin and is responsible for working with the Austin portfolio companies on strategy, business models, financial modeling, fundraising, negotiations, and whatever else comes up.

His previous role as the first hire at Microventures was to help the founder grow the startup as the first equity crowdfunding portal. He educated investors on crowdfunding and investing in startups, managed deal flow, performed due diligence on potential portfolio companies, and created investor collateral for Microventures' investors. Brandon helped grow the firm from less than $100,000 invested to managing nearly $20 million invested, an expansion to San Francisco, and seed and series A funding. Microventures is currently raising a Series B round.

NOTES

Individual Participants

- City of Austin
- Austin Chamber of Commerce
- South by Southwest
- PCM
- IBM
- IC^2 Institute

Kevin Johns

Director, Economic Growth and Redevelopment Services, City of Austin

kevin.johns@austintexas.gov

City of Austin

Kevin is the Director of Economic Growth and Redevelopment Services at the City forAustin.

Michele Skelding

Senior Vice President

Global Technology and Innovation

mskelding@austinchamber.com

Austin Chamber of Commerce

Michele Skelding is Senior Vice President of Global Technology and Innovation for the Austin Chamber of Commerce in Austin, Texas. In her current role, she is responsible for developing and executing the overall vision for greater Austin to achieve recognition as a top global region for technology and innovation, company formation and expansion, and top access to venture capital and private equity.

Through her leadership initiatives, Michele cultivates emerging and strategic growth that identifies next generation trends, as well as the vital creation and interconnection of Austin's best in class entrepreneur ecosystem.

To accomplish this vision, Michele will act as the primary orchestrator of Chamber staff, members, media, technology companies and partner councils to perpetuate and improve global technology and innovation leadership present and active in the greater Austin area through promotion and recognition to increase Austin's global competitive position.

Hugh Forrest

Director of the annual South by Southwest Interactive Festival

www.sxsweco.com

South by Southwest (SXSW)

Hugh Forrest serves as the Director of the annual South by Southwest Interactive Festival. last held March 13-17, 2015 in Austin, this event brings together more than 30,000 digital creatives from across the United States and around the world. These digital creatives are inspired by five days of panels, presentations, brainstorming, networking, deal-making, socializing, creating, innovating, and fun. Forrest was named "Austinite of the Year" in February 2012 by the Austin Chamber of Commerce (along with fellow SXSW Directors Roland Swenson, Louis Black and Nick Barbaro). In June 2014, Forrest and these other SXSW Directors were named Austin Entrepreneurs of the Year by Ernst & Young.

In addition to his work at SXSW, he is part of the National Advisory Board for the Poynter Institute in St. Petersberg, Florida. He also serves as a trustee for the Austin Awesome Foundation.

Peter Lewis

Manager of International Sales & Exhibitions at SXSW

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South by Southwest (SXSW)

Peter Lewis is the Manager of International Sales & Exhibitions at SXSW, coordinating professional delegations & brand integrations across the music, film, and interactive industries from more than over 80 countries. In 2015, Peter helped develop & coordinate the production of over 50 international startup sessions during SXSW Interactive and oversaw a 30% increase in international exhibitors at SXSW.

Peter has spoken about the event industry as a catalyst for economic development at the Pacific Alliance's Forum on Entrepreneurship & Innovation (LAB4) and about effective event integration at the Reeperbahn Conference & Festival and Sweden's Gyllene Hjulet (Golden Wheel).

Philip J. Mogavero

Vice President & Regional Chief Technology Officer

PCM – Austin, Texas

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http://investor.pcm.com/

PCM

As Vice President of Advanced Technology and Regional Chief Technology Officer for PCM (formerly PCMall) Phil drives unique value to PCM clients leveraging advanced technology solutions to improve efficiency and profitability with the goal of accelerating PCM's hi-value IT solutions into a broader global footprint.

He's been immersed in the IT business through his father's original Business Machines and Computing company which hosted an IBM mainframe while developing one of the first mini-computers and partnering organizations, later being inducted into the Computer Industry Hall of Fame. Working summers at another family business, Data Systems West (DSW), he graduated fromUCLA with a B.A. in Economics and transformed DSW from retail computer stores to a nationally recognized systems integrator, becoming one of Cisco's first partners in 1992, developing one of the first intranets in 1995, building one of the first managed application hosting providers in 1999 and creating one of the first smart casinos in 2007. As CEO, Mr. Mogavero and his team produced incredible return on investment combining services and technical expertise across unique business solutions resulting in acquisition by PCM in 2009. As CTO of PCM, Phil was asked to develop the advanced solution strategy for the company, comprising datacenter, network, application, mobility and services.

Marlon Machado

Product Manager, Social Communications at IBM

marlon@machadonet.us

IBM

Learning to write and sell code at the ripe age of 13, Marlon eventually joined IBM in 1996 as a programmer for the ISSC organization (now Global Business Services) in Atlanta, Georgia where he worked on various projects involving distributed architectures. In 1998, Marlon joined the SanFrancisco™ Technology Center in Austin, Texas. He later became a Senior IT Architect for IBM ISV & Developer Relations, where he worked closely with IBM's Business Partners in designing and bringing integrated solutions to market.

Marlon joined the Lotus Software team in 2008 as Product Manager, Sametime Platform and Solutions in charge of positioning Sametime as a platform to enable horizontal and industry-specific solutions, creating an ecosystem of offerings built around collaboration with customers and partners. As of 2012, Marlon now leads a core Social Business software team charged with driving IBM Sametime from being a mere unified communications platform to becoming the market leading platform in Social Communications, where he is responsible for the product roadmap, technical strategy and execution of the new vision. He holds a B.S. in Computer and Information Sciences from the University of South Alabama.

Richard Amato

Global Commercialization Grroup

(GCG)

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The University of Texas at Austin
IC² Institute
Office of the Vice President for Research

IC² Institute

Richard Amato manages GCG's program for Jeollabuk-do, South Korea. Prior to his role with GCG, he founded and served as CEO of Venti Energy, a company dedicated to increasing the supply of clean and reliable energy. Previously, Mr. Amato was the director of Austin's Clean Energy Incubator (CEI) since its inception in 2001. CEI is a program of IC² Institute; it provides business and financial services to the clean-energy community and specifically to clean-energy startups. In addition to directing CEI and starting Venti Energy, Mr. Amato also chaired the Clean Energy Alliance, a national network of clean energy incubators. He received his MBA from The University of Texas at Austin and a bachelor of science in mechanical engineering from Texas A&M University.

Greg Pogue

Global Startup Program Portugal

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IC² Institute

Dr. Gregory Pogue is Senior Research Scientist at the IC² Institute of The University of Texas at Austin, where he leads research, instructional and implementation programs surrounding technology commercialization, early venture creation and entrepreneurship. Dr. Pogue has extensive technology commercialization experience through senior positions in venture capital, entrepreneurial ventures, technology transfer offices and as a scientific innovator. He has held vice president or above positions in six startup enterprises: one realized a successful public offering on the NASDAQ Exchange; a second was acquired by a Fortune 500 company; three obtained large licensing deals with industry leaders; the last is in clinical stage development. He has authored >50 original scientific articles and reviews and is an inventor on >35 issued and pending U.S. patents.

