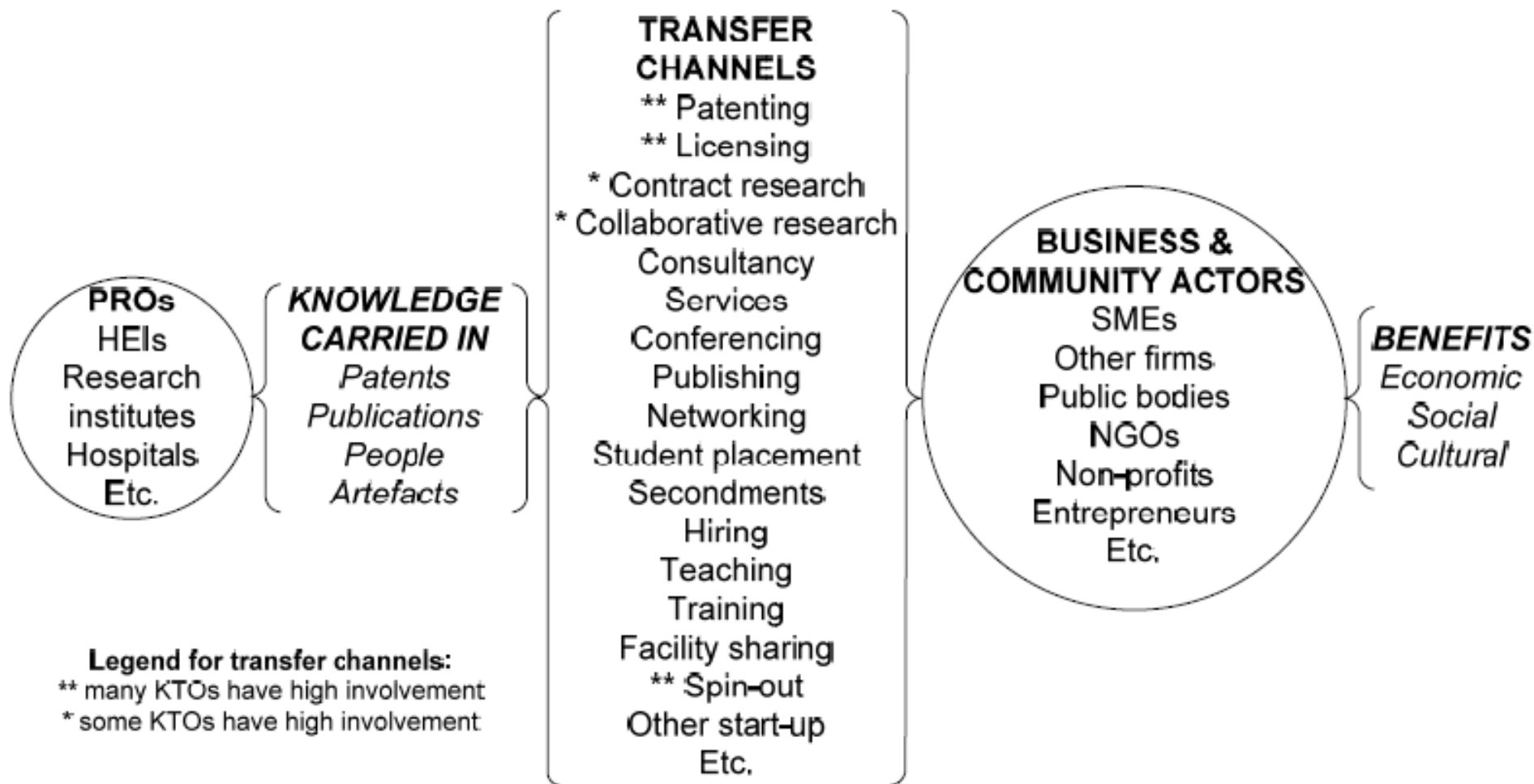

INNOVATION PROMOTION AND TECHNOLOGY TRANSFER

Topic 8

**Innovation Infrastructure:
How to Establish the Technology
