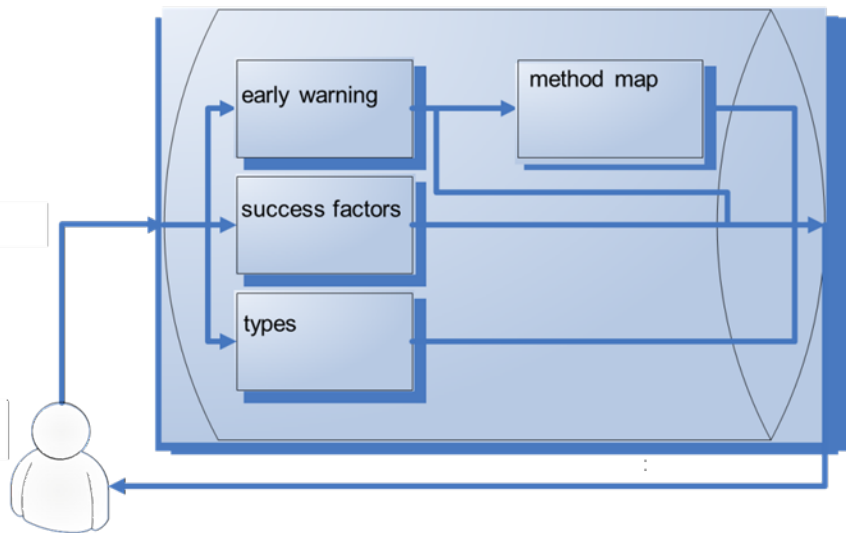


# Jungunternehmen II

## A business model for a holistic management system for startups during the transition period



International Conference  
„The Future of Training and Consulting for  
young SMEs“

18.-19. May 2011; Warsaw, Poland

Dipl.-Kff. Jessica Koch

Institute for Management Cybernetics e.V.  
at the RWTH Aachen University, Germany

- I. The Institute for Management Cybernetics e.V.
- II. Project background
- III. Results of the research project „Jungunternehmen“
- IV. The research project „Jungunternehmen II“
- V. Conclusion and Perspective

- 1987: Foundation of the Institute for Management Cybernetics in Mülheim as a research department of a consulting firm.
- 2003: relocation to Aachen and acceptance as an associated Institute of the RWTH Aachen University.
- Since 2011: two research groups – Economic and Social-, Technical Cybernetics.
- Presently: 9 full-time employees, ca. 500.000 € turnover per year.
- Board of directors:



Chairman:

Prof. Dr.-Ing. em. Klaus Henning



Scientific Director:

Prof. Dr. rer. nat. Sabina Jeschke



Managing Director:

Dipl.-Ing. Dipl.-Kfm. Eckart Hauck



Managing Director:

