

TULI-program: A vehicle to generate academic innovations

Tuomo Pentikäinen
Senior consultant

Advansis – Advanced Innovation Services
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Outline of the presentation

- Commercialization of research results: Is it an issue for universities and research organizations?
- Case TULI: Research-based new business
- Science parks as platform for publicly funded innovation development

Is commercialisation of research results an issue for research organizations?

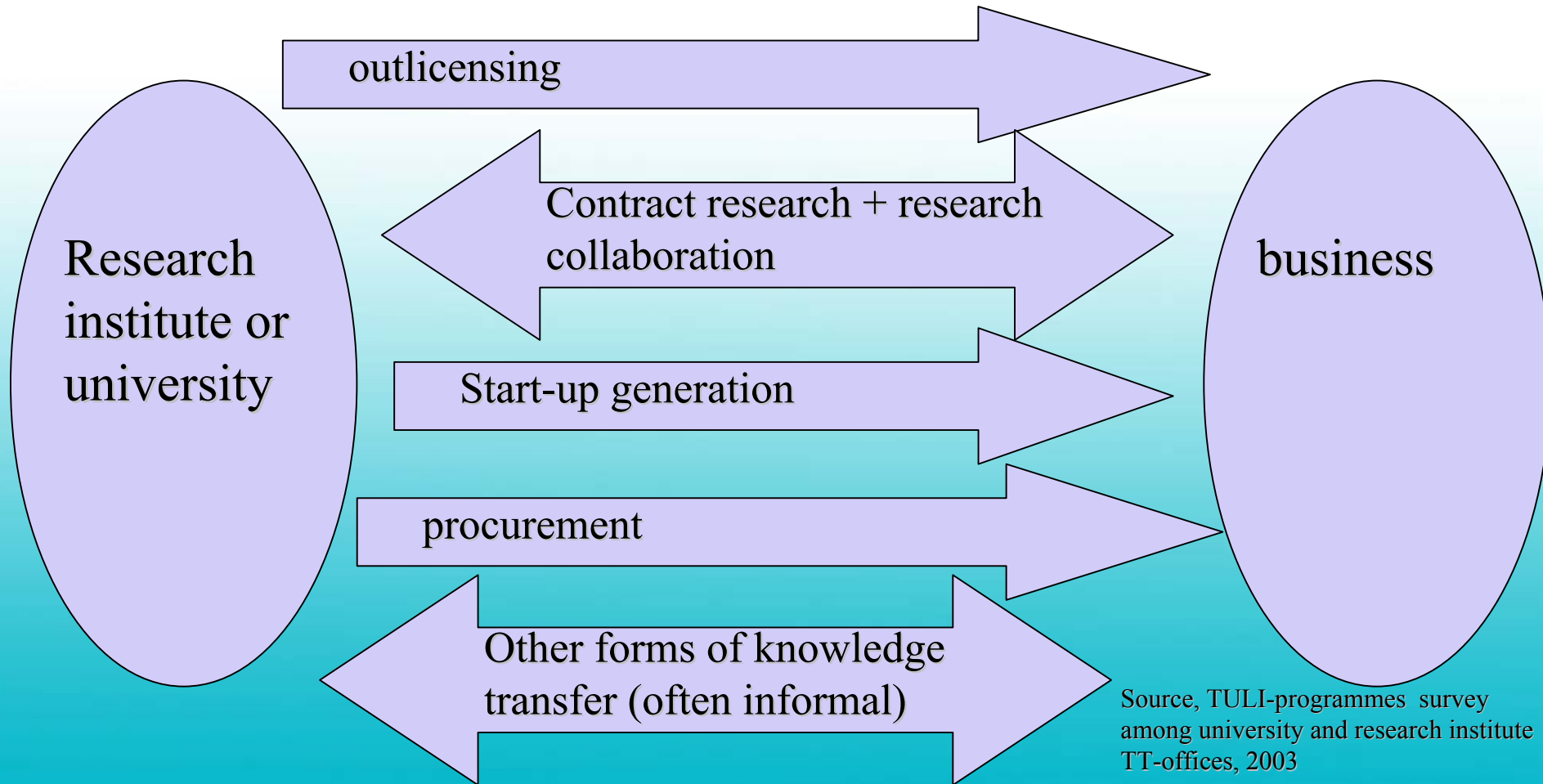
- Efforts to enhance commercialisation of research results arise partly from the expectations by public stakeholders who want to improve the effectiveness of public R&D investment in order to get better value for resources invested in R&D. (e.g. Senker 1998, Cervantes 1998, Mustar 2001)
- Research organisations themselves have also become more interested in developing innovation support activities and in commercialising their research results. (e.g. Callan 2001, Mustar 2001)