Transfer Office - Practical Steps**

Thomas L. Bereuter, CLP
val»IP Ltd. & CoKG

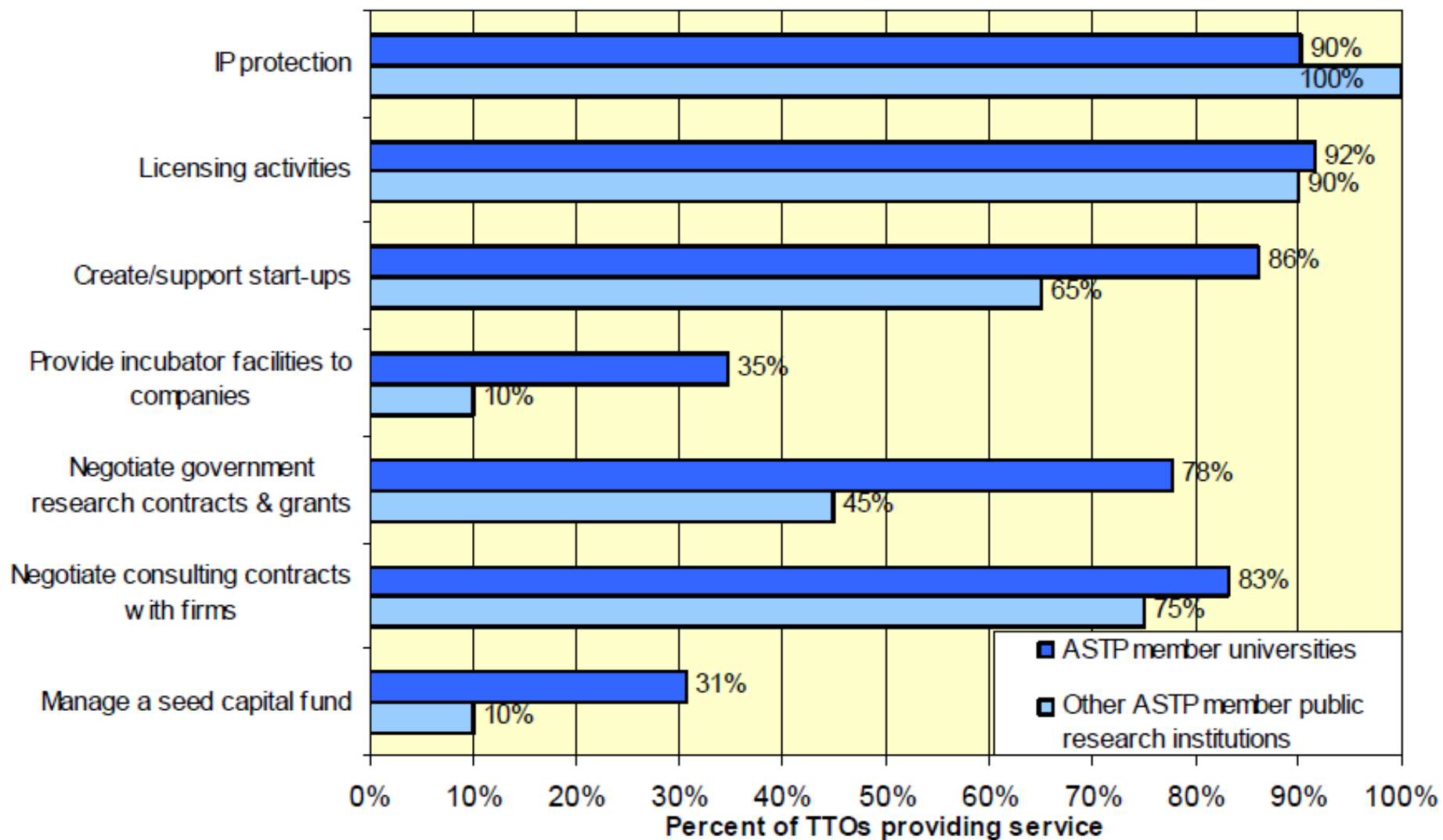
IP Hub or Small Office? Set up and Operating Models