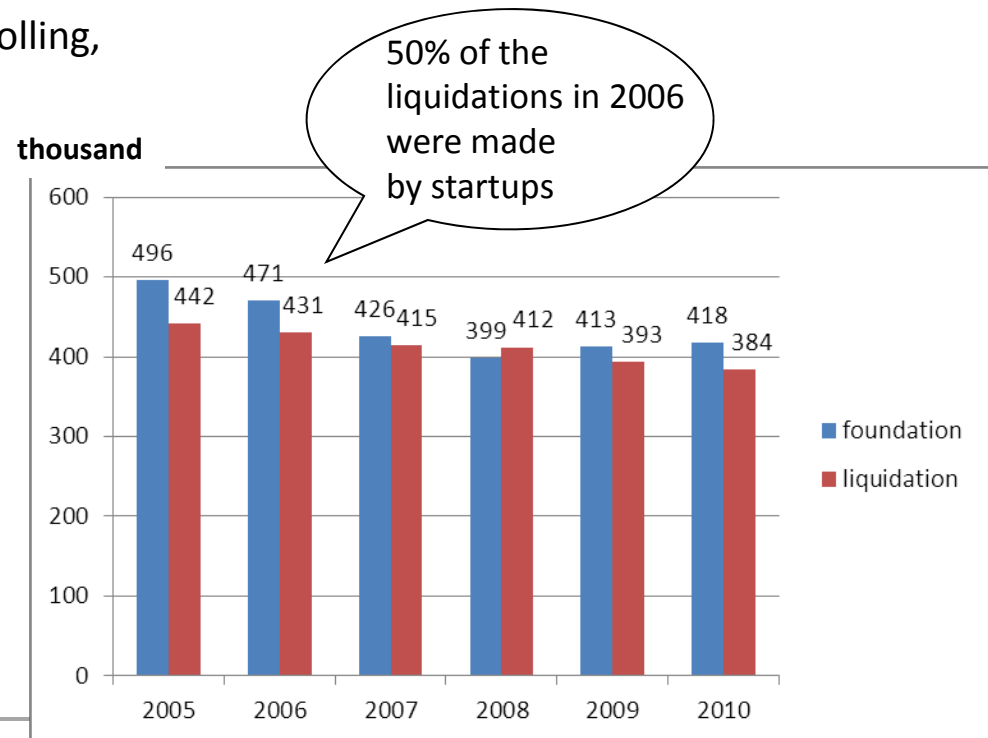
Dr. rer. nat. Frank Hees

- Management Cybernetics for small to medium-sized enterprises is concerned with the **interactions** between people, organizations and technology.
- Organizations: **living systems**, in which information and resources are converted into goods and/or services through a series of **complex processes**.
- Analyses: always based on system-theory and cybernetic principals – and in particular the idea of **feedback** (or alternatively, a control loop).
- Internal business processes are not straight-forward input-output relationships.
- Internal business processes are constantly being **influenced and changed** by their own outcomes.
- **Integrated** thinking and **sustainable** acting.

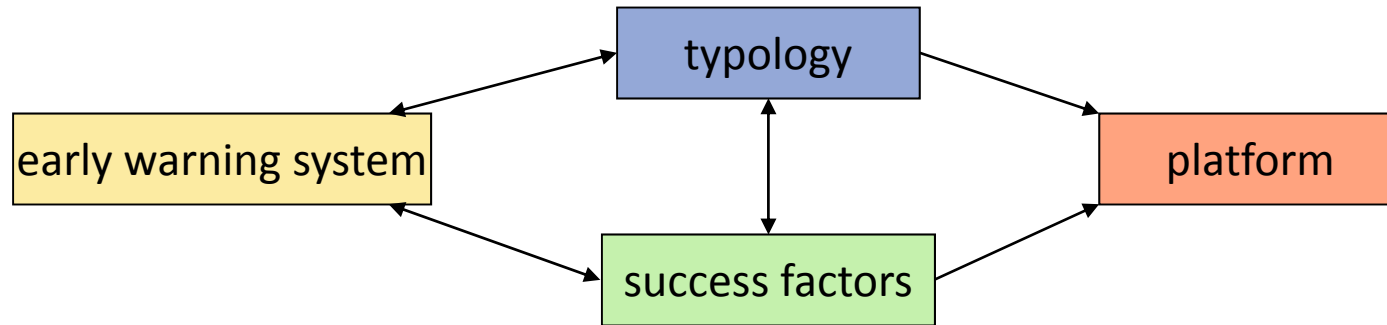
- I. The Institute for Management Cybernetics e.V.
- II. Project background
- III. Results of the research project „Jungunternehmen“
- IV. The research project „Jungunternehmen II“
- V. Conclusion and Perspective

- Lots of startups fail during the transition period to the consolidated medium-sized businesses due to
  - ...draining out the supporting programs for founders,
  - ...mistakes within the management,
  - ...a lack of market-orientation and -experience,
  - ...the neglect of a comprehensive controlling,
  - ...an unavailable cooperativeness.

Foundations and liquidations  
2005 – 2010  
(source: IfM Bonn)