Chris Meyers

Global Startup Program Portugal

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The University of Texas at Austin
IC² Institute
Office of the Vice President for Research

IC² Institute

Chris serves as Program Manager for the IC² Institute's UTEN-Portugal program focused on international business development for emerging tech ventures seeking first revenues, new customers and distribution partners worldwide. He's held executive roles in Fortune 500 companies, new startups, and tech incubators and accelerators. He's a consummate dealmaker, leveraging connections across major verticals. He's coached and mentored dozens of entrepreneurs and growth-stage ventures, refining their "Go to Market"'sales and distribution strategies. He's helped raise over $31MM for clients. As co-founder of Meetrix, a Cloud/SaaS-based venture, Chris helped raise two rounds of $1.5 and $1.2MM while winning the 2011 IBM Beacon Award for Cloud Apps. Prior, he was responsible for a $200MM+ P/L for EchoStar/DISH. Chris holds a B.A. in Geology from Mercyhurst University and a M.S. in Science & Technology Commercialization from the The University of Texas at Austin.


2
Institute

Francisca Aroso

Visiting Scholar

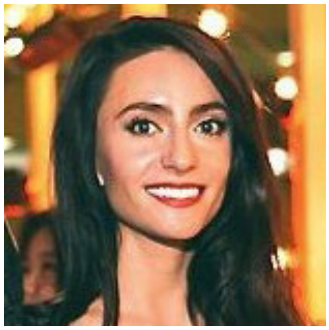
Coral Franke

Senior Administrative Associate

Rodney Klassy

Project Manager

Global Startup Program Portugal



Francesca Lorenzini

Research Associate

Global Startup Program Portugal

Donovan Miller

Global Startup Program Portugal

Prentiss Riddle

Senior Systems Administrator

Esther Orsborn

Administrative Associate

Diane Skubal

Administrator Manager

Sponsored by

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IC² Institute
Office of the Vice President for Research

FCT Fundação para a Ciência e a Tecnologia
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Appendix 3

UTEN GSP Orientation Week

Business Development class of 2016

Austin, Texas, November 16-20

Participants

UT Austin | Portugal
International Collaboratory for Emerging Technologies, CoLab

UTEN Portugal
University Technology Enterprise Network

An initiative from

The University of Texas at Austin
IC² Institute
Office of the Vice President for Research

In collaboration with

FCT Fundação para a Ciência e a Tecnologia
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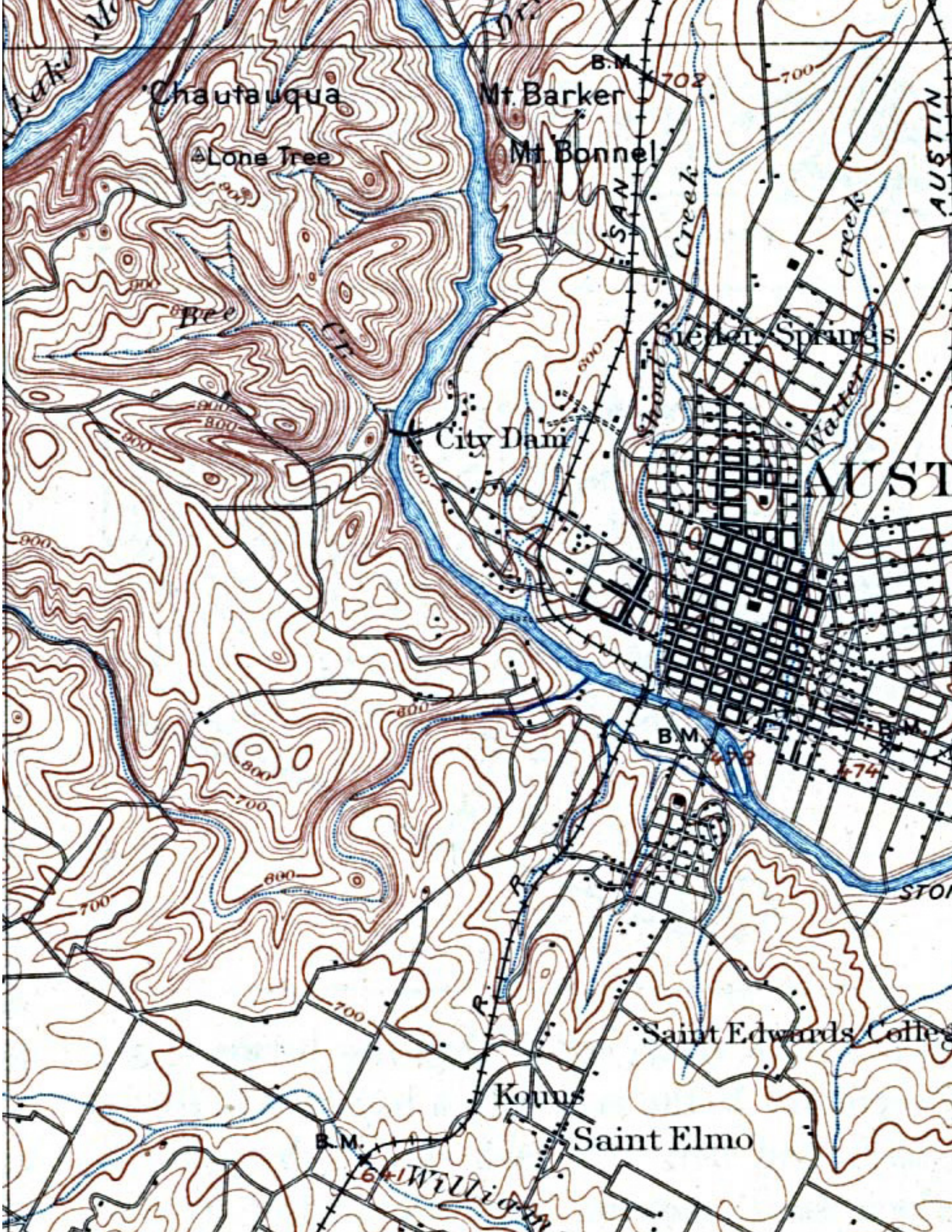
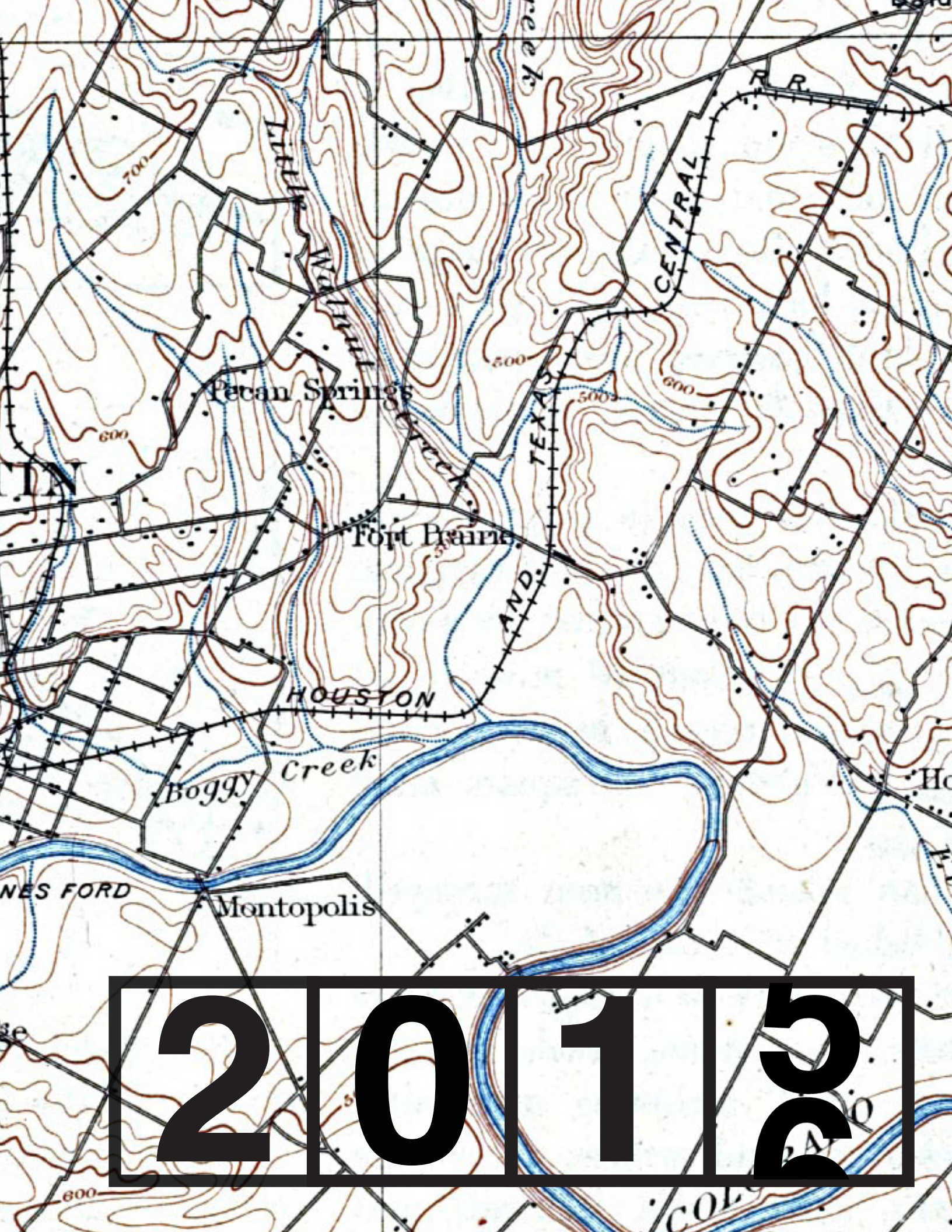