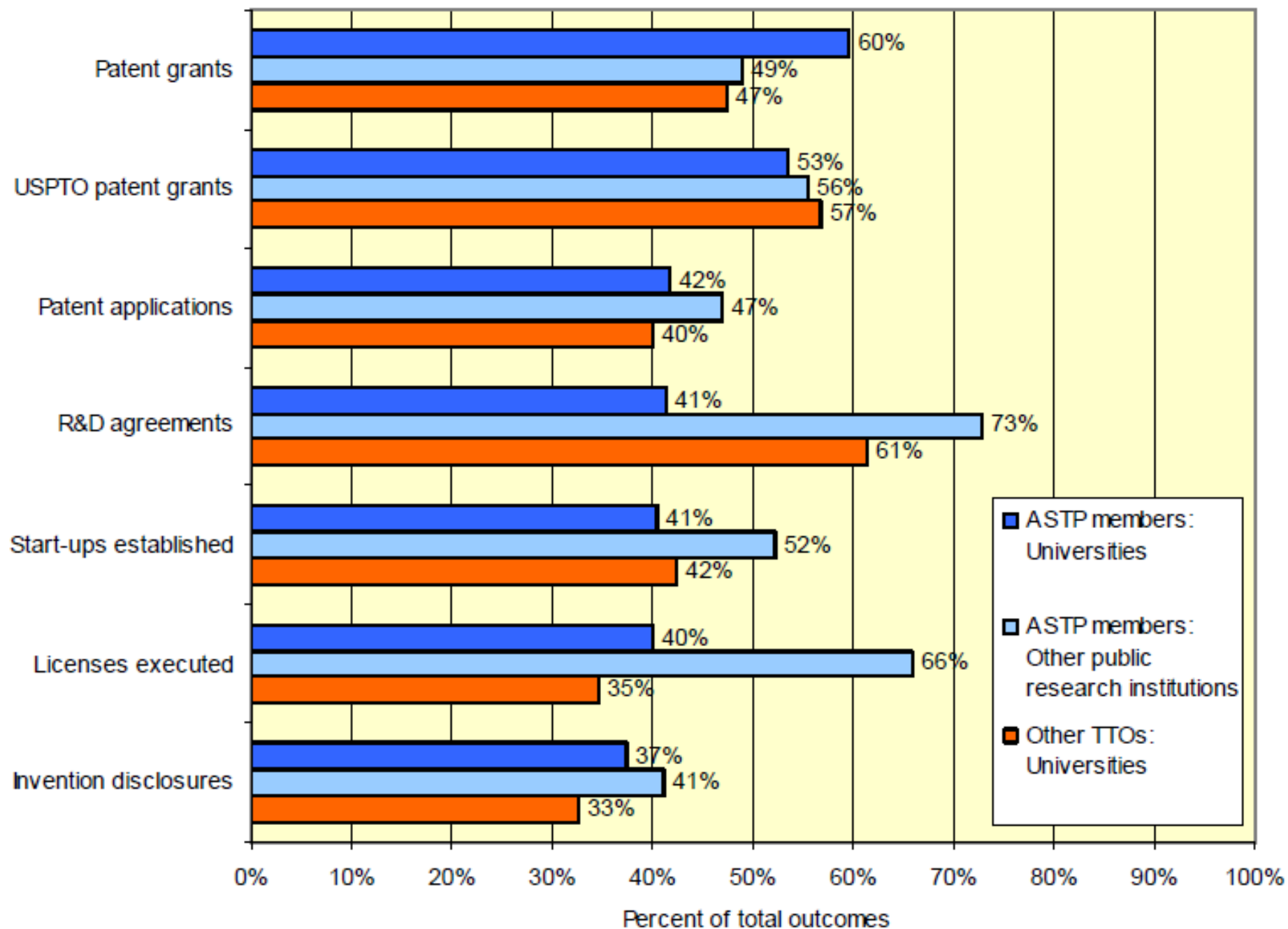
ASTP Survey

- ASTP **A**ssociation of European **S**cience and **T**echnology Transfer **P**rofessionals
- 3rd survey, published Oct. 2008:
http://www.astp.net/Survey%202008/Summary_2008_ASTP_report.pdf
- Technology transfer (TT) activities of **universities and other public institutes**
- Response rate of 61.4% for ASTP members and 18.8% for non-ASTP members from 18 EU countries and 4 non-EU countries
- Content: Types of TT services provided + 7 metrics: invention disclosures, patent applications/grants, start-ups, license agreements, license income, and research agreements

