University Spin-offs

Prof. Dr. Dirk Riehle

Friedrich-Alexander University Erlangen-Nürnberg

COSS D03

Licensed under CC BY 4.0 International

Agenda

- 1. Public project funding
- 2. IP rights management
- 3. Public startup funding
- 4. The role of the university
- 5. Spinning off

1. Public Project Funding

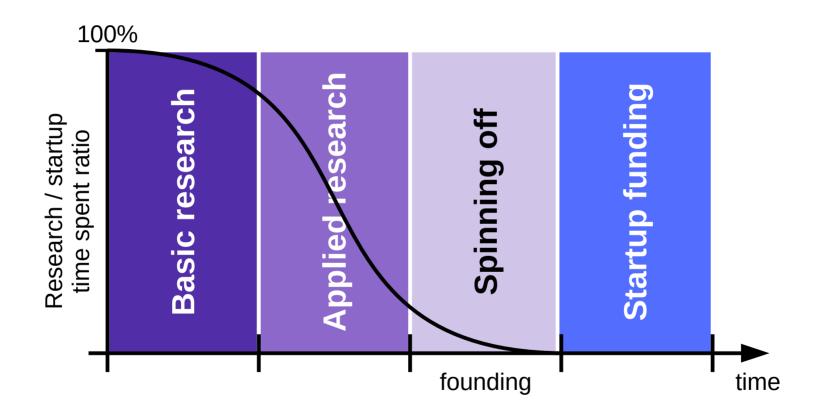
Types of Public Funds

- Public project funding
 - Is always a gift (no loss of equity)
- Public loans
 - Are usually complements to commercial loans by banks
- Public venture capital
 - Is also always complementary to commercial venture capital

Forms of Public Project Funding

- Grants to university
 - Basic research funding
 - Applied research funding
 - Spin-off funding
- Grants to startup
 - Direct startup funding
 - Pre-competitive research

Phases of Public Project Funding

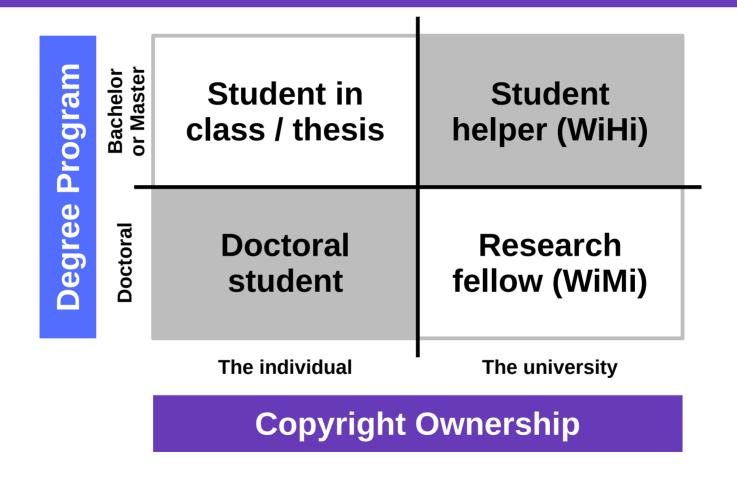


Phases, Funders, and Programs

#	Phase	Program	# Persons	Amount [PM p. P.]
1	Basic research	DFG, ERC	1-3 (up to 6)	36
2	Applied research	BMWi (various), EU H2020	1-4	18-36
3	Spinning off	EXIST Forschungstransfer	3-4	18
4	Starting up	EXIST II	3-4	6
5	•••	KMU Innovativ	•••	12-24

2. IP Rights Management

Who Holds Which Rights?



Bachelor and Master Students

- In student role, students
 - Own the rights to anything they do voluntarily and for free, including
 - Course work, final theses, volunteer (outside) work
- In party-to-a-contract role, students
 - Can transfer IP rights to university if compensated for it
 - Student job, work made for hire (German: "Dienstvertrag")
 - Work contract (German: "Werkvertrag")

Research Fellows / Ph.D. Students

- In Ph.D. student role, they
 - Own the rights to what they if
 - It falls within the scope of their dissertation topic, and
 - The professor gave them time off from project work
- In employees of the university role, they
 - Transfers the IP rights to the employer (the university)
 - German Urheberrecht stays with research fellow, but is inconsequential

Professor

In Germany, owns their work, even if paid

Ensuring a Clean Intellectual Property Situation

- Acquire IP rights in advance
 - Paid work (see before)
 - Contributor agreement
- Acquire IP rights after the fact
 - Letter of forfeiture
 - Sales contract
- Document no IP rights claimed
 - Confirmation letter

3. Public Startup Funding

Spinning Off

- Follows the basic and applied research phase
- In which you turn the research project into a product
- Takes place at university and can be funded there

Funding for Spinning Off

- EXIST Forschungstransfer (BMWi) funds
 - Up to four people for 18 months
 - Materials, for example, hardware, software, services
- The process of EXIST Forschungstransfer
 - Apply with business plan, get invited
 - Pitch to jury
- How to win the grant
 - Convince as a team (at least 3 people)
 - Convince with business idea

Founding the Startup

- Needs to happen during the spinning-off phase
- At this stage, all IP is still owned by the university

4. The Role of the University

Transfer of Intellectual Property

- For the startup to proceed, it needs to acquire the IP rights from the university
- What the university can offer
 - Exclusive rights to closed source
 - Non-exclusive rights to open source
 - Trademarks, domains, other IP
- What the university may ask for
 - Lump-sum payment (unlikely)
 - Incremental conditional payments
 - Share of founders equity
- Commensurate with the (as assessed) value of the intellectual property

Valuation of Intellectual Property (to Transfer)

- Pricing strategies
 - By assumed value (use outside assessor)
 - By labor spent on it (count person months)
 - By lines of relevant code (priced by line)

Incremental Conditional Payments

- Structure total payment into sequence of payments
 - Dependent on external events (revenue, profits, acquisition)
 - Until total value is reached

Share of Founders Equity

- The University may ask for founders equity
 - A request for equity is possible, not always likely
 - Holding an equity stake requires attention, adds complexity
 - If it takes equity, it is still unlikely to play an active role
 - It may want a board seat though in the beginning
- No good formula for amount of equity
 - If only code, in the low one digits (2-5% of total equity)

5. Spinning Off

Steps for Spinning Off

- Found company
- Transfer IP rights
- Build out product
- Acquire funding

Thank you! Questions?

dirk.riehle@fau.de – http://osr.cs.fau.de

dirk@riehle.org – http://dirkriehle.com – @dirkriehle

Credits and License

- Original version
 - © 2020 Dirk Riehle, some rights reserved
 - Licensed under Creative Commons Attribution 4.0 International License
- Contributions
 - None yet