

Academia Engelberg
Herrenhaus Grafenort, 30. September 2010

Innovation: Zufall oder Konsequenz?

1. Weshalb Innovationen?
2. Beispiele von Innovationen und innovativen Firmen
3. Gemeinsame Merkmale innovativer Firmen
4. Erste Schritte zur Innovationsfähigkeit



Curriculum



- ETH-Diploma: Mechanical Engineering (1964)
- ETH-Doctorate: Nuclear Reactor Technology (1968)
- ETH-Doctorate: Business Administration (1978)
- Research Activity: San Diego, USA (1968-71)
- Management Experience: CEO, Carl Zeiss (Schweiz) AG (1971-76)
- Management Experience: CEO, Cerberus AG - 3000 Employees (1976-82)
- ETH: Professor of Management (1982-2006)
General Management, Technology and Innovation Management
- Responsible for Postgraduate Studies
- Research and Teaching Sabbatical in Japan (1992)
- Department Dean (1993-95)
- Research and Teaching Sabbatical at MIT (2000)
- Boards of Directors: various Industrial and Financial Enterprises (Canon AG, Dräger AG, LogObject AG, Helbling AG, MSI AG, SONAC (Japan) KK, GATIC Japan LLP)

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Warum Innovationen?

Innovationstreiber - Innovationshemmnisse - Innovationsfallen

Innovationstreiber

- **Verknappung von existentiellen Ressourcen** → erhöhte Produktivität, effektivere & effizientere Produktion/Verteilung
- steigende Ansprüche an **Lebensqualität**
- erhöhte **ökologische Anforderungen**
- **demographische Veränderungen** („stark wachsender „Silver Market““)
- **wettbewerbsbedingte Verbesserung** von Geschäftsprozessen & **Geschäftsmodellen**, usw

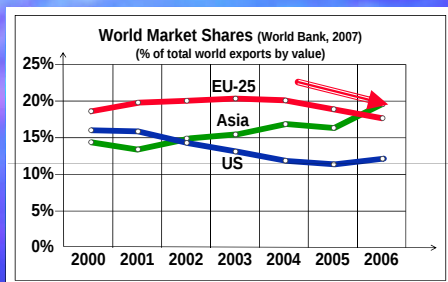
Innovationshemmnisse

- Innovationen **entstehen in Ungewissheit und bewirken zunächst Ungewissheit**
- generelle **s Unbehagen mit Neuem**
- starre & zentrale **Strukturen**
- **ungenügende Risikobereitschaft**
- **kein erkennbares Engagement** des Top-Management, usw

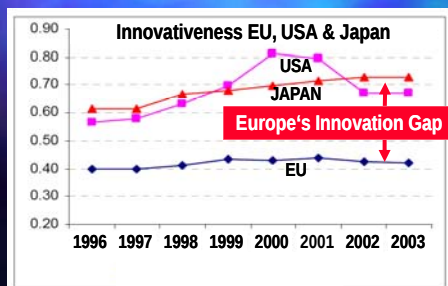
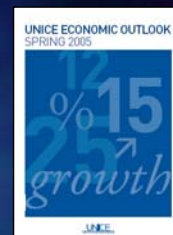
Innovationsfallen

- **begrenzte „Aufnahmefähigkeit“** durch die F&E nachgeachteten Funktionen
- **zu früh** am Markt
- noch **nicht beherrschte Technologien**
- notwendige **Serviceleistungen zu wenig beachtet**, usw

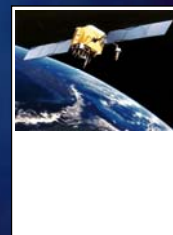
Europa's Failing Innovativeness and Economic Strength

