Introduction to intellectual property and enterprise creation

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Lino Giusti

Staff member of the Research and Technology transfer support Division

Technology transfer strategist from 2005

Supported the business modeling /launch of 12 academic spin off/start up projects

Supporting patenting and licensing of unitn inventions

Managing Intellectual property /software

Fundraising for applied research and spinoff/startups
Seminar summary

Why technology transfer may be of interest?
What’s the role of the university in the ecosystem?
How do we make startups and patents happen?
What’s Unitn role in the Trentino startup ecosystem?
Why technology transfer may be of interest?
Knowledge economy

Production and services based on knowledge intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence.

Powell, Snellman; the knowledge economy, School of Education, Stanford University
Patent grants in the U.S.A.

Source: USPTO
2013 Italy and EPO patenting

- 4,662 Italian filings (2% of total, 64,967 from USA)
- Trend of Italian filings: -2.7% from 2012
- Italy Ranked 11° among filing countries
- Top Italian applicants: Lyondellbasell and Indesit (62), Solvay (53), Tetra Laval (48), Chiesi Farmaceutici (42), Pirelli (41), Finmeccanica (30), Danieli and Cnh (28).
Dottorati in Italia
WHO FILED THE MOST PCT PATENT APPLICATIONS IN 2013?

FILINGS UNDER THE PATENT COOPERATION TREATY (PCT)

TOP 10 COUNTRIES

- USA 57,239
- Japan 43,918
- China 21,516
- Germany 17,927
- Republic of Korea 12,386
- France 7,899
- UK 4,865
- Switzerland 4,367
- Netherlands 4,198
- Sweden 3,980

205,300
Number of applications

+5.1%
Growth in 2013
A very rich industry lead by the USA

Operating expenses

Fondo Finanziamento Ordinario 2012

Totale sistema universitario italiano (66 atenei)
ERC consolidator Grant 2013 Call
Top ten startup hub

Source: Startup Genome, 2012
Registro startup innovative

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<tr>
<th>Region</th>
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Tax reductions, work for equity (stock options), flexible hiring rules, incentives to funding...

4 new startup innovative per day

4 startup innovative with a turnover between 2 and 5 millions
CLASSIFICA PER CITTÀ'
NUMERI DELLE STARTUP

MILANO 184
ROMA 126
TORINO 86
TRENTO 36
BOLOGNA 34
NAPOLI 31
FIRENZE 31
PADOVA 24
MODENA 21
TRIESTE 22
Nov. 19, 2013-- Clovis Oncology (NASDAQ:CLVS) announced today that it has acquired EOS (Ethical Oncology Science) S.p.A., a privately-held Italian biopharmaceutical company developing a novel targeted therapy to treat cancer. EOS owns the exclusive global (excluding China) development and commercialization rights for lucitanib, an oral, dual-selective inhibitor of the tyrosine kinase activity of fibroblast growth factor (FGF) receptors 1 and 2 (FGFR1/2) and vascular endothelial growth factor (VEGF) receptors 1-3 (VEGFR1-3).
What’s the role of the university in the ecosystem?
Intellectual property

knowledge

Research and development

money

University
A top notch applied research result may become a competitive advantage on the market.

A new business or a patent may be an opportunity to explore.

A business plan may be a tool to understand responsibilities, things to do and risks.
Legal tools

- patents
- copyright
- trade secret

Contracts

- license
- research contract
- non disclosure agreement
- grant agreement
How we make startups and patents happen
Academic startup creation

Research

Technology disclosure

Business planning

University recognition

Not less than 3-4 months, (please) no more than 1 year

Academic patent application filing

Research

Technology disclosure

Prior Art

Market analysis

Exploitation plan

Patent committee

Around 1-2 months
Regulations

- Regolamento brevetti
- Regolamento Spin off e Start up
- Regolamento conto terzi

15 Patent applications
12 Founded companies
440 Contracts in 2014

Internal «programma spazi» for recognized spin off and startup
University funding for patent application
Anatomy of a startup 1

1 professor: scientific adv. and network

3 PhD: new tech development

IP Company

b2b

Use of university machineries, equipment and offices

University recognition: branding on the market and public calls for funding

University patent exclusive license
Anatomy of a startup 2

1 professor: scientific adv. and network
3 PhD and 4 PhD students: new tech development

Open source software from research community

University recognition: branding on the market and public calls for funding

Applied research project to develop know how

SW/HW development

b2b
Unitn and Trentino startup ecosystem
Unitn start ups and spin offs

Green tech

ICT

Biotech

Materials science

Mechatronics

Civil engineering

Other projects are growing...
Local fundraising and incubation

- Business plan competition
- Seed money
- Business development
- Software
- Hardware
- Green tech
- Funding for local enterprises
University Magazine, 3 issues per year, paper and digital edition
Vision: showcasing innovation happening in the Unitn community:

| Patents |
| Technology disclosures |
| Applied research |
| New spin offs |
| Relevant people |
| ... |
Thank you

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Università di Trento
Divisione per il supporto alla ricerca ed al trasferimento tecnologico