Role, organization and functions of technology transfer offices

Demarinis Loiotile Annamaria
Innovation & Creativity Center
University of Bari Aldo Moro

Bari, 21/09/2021

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

Who is Annamaria?

She graduated in Chemistry in 2006, cum laude; she obtained a Master's degree in 'Research Manager and Sales Manager for the Innovation Market', an Advanced Training Course degree in "Research communication" and one in “Innovation Broker”. Since 2007, she has supported project managers of numerous national and international projects about environmental sustainability, health, innovation&technology transfer, research communication and dissemination at the University of Bari.

Today she works at the Innovation&Creativity Center of the University of Bari Aldo Moro, as Research Manager, dealing with: third mission activities and knowledge transfer management, development of interdisciplinary scientific projects, project management, successful matching between innovation supply and demand, scouting and valorization of research results.

Now she has started the new adventure of the PhD in Industry 4.0 at Polytechnic of Bari connecting the activities of technology transfer to the main topics of Industry 4.0.

UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO

… OUR AFTERNOON …

Concept of third mission

What is technology transfer and technology transfer office

UNIBA TTO & Innovation&Creativity Center

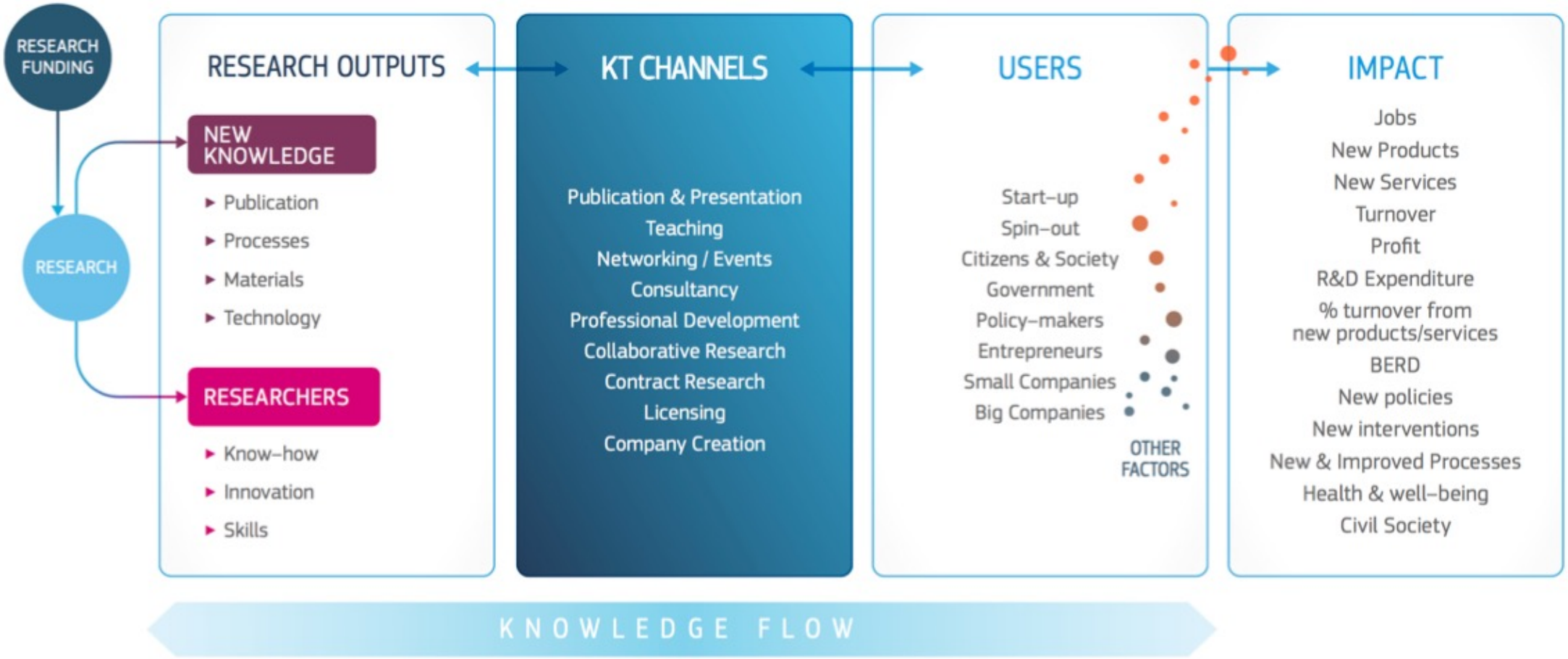
The goals, roles and budget of TTO

.. Some games …

Collaboration research - industry

Knowledge Transfer: from research to impact

Figure 1: Knowledge Transfer: from research to impact



«Knowledge transfer metrics
Towards a European-wide set of harmonised indicators»

Third mission

anvur

RAPPORTO SULLO STATO DEL SISTEMA UNIVERSITARIO E DELLA RICERCA 2013

Definizioni

«*Propensione delle strutture all'apertura verso il contesto socio-economico, esercitato mediante la valorizzazione e il trasferimento delle conoscenze*» (Bando VQR 2004-2010)

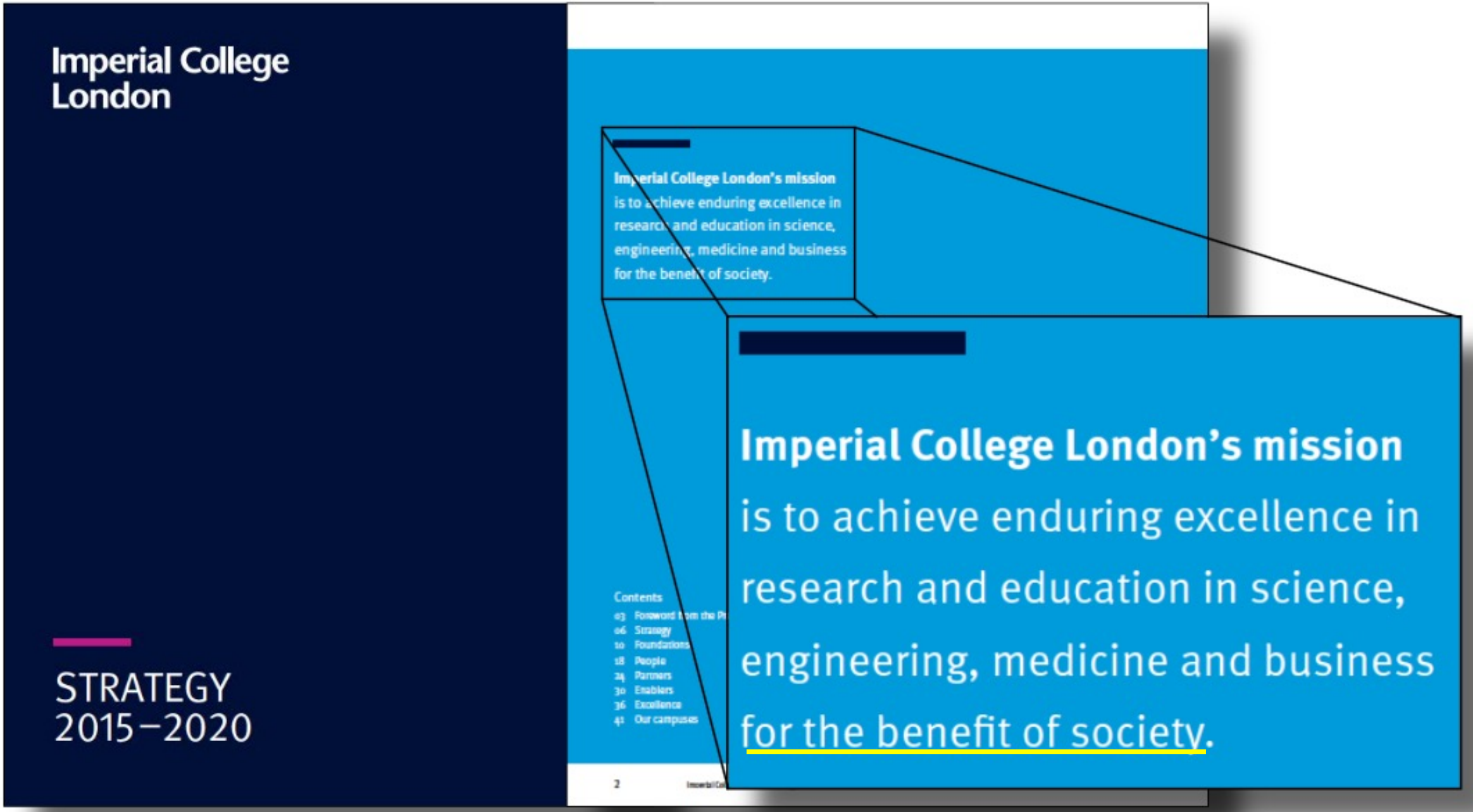
Si intende l'insieme delle attività con le quali le università entrano in interazione diretta con la società, affiancando le missioni tradizionali di insegnamento (prima missione, che si basa sulla interazione con gli studenti) e di ricerca (seconda missione, in interazione prevalentemente con le comunità scientifiche o dei pari).