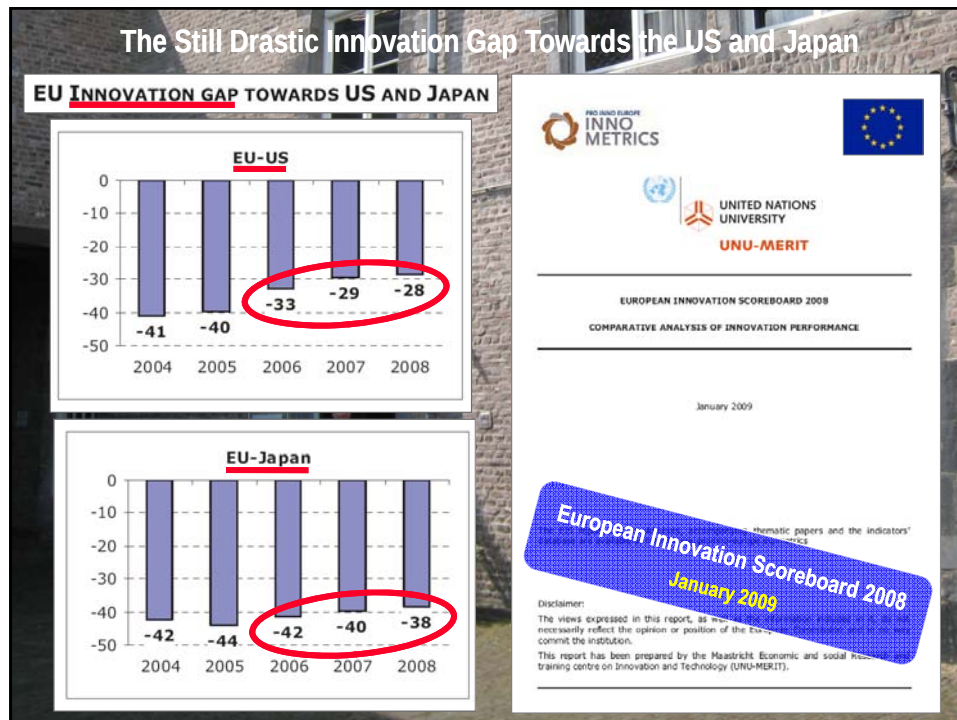


„Europa's Share of the World Market has clearly diminished.“



„Europe's Innovation GAP compared to USA and Japan is increasingly significant.“







America Cup 2010 – Oracle vs. Alinghi: **Radical Technology Innovation**

„Alinghi's cat skinned by Oracle“ (Sunday Star Times, February 14, 2010)



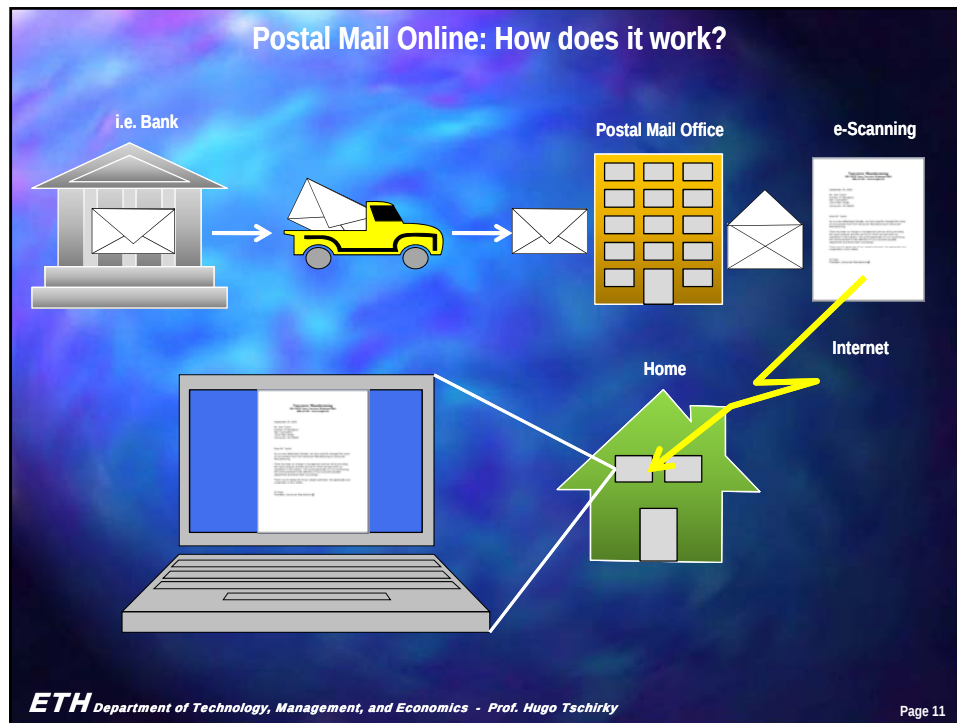
Alinghi: sail-powered catamaran



BMW Oracle: wing-powered trimaran

Earth Class Mail: Radical Service Innovation





4DigitalBooks™ 2024 St. Aubin, Switzerland

References

Standford University Libraries
University of Southampton
JOUVE SA
Infotechnique SA
DOSEG Plus d.o.o.