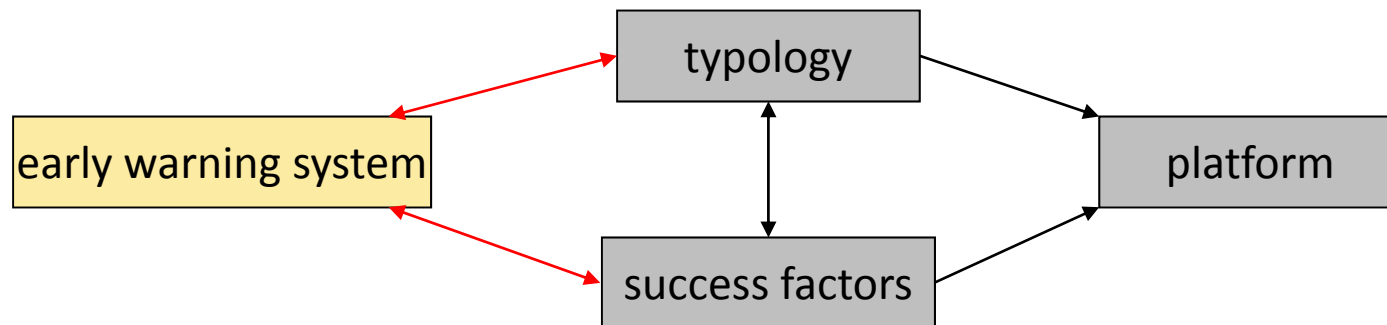
- The research project „Jungunternehmen“:
  - Development and evaluation of a **holistic management system** for the support of startups during the transition period to a consolidated medium-sized businesses.
  - Duration: February 2006 till October 2007.
  - Sector of considered companies: Startups of the IT-/Telecommunication-sector.
  - Contemplated aspects: finance, human, organization, technology.






- I. The Institute for Management Cybernetics e.V.
- II. Project background
- III. Results of the research project „Jungunternehmen“
- IV. The research project „Jungunternehmen II“
- V. Conclusion and Perspective

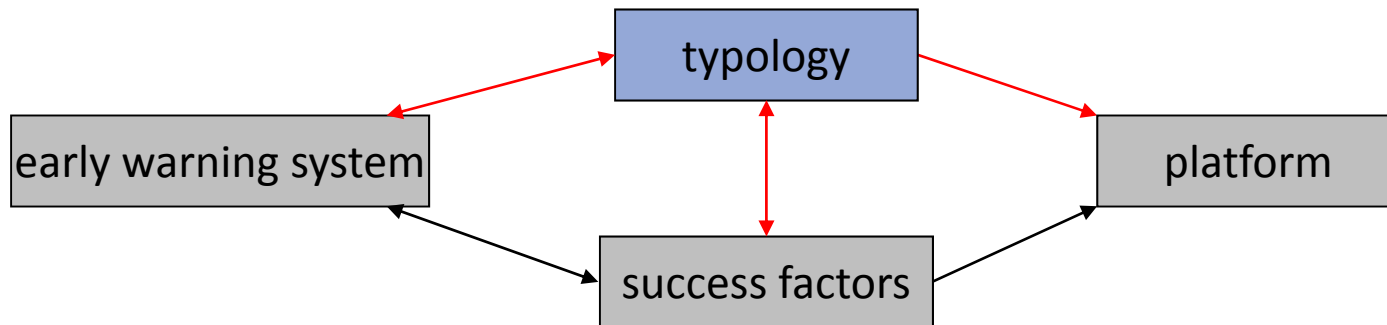


- Based on general **enterprise data** as well as **challenges** of the enterprises (interviews).
- First step: questions, which are relevant for the identification of challenges, are chosen (attribute selection).
- Second step: startup entrepreneur answers these questions.
- Third step: system tests if there are analogies to answers of other enterprises.



- Assignment of the **challenges** to the **type of enterprises**: automatically; data from questionnaires.
- Deriving methods from challenges: data bank with static assignments.
- Assignment of figures: bad value concerning **success factors**  **figures** have to be monitored.
- Type of enterprises  figures and methods  chance to identify and anticipate crises early.

- Literature research and interviews with experts.
- Especially for startups on their way to consolidated medium-sized businesses.
- ➔ **morphological box**, which shows the relevant characteristics of a startup and their values.
- Morphological box:
  - Base for the next questionnaire, which has to figure out more characteristics and problems of startups and create types of enterprises.
- ➔ Validation and optimization of the morphological box's topics; identification of risks and potentials for individual types of enterprises.