- Terza Missione di valorizzazione economica della conoscenza
- Terza Missione culturale e sociale

The inclination of the structures (universities and research bodies) to be open to the **socio-economic context**, exercised through the enhancement, valorization and transfer of knowledge.

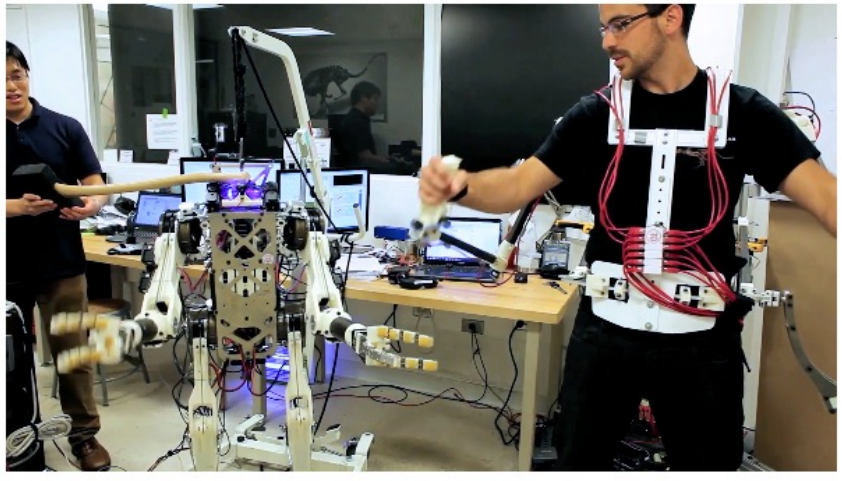
Two tipologies:

- Third Mission: economic valorization of knowledge
- Third Mission: Cultural and Social Mission


Imperial College London
STRATEGY 2015–2020
Imperial College London's mission is to achieve enduring excellence in research and education in science, engineering, medicine and business for the benefit of society.
Contents
03 Foreword from the Pr
06 Strategy
10 Foundations
18 People
24 Partners
30 Enablers
36 Excellence
41 Our campuses
2
Imperial College London's mission
is to achieve enduring excellence in research and education in science, engineering, medicine and business for the benefit of society.

MIT people are eager to know how things work — and inspired to make them work better. Our "mind and hand" philosophy spurs real-world engagement, and thanks to MIT's entrepreneurial culture, Greater Boston's innovation ecosystem brims with companies spun out from MIT. We also embrace collaborations with industry and government, as we seek compelling problems where MIT innovation can make an impact.

MIT's student and faculty entrepreneurs can tap a remarkable suite of programs — from the MIT Innovation Initiative to the $100K Entrepreneurship Competition — as they learn to drive their ideas to market. From two-person faculty start-ups to global corporations, businesses and nonprofits of every size can find satisfying ways to work with MIT. A range of professional groups stand ready to help, from our Martin Trust Center for MIT Entrepreneurship to the distinctive Industrial Liaison Program.

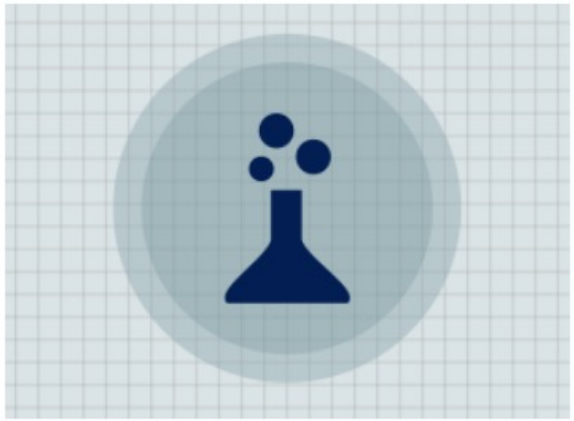


Innovation and Partnership

Big challenges face our world today: from pioneering new cures to setting society-shaping policies, from creating new energy sources to determining modern ethics. At Oxford University we're passionate about the creation and impact of our knowledge and how, in partnership, we can apply this to real challenges.

Expertise & Knowledge

Resources & Facilities



Research & Partnerships

EXPEDITED ACCESS FOR COVID-19 RELATED IP

The COVID-19 pandemic demands an urgent and unprecedented response.

University research and expertise is critical to this effort, and OUI is supporting a growing number of projects from Oxford University involving IP and technology that could help address the current pandemic. These include vaccines, rapid diagnostics, ventilators, therapeutics and remote monitoring technology.

- Guidance on how we approach licensing COVID-19 related IP to 3rd parties

Yale | OCR Yale Office of Cooperative Research

Improving the health, welfare and prosperity of the global community.

48

venture-backed companies spun out

(in the last 5 years)