3000 pages per hour

BUSINESS INNOVATION AWARDS

THE HALL OF FAME REGIONAL AWARDS, Wednesday, November 24, 2004

BUSINESS APPLICATIONS

Speed Reading Gets Quicker

4DigitalBooks Robot Converts Books to Digital Form at 900 Pages an Hour

By EDWARD TAYLOR

HOW DO YOU CLEAR A BIG STACK of books for scanning faster? The book is formatted because a lot of pages are printed on one side. When some printing costs, they're not concerned for digital. It's about 100 pages to change the book. 4DigitalBooks has built a robot that can scan about any book at a speed of 900 pages an hour without damaging a single page. This innovation also converts a format CD to the Business Application Manager of the World Wide Web.

4DigitalBooks is a leader of the new technology. The robot is faster, less labor intensive and less expensive than the conventional method for scanning books. Employing a human operator to turn pages, the robot is faster, less labor intensive, and all other books to scan. The 4DigitalBooks robot is a leader of the new technology. The robot is faster, less labor intensive and less expensive than the conventional method for scanning books. Employing a human operator to turn pages, the robot is faster, less labor intensive, and all other books to scan.

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Digitalizing Line

4DigitalBooks can scan 100 pages of printed matter in 15 minutes.

Computer with image processing software converts data to CD-Rom and other formats.

Printed papers, turned to digital, can be scanned, saved, and formatted.

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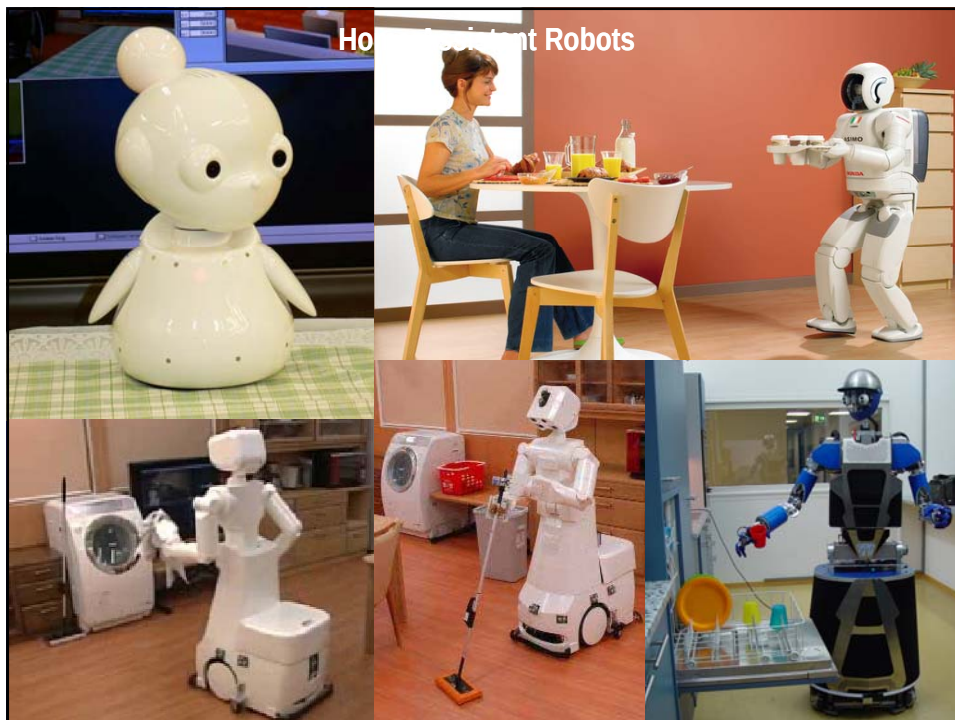
4DigitalBooks founders, Dr. Ingeborg, left, and David Borden.

Qatar to use robots in camel races

Doha is set to substitute robots for jockeys in camel races in 2005, denies abusing child jockeys.



Robot costs just under 5,500 dollars









Google's Nine Points of Innovation

1. Innovation, not instant perfection.
New products are launched early, rather than trying to perfect those ideas behind closed doors. Customer feedback and popularity prove which projects are most successful.

2. Share everything you can.
Small teams that communicate openly have proved the best results for Google. Everyone knows what everyone else is working on.

3. You're brilliant, we're hiring.
The bar for hiring new employees is set very high. Focus more on generalists rather than specialists.

