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<http://www.kmuinnovation.com/osec-2005.pdf>**

Critical Success Factors in Innovation and Technology Management

**INNOVATION & VENTURE MANAGEMENT
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Agenda

- About us
- Today's Innovation Management for SMEs in High-Price Countries (CH, D, A, ...)
- Practical Concepts with the objective „More Innovation for Less Money!“:
 - **Technology Management Concept:**
Saving costs, Time-to-Market,
 - **R&D Venture Management Concept:**
Active Marketing & Sale of R&D Resources,
R&D Department as a Profit-Center or an independent Knowhow-Firm
 - **Innovation & Venture Management Concept:**
Simultaneous Venturing in order to avoid „burning money“
- Conclusions for Enterprises, Start-ups, Managers, Founders and Entrepreneurs

About us

- **Dr. Franz Beeler & Partner founded in 2000**
- **Decentralized Consultancy & Management Network with Partners in CH, D, A, and USA**
- **Focus on Technology, Innovation & Venture Management (transnational Technology Transfer, interdisciplinary Innovation Processes, ...)**
- **Target Customer segment: Small and Medium sized Enterprises (SME), Young Enterprises, Start-ups, Spin-offs**
- **Further Services: Offshore Software Outsourcing, Franchising, Corporate Partnering, Financing ...**
- **SME-Innovation Platform for SME, Manager & Entrepreneurs <http://www.kmuinnovation.com>**

Today's Innovation Management for SMEs in High-Price Countries

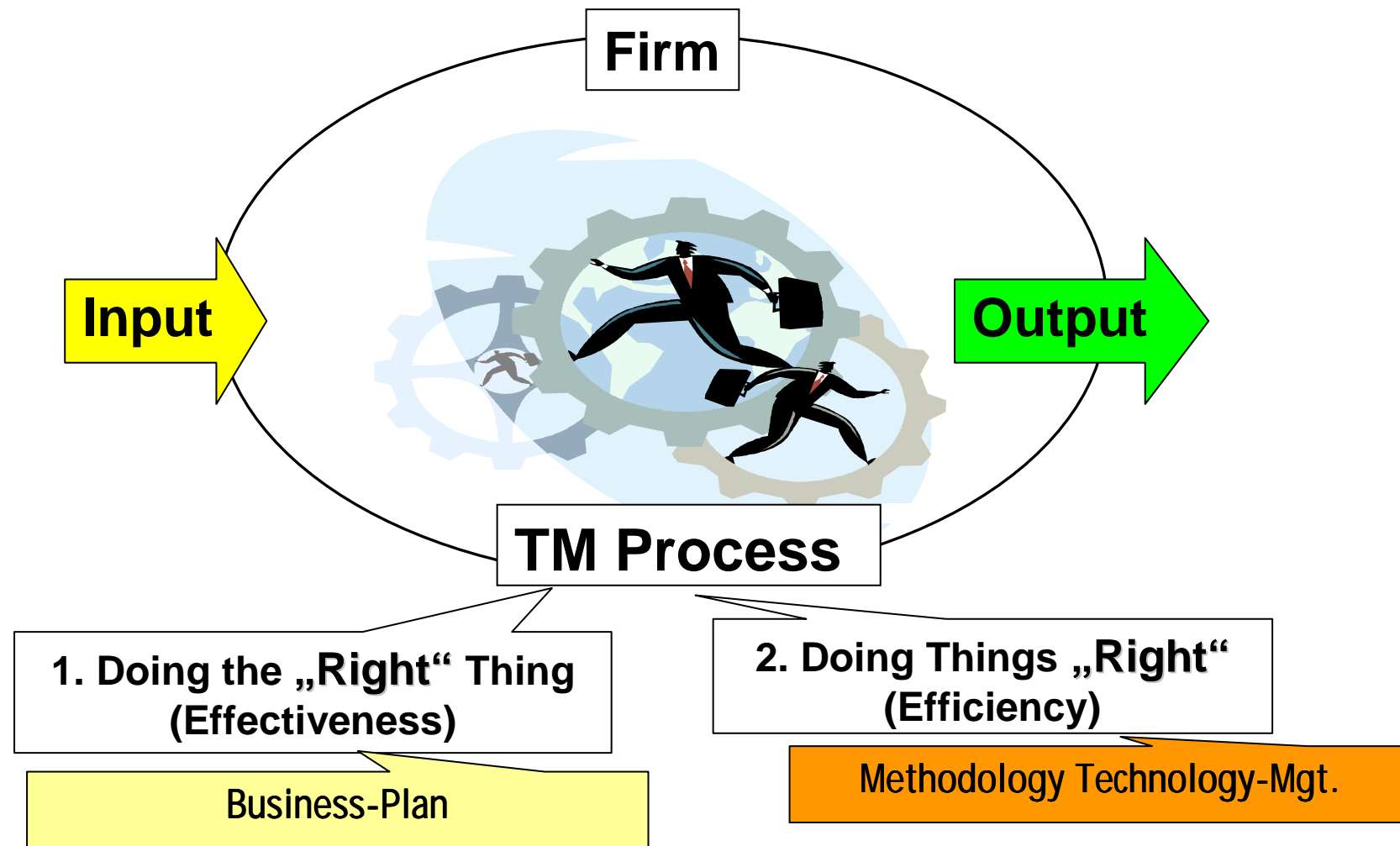
- **Need to improve R&D Effectiveness and Efficiency:
„More Innovation for Less Money“**
- **Technology as a acquisitionable Resource:
Technology-Transfer, Technology-Acquisition,
Technology-Contracting ...**
- **Trend to outsource activities: Manufacturing,
Software Developments, IT Services**
- **Trend to Corporate Partnering**
- **Trend to „spin-off“ Innovation Projects**
- **Trend to „short-term“ Innovations**