➔ **Services provided to affiliated institutions by ASTP members**



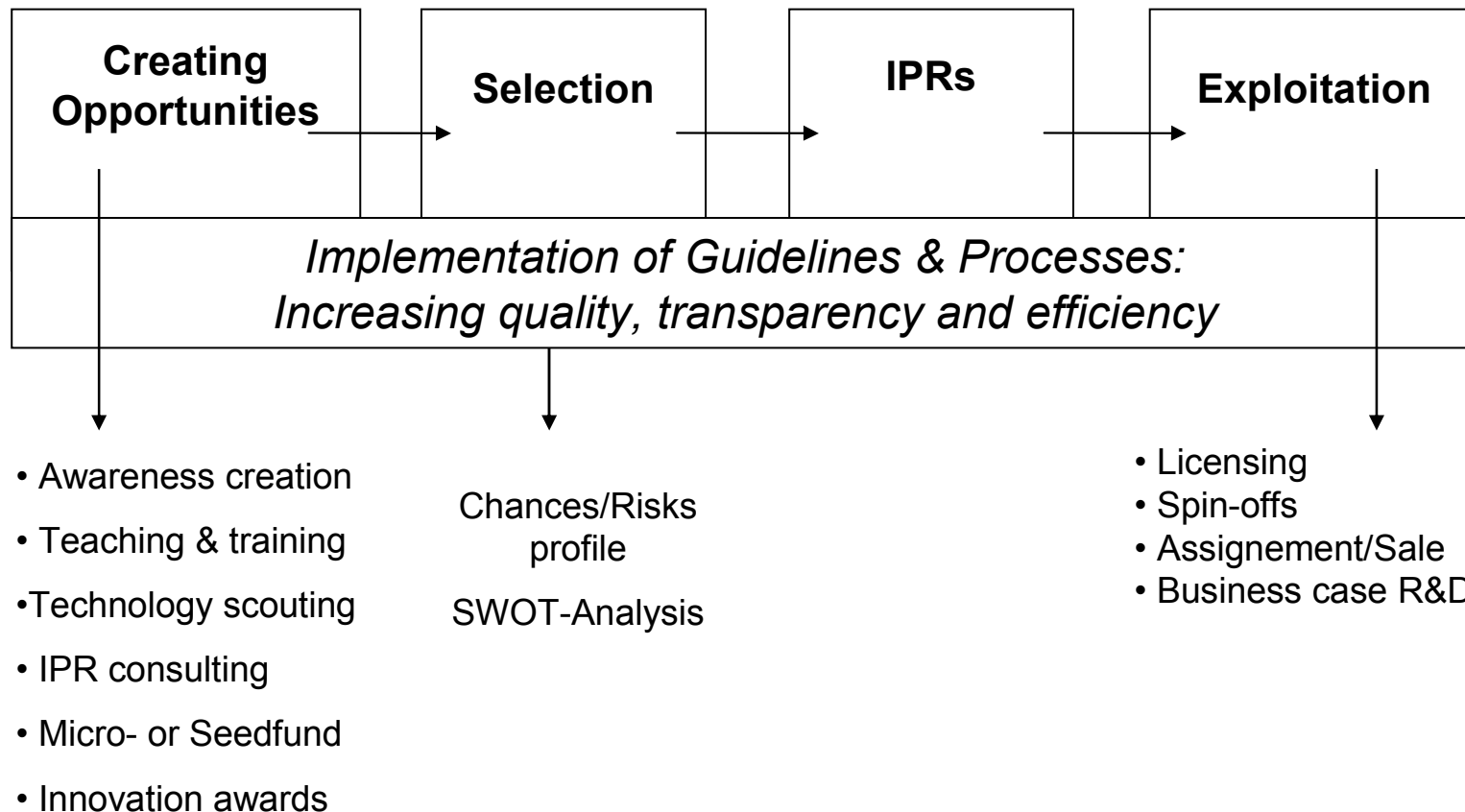
Percent of knowledge transfer outcomes from the top 10% performers



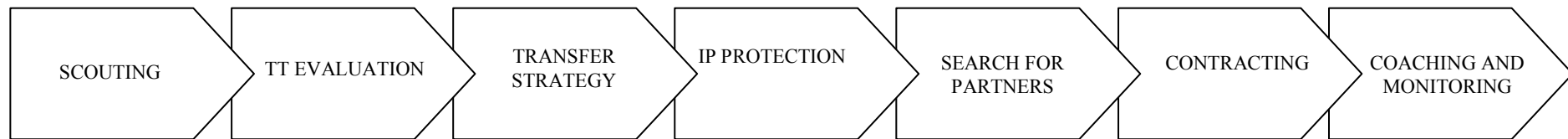
Major Tasks

- » **TLO core tasks**
 - » IP scouting, evaluation, protection and commercialization/exploitation
- » **(IP-) Contract management**
 - » Especially for research collaborations, grant applications, service and R&D contracting, consulting
- » **Liaison office for industry contacts**
 - » Traditional partnering with industry
- » **Spin-off support**
 - » Spin-off coaching; Spin-off incubator; Seed funding of Spin-off

