



Proactive Knowledge and Technology Transfer in Universities

Prof. Dr. Utz Dornberger

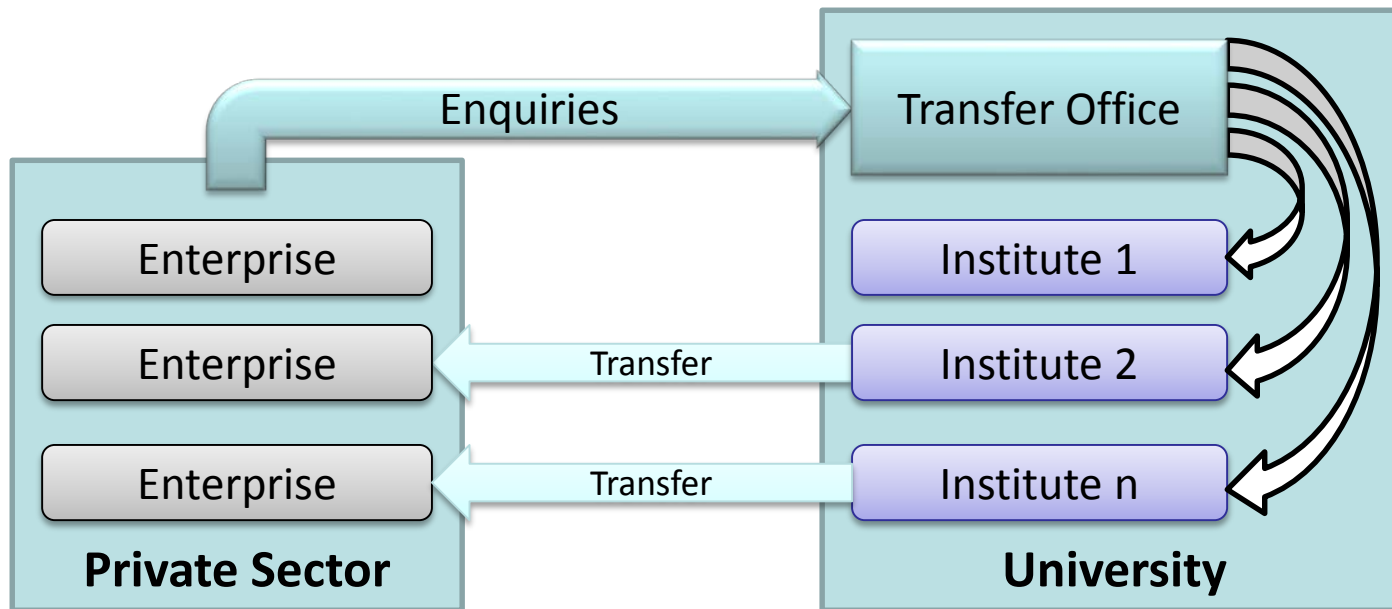
“Stakeholder Involvement in Higher Education”

HRK and University of Jordan, Amman, 17/18 November 2014

Classic Model: Reactive Knowledge Transfer



The core function of the University Transfer Offices is to channel the enquiries from the private sector to the specific researchers in the universities.