4. Allow employees to pursue their dreams.
Employees' time follows a 70/20/10 model: 70% they work on Google's search and ad flagships; 20% on new programs like Images, Desktop; 10% of the time employees pursue their own high risk/high reward projects. Google Earth is a result of one of those projects.

5. Ideas come from everywhere.
Sometimes Google turns to the public for new ideas. The Google mastheads, which are customized for holidays and events, are taken from non-employee submissions. One of the mastheads was designed by a 12-year-old girl. (masthead = logo)

6. Don't politic – use data.
With all the ideas floating around Google, the best way to determine which may work is to use supportive data.
"Data beats opinion."

7. Creativity loves restraint.
"Let people explore, but set clear boundaries for that exploration!"

8. Get users and usage – the money will follow.
Primarily focus on creating things that are innovative and useful for people, not something you can sell.

9. Don't kill projects, morph them.
Google doesn't waste ideas. Instead, they try to change and transform them into something the company finds useful.



Eric Schmidt, Google CEO

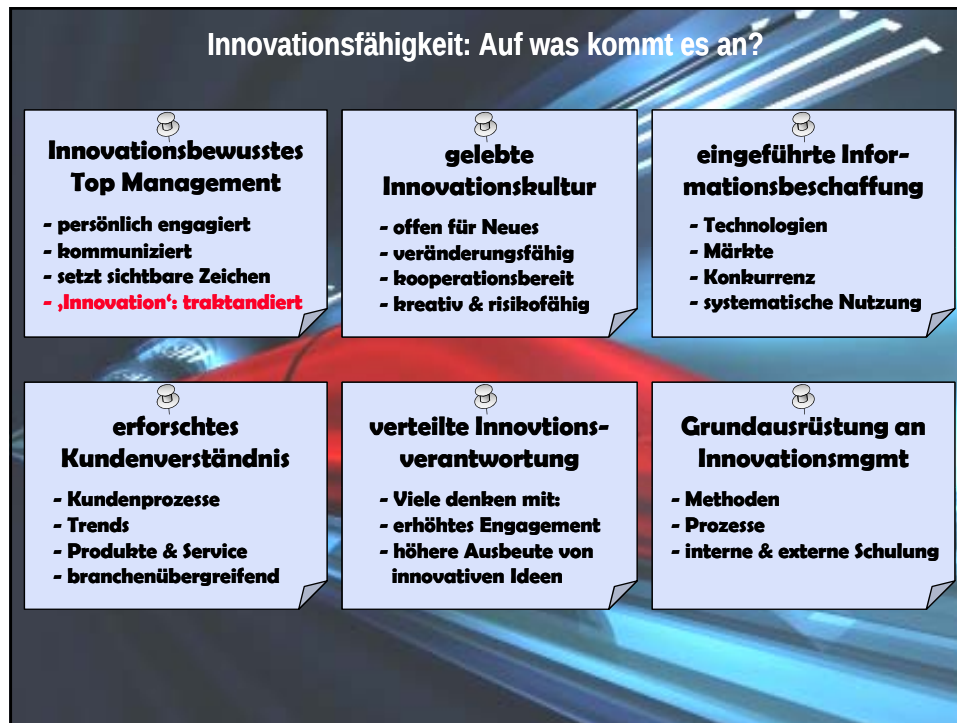


Wie praktisch:
Melonen-Quader

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BOOK REVIEW HOW BREAKTHROUGHS HAPPEN FT 31 July 03

Innovation is not a black art

Companies are learning how to harvest ideas from a range of industries, finds Simon London

Prof Hargadon's first service is to remind us that most innovation arises from the recombination of existing ideas by teams.

Thus Henry Ford's revolution was based on interchangeable parts (pioneered in the sewing machine industry), continuous flow production (from soup canning) and the assembly line (from slaughterhouses).

The recombination was achieved not by the great man acting alone but by his team of talented engineers.



Henry Ford and ideas from other industries for some of the most successful products.

HOW BREAKTHROUGHS HAPPEN

By Andrew Hargadon

Simon London

...of ideas from other industries for some of the most successful products.

...of ideas from other industries for some of the most successful products.

