COMPETENCE DEVELOPMENT FOR INNOVATION AND TECHNOLOGY TRANSFER IN EDUCATION PROGRAMS

PROF. DR. WERNER G. FAIX
COLOMBIA 2015
1.1 STEINBEIS FOUNDATION

- Foundation of the Federal State Baden-Württemberg
- Worldwide services in technology and knowledge transfer
- More than 1,000 transfer-, consulting- and research centers
- Cooperations and project partnerships in 50 countries
- More than 6,500 experts from all fields—thereof more than 800 professors
1.2
MINISTRY OF ECONOMIC AFFAIRS AND
HOUSE OF THE ECONOMICS IN STUTTGART
HEADQUARTER OF THE STEINBEIS FOUNDATION
1.3 FERDINAND VON STEINBEIS

• Technical advisor, director and chairman of the Headquarters for Trade and Commerce (1848-1880) Kingdom of Württemberg (Stuttgart)
• Promoter of technology transfer
• Founder of vocational schools, weaving and women’s schools
• Promoter of the industrialization in Württemberg
• Father of dual training:
  „Industrial workers of the future depend upon theoretical knowledge combined with practical skills.“

Ferdinand von Steinbeis
(1807 – 1893)
We are organizing real life innovation projects via knowledge and technology transfer and via competencies' development for innovation.
### 1.0 STEINBEIS ORGANIZATION & STRUCTURE

<table>
<thead>
<tr>
<th>Board of Trustees and Committee</th>
<th>Steinbeis-Stiftung (StW)</th>
<th>Executive Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steinbeis GmbH &amp; Co. KG für Technologietransfer (StC) Management Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steinbeis Enterprises (SU)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steinbeis Transfer Centers (STC)</td>
<td>Steinbeis Research and Innovation Centers (SRC, SIC)</td>
<td>Steinbeis Consulting Centers (SCC)</td>
</tr>
</tbody>
</table>

**Further central instruments supporting the transfer:**
- Steinbeis Symposia
- Steinbeis Edition (STE)
- Ferdinand Steinbeis Institute
- Steinbeis Property (SIM)
1.5 THE STEINBEIS NETWORK

- 1,000 Steinbeis Technology Transfer Centers in Research labs and Universities
- 10,000 companies and organisations
1.6 BUSINESS MODEL OF STUDIES

Knowledge Base

- Mechatronics
- Industry 4.0
- CSP
- Aerospace
- Health Care
- Bionik
- IT
- Automotive
- Mobility
- Construction
- Biodiversity
- Sustainability
- Management
- etc.

Network of Research labs, Universities, Transfer-centers etc.

Transfer Platform

Steinbeis + SIBE

Enterprises / companies / organizations

Innovation and technology transfer-projects, competence development
1.7 INSTITUTIONAL NETWORK OF STEINBEIS / SIBE

INSTITUTIONAL NETWORK FOR KNOWLEDGE PARTNERSHIP BADEN-WÜRTTEMBERG

- Innovation and Technology Transfer
- Chambers of Commerce
- Business Development Services
- Regional Economic Promotion
- Foreign Trade Promotion
- Universities and Higher Education
- Economic and Technology Policy
- Research
- Industry Associations

- BDI: The Voice of German Industry
- LV: Landesverband der Baden-Württembergischen Industrie e.V.
- DIHK
- Steinbeis
- FhG
- DHBW
- Wirtschaftsförderung Region Stuttgart
- BW-i Baden-Württemberg International
1.8 STEINBEIS UNIVERSITY BERLIN

Steinbeis–University Berlin (SHB)

Founded in 1998 by the Steinbeis Foundation

Largest state-recognized, private-organized scientific university (currently more than 6000 students) in Germany

Talent–Growth–Curriculum

Right to award doctorates since 2003

House of the Economics Stuttgart
Ministry of Economic Affairs and Steinbeis Foundation
School of International Business and Entrepreneurship (SIBE)

- International Business School of Steinbeis University Berlin
- Founder and Managing Director
  Prof. Dr. Werner G. Faix
- Specialized in international Management-Programmes
- Currently 1100 Master-Students enrolled and more than 2300 Graduates
- Over 350 Partner Companies
1.1 SIBE at SIMT in STUTTGART-HOHENHEIM
1 TALENT–GROWTH–CURRICULUM
2.1 INNOVATION AND TECHNOLOGY TRANSFER PROJECTS

- On the job studies:
  - Students work fulltime in the company
  - Realisation of measurable business benefit via Innovation and Technology Transfer
  - Systematic development of management competencies
2.2 STUDY PROJECTS FOR INNOVATION

✓ Work on real innovation or technology transfer projects for the company

✓ **Definition:** Business relevant topic from a student's work environment (= Real Cases)

✓ **Realization:** Topic compilation along the study input and by a systematic application of its methods and theories in Project-Study-Reports (PSR)

✓ **Benefit:** Development of business & business understanding through "Real Case" solutions
2.3 MASTER OF SCIENCE - TALENT-GROWTH-CURRICULUM

Work-integrated-Studies

time in total
100% (400 days = 3600 hours)

Theory
50% (200 days)

Innovation (CSP) Project
50% (200 days)

Self Studies
25% (100 days)

Teaching Phase & Blended Learning
25% (100 days)
Incl. 40 days (360 hours) MBA

Project Work
25% (100 days)

Project Documentation
25% (100 days)
- Transfer Reports
- Written Tests
- Project-Study-Reports
- Master Thesis

Libraries
WBT / Presence Seminar

Company
Community of Practice
2.4 INTEGRATED COACHING AND CONSULTANCY

SIBE
Program Administration

Subject Lecturer
SIBE+Partner Univ.