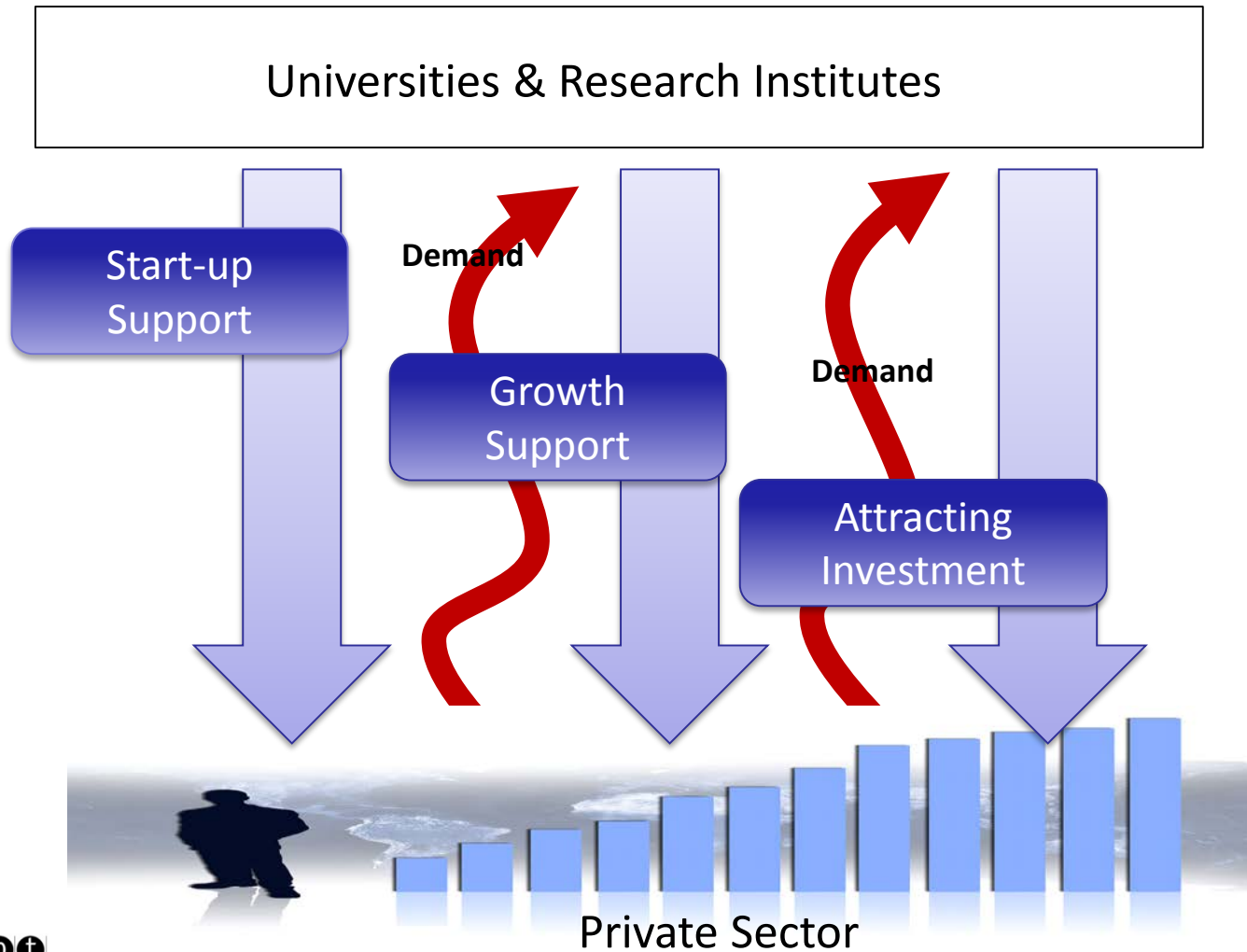
Need of Entrepreneurial Spirit



*„The research productivity is high in the Universities, but they hardly play a role for innovation, as the universities pay little attention to the incentives of the entrepreneurs and the entrepreneurial competencies. Knowledge transfer to the enterprises has not worked as well