Typical Innovation Problem

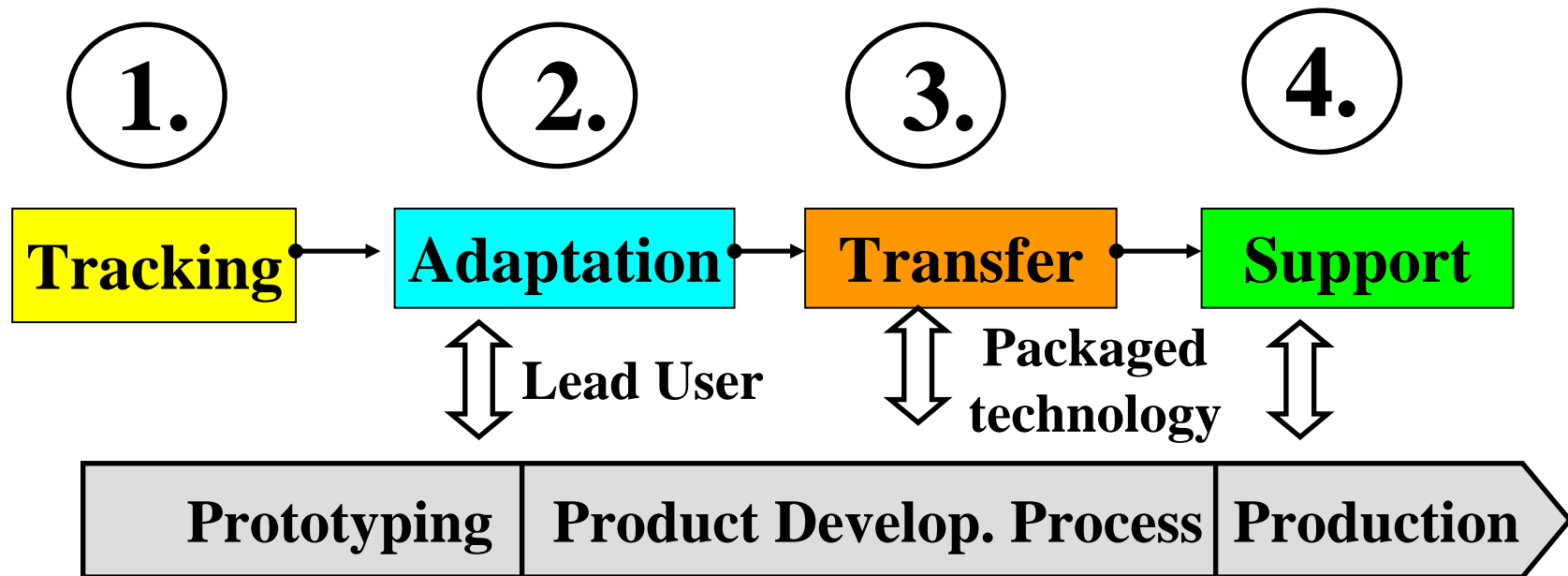
“Our R&D budget has been cut to half of the budget in 2001! However, in order to keep up with our competitors, we would have to launch even more new products than in 2001. Moreover, we realized that our main competitor pursues a low-price strategy which is completely incompatible with our cost structure!”