Chautauqua
Lone Tree
Mt. Barker
Mt. Bonnell
B.M. 702
700
SAN
Creek
Shoal
Creek
Water
Creek
AUSTIN
Bee
Cr.
Sieber Springs
City Dam
800
900
B.M.
478
474
700
Saint Edwards Colleg
Kouns
Saint Elmo
B.M.
Williams


Little Walnut Creek
Pecan Springs
Fort Prairie
HOUSTON
AND TEXAS CENTRAL R.R.
Boggy Creek
Montopolis
NES FORD
700
600
500

2015

WELCOME

2015 UTEN GSP

Welcome to the 2015 UTEN GSP Orientation Week! We believe the events scheduled will help reduce risk, open markets, and connect a select group of Portuguese technology-based companies with professionals in the Austin entrepreneurial ecosystem to help grow these companies globally, particularly in the United States.

The IC² Institute has a collective experience in global technology commercialization, entrepreneurship, innovation, incubation, and acceleration of almost 40 years. Our business development team closely works with international entrepreneurs in adding value to their businesses, including our our team at the Austin Technology Incubator (ATI). ATI is one of the first technology incubators in the United States, and has been creating a tremendous value for companies and society for almost 27 years.

The Global Startup Program (GSP) grew out of the University Technology Enterprise Network (UTEN), itself a part of the long-standing UT Austin|Portugal partnership between the IC² Institute at The University of Texas at Austin and the Portuguese Science and Technology Foundation (FCT). UTEN's goal is to lead, facilitate, and accelerate the commercialization of science and technology innovations created by Portuguese researchers. Based on a vision to become a network connecting universities, technology transfer offices, research laboratories, incubators, and professionals in Portugal, UTEN has grown into a leading training, incubation, acceleration, and business development program bridging the gap between early-stage innovations and the global marketplace.

Supported by the FCT, the IC² Institute launched the Global Startup Program in 2013 to provide business development, soft landing, incubation, and acceleration opportunities for Portuguese technology-based startups in global markets. Participating ventures benefit from physical co-location space and feet-on-the-ground mentorship in Austin from an experienced team of business developers. The Program's tangible outcomes speak for themselves: to date, firms in the program have had a direct economic impact of more $60 million in Portugal, through capital acquisition in the United States and sales, trials, and distribution agreements in the United States, India, the SAARC Countries, and China.

Held from November 16th to 20th, this year's Orientation Week will bring to Austin the leaders of eight of the most promising Portuguese technology ventures carefully selected from among dozens of applicants to be part of the GSP class of 2016, and will promote soft-landing learning and facilitate networking and matchmaking among entrepreneurs, major corporations, venture capital firms, angel investors, incubator directors, and international service providers interested in actionable knowledge about doing business in the United States and in particular the process of going global.

We are excited to host this entrepreneurial initiative and hope you find it useful!

Dr. Robert A. Peterson, Director, IC² Institute, The University of Texas at Austin

Marco Bravo, Project Director, IC² Institute, The University of Texas at Austin

WELCOME

Organized by the IC² Institute at The University of Texas at Austin:

Christopher Meyers
Diane Skubal
Donovan Miller
Francisca Aroso
Greg Pogue
Marco Bravo
Rodney Klassy

IC² Institute Central

AGENDA

November 16, 2015 (Monday): IC² Institute Central

9:00-11:00am Welcome session (Global Classroom)

Introductions

Welcome:

Robert A. Peterson, IC² Institute Director, Associate Vice President for Research

Why Austin:

Jim Butler, Economic Development, City of Austin

Michele Skelding, Senior Vice President of Global Technology Strategies, Austin Chamber of Commerce

11:00am-12:00pm Introduction to the Global Startup Program:

Marco Bravo, Project Director (Global Classroom)

Roundtable discussion and networking:

Gregory Pogue, Deputy Director, Senior Research Scientist, GSP Portugal

Christopher Meyers, International Business Development, GSP Portugal

Rodney Klassy, International Business Development, GSP Portugal

Donovan Miller, International Business Development, GSP Portugal

12:00-1:00pm Working lunch (Global Classroom)

1:00-5:00pm Break-out sessions: messaging, targeting, pitching, strategy, next steps

Group 1: Celfinet, Eyesee, Veniam, led by **Christopher Meyers** (Trustees Room)

Group 2: Biopremier, Whale, 2East, led by **Rodney Klassy** (Board Room)

Group 3: Xhockware, Dognaedis, WY Group, led by **Donovan Miller** (Idea Room)

5:00pm-onwards Free time to catch up on work and explore Austin

AGENDA

November 17, 2015 (Tuesday): IC Institute Central

9:00am-12:00pm Success Committee Mastermind (Global Classroom), led by **Donovan Miller**

9:00-10:00am: **WY Group**

10:00-11:00am: **Dognaedis**

11:00am-12:00pm: **Xhockware**

Other teams work on pitch and setting up meetings (Idea Room, Trustees Room, Board Room)

12:00-1:00pm Working lunch (Global Classroom)

1:00-2:00pm Success Committee Mastermind (Global Classroom), led by **Christopher Meyers** and **Rodney Klassy**

1:00-2:00pm: **Celfinet**

2:00-3:00pm: **Eyesee**

3:00-4:00pm: **Biopremier**

4:00-5:00pm: **Veniam**

Other teams work on pitch and setting up meetings (Idea Room, Trustees Room, Board Room)

