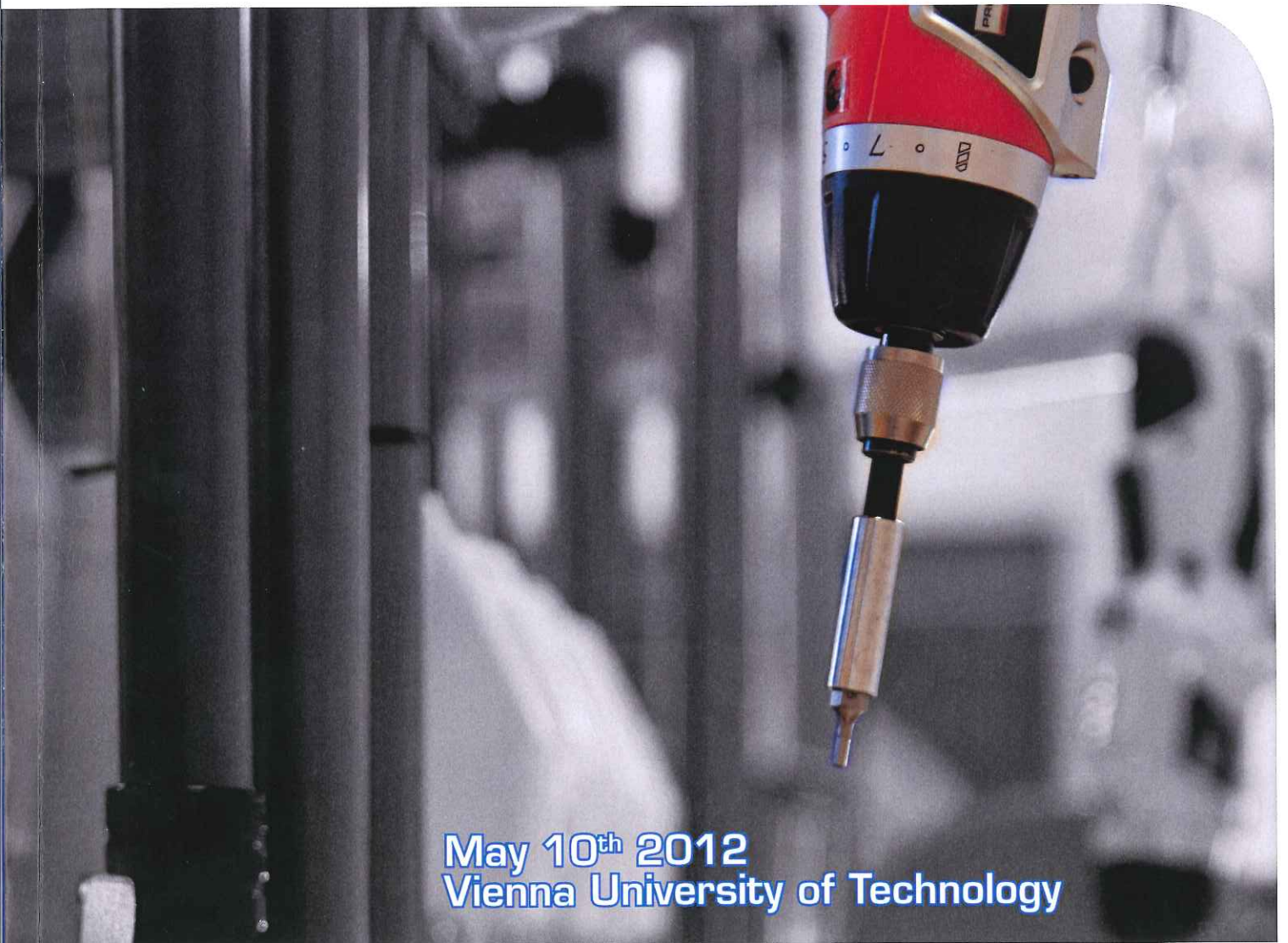


2nd Conference on Learning Factories

*Competitive production in Europe
through education and training*



May 10th 2012
Vienna University of Technology



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Agenda

09:00 Opening of the conference
Rector of the Vienna University of Technology, Prof. Sabine Seidler
Chairman: Vice president of the "Initiative on European Learning Factories"
Prof. Wilfried Sihm (Vienna University of Technology)