CEO Technology Company, Switzerland

Technology Management Concept



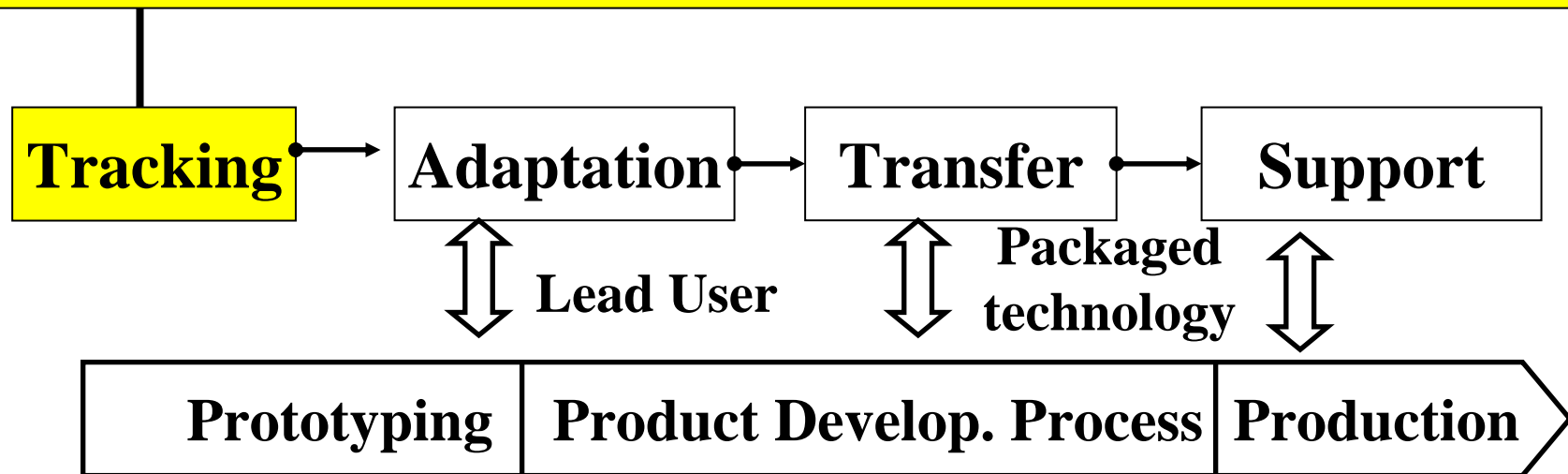
Technology-Management (TM) Process



Firm's Value Chain of Products/Services

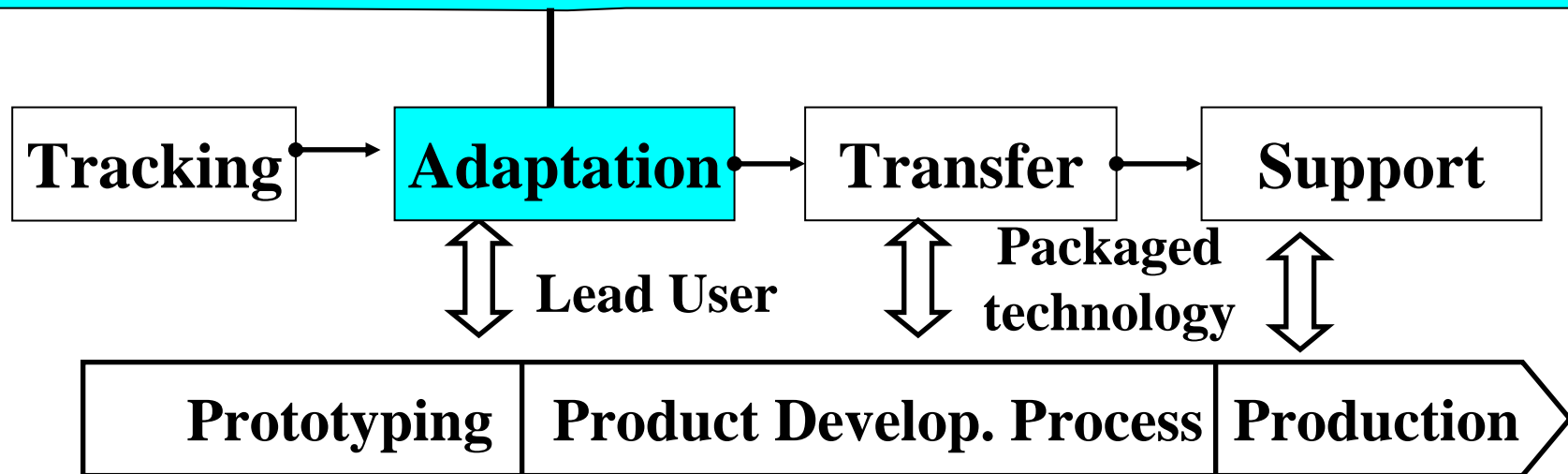
The TM Process: Tracking (1)

- Continuous Awareness & Evaluation of technology sources and trends in the outside (world-wide vision)
- Focused actions on particular opportunities
- Finding the right partner
- Move to an approved, funded project



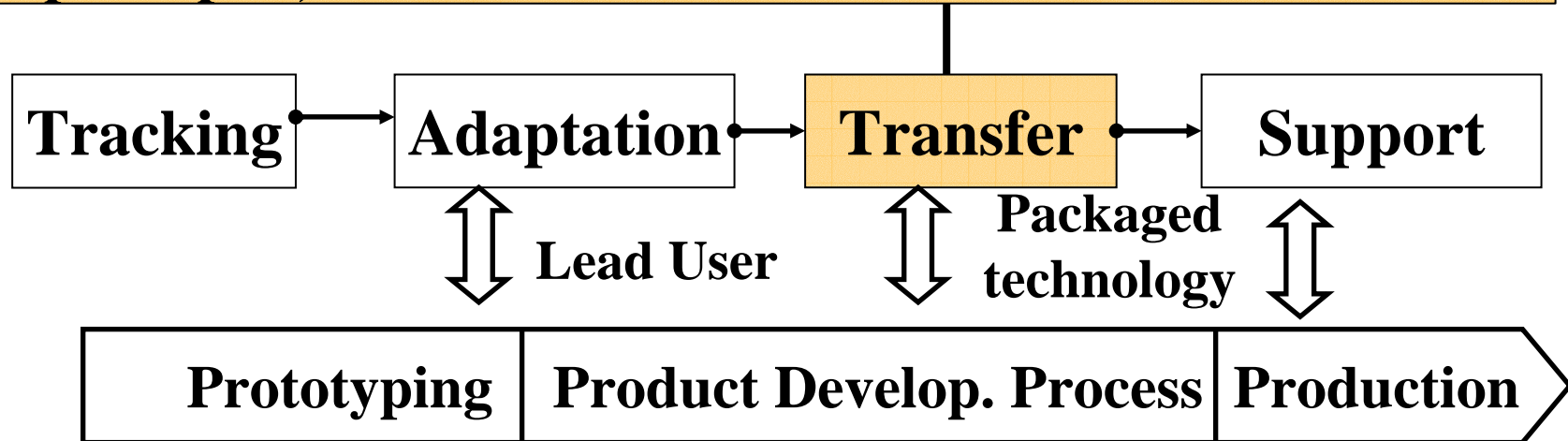
The TM Process: Adaptation (2)

- Project in the company or outside, to convert the tracked Technology into a form to meet the needs of a Lead User
- Continuous balance of the Lead User's needs with the value of adapting the technology to the requirements of other departments
- Continuous reporting to top-level management