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Zürich, 22. September 2009

An:
Ch. Baumgartner
J. Fluck
Renato Rossi
Roberto Rossi
C. Stadelhofer
Prof. Dr. Dr. H. Tschirky

Protokoll der Verwaltungsratssitzung der LogObject AG

Datum und Zeit: 25. September 2009, 9:00 Uhr
Ort: IT Factory, via Assis 2, I-56038 Ponsacco

Traktanden

1. Genehmigung der VR-Protokolle vom 12. Juni 2009
2. IT Factory
3. Liquidität, Auftragslage und -aussichten
4. Produkte
5. Innovationen
6. Personal
7. Aktien
8. Varia

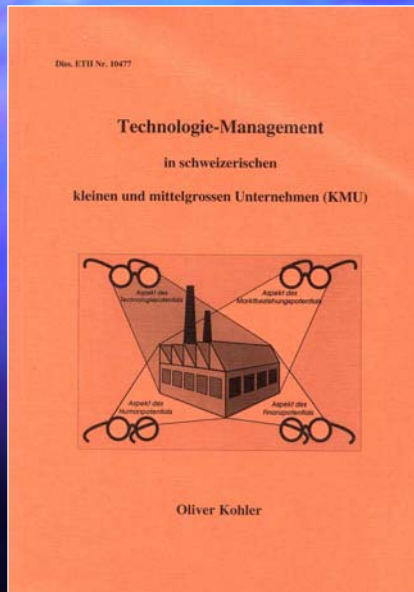
Den Mitgliedern liegt vor:

- Liquiditätsplan 2009 und 2010
- Liste Wartungsverträge
- Aktienbuch
- Tabelle vorauss. Betriebserfolg

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Dissertation Oliver Kohler: Technologie-Management in schweiz. KMU



Bestätigte These:

„In erfolgreichen Unternehmen beanspruchen die Themen „Innovation“ & „Technologie“ wesentlich mehr Zeit der obersten Führung als in nicht-erfolgreichen Unternehmen.“

Beobachtung:

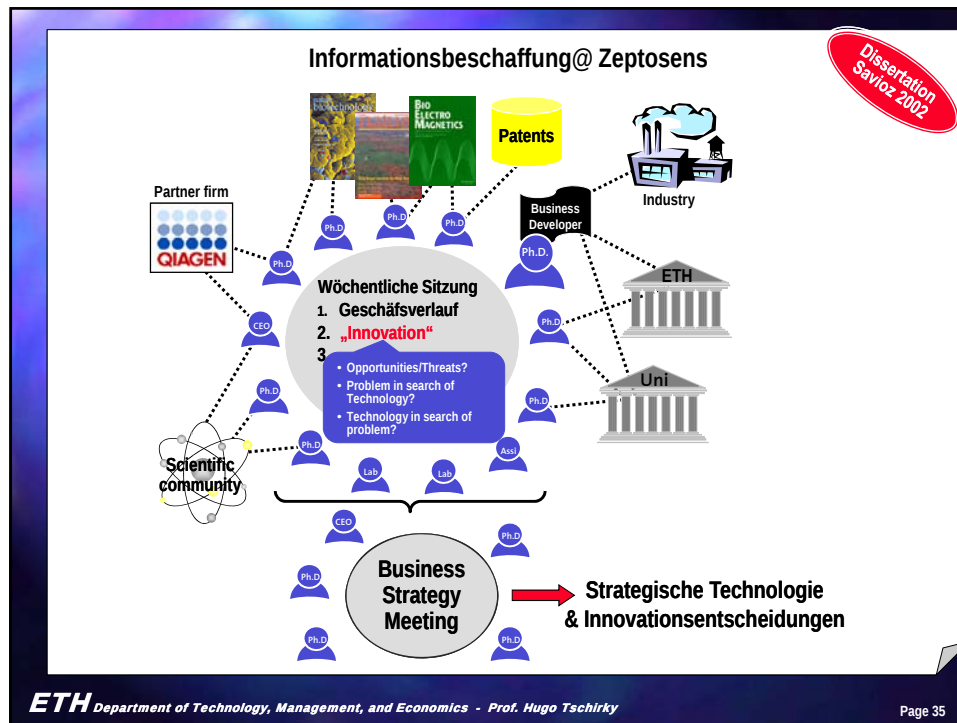
Es war kein Widerspruch, dass wir Mühe hatten, in den VR- und GL-Protokollen der nicht-erfolgreichen Unternehmen die Worte „Innovation“ und „Technologie“ zu entdecken!

zeptosens
Bioanalytical Solutions ● ● ● ● ● ● ●

Cutting Edge Protein Microarray Systems

Dritter Schritt:
Systematische Erfassung von relevanter
Information aus der Umwelt