Block I Universities

09:15 Session 1: Potential of Learning Factories as education and innovation centres for universities and the production industry
Speaker: Prof. Kurt Matyas (TU Vienna)

09:45 Session 2: Hands-on Training Center for Industrial Engineering in Higher Education
Speaker: Prof. Jochen Deuse (TU Dortmund)

10:15 Session 3: 5 years Process Learning Factory CiP at TU Darmstadt - Concept, Results, Experiences and still new Challenges
Speaker: President of the "Initiative on European Learning Factories"
Prof. Eberhard Abele (TU Darmstadt)

10:45 Coffee break

11:15 Session 4: Green Factories Bavaria
Speaker: Prof. Gunther Reinhart (TU Munich)

Block II Industry

11:45 Session 5: Multi-Dimensional Networked Learning within the ESB Logistics Learning Factory – Innovative approach, teaching-learning concept and engineering project games
Speaker: Prof. Vera Hummel, Prof. Harald Augustin (Reutlingen University)

12:15 Lunch

13:15 Session 6: Learning shopfloor – continuous improvement
Speaker: DI Rudolf Hamp (Opel Wien GmbH)

13:45 Session 7: Excellent Qualified and Trained Employees - The Key for the successful implementation of Lean Production
Speaker: DI (FH) Frank Werz, MBA

14:15 Coffee break

14:45 Session 8: Sometimes cold or wide, sometimes fast or dark - boosting changeability by learning factories
Speaker: Klaus Zimmermann (Festo Didactic GmbH)

Block III TU Vienna Learning Factory

15:15 Session 9: Education for the 21st century - impacts for teaching and learning
Speaker: Dr. Markus Tomaschitz (Magna International Europe AG)

15:45 Session 10: Vision and implementation of the Learning and Innovation Factory of the Vienna University of Technology
Speaker: Prof. Wilfried Sihm, Prof. Friedrich Bleicher, Prof. Detlef Gerhard (TU Vienna)

16:10 Closing of the conference

16:20 Transport to the Institute for Production Engineering and Laser Technology

17:00 Visit and inspection of the Learning and Innovation Factory of the TU Vienna

18:00 Transport back to the Vienna University of Technology

19:30 Dinner event at the Vienna city hall

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Institut für Managementwissenschaften, Bereich Betriebstechnik und Systemplanung, an der TU Wien,
1040 Wien

Leiter des Bereiches Betriebstechnik und Systemplanung

Univ.-Prof. Dr. Wilfried Sihn

Andreas Jäger MSc., MBA

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**Ao.Univ.Prof. Dipl.-Ing.
Dr.techn. Kurt Matyas**



Univ.-Prof. Dipl.-Ing. Dr. Kurt Matyas, born in 1963 is professor at the Institute of Management Science – Division of Industrial- and Systems Engineering of the Vienna University of Technology since 2001. His research and teaching topics cover production management, logistics and maintenance. Kurt Matyas published more than 60 scientific articles and 4 books.

In addition to his teaching and research activities, Prof. Matyas is managing numerous research projects at the Vienna University of Technology and together with Fraunhofer Austria, he supervised applied research projects and consultancy projects with manufacturing companies.

He is dean for academic affairs at the Faculty of Mechanical and Industrial Engineering since 2008. He is also Vice President of the Austrian Association of Industrial Engineering & Management since 2006.

Fraunhofer Austria Research GmbH is performing applied and industry oriented research. Projects are dealing with the planning and optimization of the structure, organization and management of industrial and service enterprises or their logistics networks and is specialised in structuring and optimisation of production and logistics processes in a high-tech and highly automated environment. Special emphasis is given to the matching of IT systems with the requirements of operational domains in particular with respect to the organisation of socio-technological systems. FhA is co-operating with the Institute of Management Science of the Vienna University of Technology and maintains numerous contacts to industry, academia and research institutions in Western, Eastern and South-Eastern Europe.

Founded in 1815, the Vienna University of Technology is renowned for its long tradition. It finds high international and domestic recognition in teaching and research and as partner of innovation oriented enterprises. The Institute of Management Science / Department for Industrial Engineering and System Design (IMW) can offer expertise in the main areas such as Production Management & Logistics Management as well as Quality-, Process- and Product Management. Research concentrates on the processing of scientific findings for practical applications. Numerous positive results both in application-oriented research projects as well as industry projects proof the reliable methodological background of the department and form a broad basis of satisfied partners and customers.