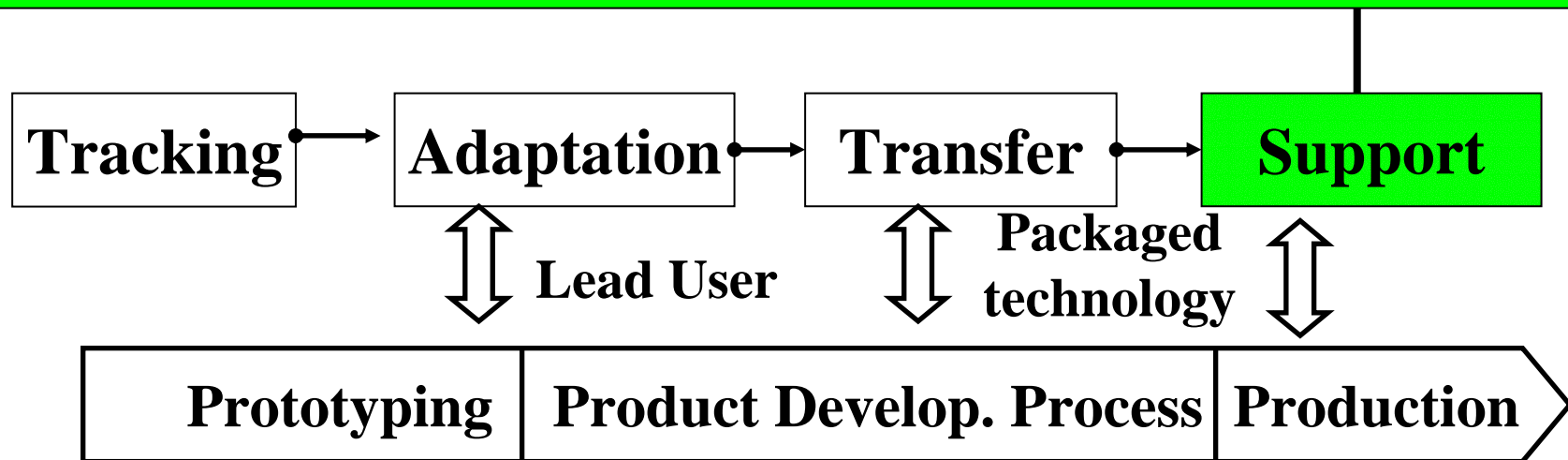
The TM Process: Transfer (3)

- **Transfer & Integration of a well-proven technology after successful adaptation into a new product development process**
- **The technology ist „packaged“ with well-documented procedures, user training etc.**
- **The product development process fulfills Time-to-Market principles, because the technical risks are low**



The TM Process: Support (4)

- Provision of technical expertise after product development process has been finished
- Provide insurance in emergencies
- Controlled support of „packaged“ technology after formal handover



Effectiveness TM-Process

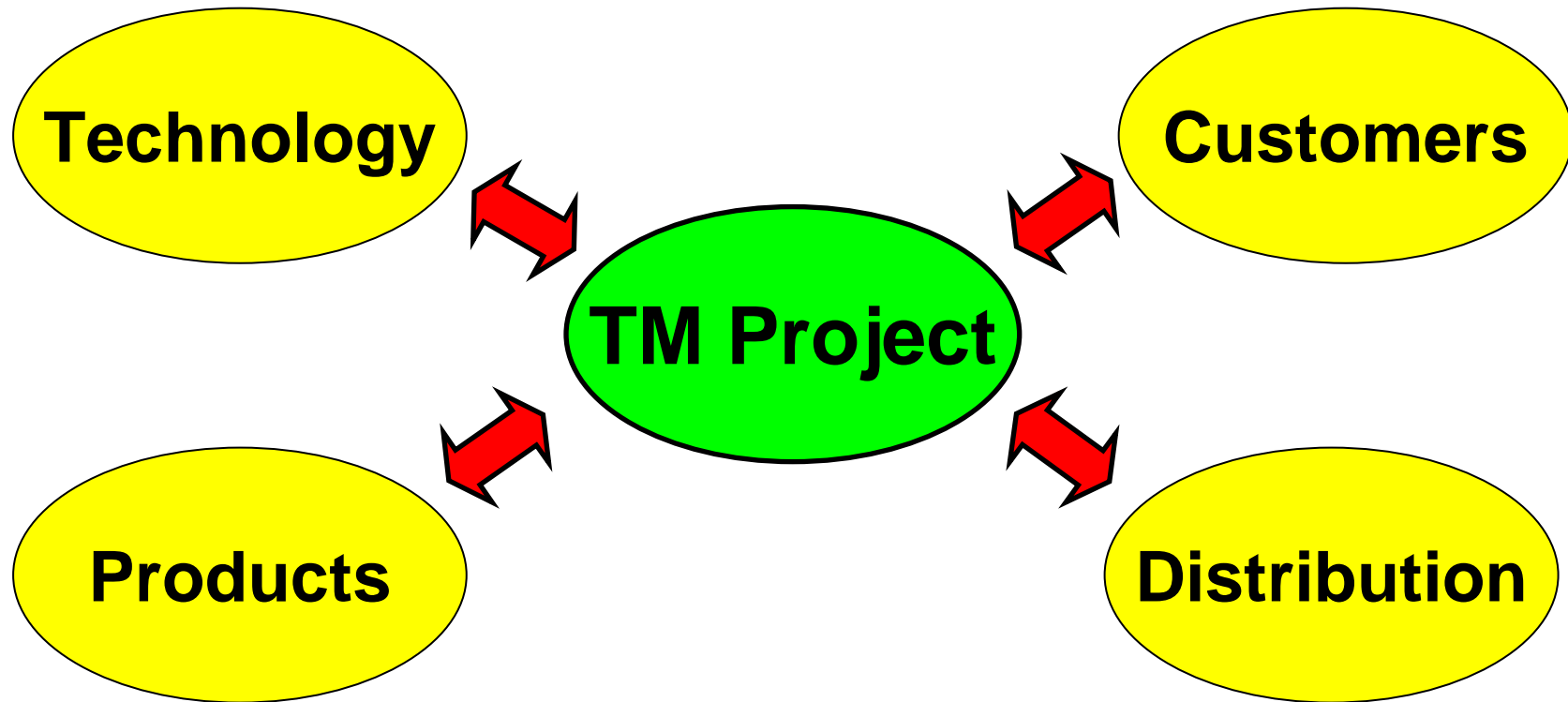
Doing the „RIGHT“ Thing:

**TM PROJECT is an Integrated
Subject of the Overall Corporate
Strategy (Technology, Products,
Distribution, Market, Customers)**

Efficiency of TM-Process:

Doing Things „Right“

Cross-Functional-Management



Efficiency of TM-Process

Doing Things „Right“

DON'T RE-INVENT THE WHEEL!