1367

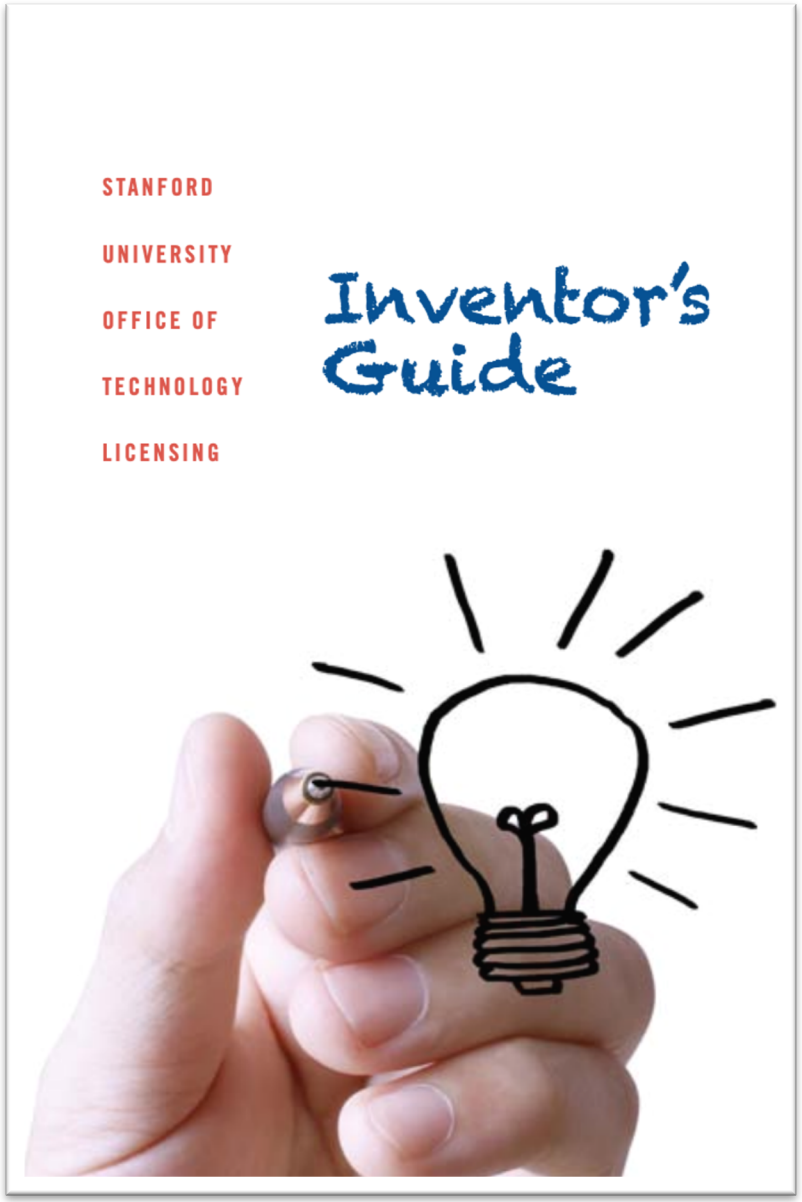
active patents worldwide

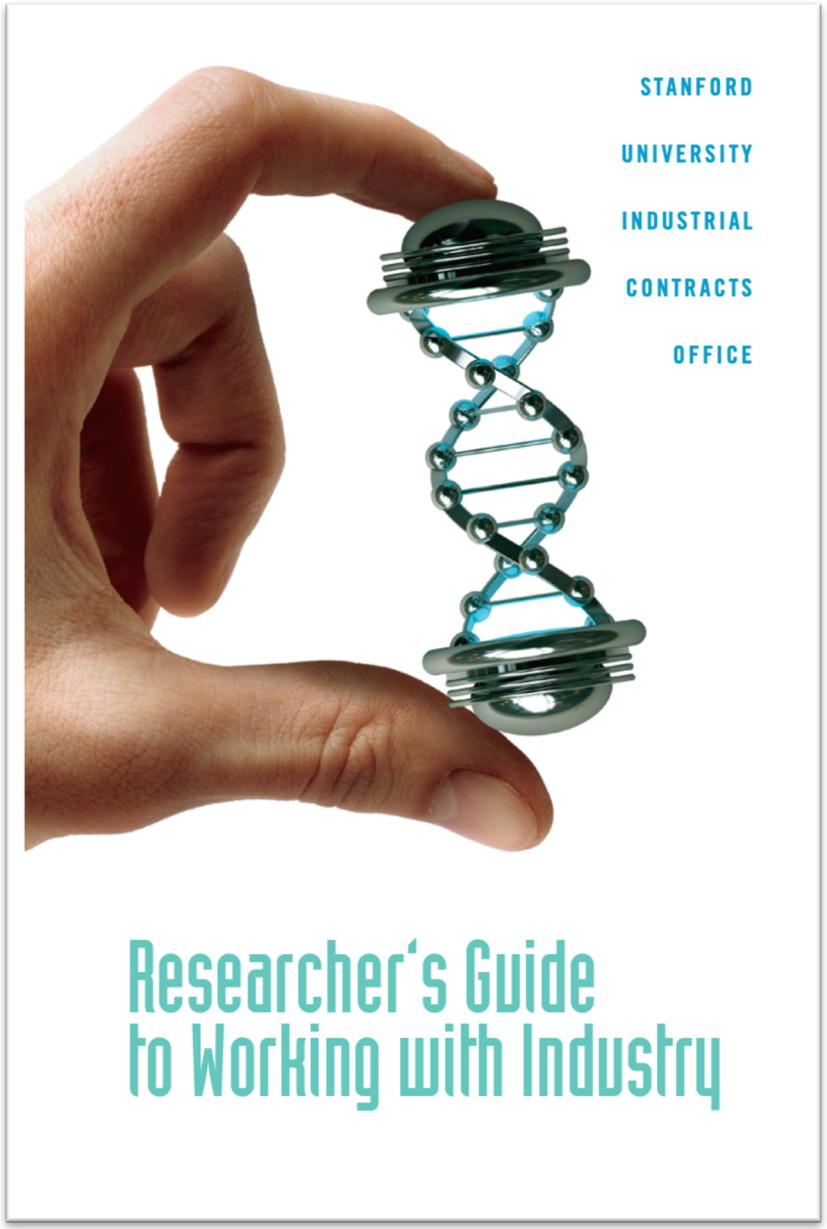
(as of 2020)

4th

IPO

(4 years straight)


STANFORD
UNIVERSITY
OFFICE OF
TECHNOLOGY
LICENSING
Inventor's Guide


STANFORD
UNIVERSITY
INDUSTRIAL
CONTRACTS
OFFICE
Researcher's Guide
to Working with Industry

https://otl.stanford.edu/sites/g/files/sbiybj10286/f/stanford-otl-ar-fy2019.pdf

"Fueled by optimism, ingenuity and a sense of responsibility, we seek to accelerate our purposeful impact in the world."
—Stanford's Long-Range Vision*

The Stanford Office of Technology Licensing (OTL) is both delighted and grateful that we continue to rank as a top performer in a variety of nationally reported measures of technology transfer and entrepreneurship. It's important to note, however, that most of these reports focus on the easily tracked numbers such as patents issued, technology licenses executed, start-ups formed, and license income generated. In a world that is undergoing rapid change at multiple levels, the more important question to be asking ourselves is: What are we doing to improve the quality of life on our planet?

What are we doing to improve the quality of life on our planet?

OTL takes pride in helping Stanford University fulfill its vision to "accelerate our purposeful impact in the world." We believe that we have the unique opportunity to advance cutting edge technologies developed by the best and brightest to solve some of the thorniest issues facing society. We feel inspired to focus our 2019 Annual Report on Impact, including highlights of a few technologies developed by Stanford researchers that are having a positive impact in areas as diverse as global food security, environmental stewardship, healthcare, and the quality of life as we age.

Over the past year, OTL has continued to evolve to meet the needs of our increasingly complex landscape. We have implemented several beneficial structural changes and are thrilled to welcome Glennia Campbell as our new Director of the Industrial Contracts Office and Sunita Rajdev as our new Senior Associate Director of Strategic Alliances. We believe that we are now better equipped than ever to assist our faculty in broadening the impact of their technology breakthroughs whether through licensing or research alliances. From new pharmaceuticals and therapeutic devices, wildfire safety measures, to AI assistance for efficient farming, we are constantly seeking out novel ways to ensure that Stanford technologies can benefit as many as possible.

That commitment is further demonstrated with our socially responsible licensing policies and our collaborative efforts throughout Stanford's ecosystem of centers, institutes and programs dedicated to accelerating technology development for societal benefit. SPARK, the TomKat Center for Sustainable Energy, the Center on Food Security and the Environment, and Stanford d.school's Design for Extreme Affordability Program all provided valuable contributions to our highlighted technologies, and our collaboration with such Stanford programs helps to advance the ultimate goal of OTL: to promote the transfer of Stanford technologies for society's use and benefit.

The year 2020 will continue to bring unique opportunities for OTL as we further our efforts to meet society's changing needs. We look forward to celebrating an exciting milestone with our 50th anniversary symposium in the Fall of 2020, and to maximizing the impact that OTL can bring in future decades.

Learn more details on Stanford's long-range vision, overarching themes and activities. Please visit https://ourvision.stanford.edu/

WHAT IS TECHNOLOGY TRANSFER?

«Research transforms money into knowledge … technology transfer transforms knowledge into money»

Geoffrey Nicholson, father of the Post-It

« The purpose of University Technology transfer is to transfer university research results from the university out to businesses where the results are developed into new products and services that benefit society.»

University Technology Transfer: What It Is and How to Do It – Tom Hockaday

Technology transfer process

Technology transfer (TT) refers to the process of conveying results stemming from scientific and technological research to the market place and to wider society, along with associated skills and procedures, and is as such an intrinsic part of the technological innovation process.

https://knowledge4policy.ec.europa.eu/technology-transfer/what-technology-transfer_en

Technology transfer office (TTO)

The technology transfer offices (TTO) are the structures that in a University or a public/private research Bodies deal with the IP management and the interaction between research, market and society.