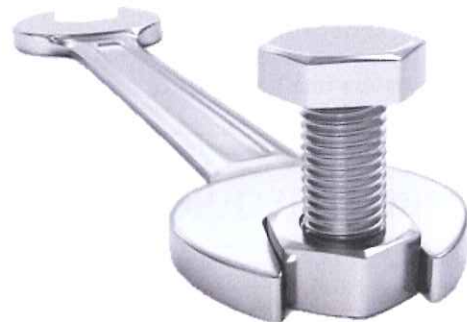
Potential of Learning Factories as education and innovation centres for universities and the production industry

Potential of Learning Factories as education and innovation centers for universities and production industry

Prof. Dr. Kurt Matyas

Vienna University of Technology
Institute of Management Science
Industrial and Systems Engineering

Fraunhofer Austria Research GmbH
Division Production and Logistics Management



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The great aim of education
is not knowledge
but action.



Herbert Spencer
(1820-1903)
British philosopher and sociologist

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Potential of Learning Factories as education and innovation centers for universities and production industry

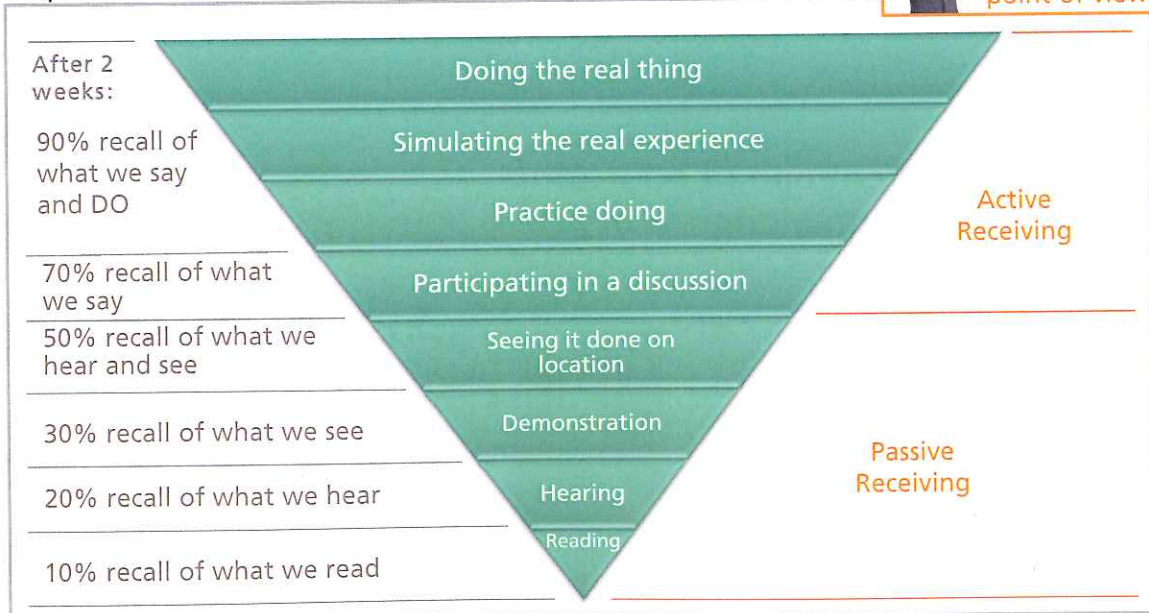
CURRENT REQUIREMENTS TO HIGHER AND ADVANCED EDUCATION

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Higher and Advanced Education Requirements