**By Technology-Acquisition &
Transfer (from the Outside) you
may Substantially Reduce Costs
and Time-to-Market**

Advantages of the TM Concept

- **Innovation is possible, even if internal resources are lacking!**
- **Saving R&D-Costs 40% to?**
- **Saving of time: Time-to-Market!**
- **Reducing of risks: Innovation meets customer's needs**
- **Technology-Marketing (Lead User /Customer) as a catalyzer for sales**

Critical Success Factors of the TM Concept

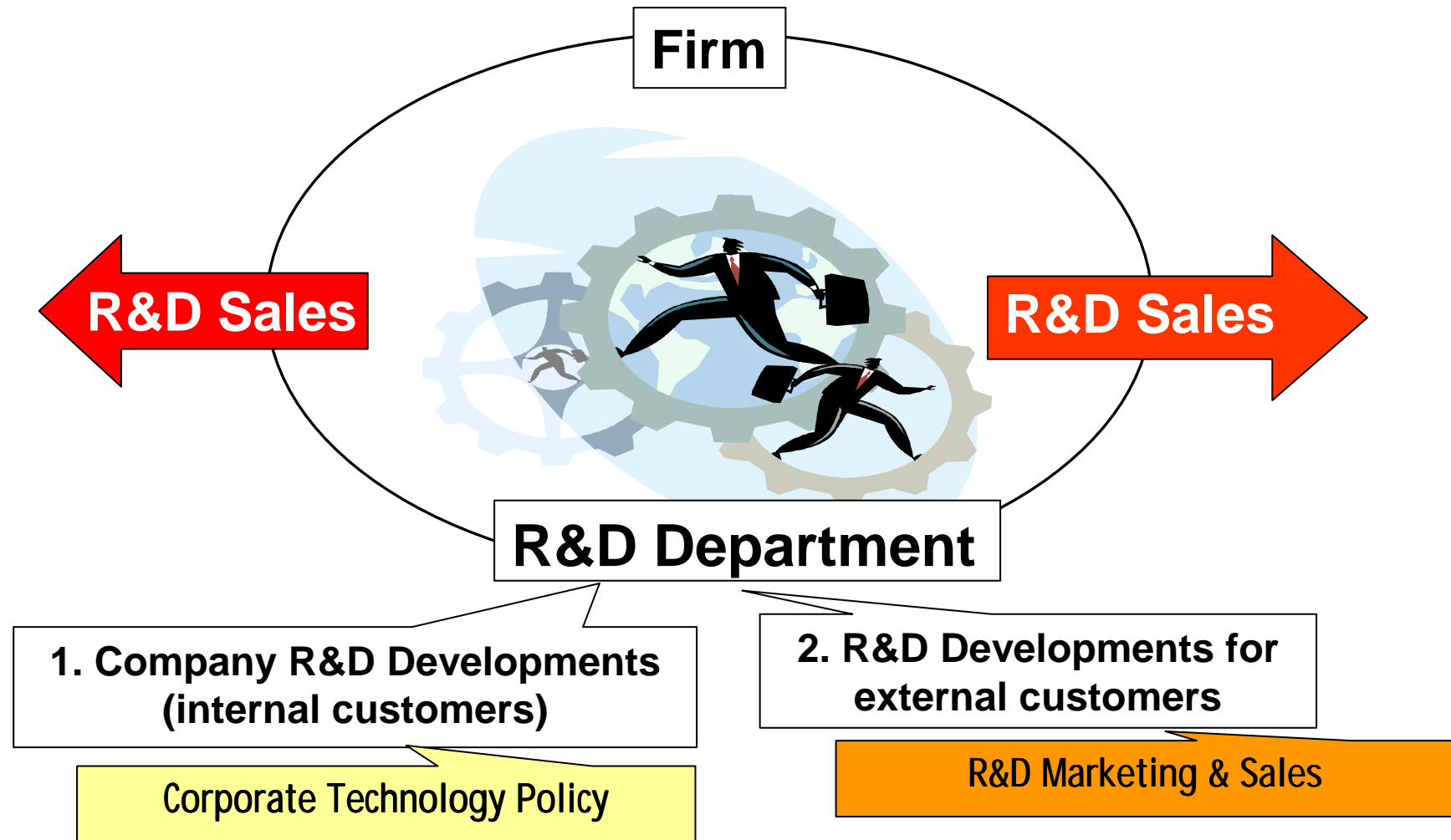
- **Business-Evaluation and Planning of Technology & Innovation Project**
- **Top-Management commitment and support through all steps of the TM Process needed!**
- **Manager of the TM Process must have cross-functional skills!**
- **Attention: NIH-Syndrome! (Not Invented Here)**

Typical R&D Resources Problem

“In the last years our core business has been reduced, and consequently, we cannot afford to have an own R&D Department. Moreover, half of the R&D results lie outside of our core business area and there is no way to benefit from these R&D achievements.”

CEO Technology Company, Switzerland

R&D Venture Management



R&D Venture Management Concept

- 1. Company R&D Developments (internal customers)**
- 2. R&D Developments for external customers**
- 3. R&D Marketing & Sales (Patents, Technologies, Tools, ...)**
- 4. R&D Department as a Profit-Center**
- 5. R&D Department transformed into an independent Know-How Firm**

Advantages of R&D Venture Mgt.