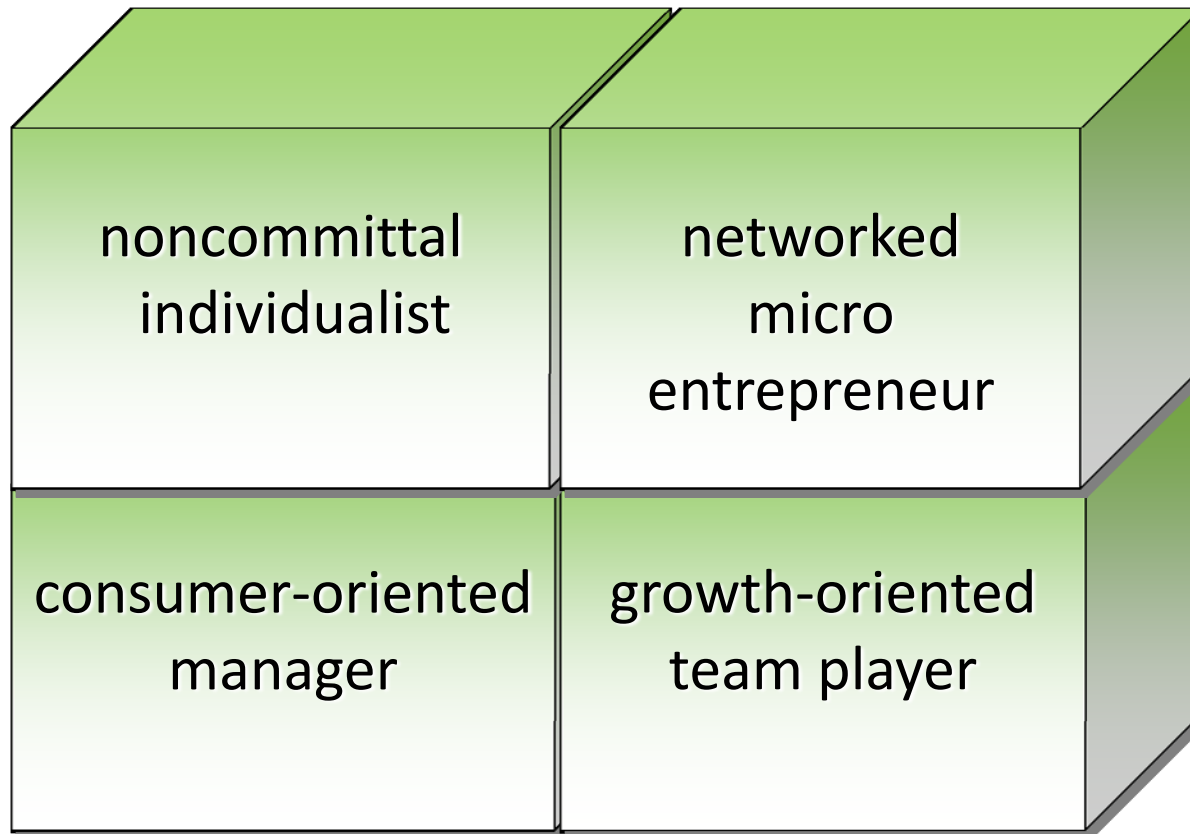
characteristic


value

- entrepreneur
- enterprise/  
team
- controlling
- product
- marketing
- customer
- environment
- funds