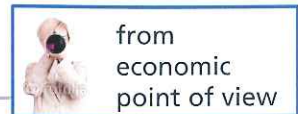


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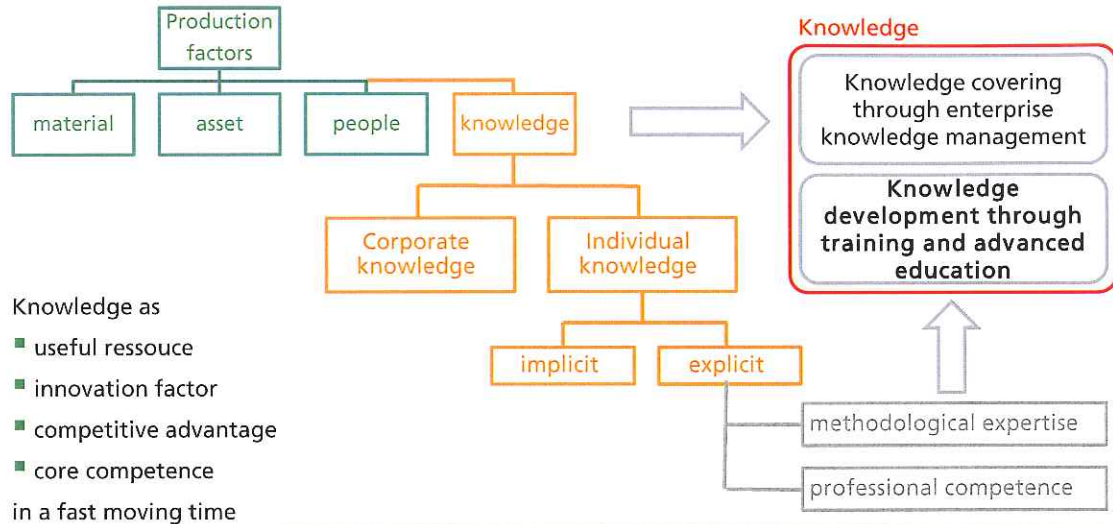
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Higher and Advanced Education Requirements



KNOWLEDGE as 4th production factor

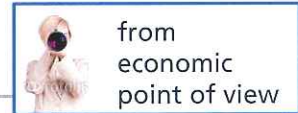


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Higher and Advanced Education Requirements

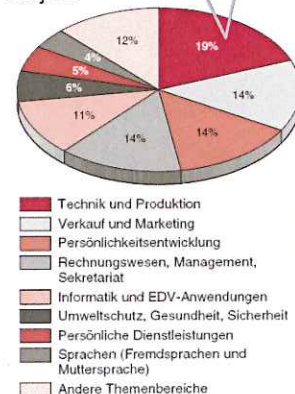


Current trends

- Working & Learning as origin for ability to innovate
- Qualification related to a specific field instead of diversified education
- Location:
 - Workers: in-house training
 - Management: extern via experts
- Production industry:
 - Practical training already during the advanced education
 - Mapping of real production processes

Almost 20% of consumed classes concern subjects of technics and production

Classes and subjects



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Potential of Learning Factories as education and innovation centers for universities and production industry

COMMON UNDERSTANDING OF A LEARNING FACTORY

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Learning Factory Common Understanding

contemporary manufacturing demonstration center
leading education tool
application test center
continuous improvement
competence
labour situation
alternative training methods
innovation
research
discover
technical, analytic, planning skills
Interpersonal ability
training for industry
hands-on training
real experience
interactive participation
education for students

MOOD BOARD

example images

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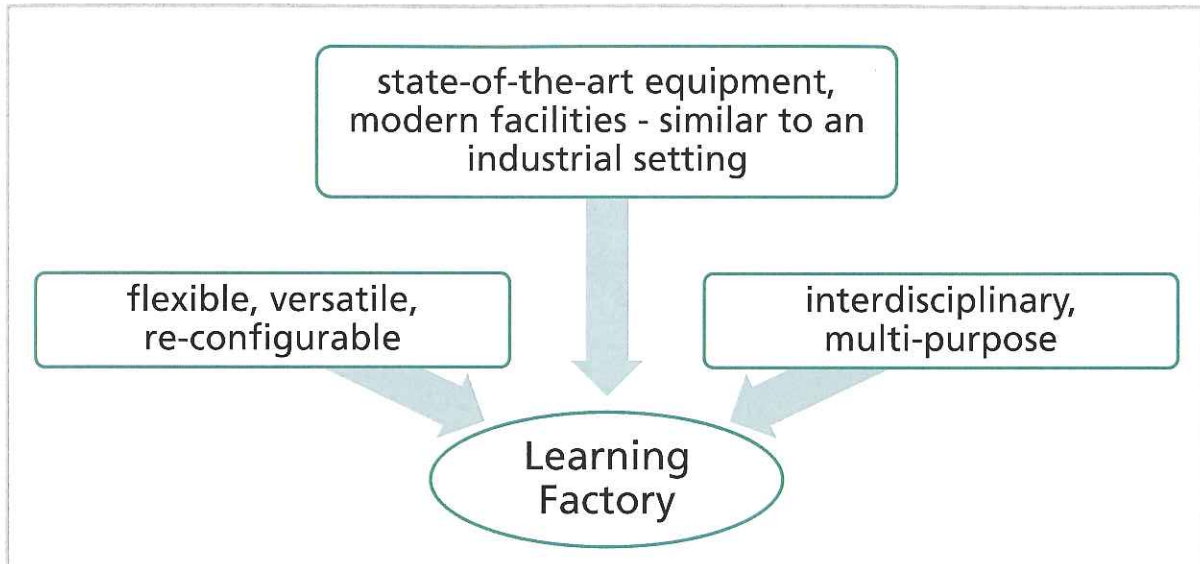
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Learning Factory