TTO of University of Bari Aldo Moro

Demarinis Loiotile Annamaria - University of Bari Aldo Moro

Research, Third Mission and Internationalization Department

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

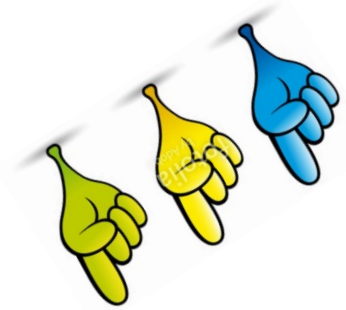
DIREZIONE GENERALE

Oggetto: Allegato n. 1 al D.D.G. n. 79 del 25.03.2020

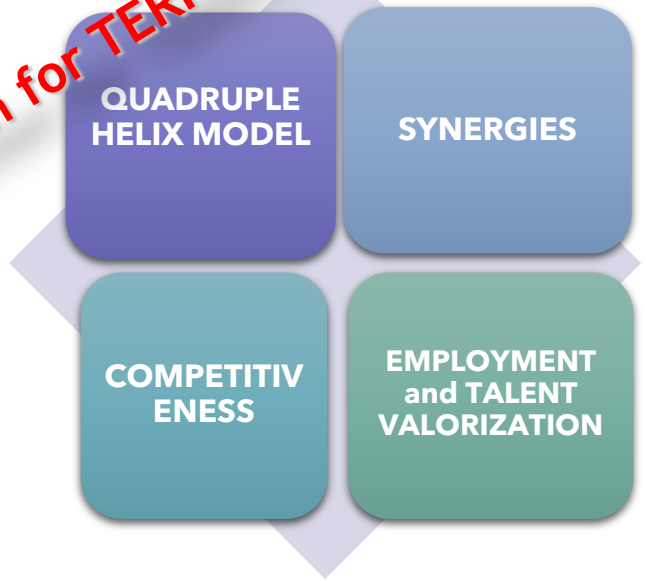
TTO activities

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

- ANALYSIS OF SPIN-OFF INSTITUTION PROPOSALS
- PRELIMINARY INVESTIGATION FOR THE UNIVERSITY BODIES (SPIN-OFF AND START-UP)
- SUPPORT TO SPIN-OFF ACTIVATION
- MONITORING OF PUBLICITY AND TRANSPARENCY REQUIREMENTS FOR SPIN-OFFS
- MONITORING OF THE STATUS OF SHAREHOLDINGS
- PRESENTATION OF NEW PATENT APPLICATION
- PRELIMINARY INVESTIGATION FOR PATENT PRESENTATION
- ASSIGNMENT OF TASKS TO MANDATED FIRM AND LEGAL PUBLICITY (PROCEDURES FOR ASSIGNING SERVICES; PREPARATION OF POST-INFORMATION NOTICE)
- PATENT MANAGEMENT (MAINTENANCE)
- TECHNICAL-ADMINISTRATIVE SUPPORT FOR INTELLECTUAL PROPERTY PROTECTION
- EXPLOITATION OF PATENTS (LICENSING)
- IMPLEMENTATION AND MANAGEMENT OF TECHNOLOGY TRANSFER PROMOTION ACTIVITIES



Innovation for TERRITORY AND SOCIETY



Basic approach: Research valorization/technology offer promotion

Triple Approach - Engagement, Exchange, Enterprise

One Stop Shop for
Engagement Exchange Enterprise

The main activities

One Stop Shop for
Engagement Exchange Enterprise

Ministero
dello Sviluppo Economico

- Research, discovery and valorization of the most important research results in our Departments
- Visits in companies on the territory in order to listen their innovation needs
- Activites of matchmaking between demand and supply of innovation
- Dissemination/comunication
- Technology brokering
- …

2016-2023

One Stop Shop for
Engagement Exchange Enterprise

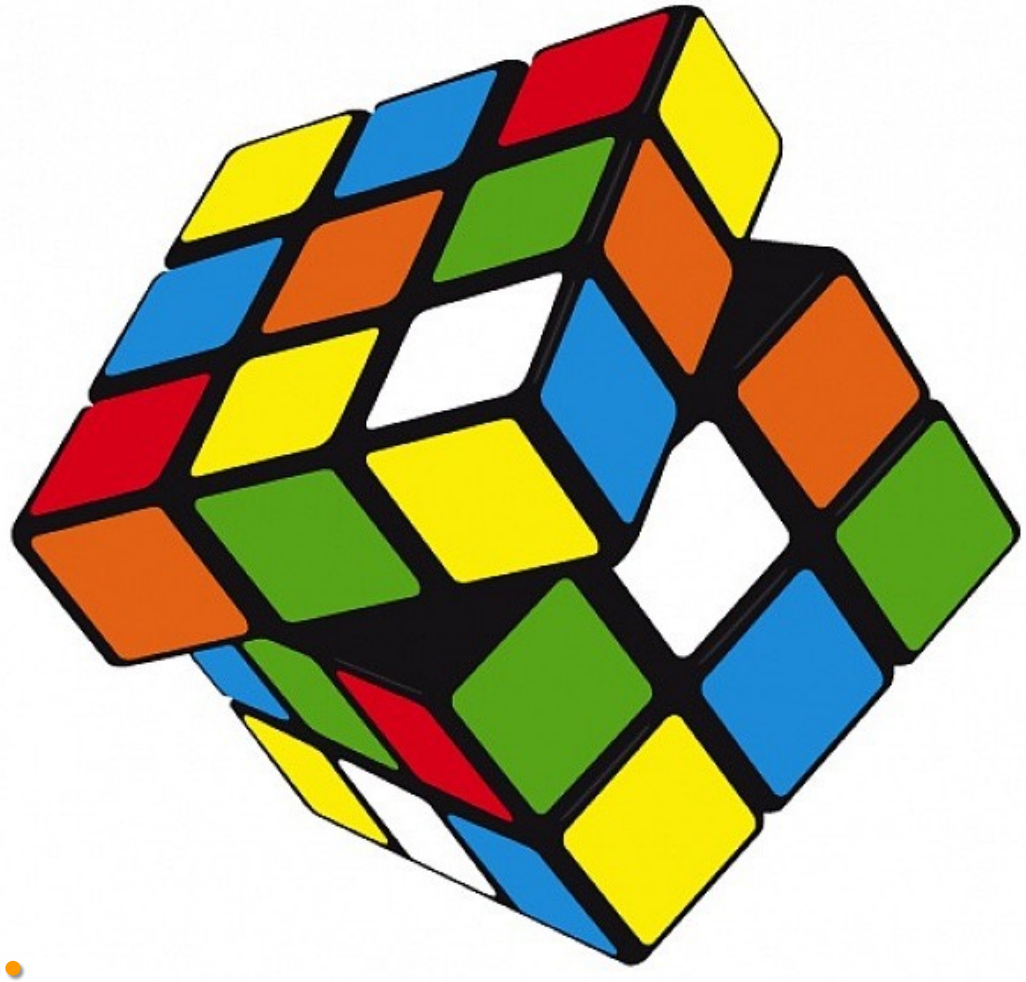
Ministero
dello Sviluppo Economico

All the activities concerning third mission, entrepreneurship, creativity, valorization of research results and ideas lead to the creation in January 2018 of the

"Innovation & Creativity Center"

...Innovation & Creativity Center...

...Third Mission...



...One Stop Shop...

...BaLab...


25 MARZO 18:00
INCONTRO
AL FUTURO
12 FINTECH:
SAVE THE DATE


NO AL FALSO


Puglia Off

See you in 10 minutes!

What are the institutional goals of TTOs?

Importance of the institutional goals of TTOs

Generate additional resources for the university

Appropriately manage research results

Generate impact on the regional economy

Generate revenue for academic staff

Generate impact on the national economy

… And for you?

What are the principal institutional goals of a TTO?