- **Reducing of fixed costs by R&D sales**
- **R&D as an added value service to other products and services**
- **R&D Venturing by building up of a spin-off company**
- **R&D as a Profit-Center or an independent Know-How Firm**

Critical Success Factors of R&D Venture Mgt.

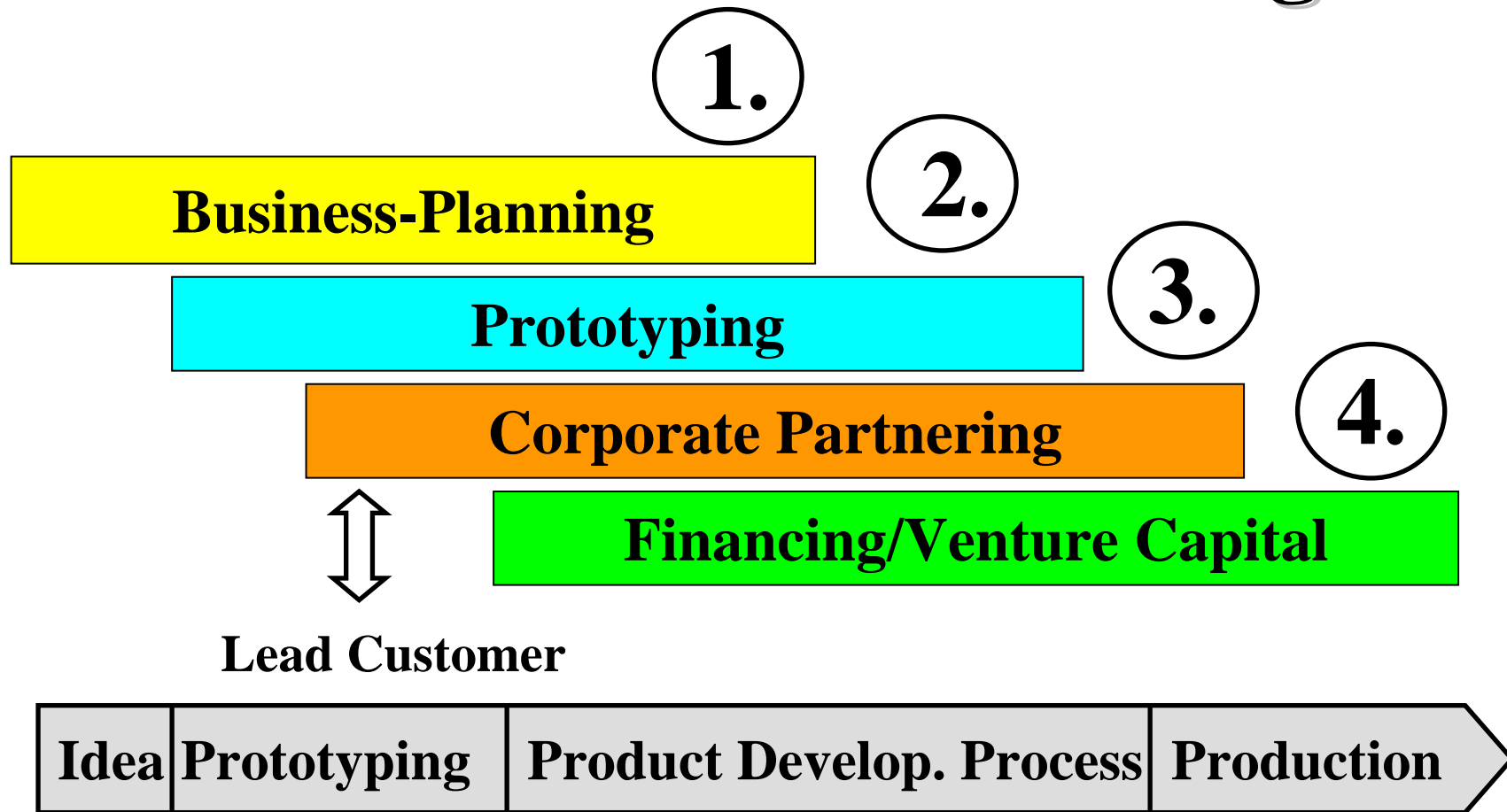
- **R&D Staff should be business minded and market driven**
- **No NIH-Syndrome! (Not Invented Here)!**
- **R&D modules for flexible customer requirements and Scale of Economy**
- **R&D contracts with external customers**

Typical Start-up Problem

“We have spent more than 0.5 million CHF to build a prototype in order to demonstrate the functionality of our start-up business model. Unfortunately, private investors and venture capitalists are not interested to finance the further developments of our start-up project. What shall we do now?”