in the reality as it was expected. The reason for such dysfunctionality lies in the absence of the integration of the **entrepreneurial spirit of the knowledge producer** in the process of the knowledge transfer “*

Röpke (2001), The Entrepreneurial University, p. 5

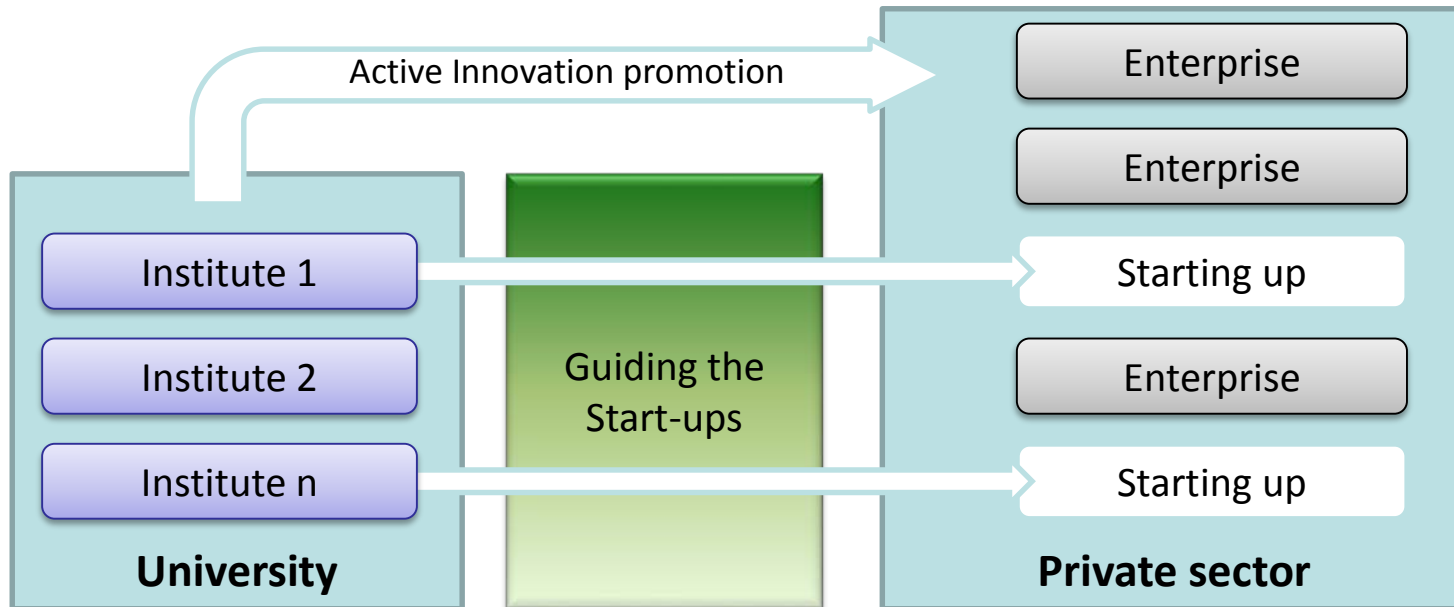
New Perspective: Proactive Knowledge Transfer