Beispiel:
Zeptosens



Schulung der Unternehmenskultur bei Hilti AG

The circle of Habits

Risk New experiences
Justifying-Futzzi Blaming-Futzzi

- Holding on to your old glasses leads nowhere = social isolation
- You always see the world through your own glasses. You are the creator of your own world
- Take advantage of your opportunities - step out of the circle of habit

Commitment

"Mistakes", "buts" and "in order to" are phrases

He does not represent change, nor growth but plain granola, the quietness of a cemetery!! He is vicious and knows all secrets of manipulation

Therefore you need your own "yes", your own

Commitment

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HILTI Cultural Management: "Our Cultural Journey – New Impetus"

Das Vogelnest

Das Vogelnest ist ein Symbol für die Hilti-Kultur. Es steht für die Zusammenarbeit und die Innovation, die in der Hilti-Kultur verankert ist. Die Hilti-Kultur ist eine Kultur der Zusammenarbeit und der Innovation. Sie ist eine Kultur, die die Mitarbeiter dazu ermutigt, ihre Ideen einzubringen und sie zu verwirklichen. Die Hilti-Kultur ist eine Kultur, die die Mitarbeiter dazu ermutigt, ihre Ideen einzubringen und sie zu verwirklichen.

New impetus

Hilti goes to the Antarctic. Hilti is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges.

Expand sales success!

Hilti is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges. It is a company that is always looking for new challenges.

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HILTI Cultural Management: "Our Cultural Journey – New Impetus"



New Impetus: The positive energy that the sherpa workshops have released will also be seen in the HILTI Team Camps.

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HILTI Cultural Management: Monthly "Summit Breakfast"