Founder and start-up manager, Germany

Innovation & Venture Process: Simultaneous Venturing

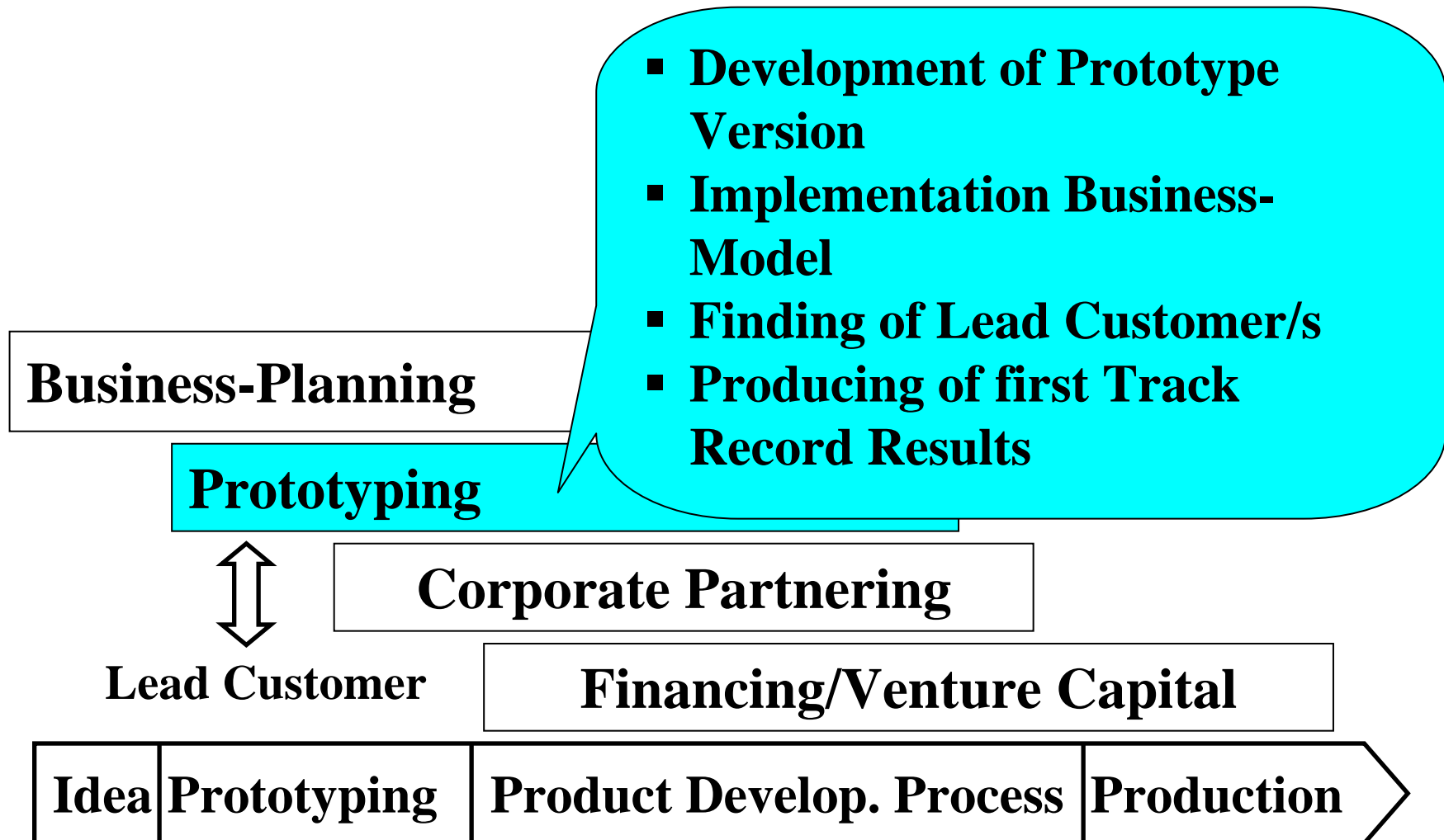


Firm's Value Chain of Products/Services

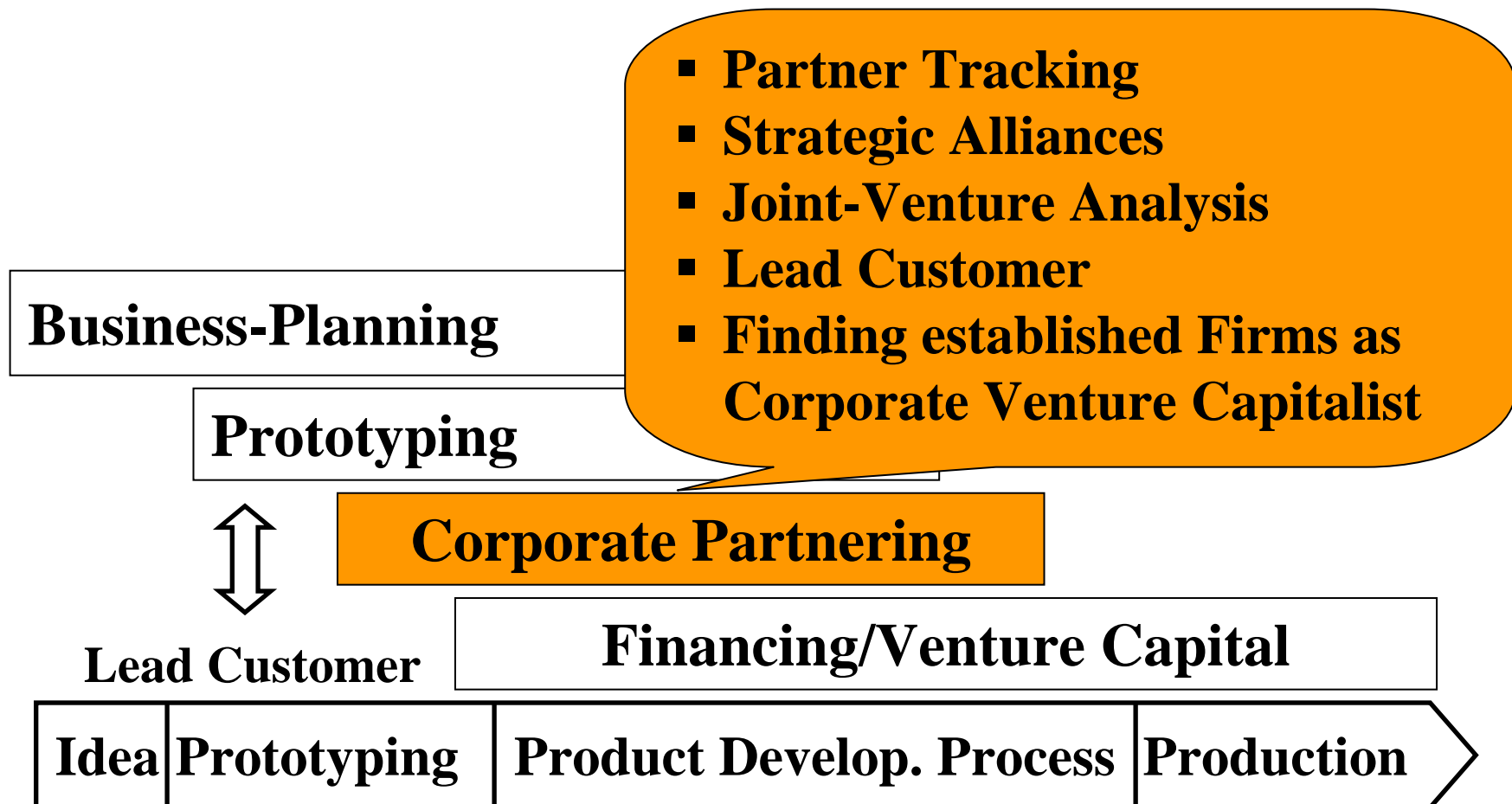
The I&V Process: Business-Plan (1)