Proactive Knowledge Transfer: Start-up Support



The universities and research centers will give birth to enterprises in the region.



Critical Steps in Start-up Creation

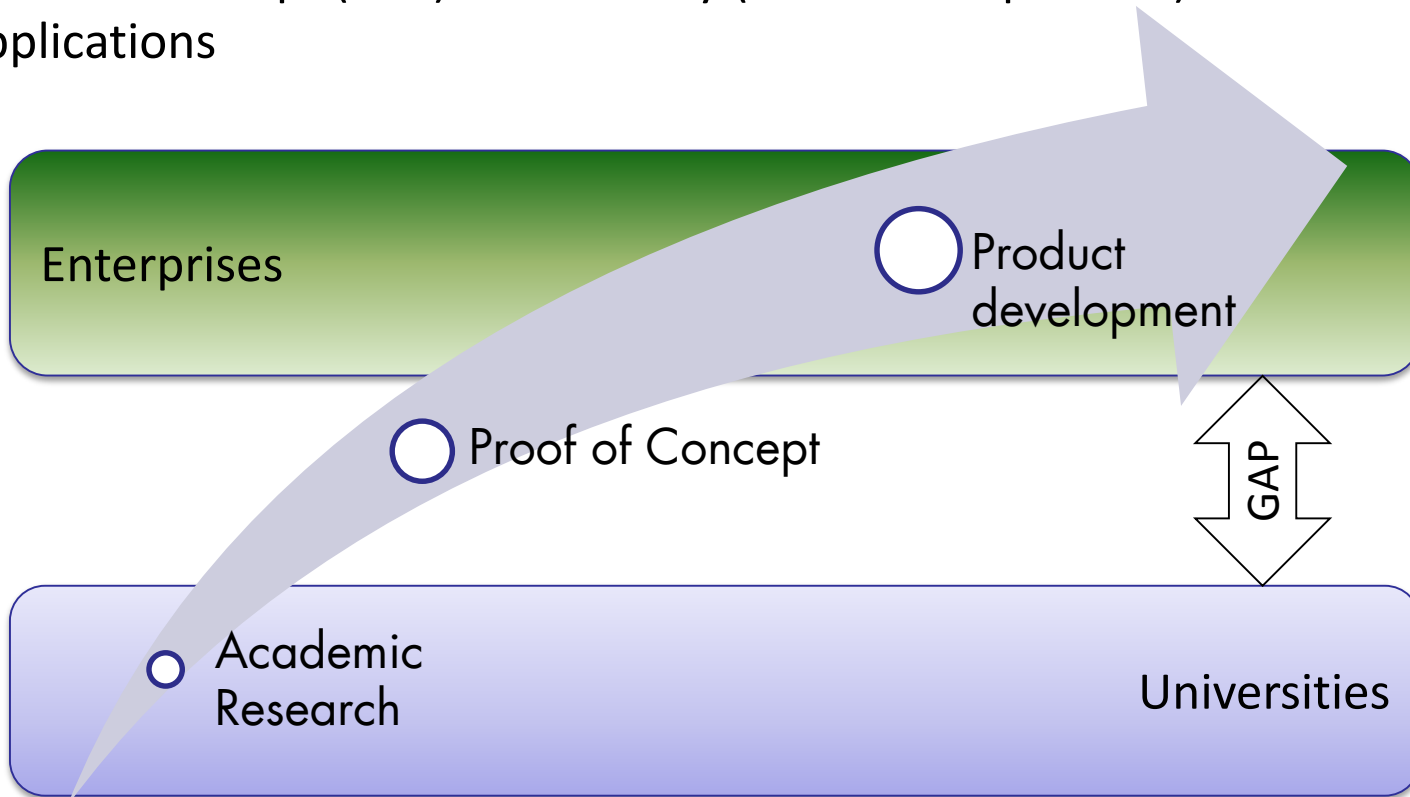


- **Developing a proof of concept**, that demonstrates that the invented method or new theory is probably useful in a particular application - for example a new product.
- **Developing a successful business model** for the spin-off; a business model depicts the rationale of how the spin-off will create, deliver and capture value.
- **Forming a start-up team** that is possessing all necessary competences, especially market knowledge and experiences.
- **Attracting start-up funding** to finance the development of prototypes and new products; this may involve acquiring financial resources from venture capital firms, angel investors, banks, or other providers of early-stage financial capital.
- **Acquiring the first customer**. The first customer, also called an early adopter, can provide candid feedback to help the spin-off refine future product releases and also provide access to a distribution channel or other forms of support.

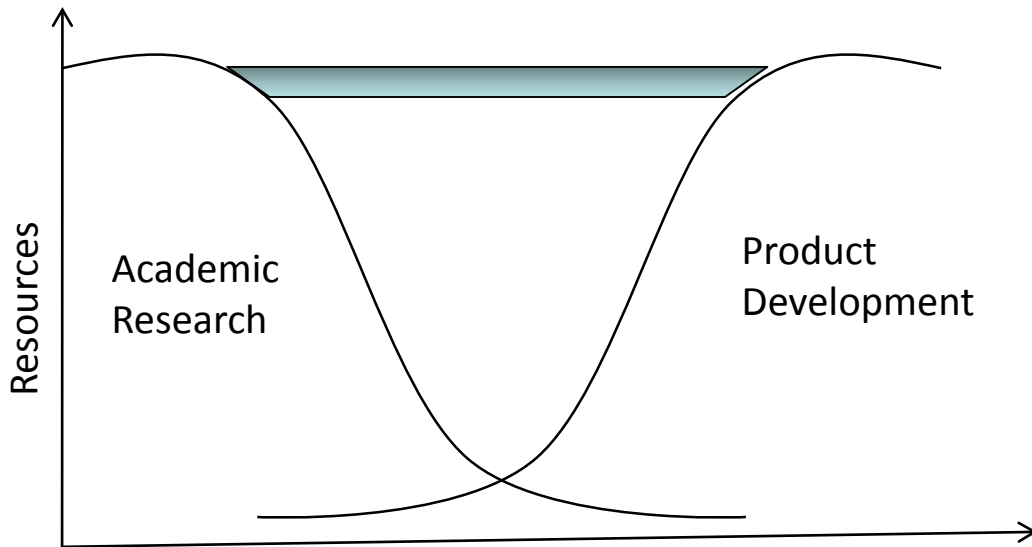


Challenge: Proof of Concept - Product

- Many findings and research results have high relevance, but only few of them are commercially applicable
- Proof of Concept (PoC) is necessary (better final product) for the market applications



Challenge: “Death Valley” of Technology Transfer



- There is little public support to finance the last step from Proof of Concept to final product
- New ways of funding:
 - Fund from the chamber of industry and commerce
 - Crowdfunding
 - Business Angels

Challenge:

Acquiring the first customer



- Limited manpower with sales experience in the technology-based start-ups
- Weak integration with the industry networks
- Contacts through the research networks can be used only partly for commercial application
- University can serve as first customer or can provide access to first customers