Project coaches
of SIBE

Company + Partner Univ.

e.g. Human Resources

Student Teams = Employees

Study Projects = Managing business challenges

Business Mentor
can be located worldwide
3 INDUSTRIAL INTERFACE
3.1 INDUSTRIAL INTERFACE

[Logos of various companies and institutions]
## 3.2 BUSINESS BENEFITS FROM STUDY PROJECTS IN CORPORATE PROGRAMS

<table>
<thead>
<tr>
<th>No</th>
<th>Company</th>
<th>Country</th>
<th>Business</th>
<th>Sector</th>
<th>Subject</th>
<th>Business Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Siemens</td>
<td>China</td>
<td>Building Technology</td>
<td>Industry</td>
<td>Transferring and implementing the logistics for the new airport in Beijing</td>
<td>Defined and settled</td>
</tr>
<tr>
<td>2</td>
<td>IBM</td>
<td>Germany</td>
<td>Sales</td>
<td>IT</td>
<td>Implementation of “SAP-update” in German speaking markets of IBM Germany</td>
<td>10 Mill € realised; 30 Mill € in sales pipeline</td>
</tr>
<tr>
<td>3</td>
<td>Continental</td>
<td>Germany</td>
<td>Manufacturing</td>
<td>Automotive</td>
<td>Implementation of a “fast ramp up” management system in the Automotive Production</td>
<td>New process implemented; 8 % increased efficiency in ramp up</td>
</tr>
</tbody>
</table>
### 3.3 BUSINESS BENEFITS FROM STUDY PROJECTS IN CORPORATE PROGRAMS II

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
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<th>Business</th>
<th>Sector</th>
<th>Subject</th>
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</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Siemens</td>
<td>Worldwide</td>
<td>Financial Management</td>
<td>Health</td>
<td>Improvement of the forecast management for Siemens Healthcare</td>
<td>Process now rolled out for Siemens</td>
</tr>
<tr>
<td>5</td>
<td>Bosch</td>
<td>Corea</td>
<td>Financial Management</td>
<td>Automotive</td>
<td>Evaluation of the profitability of a production facility in Korea</td>
<td>Profitability increased by 14%</td>
</tr>
<tr>
<td>6</td>
<td>IBM</td>
<td>India</td>
<td>Global Delivery</td>
<td>IT</td>
<td>Increasing the profitability of global delivery projects in India for IBM Germany</td>
<td>Profitability increased by 12.5%</td>
</tr>
<tr>
<td>7</td>
<td>TRW</td>
<td>China</td>
<td>Purchase</td>
<td>Automotive</td>
<td>Definition and management of new suppliers</td>
<td>Defined and settled</td>
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4 COMPETENCE DEVELOPMENT
“Competencies are the ability to deal with complex, forward-looking challenges independently in an organized, creative manner.”

(John Erpenbeck)
4.2 EXEMPLARY KODE® Self-Evaluation

[Diagram showing a self-evaluation matrix with categories such as P, Personale Kompetenz, A, Aktivitäts- und Handlungskompetenz, S, Sozial-kommunikative Kompetenz, and F, Fach- und Methodenkompetenz.]

[Graph showing indicators of positive and negative evaluation.]
Study integrated Competence tests and Competence development

Start of the study
- Study start: KODE self assessment with Competence profile

During the study:
- foreign evaluation
- 3 x Competence profiles

End
- Goals Competence profile
- Strategy Competence improvement
- Actual

Competence profile

After the study:
- on demand:
  - Further competence profiles

Time
4.4 COMPETENCE DEVELOPMENT WITH KODE® / SKE®

CERTIFICATE

Mr. Max Mustermann
born on 07th March 1975 participated in May 2010 with the Steinbeis-Hochschule Berlin and the CeKom Baden-Württemberg at the Exam for Management-Competencies(MKT) and has achieved following results:

He has necessary competencies to perform a Management Position

PERSONAL COMPETENCY

COMPETENCY OF ACTIVITY

SOCIAL COMMUNICATIVE COMPETENCY

PROFESSIONAL METHODOLOGICAL COMPETENCY
5 INTERNATIONAL BUSINESS DEVELOPMENT
5. DOUBLE DEGREE PROGRAM WITH INTEGRATED TECHNOLOGY TRANSFER AND INTERNATIONAL BUSINESS DEVELOPMENT
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- Recruitment by Colombian Partner University / Nomination of candidates by company
- Management Assistant / Student at Colombian Company
- 3 months Project Definition in Colombia
- 6 months Market Analysis and Business Plan Development in Colombia
- 3 weeks establishment of Project Partnerships in Germany
- 14 months Project Implementation in Colombia

Study at Colombian University / SIBE
Supervision by Subject Lecturers / Project Lecturers
Thank you very much!