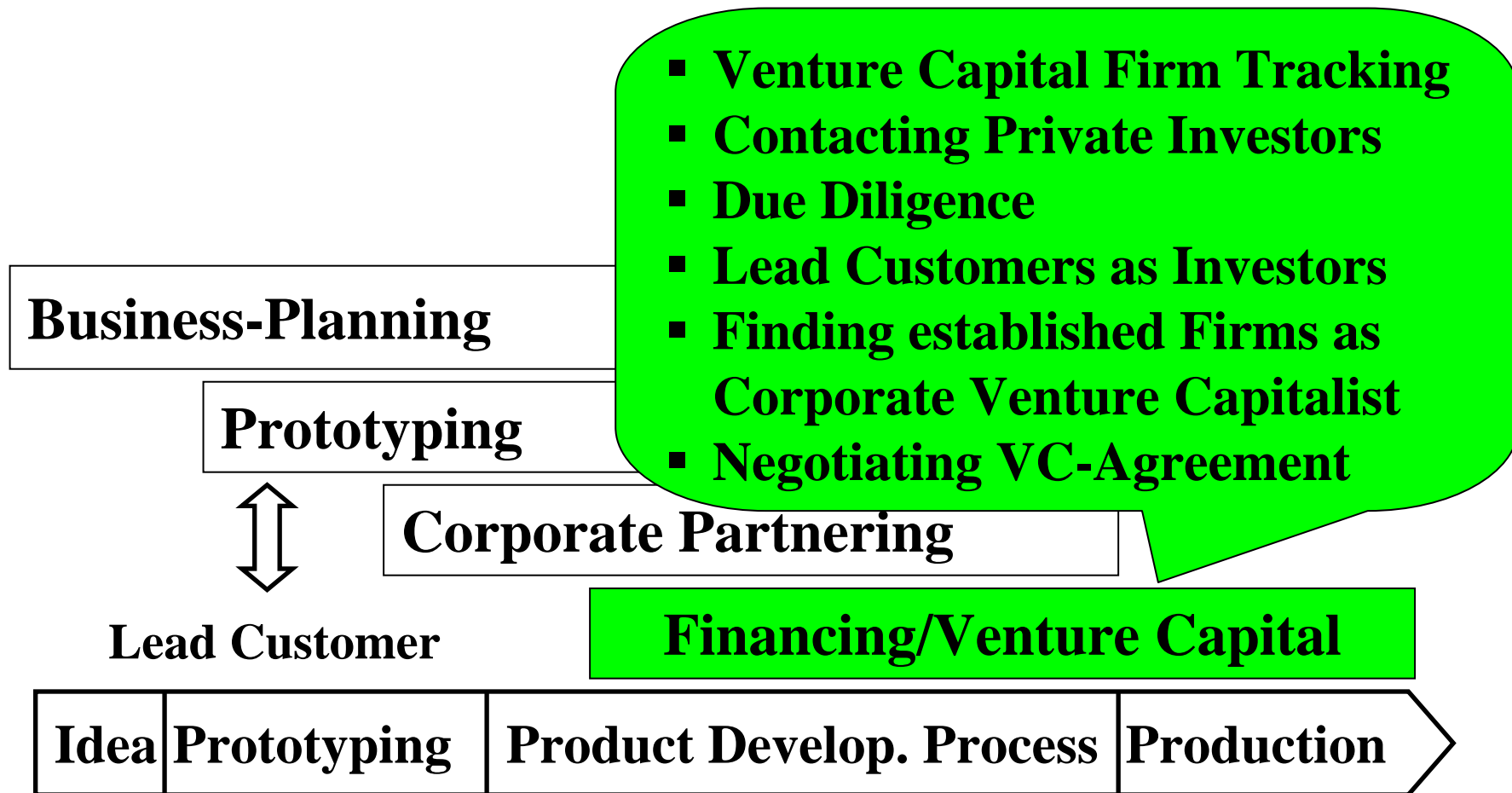
The I&V Process: Prototyping (2)



The I&V Process: Corporate Partnering (3)



The I&V Process: Financing/Venture Capital (4)



Advantages of the I&V Concept

- **Market Assessment of Business Case as early as possible (Seed Phase)**
- **Introduction of Lead Customers during Prototyping**
- **Finding of Partners and established Players in a very early stage**
- **Early Involvements of potential Investors and Venture Capital Firms**

Critical Success Factors of the I&V Concept

- **Realistic Business Evaluation and Planning**
- **Early Stage Prototyping with Lead Customers**
- **Strategic Alliances or Joint-Venture with established Firms**
- **Management Team's participation in Private Equity (entrepreneurs)**

Conclusions / Summary

- New Ways and Concepts in Technology & Innovation Management are needed in order to compete with companies in low-price countries
- Practical Concepts with the objective „More Innovation for Less Money!“:
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