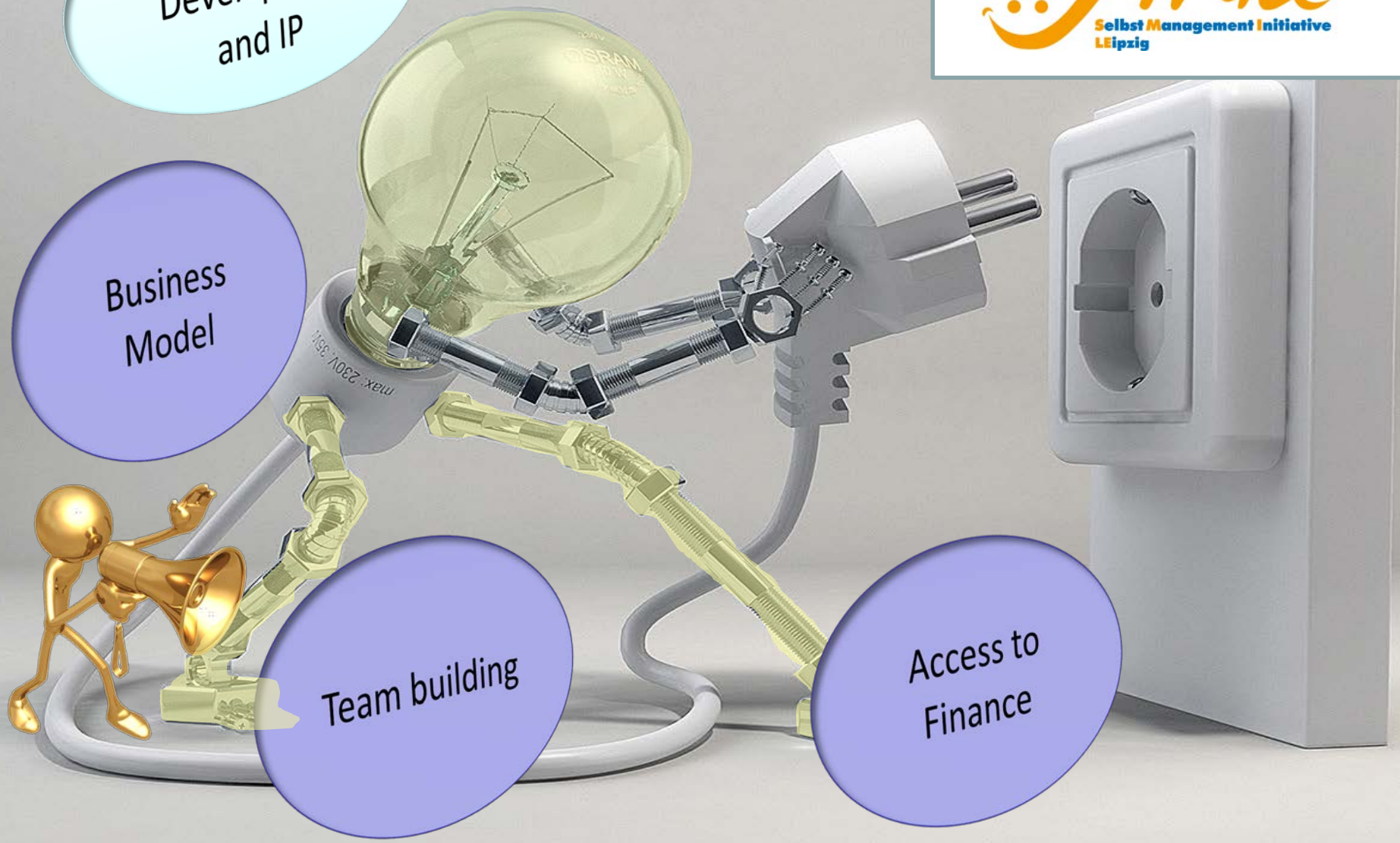
Idea
Development
and IP

Business
Model



Team building

Access to
Finance

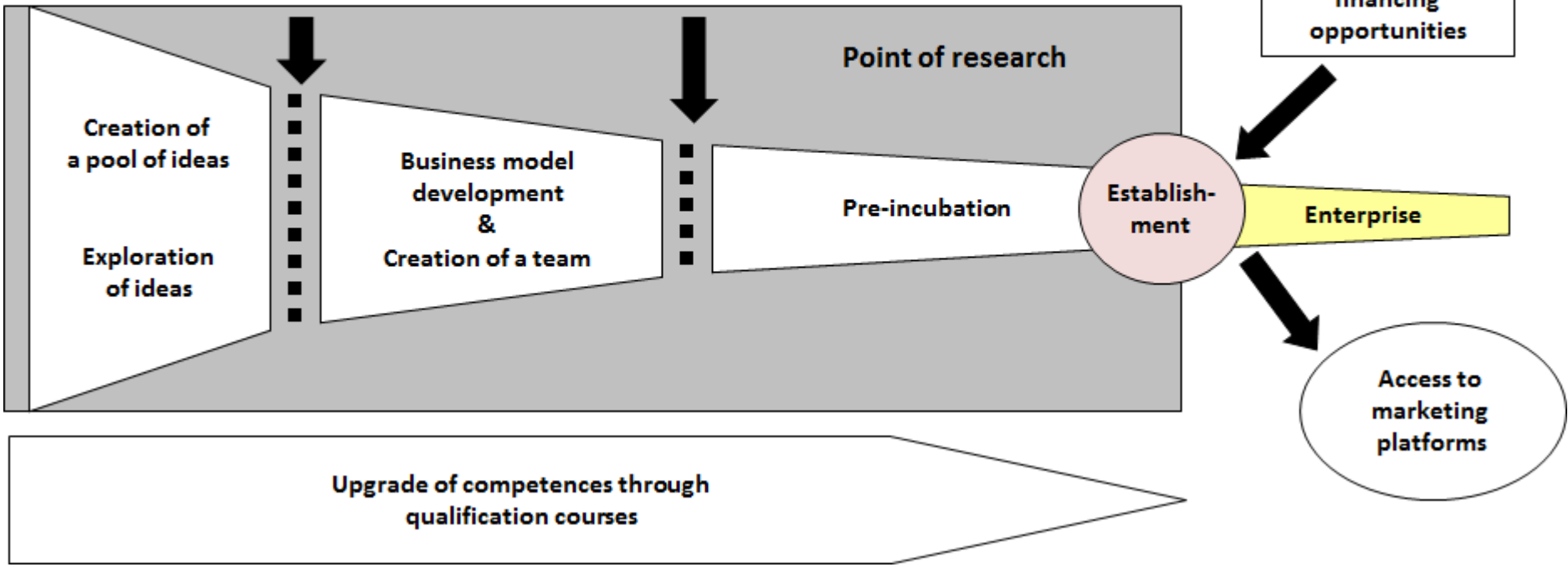


Process of Start-up Support

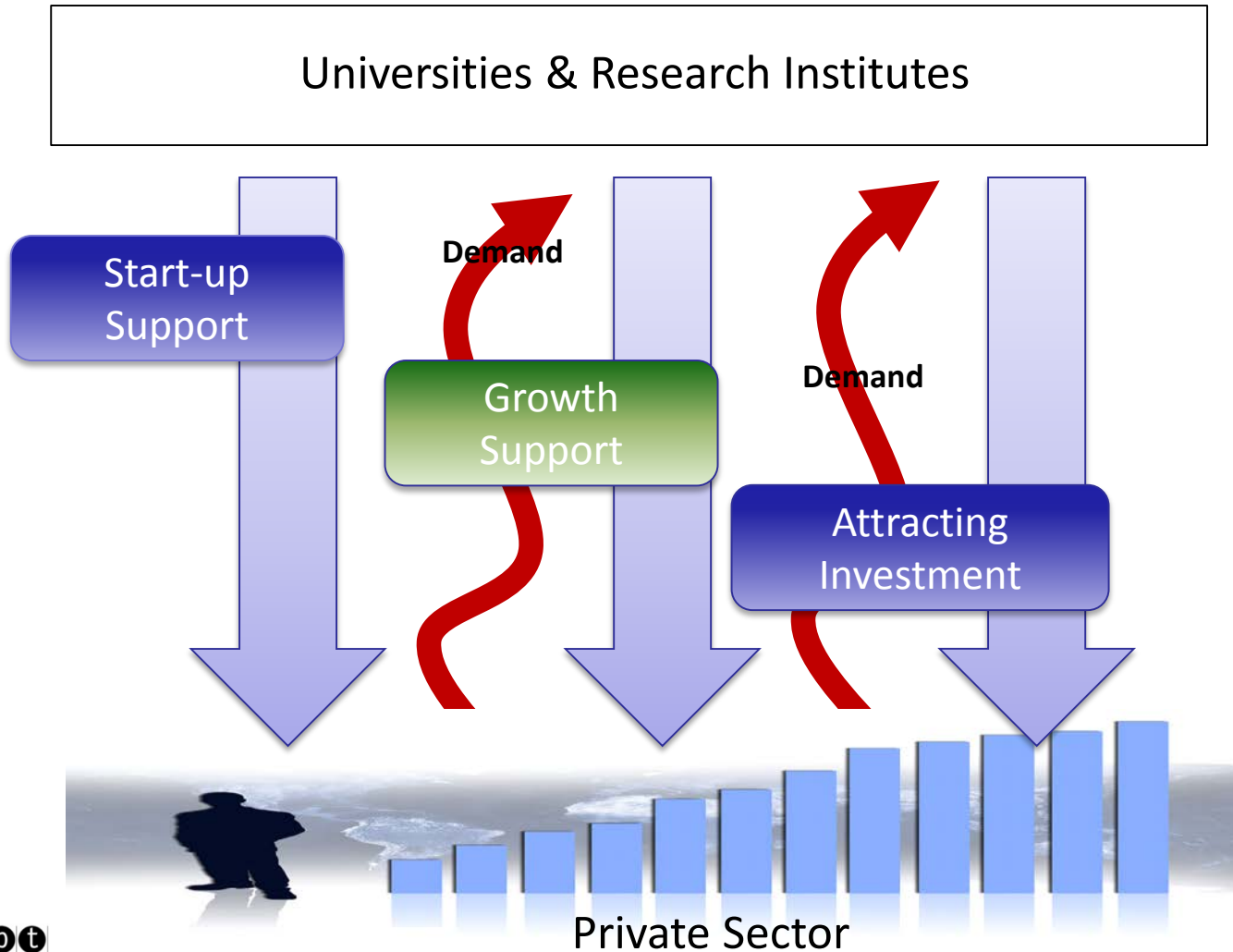


- Screening 1**
- Entrepreneur's personality
 - Problem resolution potential
 - Potential demand