PLEASE VOTE

Importance of the institutional goals of TTOs in Italy

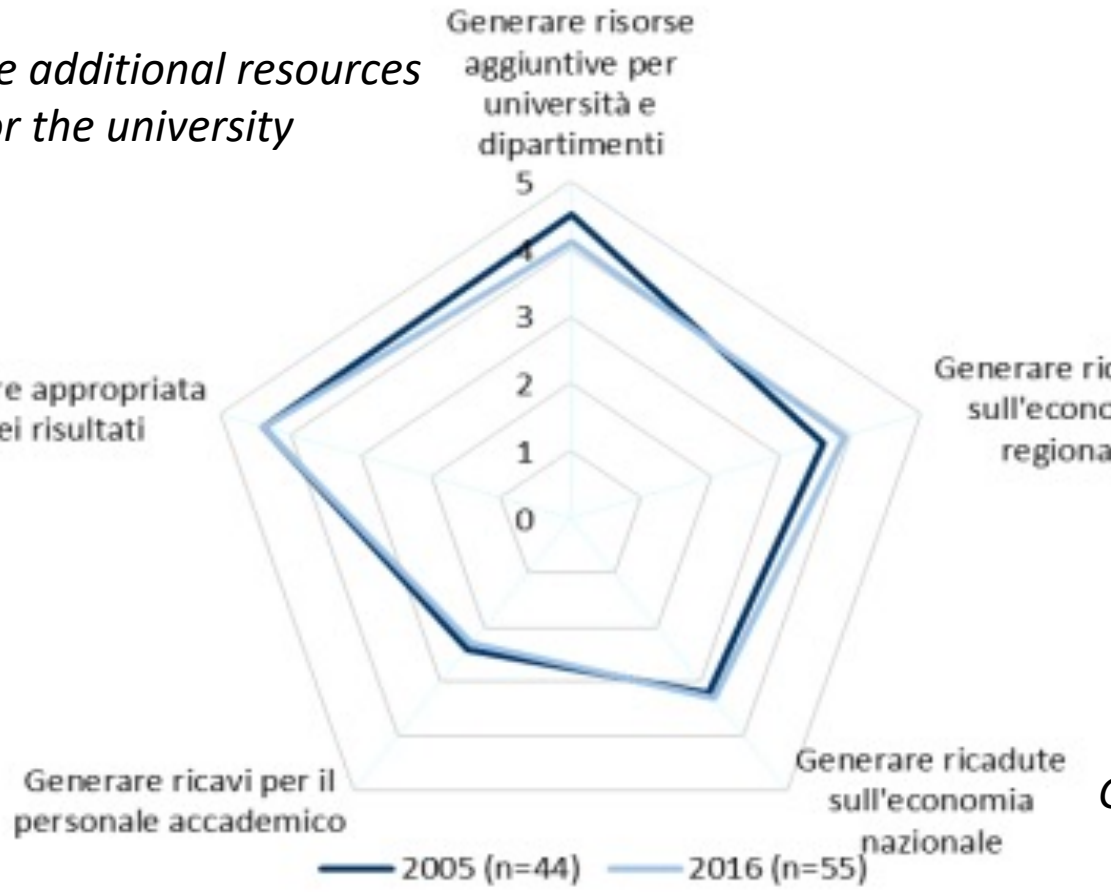
Generate additional resources for the university

Appropriately manage research results

Generate impact on the regional economy

Generate revenue for academic staff

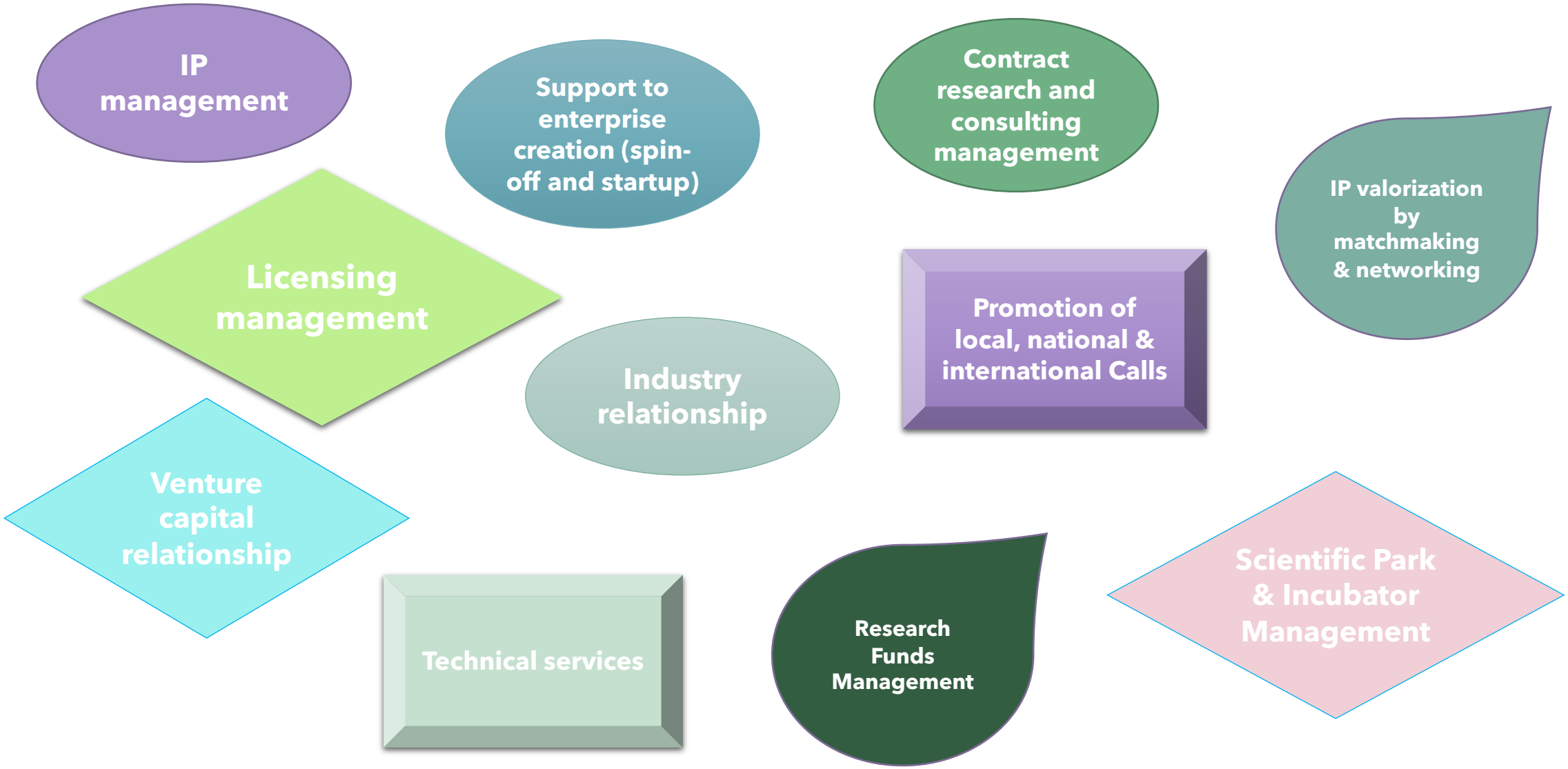
Generate impact on the national economy



Netval Report

What are the main roles of TTOs?

Roles of Technology Transfer Offices



… And for you?

What are the principal roles/functions of a TTO?

PLEASE VOTE

Roles of Technology Transfer Offices in Italy

Different roles	% importance (2016)
Support to enterprise creation (spin-off and startup)	100
IP management	96,4
Licensing management	82,1
Promotion of local, national & international Calls	80,4
Consulting	80,4
Industry relationship	48,2
Contract research management	41,1
Venture/seed capital relationship	26,8
Research Funds Management	23,2
Scientific Park & Incubator Management	19,6
Technical services	12,5

Financial resources for Technology Transfer

WHAT IS THE TYPICAL ANNUAL BUDGET FOR THE TECHNOLOGY TRANSFER OFFICE IN A UNIVERSITY?

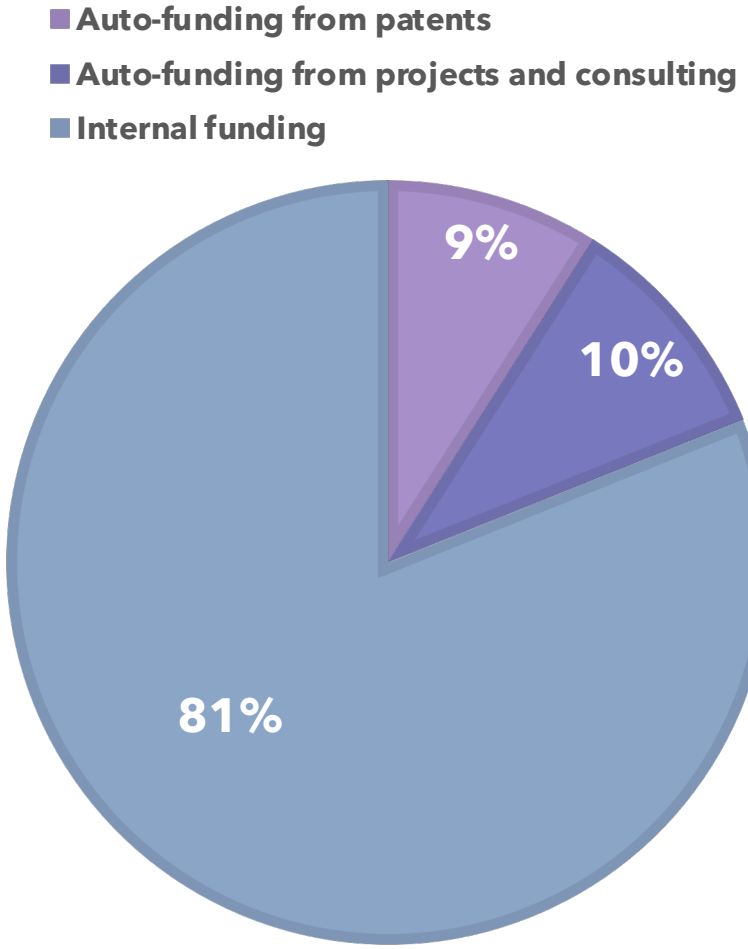
Financial resources for Technology Transfer in Italy

The annual budget of the technology transfer offices in 2016 (n=33) amounted to a total of about 8 million Euros, for an average amount of about 240.6 thousand Euros per responding university.