1:00-5:00pm Break-out sessions: messaging, targeting, pitching, strategy, next steps

Group 1: Celfinet, Eyesee, and Veniam, led by **Christopher Meyers** (Trustees Room)

Group 2: Biopremier, led by **Rodney Klassy** (Board Room)

Group 3: Xhockware, Dognaedis, WY Group, led by **Donovan Miller** (Idea Room)

5:00-6:30pm Free time to catch up on work and explore Austin

6:30pm Networking dinner (Scholz Garten, 1607 San Jacinto St; invitation only)

AGENDA

November 18, 2015 (Wednesday): Austin region I IC² Institute Central I ATI WPR

9:00-12:00am Calls and meetings with potential US partners (Austin region | IC² Institute Central)

12:00-2:00pm Working lunch (IC² Institute's Thanksgiving Potluck at ATI WPR location)

2:00-5:00pm Come to America session (ATI WPR)

1:00-5:00pm Break-out sessions: messaging, targeting, pitching, strategy, next steps

Topics

- Raising Capital.
- USA subsidiary incorporation.
- Corporation options and legal representation (contracts, etc.).
- CPA/Tax (federal and state).
- Immigration/visa.
- Office space, housing, transportation, communication and other services.
- Austin, Texas and United States (culture, travel, business norms, etc.).

5:00pm-onwards Free time to catch up on work and explore Austin

November 19, 2015 (Thursday): Austin region

All day Calls and meetings with potential US partners (Austin region | IC² Institute Central)

AGENDA

November 20, 2015 (Friday): Austin region/ I C² Institute Central

9:00am-10:00am Calls and meetings with potential US partners (Austin region/IC² Institute Central)

12:00-1:00pm Working lunch (IC² Institute)

1:00-5:00pm Wrap-up with the UTEN GSP team: team engagement, learnings, and next steps

1:00-3:00pm: Round table (Global Classroom)

3:00-5:00pm: Break-out sessions

Group 1: Celfinet, Eyesee, and Veniam[1], led by **Christopher Meyers** (Trustees Room)

Group 2: Biopremier, Whale, 2East led by **Rodney Klassy** (Board Room)

Group 3: Xhockware, Dognaedis, WY Group, led by **Donovan Miller** (Idea Room)

Closing

Notes

- For meetings you may dress business casual (tie is optional).
- Marco's cellphone: 512-422-8940
- Addresses:

  IC² Institute Central (2815 San Gabriel Street)

  IC² Institute Austin Technology Incubator, ATI (WPR - West Pickle Research Center, 3925 West Braker Lane)
- Webpages: http://utenportugal.org/ | http://utenportugal.org/global-startup-program/ | http://IC² Institute.utexas.edu/ | http://ati.utexas.edu/

[1] Remote presentation

WHY AUSTIN?

With a Gross State Product (GSP) of $1.5 billion and a five-year GSP growth of 3.4%,[1] Texas consistently ranks as one of the country's most favorable business climates due to its low tax burden and competitive regulatory environment. In Texas, aggregate costs for real estate, energy, wages and taxes are lower than those in the majority of other U.S. states.

Texas has one of the lowest state and local tax burdens in the nation, featuring no personal income tax. Overall, the state ranks 42nd among the 50 states in taxes paid per $1,000 of personal income. Texas consistently is one of the best states for business in numerous rankings. In terms of tech M&A and IPOs per state, Texas ranks 4th in the country.[2]

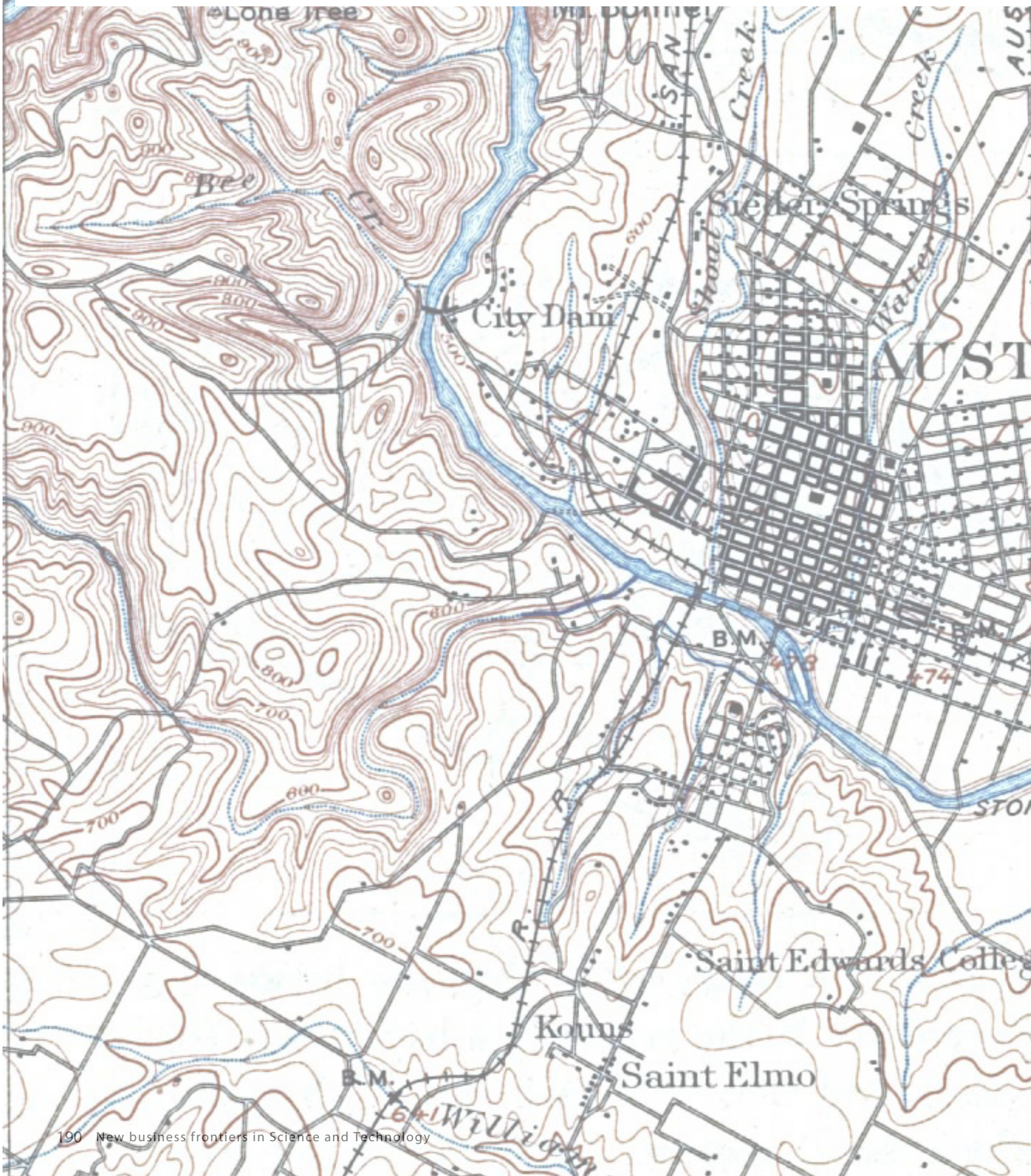
Compared to other major business hubs, Austin is renowned for its high quality of life and affordability. The Council for Community & Economic Research states that living costs in Austin were 6-7% below the national average in 2013.