- Despite the growing interest in commercialization, there is a warranted fear that closer ties between science and industry create a bundle of risks for compromising the openness, objectivity, and independence of academic research, and that scarce research resources may be misallocated (Kutinlahti 2005, Feller 1991; Ziman 1994; Bok 2003; Tuunainen 2004).
- Yet, there is a considerable amount of scepticism among administrators and practitioners of commercialisation of research results on the issue of how this new policy vision may be harmonized with other functions of public research institutions (Kutinlahti 2005, Delanty 2001; Tupasela 2000; Jacob 2003).

However, commercialisation of research results has been taken to research organisations' agenda

- Forerunners in 60's in the US
 - Massive debate of the topic started by seminal studies of KJ Arrow and Richard Nelson in late 50's
 - Niels Reimers at Stanford in 60's (SLO in 1968) and later in MIT in 70's.
- In the rest of US since 80's (the Bayh-Dole act in -80)
- In Europe by legislators, policy makers and academia itself mostly in 90's or is just emerging.

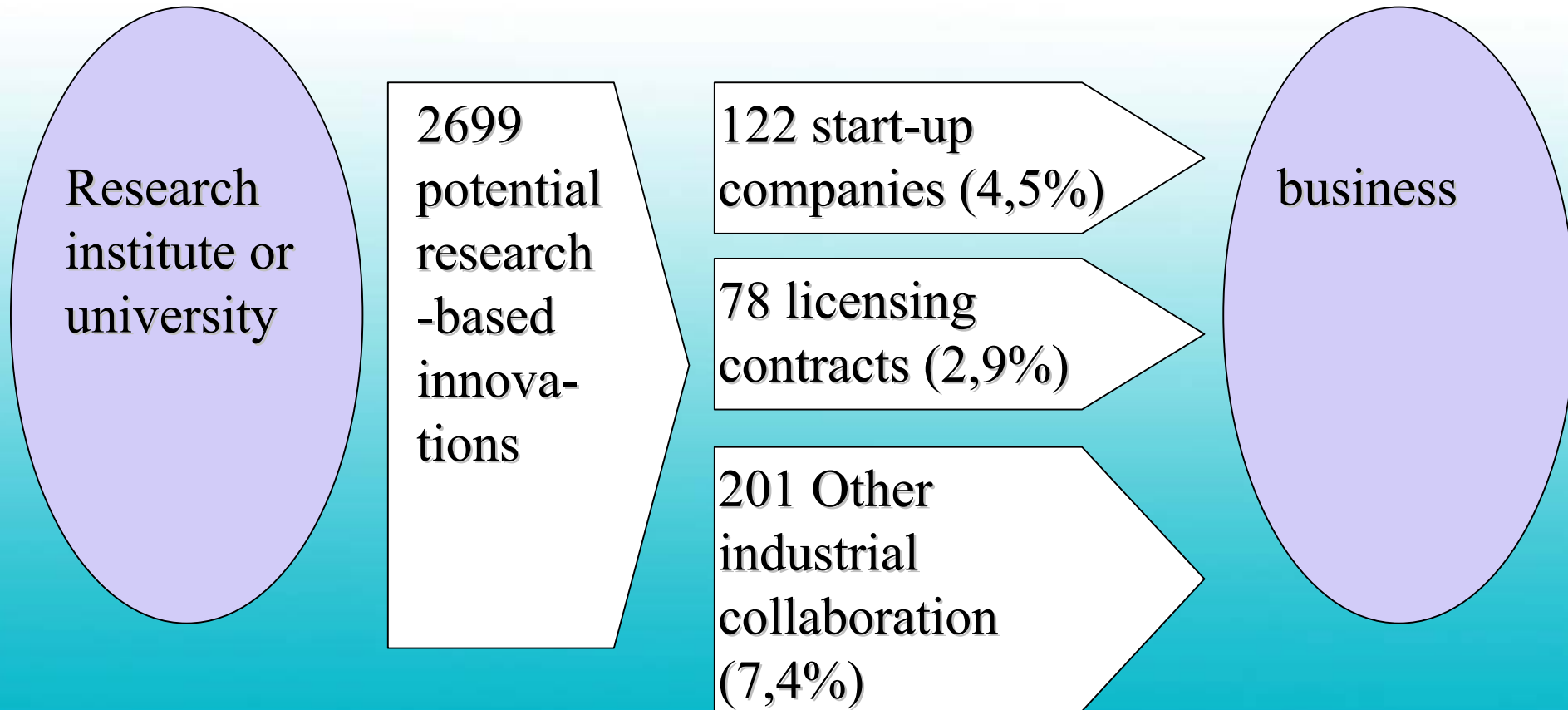
Commercialisation of research results has various delivery channels (processes)



