

The Pursuit of Uninnovativeness

How to Prevent Innovation in Your Company



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Foreword by the Author for the English Edition

I wrote this book from a German point of view. This should come as no surprise to those who know that I am German. At first, this book was targeted at the German book market exclusively, and there was no translation planned in any other language whatsoever.

When I decided to publish an English edition of my book, I underestimated the difficulties. The book already contains a lot of references and business examples from English-speaking regions, as a book about innovation should do. But when I started to translate the book, I realized that there were many Germany-specific issues in the book which had to be dealt with for a wider audience.

I tried to broaden the scope of the book wherever it was possible. But I soon noticed that to take out all Germany-specific contents would mean to alter the book significantly which would have resulted in a different book altogether. And I didn't want to do that, because it also would have considerably altered my message. So I left Germany-specific issues in the book where I was sure that they were generally comprehensible and contributed to the message of the book.

As far as the references are concerned, I tried to replace as many as I could with the English editions and thus the original quotes – especially, of course, books initially written in English. For the rest of the books which are available in English I at least included the titles of the English editions so that any interested readers can check them out. There are however many German titles left for which no English translation exists – especially newspaper and magazine articles. I translated all the German quotes myself and I sincerely hope that I did no injustice to any author.

So I hope that you will find enough familiar things in this book to understand it and enough new and interesting stuff to inspire you and broaden your view. I also hope that the implied message wasn't lost in translation. Please enjoy it and, if you like to, let me know what you think about it (www.carsten-deckert.de).

Dr. Carsten Deckert, December 2011

The Pursuit of Uninnovativeness

The Five Fundamental Laws of Uninnovativeness

First Law "Anti-Primacy of Action"

The proof of the eater is in the fasting.

Second Law "Anti-Ovid"

The good is the enemy of the better.

Third Law "Anti-Picabia"

The head is round so that our thoughts can go in circles.

Fourth Law "Anti-Confucius"

It is better not to ignite a light and to enjoy the darkness.

Fifth Law "Anti-von Foerster"

Act always so as to decrease the number of choices.

The Pursuit of Uninnovativeness

Content

Chapter 1 Why another Guidebook on Innovation?

Chapter 2 What is Innovation?

Chapter 3 How to Prevent Inventions

Chapter 4 How to Prevent Innovations

Chapter 5 How to Leave One's Brain at the Factory Gate

Epilogue and Acknowledgements

References

The Pursuit of Uninnovativeness

Chapter 1

Why another Guidebook on Innovation?

When I flipped open my newspaper one morning, I came across the following article [61]: “Disoriented the old lady is running through the corridors of the nursing home in Düsseldorf. ‘I have to get home immediately. My husband is about to come home from work, and I still have to cook.’ The attendants know that her husband is long dead and also that the apartment of the old lady does not exist anymore since years. Nevertheless they are responding to her request and taking her to the bus-stop in front of the old people’s home. But the bus will never come, because the bus-stop is a mock-up. [...] For five minutes the old lady will sit on the bench at the bus-stop, then she will have forgotten that she wanted to drive home.” And she can be taken back by an attendant.

The article describes how nursing homes meet senior citizens with dementia in their own “reality” – through “phantom bus-stops”. Because with rational arguments the elderly persons cannot be held off from running away. Apparently an innovative solution in the care for the elderly, an area which is not necessarily known for its innovative strength. But even there innovations seem to cause miracles. They give senior care an image which is far away from a holding institution with electric blankets, orthopedic stockings and sitting dance groups.

Innovations are more and more on the advance. A search conducted by me at the online-bookstore Amazon produced as a result 2,811 German and 12,146 English books on the topic “innovation”. Amongst the German books there were such flowery titles as “Der Innovationskreis” (“The Innovation Circle”), “Magie der Innovation” (“Magic of Innovation”) and – unbelievable but true – “Innovation im Fernsehen am Beispiel von Quizshow-Formaten” (“Innovation in Television Using the Example of Quizshow-Formats”). The English books are in no way inferior with titles like “Ten Faces of Innovation”, “Swarm Creativity” and – my favorite – “Sock Innovation: Knitting Techniques & Patterns for One-Of-A-Kind Socks”.

Publications on innovation are as common as sand on the beach. Therefore everyone who wants to add another grain of sand onto this vast heap must have a reason for doing so. Mostly the motivation is profane: The topic innovation is sexy. And one wants to join the ranks of those who hope to bask in the reflected glory of innovation.