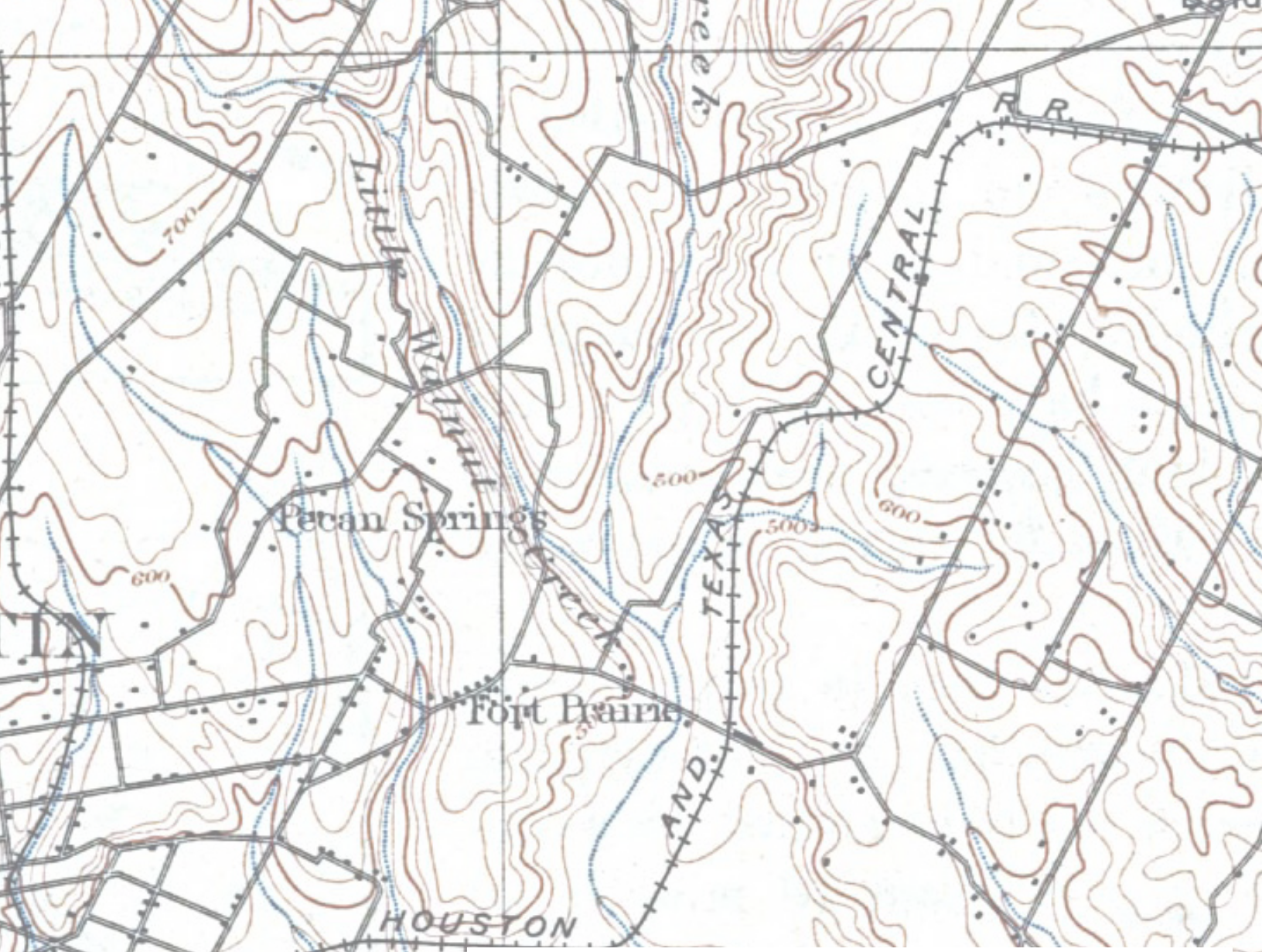
The Austin area was named the "Most Business-Friendly U.S. City" by the Kauffman Foundation in 2013. In Austin one finds a thriving business base that includes enterprises in technology, digital media, clean energy, and life sciences, advanced manufacturing, and data centers. It's a dynamic

business ecosystem that has provided consistent growth for some of the world's most successful companies, including Dell, Whole Foods, Freescale, Facebook, Ebay/PayPal, GM, Samsung, and more. Austin places at or near the top of fDi Intelligence's annual "American Cities of the Future" ranking, as well as Area Development's "Leading Locations." Forbes calls Austin "America's No. 1 Boom Town." Austin tops the list of hot U.S. cities that offer both jobs and culture according to U.S. News (July 2013). These evaluations are based on performance and on the criteria that businesses use for making location decisions—like workforce quality, capacity for innovation, low cost of doing business, and the quality of life that Central Texas affords.

[1]http://www.forbes.com/pictures/mli45elhjj/6-texas-3/
[2]https://www.cbinsights.com/blog/tech-exits-state-ranking/

Portuguese Companies





Portuguese Companies

- **Celfinet**: Nuno Ribeiro and Alexandre Victorino.
- **WY Group**: André Gil, Alexandre Silva, and Tiago Janela.
- **Eyesee**: João Redol and André Pimentel.
- **Biopremier**: Pedro Antunes.
- **Dognaedis**: Francisco Rente.
- **Veniam**: Kesav Mohan, and Manuel Simas (remotely).
- **Xhockware**: João Neiva, and David Sobrinho.
- **Whale**: Paulo Almeida.

CELFINET

http://www.celfinet.com

Celfinet, created in 2003, focuses on technical consultancy services and solutions for telecommunications companies. Its primary product, Vismon Intelligence, is a Multivendor Network Performance Manager based on BSS counters that is tailored to GSM/DCS, UMTS and LTE technologies. It statistically monitors information collected directly from the main network elements, and enables close inspection of the major QoS offenders, identifying network trouble spots and setting up and implementing correction measures. Celfinet is headquartered in Lisbon, Portugal and the business development efforts are being led by Luis Varela and Alexandre Victorino.

Nuno Ribeiro
nuno.ribeiro@celfinet.com

Alexandre Victorino
alexandre.victorino@celfinet.com

WY GROUP

http://www.wygroup.net/

WYgroup, through one of its business units, Bliss Applications, is a mobile software development consultancy, developing services and products for a growing market of mobile-driven economies. WYGroup company started in 2002 as a digital marketing agency. The company evolved into a group in 2007 by capturing new technologies that could be used for marketing, that lead to the creation of Bliss Applications in 2009, with a focus on developing software and apps for what was thought to be a great market. From its inception the group maintained the same management board and the same leadership in the mobile consultancy business unit. Pedro Janela is CEO of WYgroup, and André Gil is Managing Partner of Bliss Applications.

André Gil, Mobile Manager partner
andregil@blissapplications.com

Alexandre Silva

asilva@blissapplications.com

Tiago Janela, CTO

tiagojanela@blissapplications.com

EYESEE

http://www.eyeseesolutions.com/

Headquartered in Lisbon, Portugal, and led by André Pimentel and João Redol, **EyeSee** is a revolutionary solution that engages viewers and allows brands to seamlessly integrate in-stream ads and in-image ads in premium content. EyeSee has developed a patent-protected technology that automatically inserts context-relevant ads: No need for human intervention, making it easy and scalable for publishers.