Core Tasks of TLOs



TechTransfer Value Chain

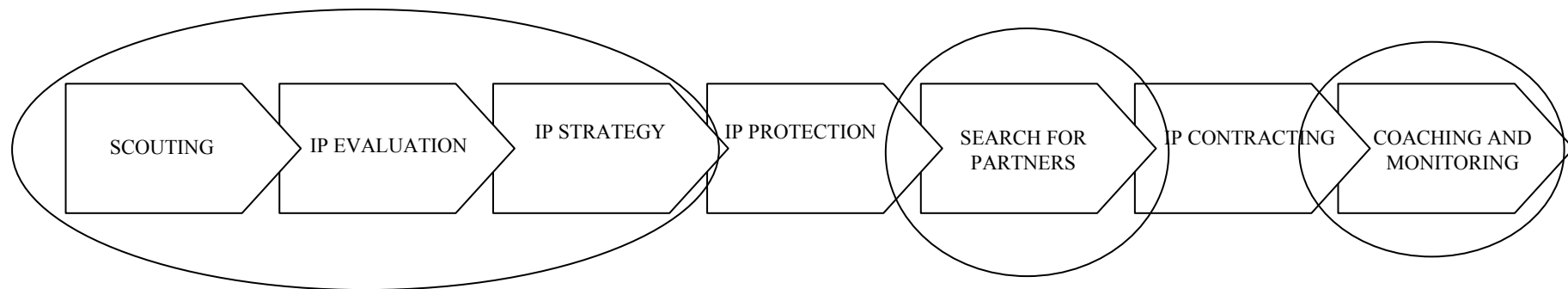


Classical Administrative Approach



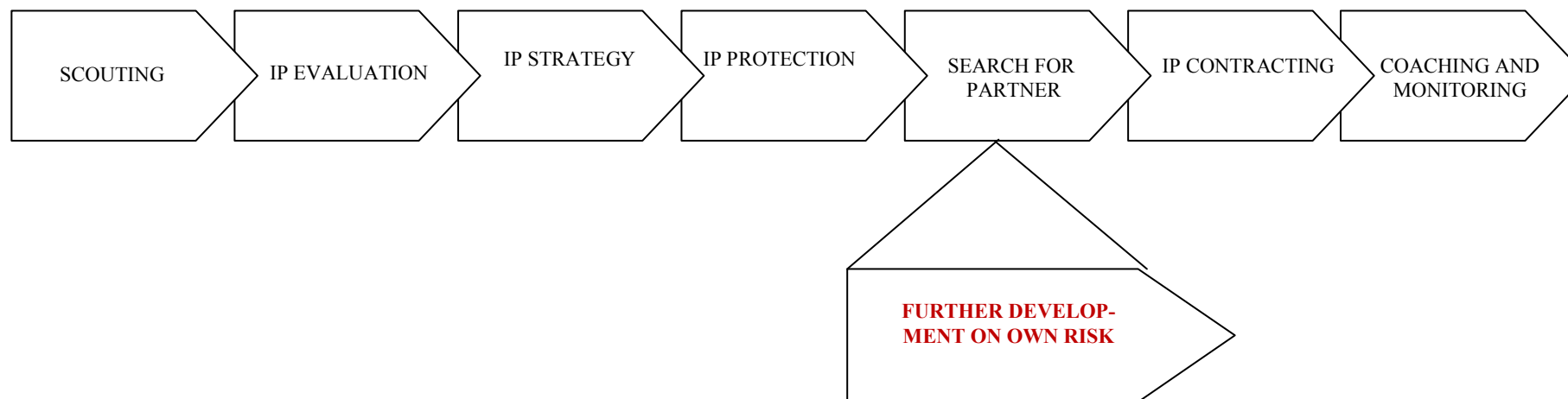
In most cases reactive and administrative service provider for IP protection and IP contracting.

Business Focused TechTransfer



Covering the whole TT value chain based on a business and process oriented approach resulting in higher innovation rates!

Innovation Focused Tech Transfer



Pro-active further development of the technology coordinated by the TTO to increase the success rate of the technology transfer!

Additional TT Tasks

- » Setting up and implementing **TT guidelines and rules**

- » **Stake holder relations**
 - » Creating **TT awareness within** the institution
 - » Communicating/lobbying with inside players
 - » Teaching & training, workshops...for researcher

 - » Communicating/**lobbying to outside** partners
 - » Industry, politicians, local players, public sector...