Why then another guidebook on the topic of innovation? The answer is quite simple: All the guidebooks currently available at the market have the same message. They act on the assumption that innovation necessarily leads to success. They insinuate that innovative companies are successful companies. Therefore they want to teach their readers how to become especially creative and

how to make their companies innovative. But the guidebook at hand is different. It understands itself as a contribution against the raging innovation hype and shows you also the shady sides of innovation. The target of this book is therefore to introduce you to the art of uninnovativeness and teach you methods for innovation prevention.

Up to now this topic has been recklessly neglected by both research and management literature. Merely the Harvard Business Review showed first approaches in the right direction with titles such as “Innovation – The Classic Traps” [30], “How to Kill Creativity” [2] and “Why Bad Projects Are So Hard to Kill” [50] – interestingly all written by women. But these approaches are, as their titles indicate, only patchwork and piecemeal. What is missing is a comprehensive approach for uninnovativeness which will be given in this guidebook.

In the following chapters we will at first take a look at the phenomenon of innovation and its variations, the different forms of innovation, as well as the resistances to innovation. After these basics have been established the methodical part of the guidebook starts which is divided into two chapters. In chapter 3 we will preoccupy ourselves with creativity and the prevention of inventions. In chapter 4 the methods for innovation prevention are described. All methods in these chapters are extremely effective, easy to use and field-proven: From the praxis for the praxis. Nevertheless all methods are well-grounded in science which is elaborately explained in the two chapters. The last chapter draws a conclusion how to leave one’s brain at the factory gate and dares to give some future prospects for the coming generations: Uninnovativeness – Quo vadis!?!

The guidebook addresses, first and foremost, managers and executives who are dedicated to uninnovativeness and want to implement it forcefully in their companies. The described methods are suited for the intercourse with employees who sparkle with creativity and are bubbling over with ideas and who therefore have to be dispossessed of this evil spirit. But also the simple employee will find enough suggestions and hints for the intercourse with colleagues who want to infect them with their creativity and for the intercourse with managers who demand innovation permanently and pushily.

The First Fundamental Law of Uninnovativeness

Additionally to the described contents of this guidebook, each chapter will give you a fundamental law of uninnovativeness at hand – five in sum. These fundamental laws concentrate the essence of the particular chapter in a concise form and reduce them to a catchy formula. They may serve you as a reminder and a memory hook.

He who undertakes something is bound to make mistakes. He who does not undertake anything cannot make any mistakes. This is an old wise saying of the German civil servants which seems to have been fallen into oblivion in our operationally hectic times. In management, however, there applies the primacy of action: “He who does not act, cannot achieve anything”. Or a little more common: “The proof of the pudding is in the eating”¹. I on the contrary would like to show you in this guidebook that being uninnovative has its advantages. And this not-being innovative is best achieved in our times through innovation prevention. So the first fundamental law of uninnovativeness called “anti-primacy of action” is:

*The proof of the eater is in the fasting.*²

¹ In German the saying goes: “Probieren geht über Studieren”. The literal translation of this saying is „Trying is better than studying“.

² In the German edition the first fundamental law of uninnovativeness is “Blockieren geht über Probieren”. The literal translation of this law is “Blocking is better than trying”. But too much of the original is lost in translation.

Chapter 2 What Is Innovation?

Innovation

“Every innovation is an ‘expedition into unknown territory’, a ‘first ascent in the Alps’ - but most of them are handled as ‘Easter promenades’”, says management guru Fredmund Malik [38]. He thus shows the discrepancy between the actual meaning of the term “innovation” and the understanding of innovation in companies. This discrepancy makes it necessary to go into this topic as an entrée.

So, what is an “innovation”? Let us first look at the meaning of the word. The term “innovation” dates from the Latin verb “innovare” (= to renew) and the Latin adjective “novus” (= new, modern). From this derives in Latin the innovative man, the homo novus (= newcomer, upstart). The best thing about the word “innovation” is, maybe, that it is the same in English as in German, so that the Germans do not need to worry about anglicisms.

The Austrian economist Joseph Alois Schumpeter [53] defines production as “the combination of existing things and powers” and innovation, in contrast, as “the new and different combination of these things and powers”. He explains the difference using the example of the transfer from stagecoach to railroad: “You can produce as many stagecoaches as you like, but no railway will come into existence.” According to Schumpeter’s definition innovations do not only apply to products or services, but also to the whole value creation chain – the production processes, the sales markets and the procurement markets – and to the organization of the company. We will meet Schumpeter several times in this book because he was one of the first who wrote comprehensively on the subject of innovation.