Merkmal	Ausprägung				
<b>Unternehmer</b>	Hochleistungs- erbringer	Geborener Manager	Unabhängiger Innovator	Einfühlsamer Bestverkäufer	Akquisiteur
<b>Unternehmen / Team</b>	vor allem Spezialisten		Spezialisten & Generalisten	vor allem Generalisten	
	1-2 neue MA letztes Jahr	3-5 neue MA letztes Jahr	>5 neue MA letztes Jahr	keine	
	1-2 Abgänge letztes Jahr	3-5 Abgänge letztes Jahr	>5 Abgänge letztes Jahr	keine	
	1 Gründer		2-3 Gründer	>3 Gründer	
<b>Controlling / Finanzplanung</b>	intern	Beratung		ausgelagert	nicht vorhanden
	jährlich	vierteljährlich	monatlich	nicht vorhanden	einmal bei Gründung
<b>Produkt</b>	1 Produkt		2-4 Produkte	>4 Produkte	
	Beratung	TK-/IT-Betrieb	TK-/IT-Entwicklung	Andere	
<b>Marketing</b>	intern		ausgelagert	nicht vorhanden	
<b>Kunde</b>	1 Kunde		2-4 Kunden	>4 Kunden	
	1-2 neue Kunden letztes Jahr	3-5 neue Kunden letztes Jahr	>5 neue Kunden letztes Jahr	keine	
	1-2 Kunden letztes Jahr	3-5 Kunden letztes Jahr	>5 Kunden letztes Jahr	keine	
	Wirtschaftlichkeits- steigerung		Bequemlichkeits- steigerung	Wissenszuwachs	Erlebnisgewinn
<b>Umfeld</b>	lokaler Absatz	regionaler Absatz	nationaler Absatz	internationaler Absatz	
	Kooperation mit Zulieferern	Kooperation mit Unternehmen der gleichen Branche		Kooperationen mit beiden	keine Kooperationen
	Marktwachstum >5%	Marktwachstum >10%	Marktwachstum >20%	negatives Marktwachstum	
<b>Kapital</b>	Eigenkapital/VC- Kapital >10%		Eigenkapital/VC- Kapital 20-30%	Eigenkapital/VC- Kapital 30-50%	Eigenkapital/VC- Kapital >50%

Abbildung: Morphologischer Kasten zur Unternehmenstypologisierung.  
(bei Merkmalen mit mehreren Unterpunkten sind deren Ausprägungen jeweils in einer anderen Farbe hinterlegt)





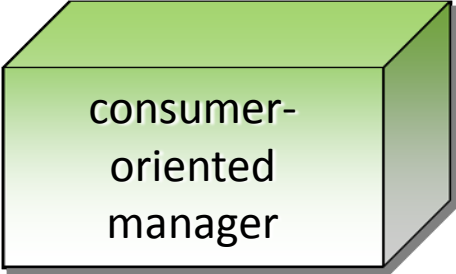
noncommittal  
individualist

- Flat corporate structure,
- Director makes decisions,
- Lack of innovation management and communication,
- Lack of further training,
- Lack of ability to work in teams and network,
- Difficult to grow,
- No interest in startup associations.



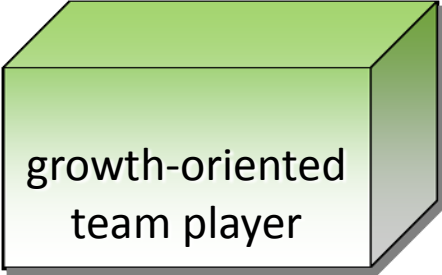
networked  
micro  
entrepreneur

- Convergence on increasing the cost effectiveness of the customers,
- No approaches of employees,
- Further training could stagnate,
- No growth and a lot of support needs concerning business-management,
- Cooperation with non-conventional networks,
- Pushes its envelope.



consumer-  
oriented  
manager

- Superior quantitative intensity of customer contact,
- Clear awareness of intra-company processes,
- Growth is too fast,
- Structure does not fit the fast growth of the enterprise,
- Lack of human resource and organization development.



growth-oriented  
team player

- Teams are composed of generalists and specialists,
- Flat structures,
- Growth-oriented,
- Structures have to adapt to the growth,
- Part of an informal network of friends and acquaintances,
- Growth endangers the work climate and the employees identification,
- Infrastructure is inadequate for the daily routine.

■ Seven groups of success factors

- Customer,
- Organizational culture,
- Organization,
- Finance/investment,
- Market,
- Innovation,
- Employees.

■ Selected success factors

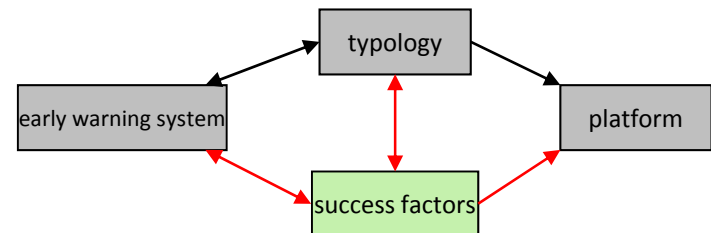
- Strategy,
- Personality of the entrepreneur,
- Founding situation,
- Customer service,
- Flexibility,
- Quality of the processes,
- Infrastructure,
- Capitalization,
- Controlling,
- Financial attractiveness.