In particular, in 2016:

- 6 TTOs present a specific budget of an amount not exceeding 50 thousand Euros;
- for 4 universities this amount is between 50 and 100 thousand Euros;
- for 11 it varies between 100 and 200 thousand Euros;
- for 3 universities it is between 200 and 300 thousand Euros;
- 9 universities (equal to 27.3% of the sample) exhibit a budget for their TTO exceeding 300 thousand Euros.

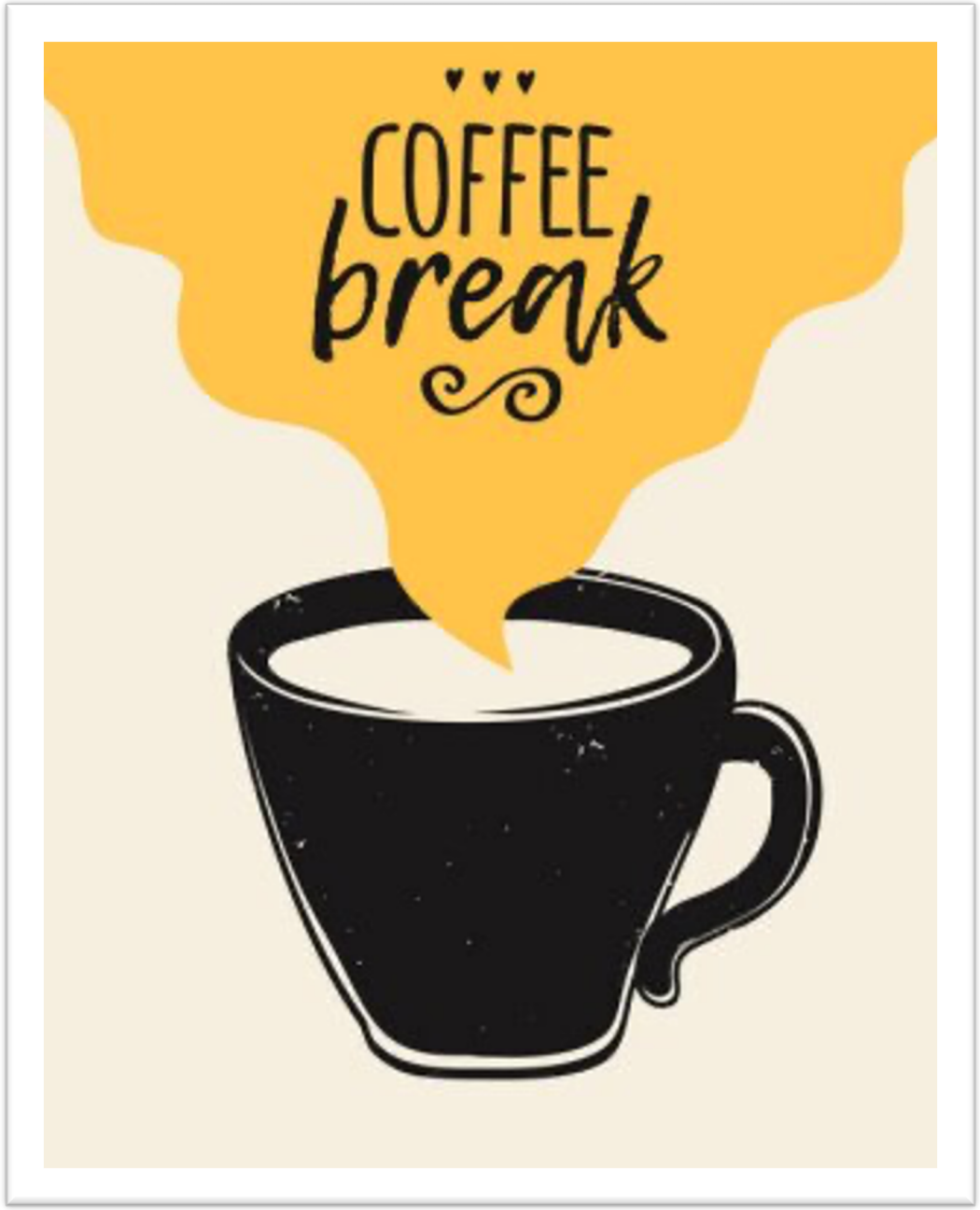
Funding sources of Technology Transfer in Italy



Netval Report

Staff in Technology Transfer Office (Italy)

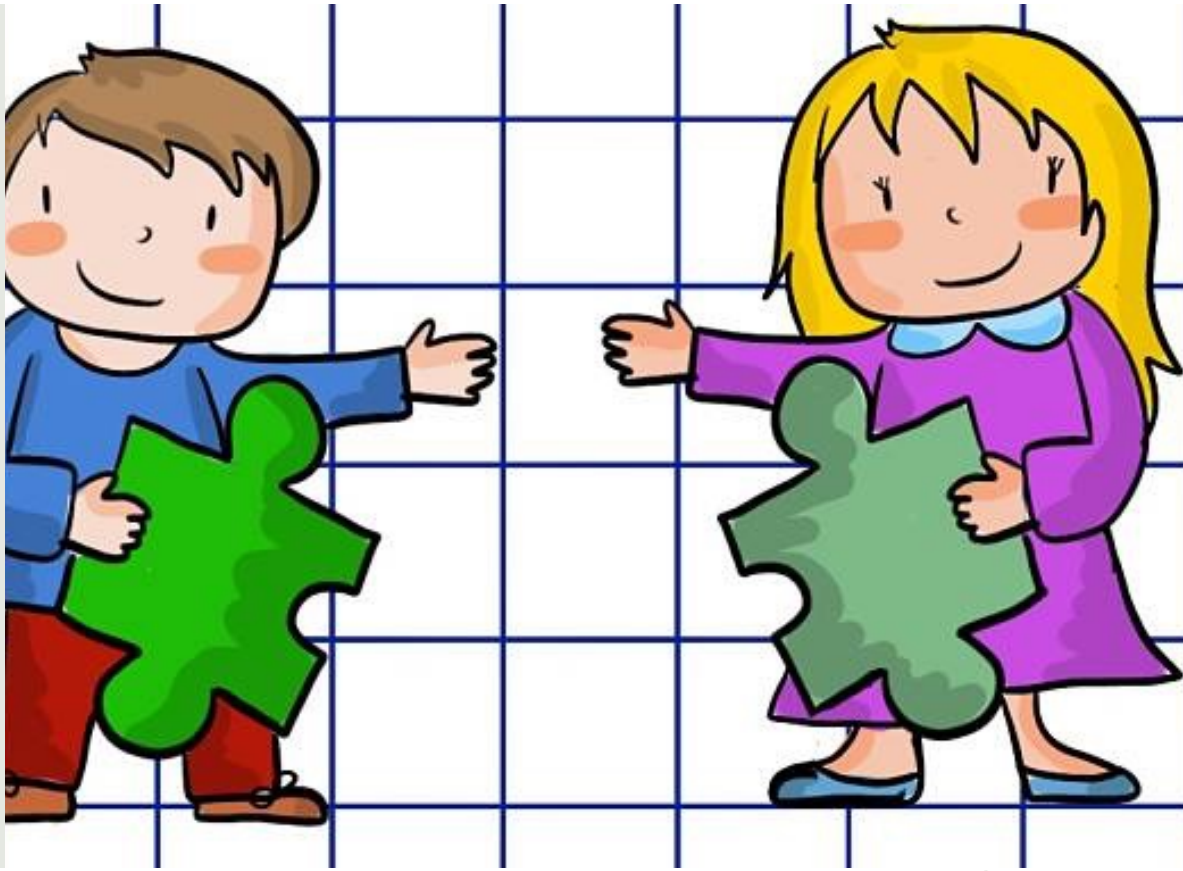
	2012	2014	2016	2018
TOTAL STAFF in ITALY	**207,9**	**277,4**	**296,9**	**355**
AVERAGE STAFF	**3,6**	**4,5**	**4,8**	**5,6**



See you in 10 minutes!