Best-Case Characteristics



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OPPORTUNITIES OF LEARNING FACTORIES

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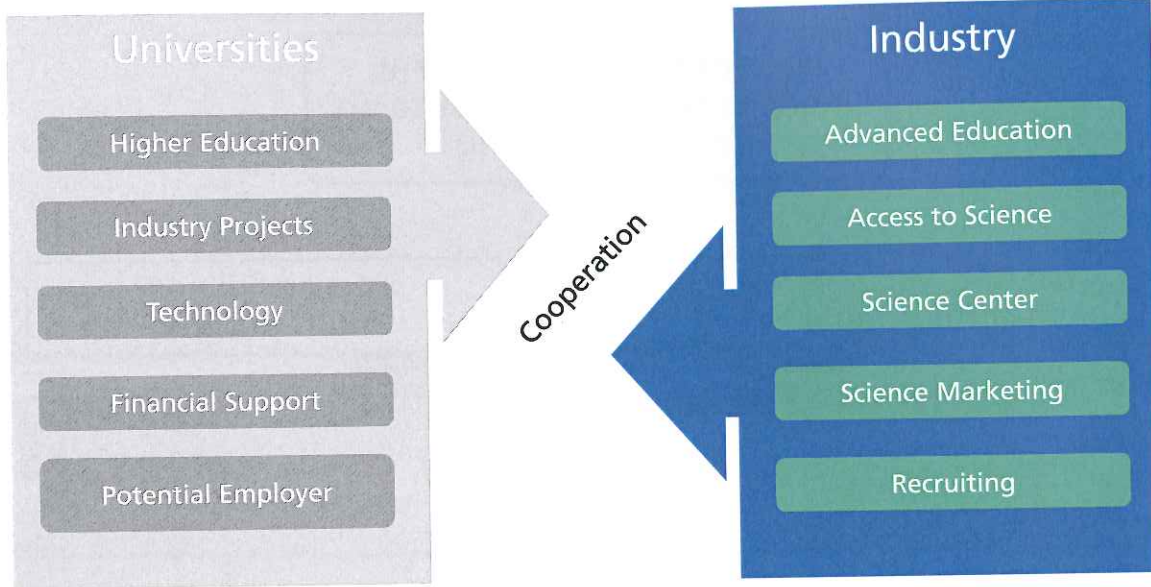
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University - Industry Partnership Win-Win Situation