Source, TULI-programmes survey among university and research institute TT-offices, 2003

- History of TULI goes back to 1993.
- 2002 TULI was organised as a national programme Budget circa 12 M€
- TULI's duration 2002-2006
- Biggest Finnish pre-seed activity for research-based innovations
- Programme is funded by the Technology Development Centre of Finland, Tekes
- Programme is coordinated by the Finnish Science Park Association, Tekel
- Programme is localised to 8 regional TULI-centres that have altogether 12 associate partners.
- Centres are in most cases regional science parks
- Each centre as well as national coordination have full-time project management

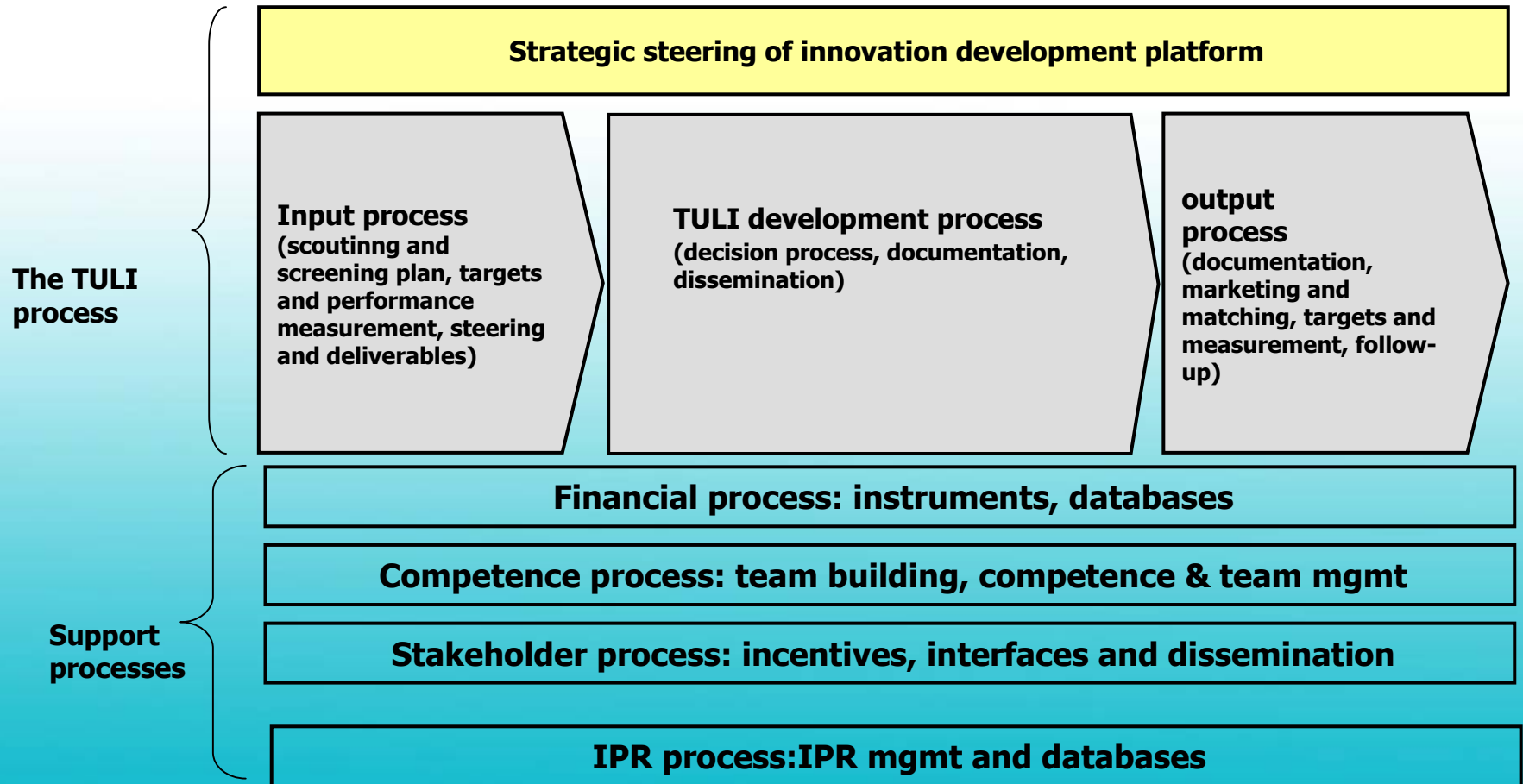
Case TULI: A success-story in start-up generation, also an important licensing channel



Case TULI: innovation development is a complex process

- Innovation development is a complicated process due to the following reasons
 - Market failure: without public support there is likely to be underoptimal amount of new innovations, especially in case of research-based innovations
 - Long-lasting process: lead-times often 5 years or more
 - Resources: both financial and human capital
 - Commitment, process-ownership, incentives
 - Lack of business competences

Case TULI: TULI-process contains several sub-processes



Collaboration is the only way to manage this kind of complex process

- Typically cases remain within universities even for several years before they are targeted to various development platforms.
- When business development truly begins, business development companies, science parks, licensing offices or other intermediary organizations participate in innovation development, very often with various publicly funded instruments.
- Typically it takes several years before cases are mature enough for truly profit-oriented markets like venture capitals or industrial in-licensing bodies.
- Even there, numerous publicly funded activities, instruments and programs exist.

Natural, credible and committed platforms are needed for this collaboration

- There are three major shortcomings. First, as the process is complex it is difficult to define a committed process-owner – or put it simply – a named professional committed to a sufficiently long time to the development of the innovation.
- Second, complex processes are difficult to steer by innovation policy makers or by public financiers, especially as far as there are no well-defined process owners or well-planned interfaces.
- Third, as far as the complex system is made of separate single processes there is likely to be a lot of unnecessary or overlapping pre-investment analysis, due diligence, reporting and follow-up.
- Science parks and similar external development platforms have offered a natural collaboration forum where different process-owners and stakeholders have been able to collaborate

Thank you!

Tuomo.Pentikainen@advansis.fi

www.advansis.fi