André Pimentel, Chief Revenue Officer
andre.pimentel@eyesee.pt

João Redol, CEO & Founder

joao.redol@eyesee.pt

http://biopremier.com/

Led by Pedro Antunes, **BIOPREMIER** develops DNA-based diagnostic solutions for several sectors, namely agro-food, veterinary, environmental and clinical. The company has developed techniques that are unique in the world, both in service and product format - speciation, fraud detection and DNA-based microbiology. The company began the monetization efforts of their developments in 2012, starting with food quality and fraud control within the Portuguese market. Today the company works with clients all over the EU and is starting to internationalize beyond its borders (US, Brazil, and Mexico, for example). Biopremier's services and products are used mainly in the agro-food sector, from private firms (retailers, producers and laboratories) to governmental fraud control agencies. The company's competitive advantage is its unique technology for food-fraud detection through DNA as well as a lean cost structure. Biopremier aims to be an international reference of innovation and development for molecular diagnosis products by becoming a molecular biology center of reference. The company is focused on innovation, offering products and services in the fields of molecular biology, for the agrifood, environmental, human clinical and animal health industries.

Pedro Antunes, Chairman
of the Board
pantunes@biopremier.com

DOGNÆDIS

https://www.dognaedis.com

Focused on information security, **DOGNÆDIS** was created by a team of researchers from CERT-IPN and University of Coimbra. Francisco Rent and team were previously at the origin of CSIRT (Computer Security Incident Response Team), the CERT-IPN, hosted at the Instituto Pedro Nunes, a technology transfer interface created by the University of Coimbra in Portugal. After five years of activity, and due to the increasing success and positive feedback from several private and government organizations, DOGNÆDIS started as a private company, aiming to be at the forefront of security technologies. To reach such an endeavor, the company is devoted to bringing information security to organizations and individuals through excellence in innovative solutions.

Francisco Nina Rente, CEO
frente@dognaedis.com

Sérgio Alves, Partner
salves@dognaedis.com

VENIAM

THE INTERNET OF MOVING THINGS

https://veniam.com/

Veniam is building the Internet of Moving Things. It turns vehicles into Wi-Fi hotspots and builds city-scale vehicular networks that expand wireless coverage and collects terabytes of urban data. In controlled spaces such as ports and container terminals, Veniam's game-changing solutions ensure that all mobile workers and assets are securely connected, no matter where they are or at what speed they are moving. Its hardware, software ,and cloud components are running in the world's largest network of connected vehicles, including taxis, waste collection trucks and an entire public bus fleet in Porto, Portugal, offering free Wi-Fi to more than 260,000 active customers. Veniam is backed by leading venture capital firms, with offices in Silicon Valley and Porto, Portugal.

Manuel Simas, VP Sales

msimas@veniam.com

Kesav Mohan, Business Development & Operations

k@veniam.com

XHOCKWARE

Xhockware.com

Led by João Rodrigues, CEO, and João Neiva, COO, **XHOCKWARE** is a tech company based in Porto focused on developing innovative retail solutions. The company's first product is YouBeep, a mobile checkout solution designed to end waiting lines at checkout. The solution is based on two components, a mobile app and patented pluggable device, compatible with all POS, requiring no integration. YouBeep is a product for retailers worldwide, especially grocers/ supermarkets, wanting to improve customer satisfaction and save money.

YouBeep (product)

YouBeep is a mobile checkout solution designed with top retailers in mind, providing them and their customers with an innovative mobile shopping tool compatible with every POS in the world without any software integration.

Since its launch at two leading retailers in Europe, Lidl (Germany) and Pingo Doce (Portugal), Youbeep was able to achieve 10% store transactions, make the average YouBeep checkout three times faster than regular ones, increase basket size by 15% of the transations, and give meaningful shopper insights.

Animated video: https://www.youtube.com/watch?v=gkwIMF27mqU

Morrisons Demo with coupons/promotions:

https://www.youtube.com/watch?v=kDLk1CHW8cY

João Neiva, COO, Co-founder

j.neiva@xhockware.com

David Sobrinho, CMO

david.sobrinho@xhockware.com

www.clientscape.com

Clientscape (product) is a SaaS that runs over a private elastic cloud, exclusively used by a single brand. We identify a brand's customers on social media by matching their existing CRM ID with their social media profiles and other digital presences (Facebook, Twitter, e-mail, web analytics and mobile). All this is done through a highly accurate customer self-identification method leveraged through social login and proprietary tracking systems.

Advantages on the customer care side:

(decrease operational costs and increase qualification)

- Reduce Customer Care SLA's

- Increase customer qualification -> leverage loyalty = reduce customer retention cost.

- Operator efficiency > 800% compared to traditional call center + generates qualified data

Advantages on the Marketing or Sales side:

(increase customer retention, drive loyalty, sales and acquire similar customers)

- All customer opt-ins are 100% legally compliant due to legal enforcement framework

- Through a known customer base identified on social media it becomes possible to target similar potential-customer profiles, thus increasing their CTR and reducing their CPA.

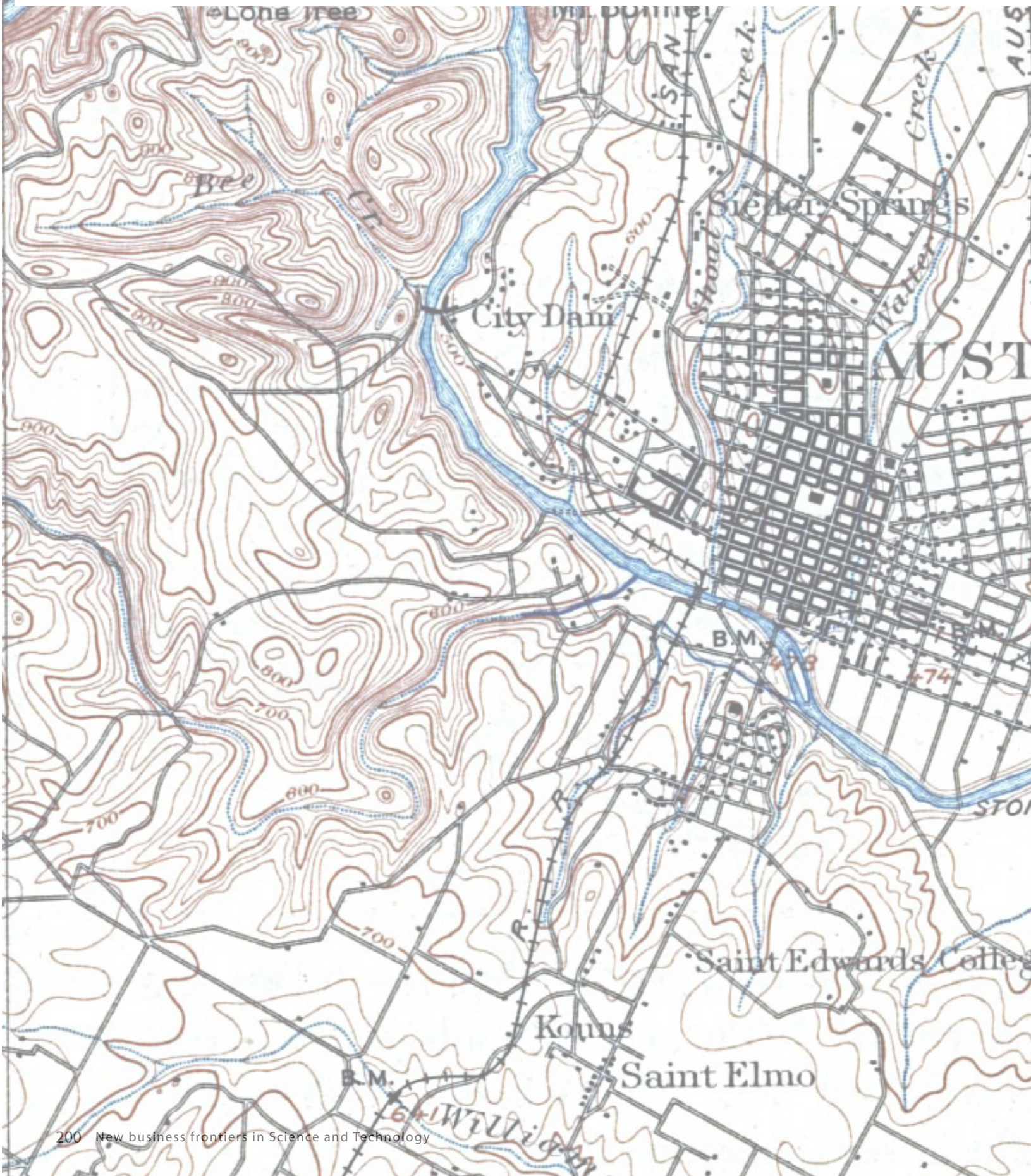
-Customer Retention costs < 45% and customer acquisition costs < 80%