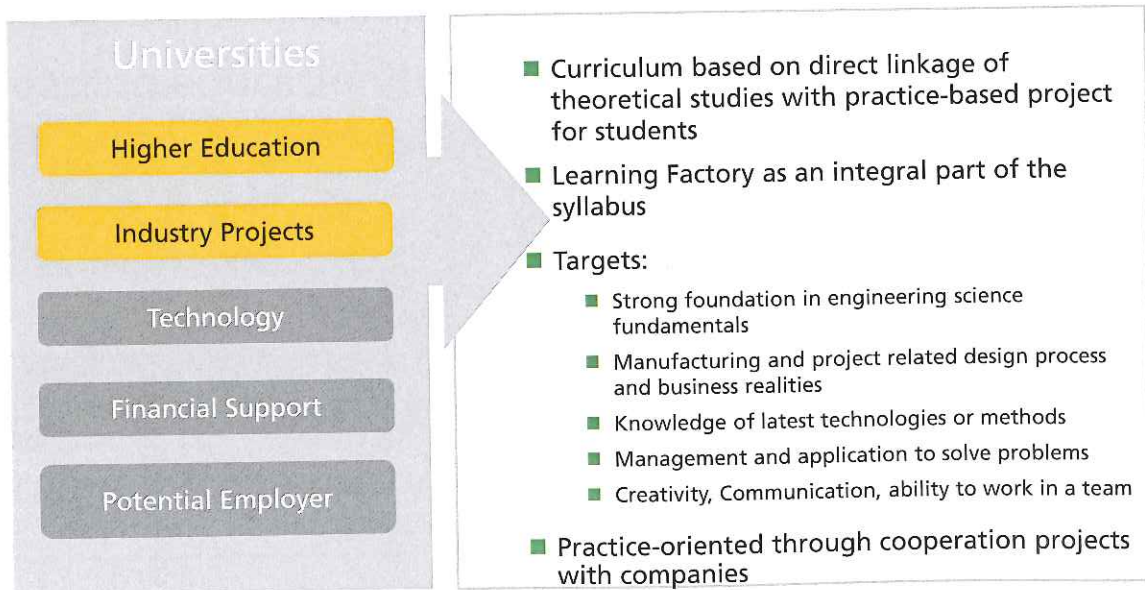


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University - Industry Partnership Win-Win Situation

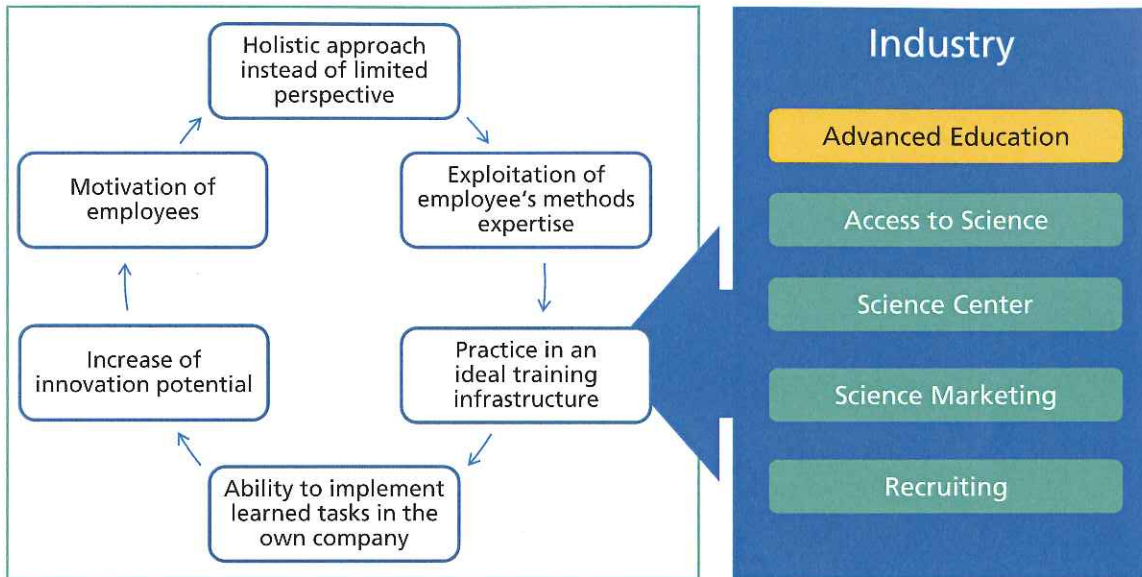


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University - Industry Partnership Win-Win Situation