Collaboration research

- industry



The typologies of research-industry collaboration

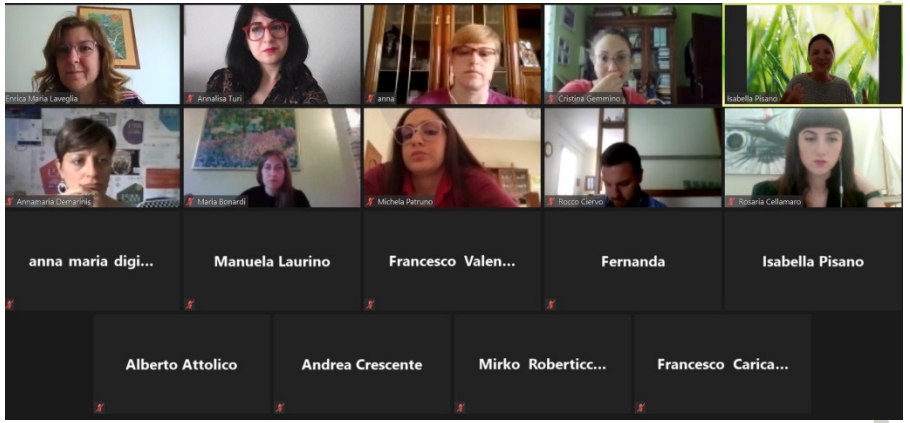
Research contracts	Industry Co-entreprises	Industry co-patents	Co-branding training	Industrial PhD
Networking & exchange events	Hackathon in co-branding	Open Innovation Programme	Embedded innovation ….	….

Research contract

Research on behalf of third parties is a **paid service** through which the University makes available to companies its technological and scientific knowledge, as well as the professionalism of its teachers, so that research, consulting, training, professional and laboratory activities can be carried out in the exclusive interest of the company itself (client).

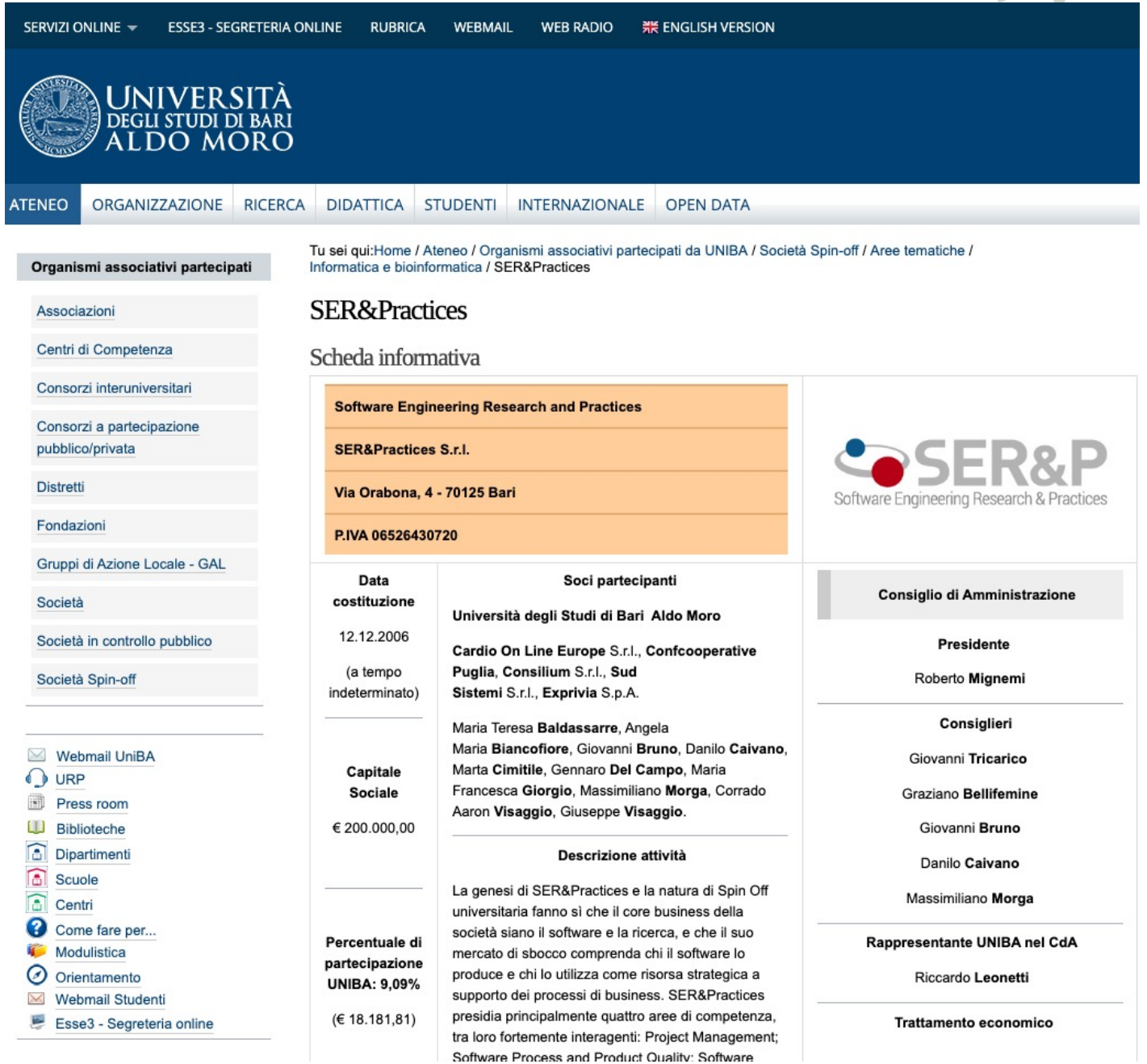
The University supports technology transfer by making its innovative know-how and the experience and professionalism of its professors and researchers available to companies, public bodies and professionals.

The activities on behalf of third parties pursue the University's objective of strengthening its ties with the territory, offering quality services that enhance the academic skills in both teaching and research.



Industry co-entrepreses

Spin-offs (i.e. firms established on the basis of a formal knowledge transfer arrangement between the university and the firm) created by the university with at least one shareholder from the industry.



SERVIZI ONLINE | ESSE3 - SEGRETERIA ONLINE | RUBRICA | WEBMAIL | WEB RADIO | ENGLISH VERSION

UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO

ATENEO | ORGANIZZAZIONE | RICERCA | DIDATTICA | STUDENTI | INTERNAZIONALE | OPEN DATA

Organismi associativi partecipati

- Associazioni
- Centri di Competenza
- Consorzi interuniversitari
- Consorzi a partecipazione pubblico/privata
- Distretti
- Fondazioni
- Gruppi di Azione Locale - GAL
- Società
- Società in controllo pubblico
- Società Spin-off

- Webmail UniBA
- URP
- Press room
- Biblioteche
- Dipartimenti
- Scuole
- Centri
- Come fare per...
- Modulistica
- Orientamento
- Webmail Studenti
- Esse3 - Segreteria online

Tu sei qui:Home / Ateneo / Organismi associativi partecipati da UNIBA / Società Spin-off / Aree tematiche / Informatica e bioinformatica / SER&Practices

SER&Practices

Scheda informativa

Software Engineering Research and Practices

SER&Practices S.r.l.

Via Orabona, 4 - 70125 Bari

P.IVA 06526430720

SER&P Software Engineering Research & Practices

Data costituzione

12.12.2006

(a tempo indeterminato)

Capitale Sociale

€ 200.000,00

Percentuale di partecipazione UNIBA: 9,09%

(€ 18.181,81)

Soci partecipanti

Università degli Studi di Bari Aldo Moro

Cardio On Line Europe S.r.l., **Confcooperative Puglia**, **Consilium** S.r.l., **Sud Sistemi** S.r.l., **Exprivia** S.p.A.