It was also Schumpeter who coined the term “creative destruction” in regard to innovation that the McKinseys, Bostons and Andersons of this world like to use. What he meant by this is explained by the journalist and author Arthur Koestler in his book “The Act of Creation” [31]: “The act of discovery has a disruptive and a constructive aspect. It must disrupt rigid patterns of mental organization to achieve the new synthesis. [...] [But] when two matrices have become integrated they cannot again be torn asunder. This is why the discoveries of yesterday are the commonplaces of today, and why we always marvel how stupid we were not to see what *post factum* appears to be so obvious.” Like Schumpeter we will also meet Koestler often in this book, because the cited book contains the basics of human creativity.

When the “creative destruction” leaves the head of the inventor or innovator, it continues its path in the real world and leads to the replacement of products you hold dear (e.g. vinyl records through compact discs) and the disappearance of whole branches of industry (e.g. producers of films and photographic paper through the invention of digital photography or the producers of aluminum cans through the invention of can deposit).

Innovation is not the same as research – even if research may in some areas be a necessary prerequisite of innovation. While research wants to generate new descriptive and practical knowledge, innovation strives for the tangible solution of a problem. Professor Michael Mirow [62] has the following precise and catchy phrase for this difference: “The transformation of money into knowledge is research, the transformation of knowledge into money is innovation.”

But innovation is also more than an idea or an invention. The “Sylter Runde” (translation: “Round Table of Sylt”) founded and hosted by Professor Norbert Szyperski distinguishes between the following steps during the origination of an innovation [58]:

- Every innovation starts with an idea that comes from a research activity and contains the wish for a better solution to an existing problem.
Example: Conventional toilet brushes do not clean effectively under the toilet brim. A bent toilet brush could solve the problem.
- From this idea an invention is developed which is normally a principally functional prototype.
Example: a bent toilet brush tinkered from conventional household utensils
- Only when the invention has been made saleable, i.e. successfully brought onto the market, it may be called an innovation.
Example: The bent toilet brush conquers the German market of desperate housewives worried about the cleanliness of their toilets.
- Existing innovations are developed further through perfection of their inventors or through imitation of other companies.
Example: The bent toilet brush is copied by the Chinese who add a function for digital photography.

To cut a long story short we use the set phrase of Wolf Lotter [34]: “Innovation is the combination of an invention with its popularization.”

Different Types of Innovation

The *Fraunhofer Institut für Arbeitswissenschaft und Organisation* in Stuttgart distinguishes between different types of innovation. Most important for us is the discrimination between incremental and radical innovation [56]:

- *Incremental innovations* meet an existing customer need with an existing technology. They consist of small improvements of existing products which are mainly increases in performance.
Guiding maxim: baby steps
Example: 32 instead of 16 pictures on a film
- *Radical innovations*, also known as Breakthrough Innovations³, meet new customer needs with new technologies. They create totally new and different products which usually lead to a change of the business environment and the industry structure.
Guiding maxim: quantum leap⁴
Example: digital photography

The psychologist Daniel Goleman [20] distinguishes between two types of creativity. Creativity with a “small c” leads to incremental innovations, creativity with a “big C” to Breakthrough Innovations.

The term “innovation” is sometimes confused with Breakthrough Innovation. And marketing departments like to sell incremental innovations as radical ones which will turn the life of the customers topsy-turvy. Commenting on this Wolf Lotter [37] writes in the business magazine *brand eins*: “Innovation always suggests the big fish. But innovation never starts with a sensational bang, and often it is not even recognizable as such during its lifespan. The sensational bang is an illusion which is constructed afterwards.”

Innovations are successful, if they meet the customer demands and lead to customer satisfaction. The Kano model tries to capture this notion. It goes back to Herzberg’s Two Factor Theory, also known as Motivator-Hygiene Theory of Employee Satisfaction. His theory contains the following premise: The opposite of dissatisfaction is not satisfaction, but merely the absence of dissatisfaction. Therefore Herzberg distinguishes between two factors, as the name of his theory already indicates [11]:

- The want of Hygiene Factors leads to dissatisfaction, but the presence of these factors does not lead to satisfaction.
Example: back-friendly office chair
- The presence of Motivator Factors – on the contrary – leads to satisfaction, but their absence does not lead to dissatisfaction.
Example: massage chair in your office

Dr. Noriaki Kano, a professor at the University of Tokyo, recognized that this concept can be applied to customer satisfaction. Different product features fulfill

³ Breakthrough Innovation has to be written in capital letters!