- Screening 2**
- Verifiable application in the market
 - Market potential



New Perspective: Proactiver Knowledge Transfer



Proactive Knowledge Transfer means growth support



- The majority of technology-based SMEs are not growing fast enough
- They need further support in product development (R&D)
- Growth problems are not only due to limited product portfolio, rather due to weakness in market development
- Intermediary role of research institutes for the development of the networks for (international) marketing and distribution



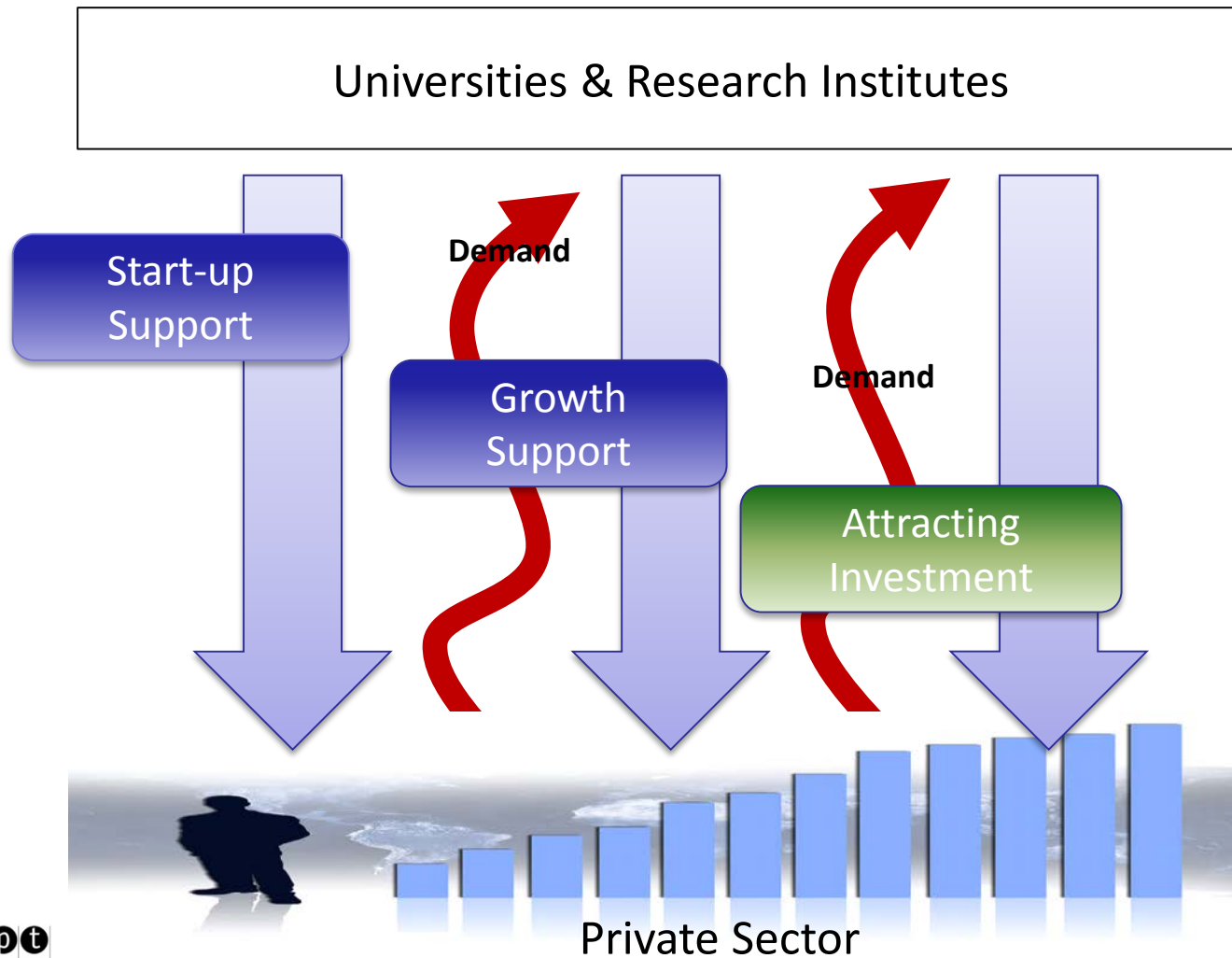
Centre of Excellence: Internationalization of SMEs