European TTOs

	ASTP	Non-ASTP
Staff [FTE]	8,8	10,7
Age [years]	9,3	9,6
<i>Ownership of IPRs</i>		
Institution	75%	72%
Research funded by industry	16,1%	11%

Operating Models for TTOs

- » **Classical: Part of the University**
 - » As a own unit, directly reporting to the rectorate
- » **Separate unit of the University**
 - » Own dedicated company owned by the university
 - » Service unit shared with other R&D organizations
- » **Partnership with private third party(ies)**
- » **Private-Public-Partnership**

TTOs Need Support

- A „TT Champion“: senior licensing/CLP level!
- Strong long-term backing and commitment by the rectorate: financing, implementation of rules...
- Clear and transparent rulings and guidelines: reducing overhead and conflict-of-interest
- Simple and efficient reporting line: definition of meaningful and sustainable metrics (with focus on quality criteria and evolution over time)
- TT Advisory Board including external representatives from business and senior licensing experts

Table 3. Performance per 1,000 research staff in 2007

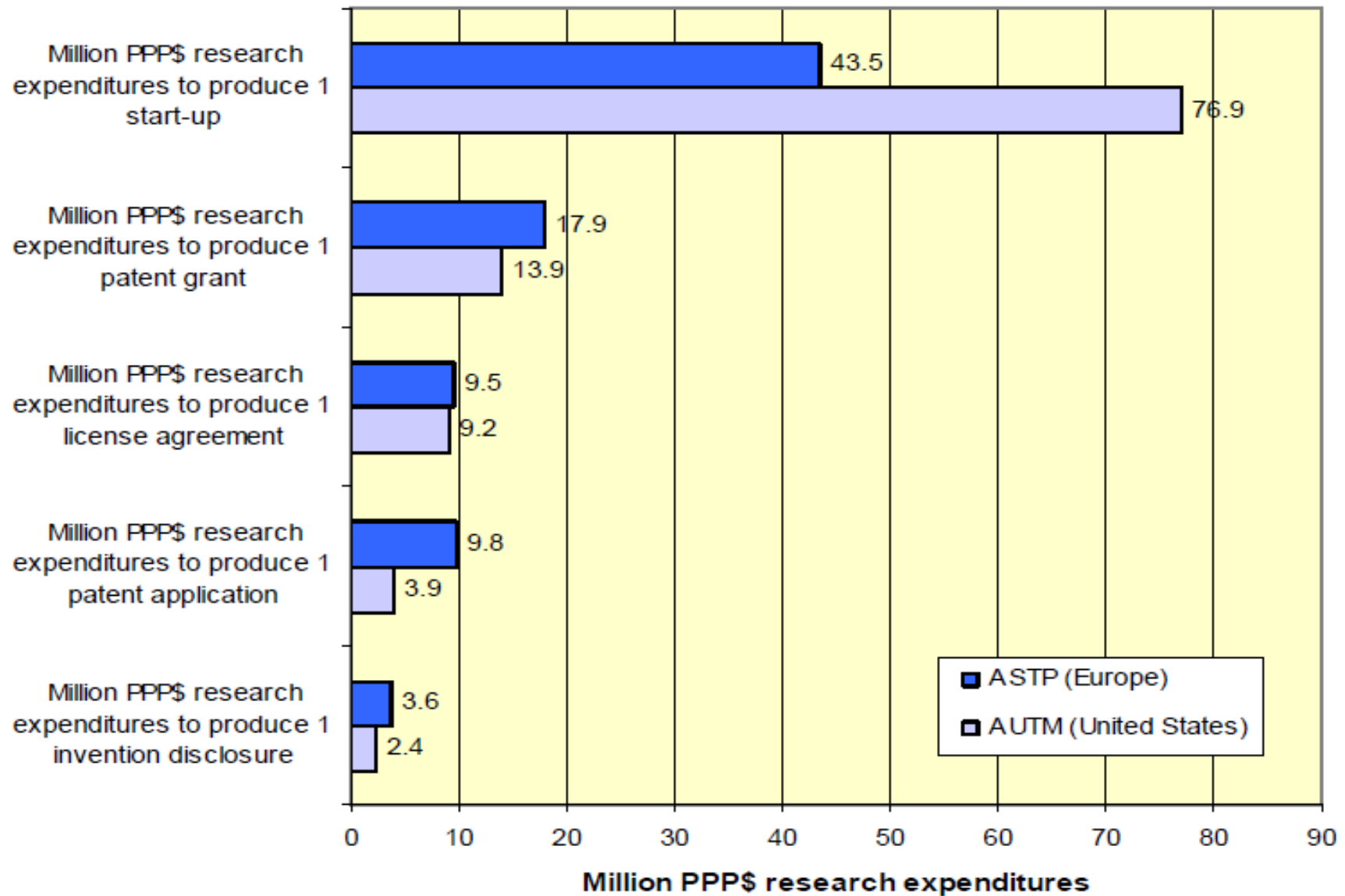
	Universities			Other public research institutions		
	ASTP members	Other TTOs	Total	ASTP members	Other TTOs	Total
Invention disclosures	18.0	15.1	17.3	23.1	15.6	20.6
Patent applications	5.7	7.9	6.2	7.9	11.9	9.2
Patent grants	3.3	1.6	2.8	6.5	6.8	6.6
USPTO patent grants	1.0	0.3	0.8	1.8	0.2	1.2
License agreements	4.8	3.0	4.4	10.9	5.1	9.0
License income	0.5m PPP\$	0.1m PPP\$	0.5 m PPP\$	1.1 m PPP\$	0.1 m PPP\$	0.8 m PPP\$
Start-ups established	1.3	1.6	1.4	0.7	1.2	0.9
Research agreements	88.6	203.8	115.9	75.5	114.4	89.4