Advantages on the IT infrastructure and data security side:

Since Clientscape runs of a private cloud exclusively dedicated to each brand, data security and data sharing do not pose any threat or risk of undesired data violation or breach.

Paul Antony, CEO &
Founder
paul.antony@clientscape.com

UNITED STATES PARTICIPANTS



UNITED STATES PARTICIPANTS

- **Anupam Srivastava** Intel Capital
- **Bart Bohn** Austin Technology Incubator (ATI)
- **Bill Welch** IC² Institute
- **Bruce Flory** BuyerPath
- **Cindy WalkerPeach** Austin Technology Incubator (ATI)
- **Glenn Robinson** IC² Institute
- **Jim Butler** Economic Development, City of Austin
- **Jim Vance** IC² Institute
- **Jon Bassett** Nextgen Angels
- **Jonathan Libby** IBM
- **Laura Kilcrease** Triton Ventures
- **Lydia McClure** Austin Technology Incubator (ATI)
- **Marlon Machado** IBM
- **Michael Palmer** Dell
- **Michele Skelding** Austin Chamber of Commerce
- **Mike Intag** System Surveyor
- **Phil Mogavero** PCM
- **Ray Atilano** St. Davids Hospital
- **Richard MacKinnon** Borg Fest
- **Rob Smithson** Dana Corp
- **Mark Castleman** Bell Labs & Capital Factory

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Treasure Manager Director
Intel Capital

Bart Bohn
Austin Technology Incubator ATI, IC² Institute
IT|Wireless portfolio

Bill Welch
IC² Institute

Bruce Flory, CEO
BuyerPath

Cindy WalkerPeach (TBC)
ATI, IC² Institute Institute

Glenn Robinson
Global Commercialization Group, IC² Institute Institute

Jim Butler
Economic Development, City of Austin

Jim Vance
Global Commercialization Group, IC² Institute Institute

Jon Bassett (TBC)
Nextgen Angels

Jonathan Libby
IBM

Laura Kilcrease (TBC)
Triton Ventures

Lydia McClure
ATI, IC² Institute Institute

UNITED STATES PARTICIPANTS (SUCCESS COMMITTE)