Questionnaire provides information about the enterprise and the enterprise's type

➡ values of the **business-related success factors** are defined.

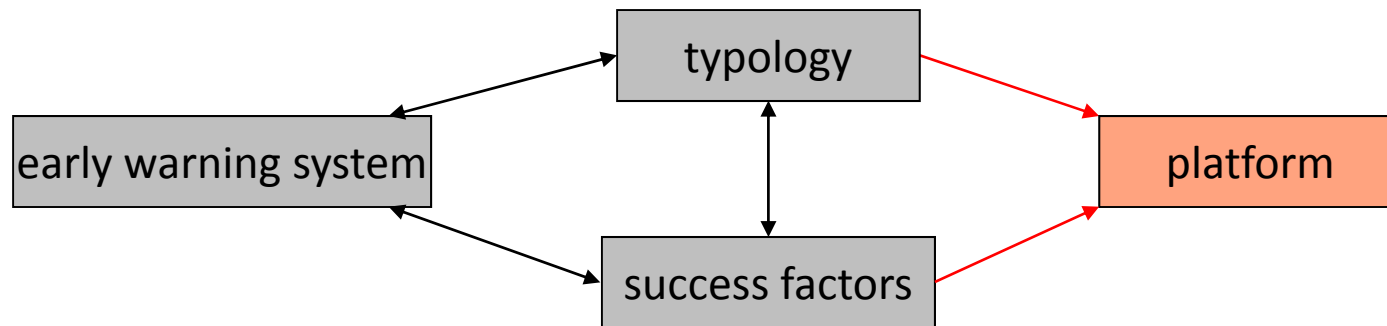
➡ specific figures are selected.

➡ specific methods are selected.





- Methodical support of startups
  - Preparation of ca. 50 methods,
  - Deriving of relevant **methods, success factors and figures**,
  - Deriving of the **type of enterprise**,
  - Deriving of possible problems,
  - Questionnaire for a self-concept.
- Creation of an individual assortment of methods.
- Statistical analyses: comparison with other startups.





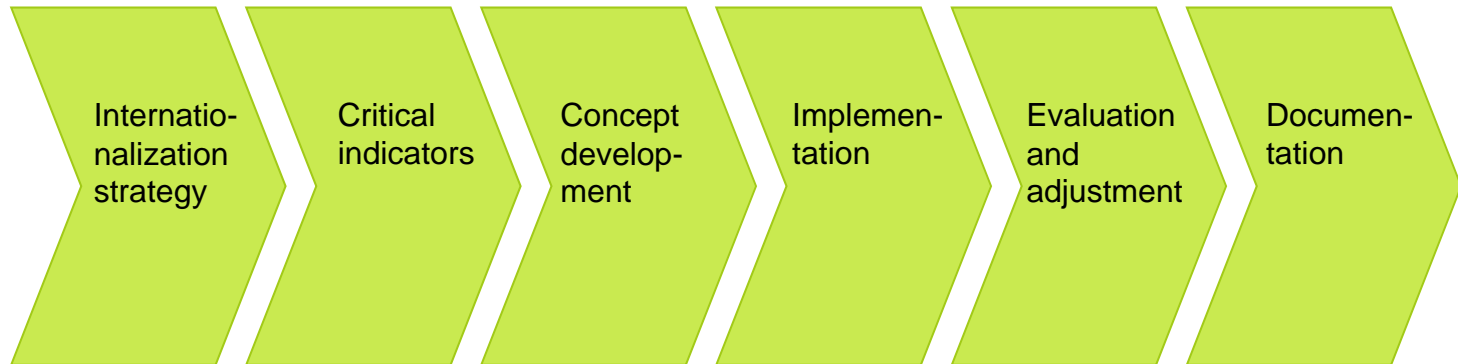
- Results of the predecessor project “Jungunternehmen”:
  - Collection of methods for a holistic management of startups.
  - Collection of figures for the controlling of startups.
  - Correlation between
    - The present situation of an enterprise as a value of critical success factors,
    - Adequate methods,
    - Figures, which have to be monitored.
  