Table 4. Unit outcome costs in million PPP\$ of research expenditure, 2007

	Universities			Other public research institutions		
	ASTP members	Other TTOs	Total	ASTP members	Other TTOs	Total
Invention disclosures	3.3	2.1	3.0	4.2	6.6	4.8
Patent applications	9.1	4.6	7.6	12.2	8.7	10.7
Patent grants	23.4	15.3	21.0	12.3	15.2	13.5
USPTO patent grants	54.0	107.1	61.0	44.8	653.6	76.9
License agreements	10.8	9.0	10.4	8.8	26.7	11.4
License income ¹	76.0 m PPP\$	122.2 m PPP\$	82.9 m PPP\$	83.5 m PPP\$	947.2 m PPP\$	120.6 m PPP\$
Start-ups established	34.9	32.2	34.4	112.9	186.7	134.5
Research agreements	0.5	0.2	0.8	0.8	0.9	0.9

1: This indicator equals the amount of research expenditures to earn 1 PPP\$ of license income.

Performance of ASTP and AUTM respondents (All respondents combined)



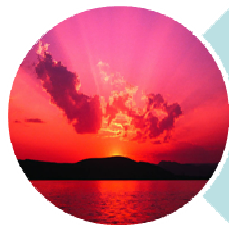
What is the Best Profile for Technology Transfer Managers and how do we Recruit, Train and Keep them?



Law



Science



Business

Recruiting

- » From private/industry sector
 - » Very challenging: salary, working environment, career development
- » From graduate school or after post-doc study
 - » Challenge: ~50% drop out rate; costs of training; competition for talents
- » Experts from early retirements
 - » Availability, costs, age
- » Patent- and Innovation agencies

Training

- Training on the job (need of expert or mentor)
- IP training by WIPO, LES, AUTM, EPA
- Legal/licensing training by private organizations
- Self Study: books, journals, databases, webinars/podcasts, e-learning
- Postgraduate education programs: MBAs, CLP
- Coaching by “Senior expert pool”, LES Mentors,...
- Sabbatical / visiting other TTOs

Incentives

- » Development and career options
- » Success and performance based compensation (esp. for expert and senior level)
- » Metrics for short-, medium- AND long term view
- » Metrics have to reflect the objectives of the university, TTO, team and each employee
 - ⇒ Database: essential for implementation!
- » „More is not always better“ and „No size fits all“

Financial and Political Expectations

Wrong Expectations

TTOs become within a couple of years self-sustainable

- » Fact is that it will take many years and only if it was done the right way!

TT will subsidize R&D at the institutional level

- » Fact is that license income might sum up to low-% of R&D budget

TT will contribute to the local economy

- » Fact is that effects are not easy measurable and strongly dependent on additional efforts invested

TT will create jobs through spin-off companies

- » Fact is 1 spin-off per 100 million R&D Euro or 1,4 per 1000 researchers
- » Is strongly dependent on additional efforts invested!

TTO has to represent the interest of the R&D organization

- » Researchers have their own interests and TTO can't change the whole university culture!