- Services offered by Leipzig University to SMEs from Germany and developing countries



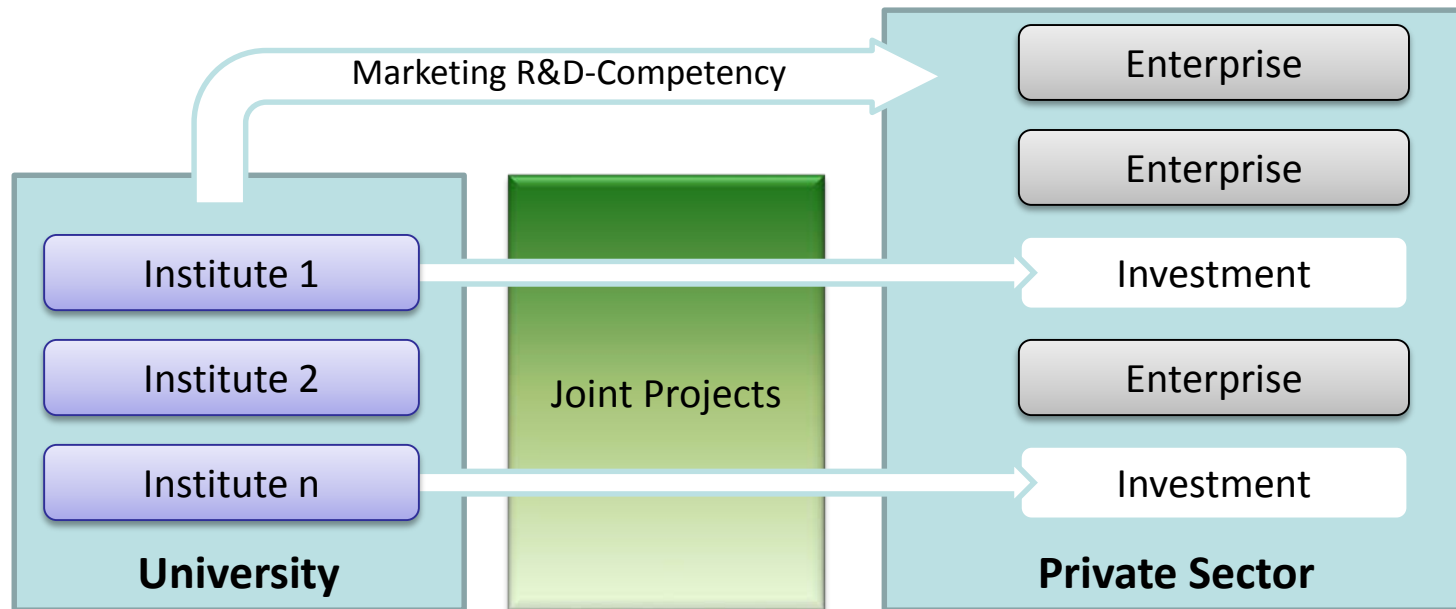
New Perspective: Proactive Knowledge Transfer



Proactive Knowledge Transfer means also attracting investments



- Active marketing of the research expertise to attract companies to the region within the framework of joint R&D projects
- Every year we have 2-3 projects in attracting foreign high-tech firms to Leipzig



Challenge: Sustainable Finance of Transfer Resources



- Limited resources in the university
- High dependency on the external public support
- A stronger entrepreneurial activity of the transfer actors is necessary
 - Financial participation in the Start-up's
 - Consultancy projects with the fast growing enterprises



- Entrepreneurship Promotion at universities
- Consulting in promotion of innovation and entrepreneurship
- Training in Innovation Management
- Research in the field of innovation and entrepreneurship



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Publications



Managing the Fuzzy Front-End of Innovation

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Insight Study on the German Early Stage Investing, Incubation and Business Angel System



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UNIVERSITÄT LEIPZIG



small enterprise promotion + training

Office: Beethovenstrasse 15,
D-04107 Leipzig
Germany

E-Mail: dornberger@uni-leipzig.de

Web: www.sept.uni-leipzig.de
www.in4in.net