- The project does not provide:
  - Comparability of several methods as well as an **extensive validation** of positive and negative consequences caused by adopting them.
  - **Further development** of the platform after finalizing the project.
  - **Further optimization** of the success factors model as well as a **contemporary adaptation** of the method map to the permanently changing SME requirements.

- I. The Institute for Management Cybernetics e.V.
- II. Project background
- III. Results of the research project „Jungunternehmen“
- IV. The research project „Jungunternehmen II“
- V. Conclusion and Perspective

- Competences for using the adequate methods and for mobilizing the internal knowledge.
- Redesign and reimplementation of the developed system.
- Consideration of further aspects (e.g. marketing, international cooperation).
- Development and implementation of a **business model/service concept**.
- **Sustainability** of the platform as an online advisory tool.

- Developing a dynamic changeable meta platform.
- Developing a business and distribution model for the platform.
- Creating a dynamic technical interface.
- Analyzing needs for and situations of internationalization.
- Developing mechanisms for a dynamic usability.

- Majority of startups operates in an international focus  internationalization is an important change process.
  - Opportunity: improvement of the enterprise's situation.
  - Threats: lack of information concerning the international environment, different cultural characteristics, unknown market and competition conditions.
-  holistic concept, which helps startups of several branches to organize the whole process of internationalization efficiently.



Definition of several types of internationalization strategies	Systematic analysis of critical success factors and barriers	Development of a business plan, supporting concept	Integration of methods and procedures, mapping of methods and processes	Practical proving and validation, optimization	Guidelines, method- and blank-supported document of proceeding
--	--	--	---	--	--

- I. The Institute for Management Cybernetics e.V.
- II. Project background
- III. Results of the research project „Jungunternehmen“
- IV. The research project „Jungunternehmen II“
- V. Conclusion and Perspective

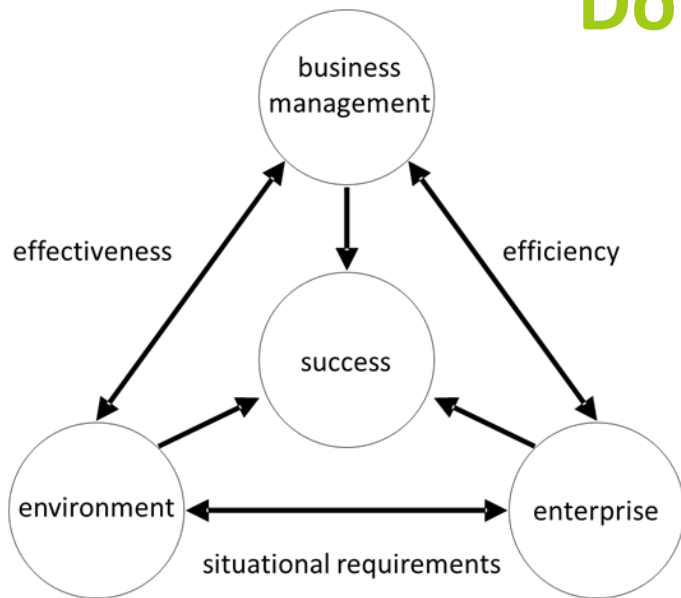


- Platform for support of startups during the transition period to the consolidated medium-sized businesses exists.
- Next step: **sustainable implementation** of the platform as an online advisory tool.
- Presently the Institute for Management Cybernetics e.V., the Institute for Ergonomics and Technology Management and three enterprises write an **application** for the described research project.
- **Could it make sense to develop such an online advisory tool for Europe?**

**Thank you very much!**

**Do you have questions?**

**Do you have helpful suggestions?**



**Univ.-Prof. Dr. rer. nat. Sabina Jeschke**  
Tel.: +49 241-80-91110  
[sabina.jeschke@ifu.rwth-aachen.de](mailto:sabina.jeschke@ifu.rwth-aachen.de)

**Dipl.-Ing. Dipl.-Kfm. Eckart Hauck**  
Tel.: +49 241-80-91170  
[Eckart.hauck@ifu.rwth-aachen.de](mailto:Eckart.hauck@ifu.rwth-aachen.de)

**Dipl.-Kff. Jessica Koch**  
Tel.: +49 241-80-91175  
[Jessica.koch@ifu.rwth-aachen.de](mailto:Jessica.koch@ifu.rwth-aachen.de)