Q&A

Questions & Answers

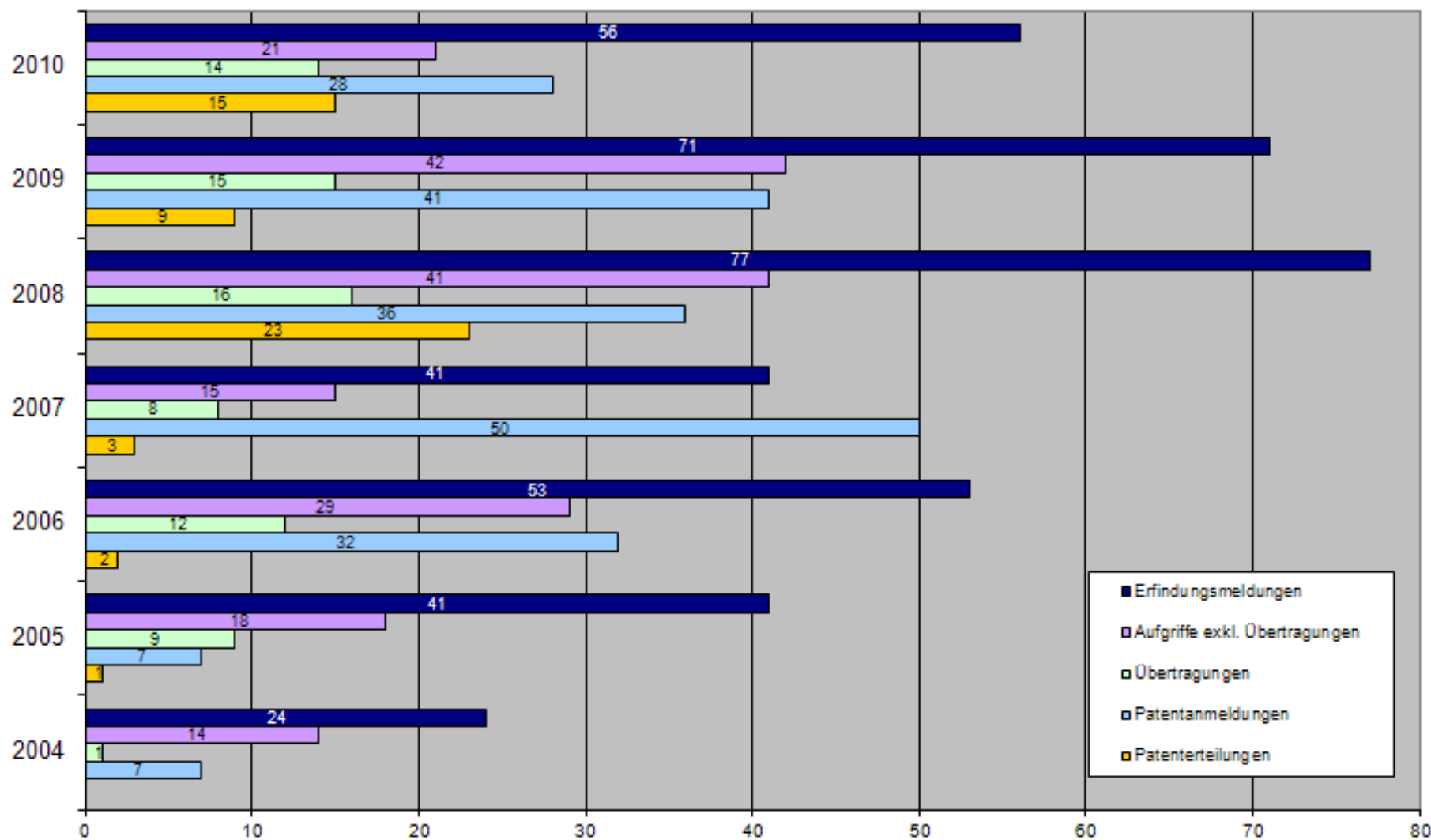
val»IP Ltd. & CoKG

Thomas L. Bereuter, CLP
bereuter@valip.eu

Two Case Studies:

- » **Technology Exploitation Office at
Graz University of Technology**
- » **Technology Transfer Office of the
University of Basel**

Erfindungen TU Graz 2004 - 2010



University of Basel

12'000 students, 300 Professors

Faculties: Life Sciences, Law, Economic, Medicine,
Psychology, Theology, Human Sciences

Budget ~ 300 Mio. €

Focus: Life Sciences und culture

Background of Basel's TTO

Autonomy of the University of Basel in 1996

Task: Education, research **and new** services for the public sector

Contribution to innovation through technology transfer

US-TT offices as good examples to be copied

1997: Establishment of the TT office

Prerequisites of Basel's TTO

One entry point

High competence in patent and licensing as well as business

To be operated according to business / industry standards with a high degree of efficiency and professionalism

Implementation of Basel's TTO

Strategic leadership with vice-rector research /
technology transfer

Entrepreneurial approach in terms of strategy and rules

Operational management outsourced to a TT
specialized company in form of private public
partnership

Private-Public-Partnership

Compensation model on a fixed basis

Access to a variety of experts: IP, law, licensing, marketing, science, finance...

Access to different networks

Access to knowledge and experts normally the University does not have

Attractive prize/performance ratio for both parties

Key Figures of Basel's TTO

Operating since 1998

3,5 FTEs

Budget: ~ 700k Euro

License income: 250-300k Euro

20-30 invention disclosures

10-15 patent filings

200 contract negotiations

5-10 marketing projects

1-2 spin-off