Marlon Machado

Product Manager, Social Communications at IBM

Michael Palmer

Dell

Michele Skelding

Senior Vice President

Austin Chamber of Commerce

Mike Intag

System Surveyor

Philip J. Mogavero

Vice President & Regional Chief Technology Officer

PCM

Ray Atilano

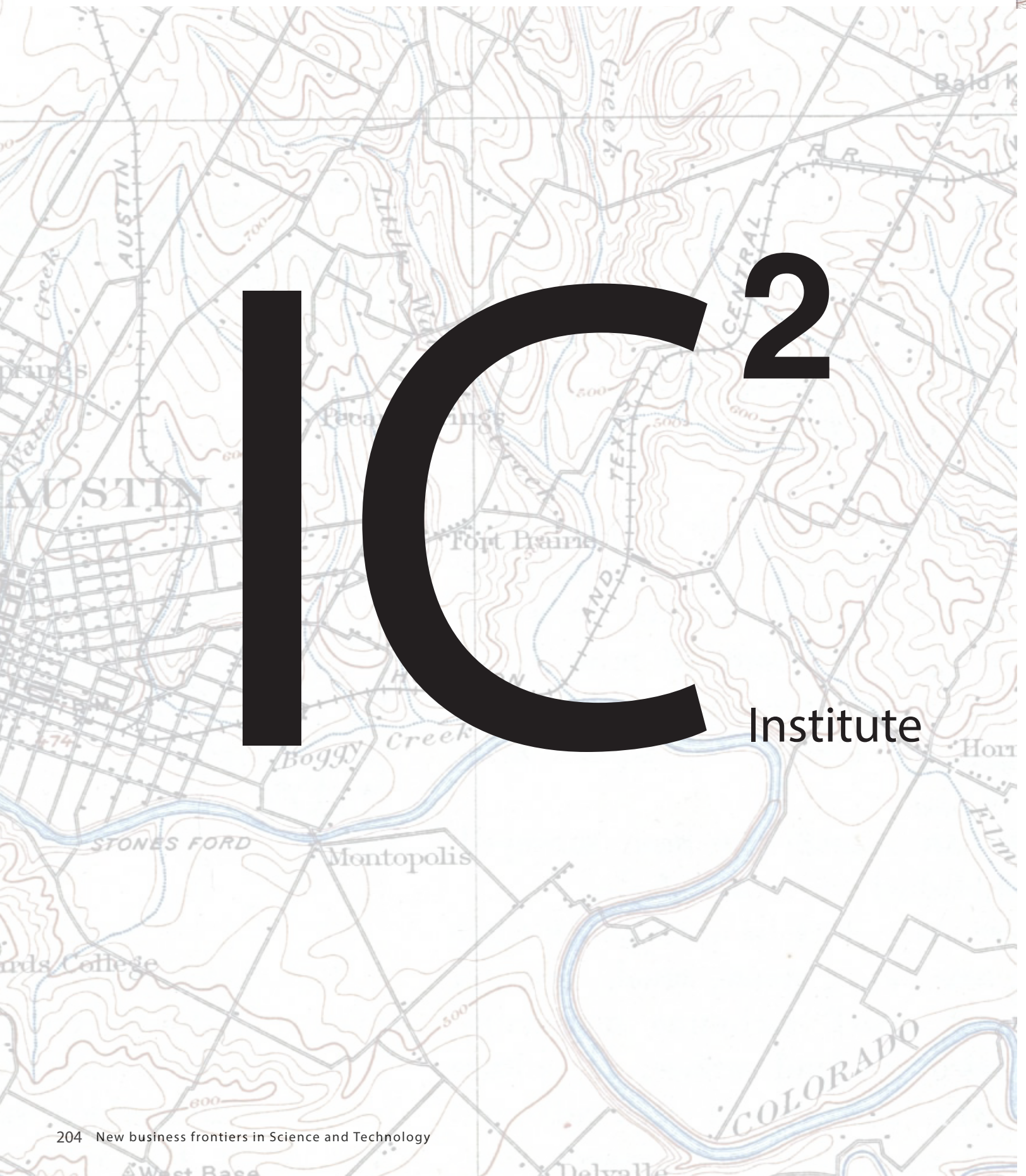
St. Davids Hospial

Richard MacKinnon

Borg Fest

Mark Castleman

Bell Labs & Capital Factory


IC²
Institute

Robert A. Peterson

Director, IC² Institute

Associate Vice President for Research

John T. Stuart III Centennial Chair in Business Administration

Dr. Robert A. Peterson is Director, IC² Institute, and Associate Vice President for Research at The University of Texas at Austin, where he holds the John T. Stuart III Centennial Chair. He has served as chairman of the Department of Marketing, associate dean for research in the McCombs School of Business, and interim director of the Office of Technology Commercialization at The University of Texas at Austin. In 2006 he was named the American Marketing Association/McGraw-Hill Irwin Distinguished Marketing Educator and received the Berkman Service Award from the Academy of Marketing Science. Dr. Peterson is an erstwhile entrepreneur, having co-founded three companies. In addition, he has served on the boards of several corporations and nonprofit entities as well as an advisory committee to the United States Bureau of the Census and presently serves as the US Department of State PLUS-IP council. He occasionally testifies as an expert witness in litigation matters involving intellectual property and unfair competition.

Marco Bravo

Project Director, IC² Institute

Global Startup Program Portugal

Marco Bravo is a Project Director at the IC² Institute of the University of Texas at Austin. His expertise focuses on entrepreneurial wealth creation, international innovation, and global technology commercialization. He is an Engineer with diverse international experience and education, as well as significant leadership and managerial experience in multinational business, consulting, academia, government, and startups with extensive cross-cultural literacy.

Marco has co-founded three companies, one had a successful exit. He managed a seed fund in Portugal, and actively mentored 120+ technology startups and entrepreneurs from multiple countries. Before coming to Texas, Marco has been an adjunct faculty member at the Universities of Minho and Porto. In industry, he served as Production Department Manager at Continental AG in Germany and in Portugal. Marco Bravo has also been Advisor and Chief of Staff of the State Secretary for Science, Technology and Higher Education where he implemented policies for the development of the Portuguese entrepreneurial ecosystem.

UTEN I GLOBAL STARTUP PROGRAM

Chris Meyers

International Business Development

GSP Portugal

Donovan Miller

International Business Development

GSP Portugal

Greg Pogue

Deputy Director and Sr. Research Scientist

GPS Portugal

Prentiss Riddle

Senior Systems Administrator

GPS Portugal

Rodney Klassy

International Business Development

GSP Portugal

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Content and photographs were contributed by Christopher Meyers, Coral Franke, Donovan Miller, Francesca Lorenzini, Gregory Pogue, Marco Bravo, Prentiss Riddle, and Rodney KlassySimilarly the efforts of many were needed to coordinate the activities and events described in this report. Our appreciation goes out to all, as well as to you, the reader.

Some of uncaptioned photos in this report, including cover photos, are the work of Luís Barbosa.

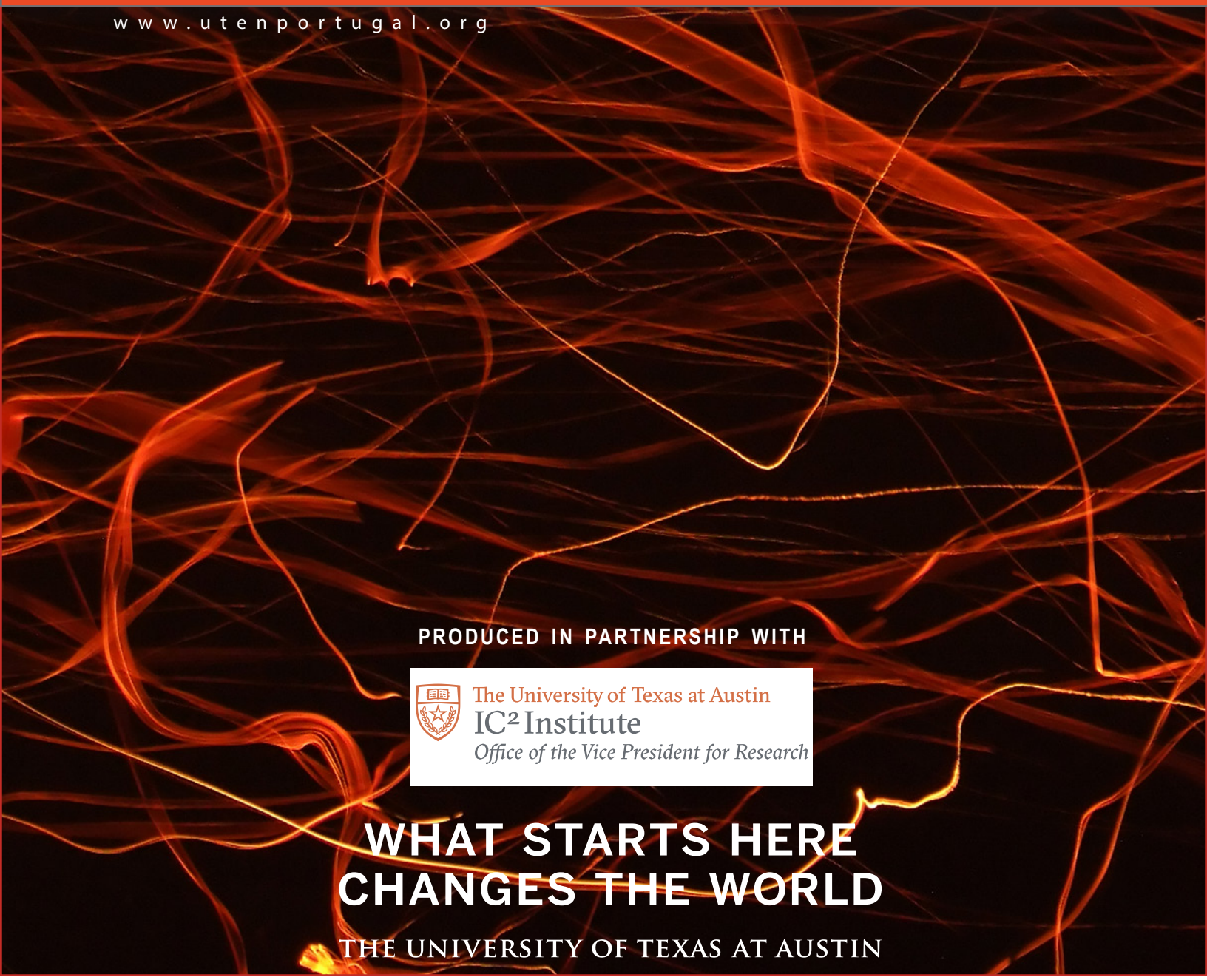
2013 - 2015: A CUMULATIVE REPORT

UTEN Portugal

University Technology Enterprise Network

New Business Frontieres in Science and Technology

www.utenportugal.org



UT Austin | Portugal

International Collaboratory for Emerging Technologies, CoLab

FCT

Fundação para a Ciência e a Tecnologia

Ministério da Ciência, Tecnologia e Ensino Superior