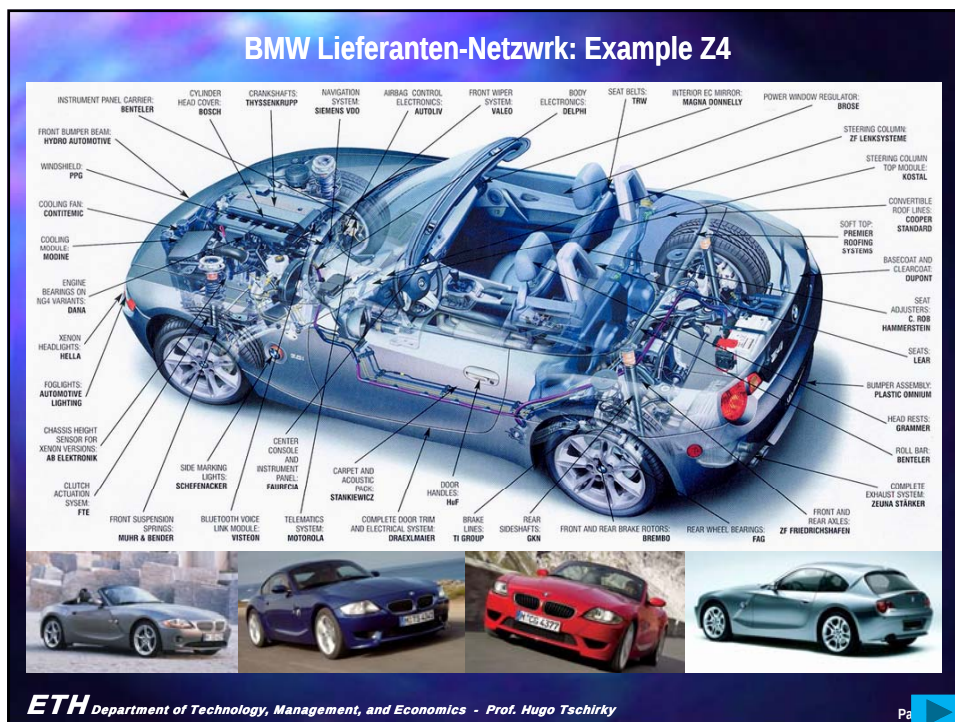


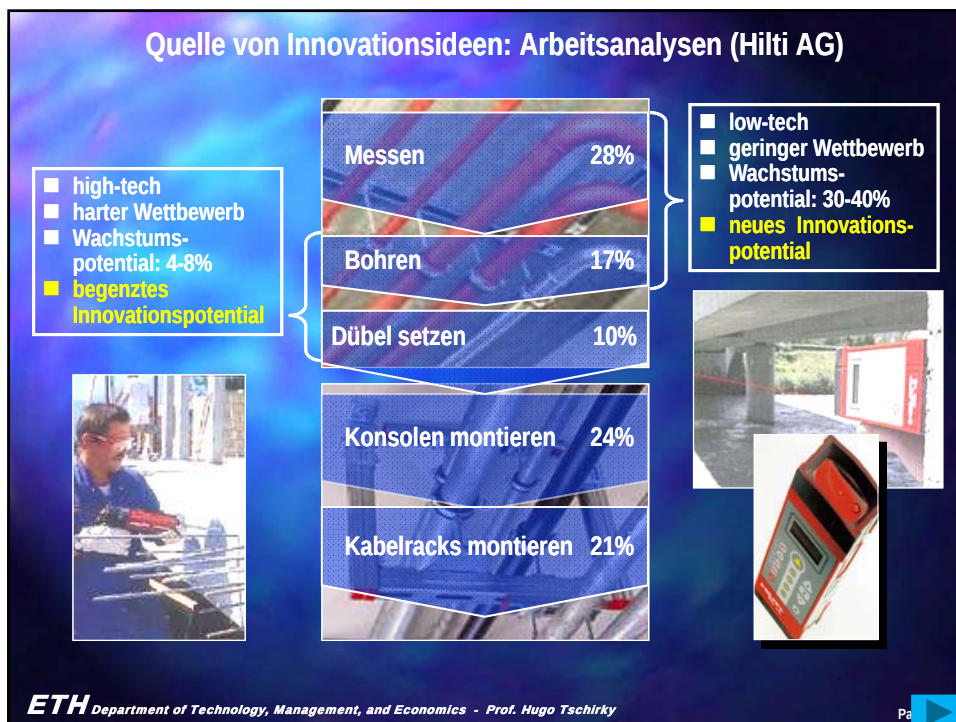
Gipfeltreffen Hilti AG

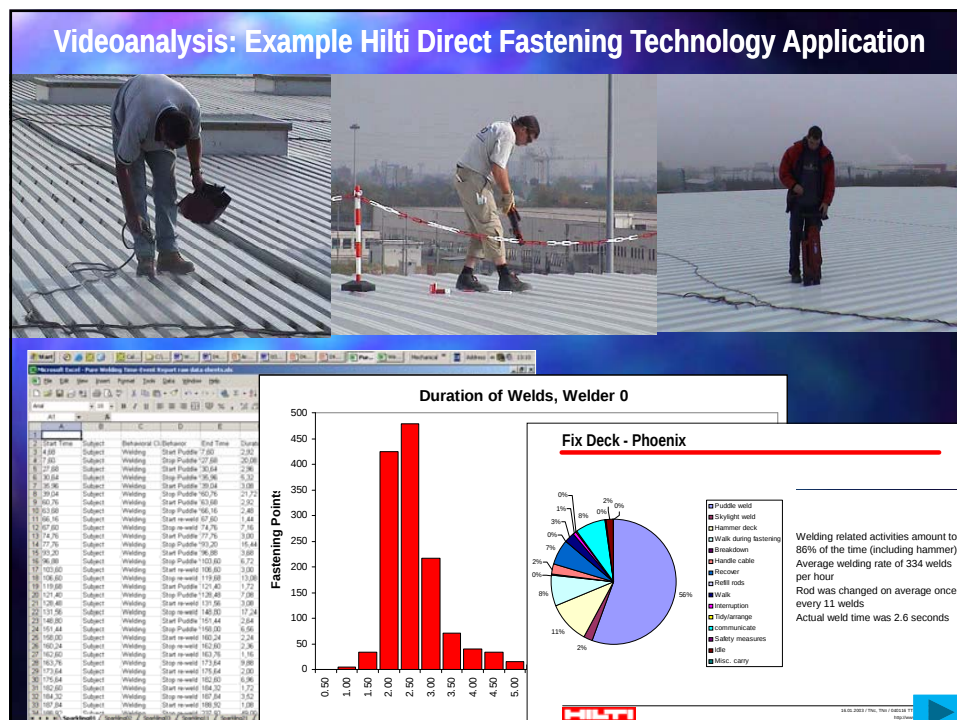
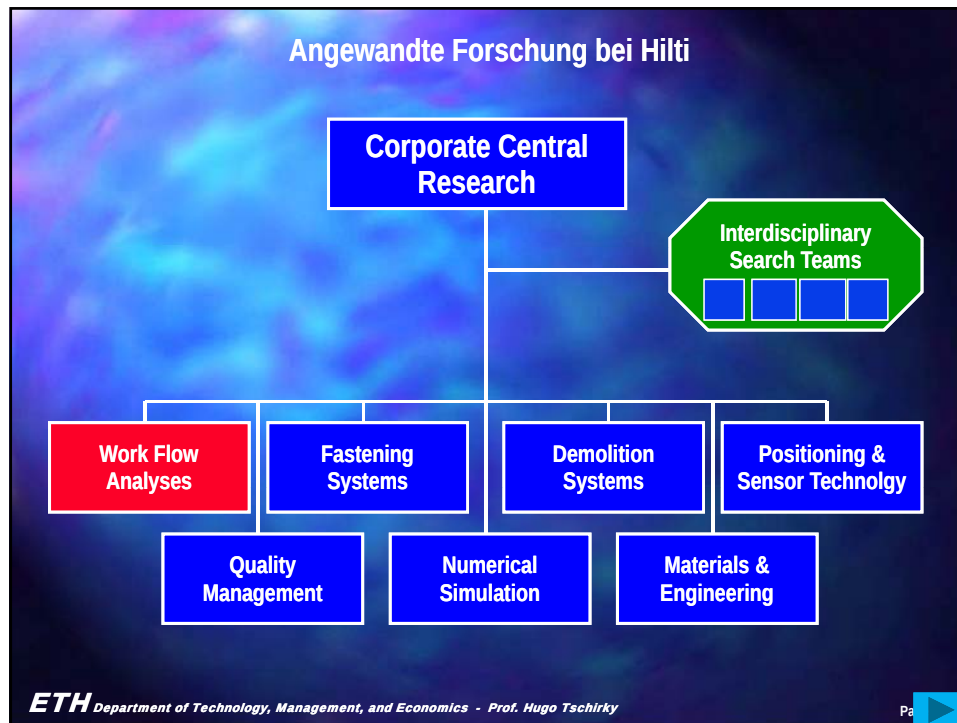
Quelle: Gipfeltreffen bei Hilti, 2005