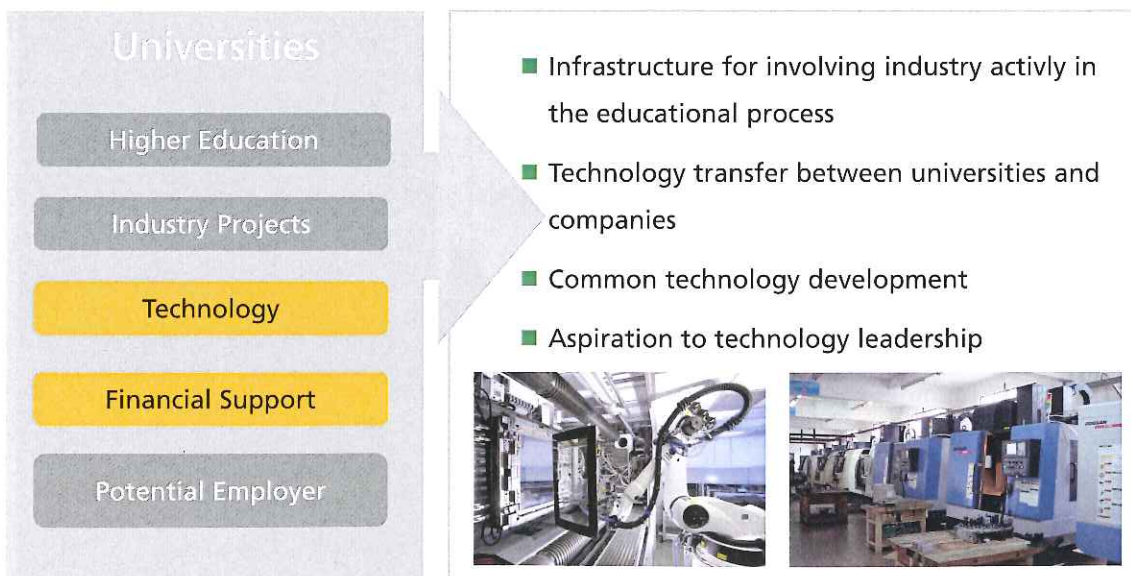
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University - Industry Partnership Win-Win Situation



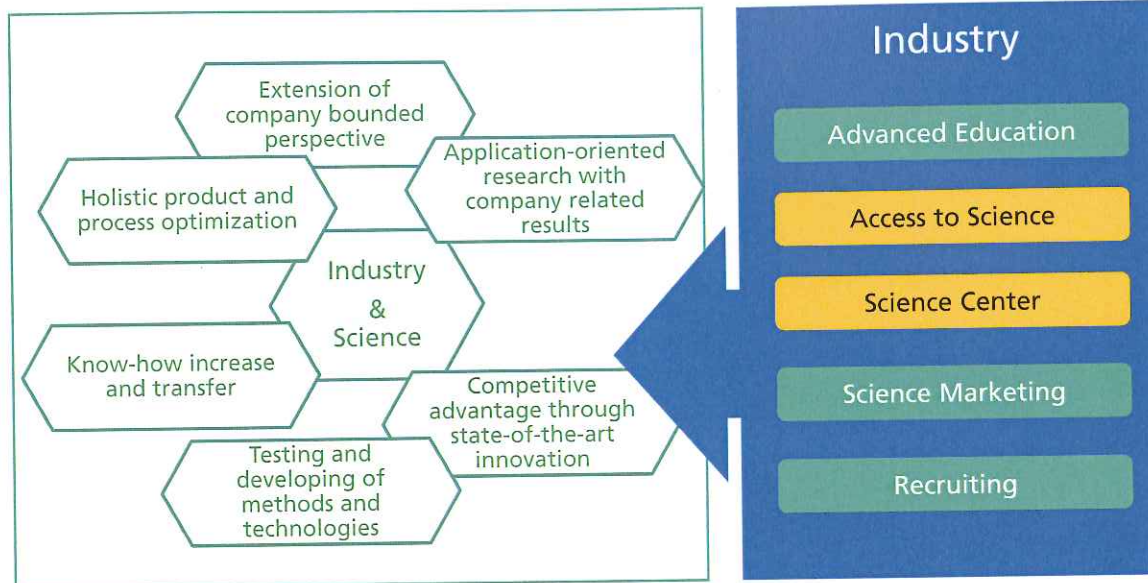
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University - Industry Partnership Win-Win Situation



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University - Industry Partnership Win-Win Situation

Marketing

- High presence of the company's brand and research activities
- Common appearance with universities or research institutes
- Mutual image transfer

Recruiting

- Collaboration with prospective alumni
- Influence on key areas of training
- High exposure as attractive employer
- Winning of potential job candidates



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University - Industry Partnership Win-Win Situation



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Potential of Learning Factories as education and innovation centers for universities and production industry

Prof. Dr. Kurt Matyas



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