Maria Teresa **Baldassarre**, Angela Maria **Biancofiore**, Giovanni **Bruno**, Danilo **Caivano**, Marta **Cimitile**, Gennaro **Del Campo**, Maria Francesca **Giorgio**, Massimiliano **Morga**, Corrado Aaron **Visaggio**, Giuseppe **Visaggio**.

Descrizione attività

La genesi di SER&Practices e la natura di Spin Off universitaria fanno sì che il core business della società siano il software e la ricerca, e che il suo mercato di sbocco comprenda chi il software lo produce e chi lo utilizza come risorsa strategica a supporto dei processi di business. SER&Practices presidia principalmente quattro aree di competenza, tra loro fortemente interagenti: Project Management; Software Process and Product Quality; Software

Consiglio di Amministrazione

Presidente

Roberto **Mignemi**

Consiglieri

Giovanni **Tricarico**

Graziano **Bellifemine**

Giovanni **Bruno**

Danilo **Caivano**

Massimiliano **Morga**

Rappresentante UNIBA nel CdA

Riccardo **Leonetti**

Trattamento economico

Industry co-patents

Patents assigned to (inventors working at) the university, which were applied for in co-operation with at least one applicant from the industry.

Direzione Ricerca, Terza Missione e Internalizzazione
Sezione Ricerca e Terza Missione
U.O. Trasferimento Tecnologico e Proprietà Intellettuale

Rif. n. 68

STABLE F-DOPA FORMULATIONS AND USES THEREOF

Titolarità: UNIBA 50% e ITEL COMUNICAZIONI 50%.
Data deposito: Provisional USA 07.12.2016
Eventuali estensioni: PCT 07.12.2017
Stato: Disponibile per accordi di licenza
Ambito territoriale: Internazionale
Area: Chimica Farmaceutica
Abstract: Formulazione farmaceutica comprendente 3,4-diidrossi-6- [18F] -fluoro-L-fenilalanina e almeno un agente tampone in un veicolo acquoso, in cui la formulazione ha un valore di pH compreso tra 4,0 e 5,5, preferibilmente tra 4,5 e 5,0, più preferibilmente circa 5 e usi corrispondenti nei metodi di imaging diagnostico.
Inventori: Antonio Scilimati (Bari), Domenico Tricarico (Bari), Nunzio Denora (Bari), Michele Diaferia (ITEL Comunicazioni S.r.l.)

Co-branding training

The University designs with and for companies Courses, Masters and Short Masters with a strong focus on technical training, designed to train highly qualified and specialized personnel in the various sectors of the innovation ecosystem.

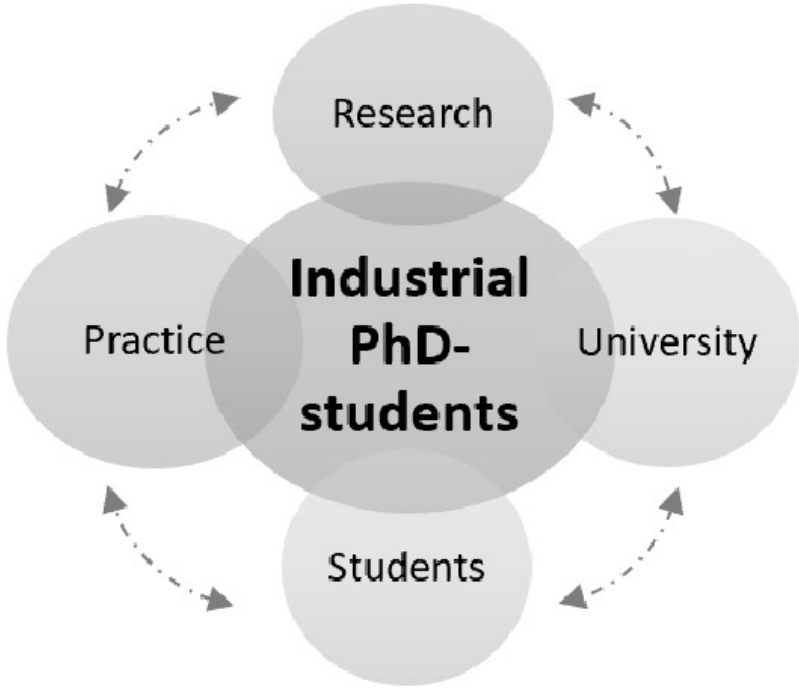
Collaboration between universities and local actors for the development of vocational training is one of the points of the National Plan for Recovery and Resilience (PNRR), currently being developed by the Government, which defines the guidelines for the use of Next Generation EU funds.

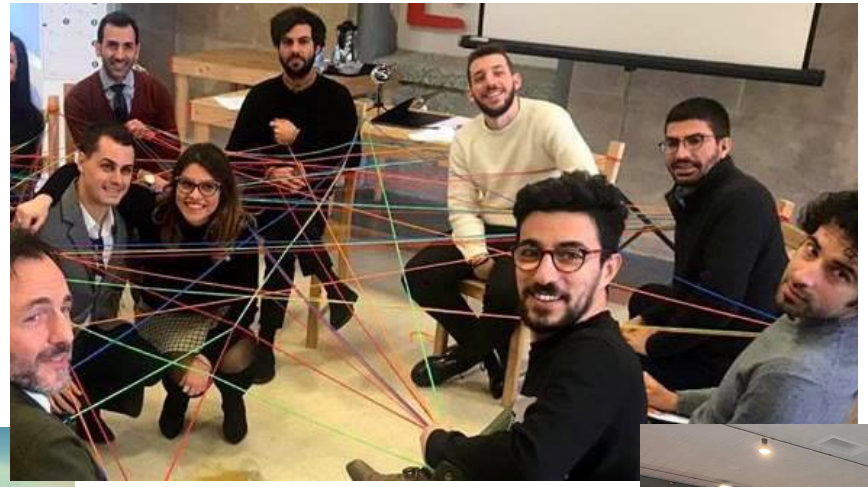
Industrial PhD

The PhD represents a privileged tool for collaboration with companies/entities and for the exchange of knowledge and skills for innovation.

The PhD is an added value for institutions and companies to:
- make available to companies innovative and highly qualified skills on a topic of interest to the company;
- increase the competitiveness of the company, thanks to the improvement of the product or process, resulting from research and development, innovation and technology transfer activities;
- strengthen university-business collaboration in the region and develop innovative research results.

In Italy, there are tax breaks for companies that finance PhDs and hire PhDs at the end of their studies.





Networking & exchange events

Demarinis Loiotile Annamaria - University of Bari Aldo Moro

The Innovation cocktail “MEETING THE FUTURE - Innovation before meals”

- A series of informal appointments dedicated to encourage the participation of companies and other stakeholders interested in learning about research results, new technologies and innovations of the University that can create added value in the market.

- Facilitate dialog among researchers and entrepreneurs in order to enhance scientific and technological research, presenting it in an informal key, and at the same time responding to the innovation need of companies, creating direct relations with the territory and stimulating the start of joint research-company projects that respond to the needs and interests shared by both academia and industry.

Hackathon in co-branding

A cooperative competition to design and implement open innovation solutions to be integrated into the company.
Young people, with different skills, get involved by working in teams to develop innovative solutions required by companies by a specific challenge.

The winning students with corporate (Predict) and academic mentors

Open innovation Programme

- Open innovation paths aim to connect universities, companies and institutions thanks to the talent and creativity of young innovators.

- A model of mutual learning through which students and young professionals have the opportunity to gain real-world experience, trying to respond to business challenges (innovation needs).

In this way, companies experience a new culture of doing innovation.

Balab embedded

BaLab is a contamination lab; a path of entrepreneurial realization that limelights creativity, inventions, dreams of self-determining
youngsters, with the aim of improving employment prospects, encouraging students and researchers to acquire an entrepreneurial mindset and the ability to put ideas into practice.

The embedded BaLab is an informal training experience for students, graduates and young professionals outside the university environment and directly inside the spaces of companies. Teams follow a tight innovation path, during which they interact and collaborate closely with corporate and university mentors.

The experience of embedded BALAB at Fincons, a leading ICT and multi-media company in Italy

But…. It is not so simple

“Transferring technology from a university to a business is very difficult and complicated because universities exist for very different reasons from businesses and persuading one group of people to invest in ideas someone else has developed is very hard.

A well-resourced TTO helps reduce these difficulties.“

University Technology Transfer: What It Is and How to Do It – Tom Hockaday

Grazie

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