Oktober 20, 2008 Prof. Dr. Pius Baezler | Chair of Entrepreneurship | D-MTEC

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"Customer Observatories" von Swisscom Innovation AG
Wie nutzen die Kunden die Technologien im täglichen Leben?

Home Observatories



Video



Photo



Interview



Video



Interview

Business Observatories



Photo



observe



Video

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„Innovation Professionals“: Interdisziplinäres Netzwerk (Nachwuchskader)

b*results TRAINING CERTIFICATE
We herewith confirm that
Mr. Roger Zimmermann, SASOL, Ltd.
has successfully completed the six-day training from
May 6 to September 25, 2010 to qualify for
Innovation Professional

spinoff

zimmet
15 trained
Innovation Professionals
global leader in enhanced quality of life for
orthopaedic patients.

uvex
20 trained
Innovation Professionals
In the uvex world we intend to be leaders in
innovation, creating value-oriented growth on a
global basis in all our areas of activities and
markets.
Value follows innovation!

ERGO
130 to be trained
Innovation Professionals
With premium income amounting to over € 17bn and 50'000
employees, ERGO is one of the major insurance groups in Europe.

SASOL
10 trained
Innovation Professionals
Sasol Germany is a leading producer of solvents and inorganic
specialities such as high purity alumina, as well as surfactants and
surfactant intermediates.

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Zusammenfassung

1. Die erhöhten Ansprüche an die Lebensqualität und vor allem der technologische Wandel fordern jedes Unternehmen heraus, seine **Innovationsfähigkeit mit höchster Priorität** zu pflegen.
2. Die rasche Entwicklung des Technologie- und Innovationsmanagements ermöglicht den Unternehmen **bereits heute**, zahlreiche **erprobte „Innovationswerkzeuge“** anzuwenden – und damit dem technologischen Wandel nicht hilflos ausgesetzt zu sein.
3. Es handelt sich ausnahmslos um Führungsmassnahmen, deren Einführung **im eigenen Entscheidungsspielraum** der Unternehmen liegt.
4. Mit anderen Worten: Technologien und Innovationen sind – gegenüber früher - **wesentlich führbarer** geworden.
5. **Innovation ist damit nicht Zufall, sondern Konsequenz von Leadership**
6. Es bedarf keiner Kristallkugel um vorauszusehen, dass künftig das Ausmass an **Innovationsfähigkeit ein hauptsächliches Unterscheidungsmerkmal** zwischen erfolgreichen und nicht erfolgreichen Unternehmen darstellen wird.