⁴ Ok, I know: A quantum leap in quantum physics is a very small distance. But we are talking business slang here. Moreover even in quantum physics a quantum leap is a qualitative transition from one state into another rather than a quantitative step size which is characteristic of an increase in performance.

different customer needs and lead to different results depending on whether they act on customer satisfaction or dissatisfaction. The following quality factors can be distinguished according to the Kano model:

- *Must-Be Quality*
A Must-Be Quality fulfills the basic needs of the customer. Its absence leads to dissatisfaction of the customer, but its presence does not lead to satisfaction. Thus, it is the Hygiene Factor of customer satisfaction.
Example in the passenger car: actuation through engine instead of pedaling
The customer says: "Without that it's a nuisance."
- *One-Dimensional Quality*
The absence of a One-Dimensional Quality leads to dissatisfaction and its presence to satisfaction. Thus, it is a hybrid of Hygiene and Motivator Factor.
Example in the passenger car: performance of the engine
The customer shouts overjoyed: "The more the better!"
- *Attractive Quality*
An Attractive Quality leads to customer satisfaction, even excitement, but its absence does not lead to dissatisfaction. Thus, it is the real Motivator factor of the three qualities. But in contrast to the Motivator Factors of Herzberg, the customer is not able to articulate this quality because the customer does not know that they even have this need.
Example in the passenger car: flux capacitor for time travel
The customer jubilates: "Wow, how cool is that!"

Unfortunately it is often forgotten that there are three further qualities:

- *Indifferent Quality*
An Indifferent Quality has no impact whatsoever on customer satisfaction or dissatisfaction. Factors which do not have an impact on customer satisfaction are not mentioned by Herzberg.
Example in the passenger car: as many cup holders as possible (only for German customers, for American customers it is a Must-Be Quality)
The customer averts: "I don't really need this."
- *Reverse Quality*
A Reverse Quality leads to dissatisfaction, its absence to satisfaction or indifference. Similar factors should also play a role in Herzberg's Two Factor Theory, but apparently they do not – otherwise it would be a three factor theory.
Example in the passenger car: integrated retainer for magic tree air freshener
The customer complains: "What should I do with this crap?"

- *Skeptical Quality*

When it comes to a Skeptical Quality it is not clear whether the customer needs it or not.

Example in the passenger car: almost anything not mentioned so far
The customer falls silent.

From the Kano model the following conclusions arise concerning innovation:

- Not considering the possibility of Indifferent or Reverse Qualities by a developer with too much attention to details leads to products with features that nobody really wants or needs.
- Since Attractive Qualities are not known by the customer, they cannot be determined by customer surveys. The developer has to find these qualities on his own.
- The speechlessness of the customer concerning Skeptical Qualities turns nearly every quality into a skeptical one and leads to enough incertitude during the development of a new product to make things quite thrilling. No risk, no fun!

Innovation Hype

A Google search by me with the search term “innovation” produced an amazing 111 million results in 0.10 seconds, containing such exotic sub-categories as “Innovation Park”, “Innovation Lounge” and “Innovation Hub”. In comparison to this a search with the term “sex” produced 712 million results and with the term “Pamela Anderson” only a mere 11 million hits. This shows beyond a doubt which significance innovation has in comparison to the otherwise most important thing in the world. In contrast, most words labelling the basic need of ingestion perform very poorly: The term “food” leads, as expected, to an overwhelming 1,250 million results, but the term “cooking” – despite of the popularity of cooking shows – leads to only 101 million results, not to mention “BBQ” with a sad 32 million hits – even when counting all the other rather obscure meanings it stands for as an abbreviation. These examples should suffice to make my point.

The fact is: Innovations – or at least terms with “innovation” as an integral part – enjoy a growing popularity at the moment, you may call it an innovation hype. This seems to be a periodically appearing fad cycle with innovation mountains followed immediately by the valleys of cost cutting – similar to wide and slender ties that alternate in stylish climaxes. “Every few years, innovation resurfaces as a prime focus of growth strategies. And when it does, companies repeat the mistakes they made the last time”, writes Rosabeth Moss Kanter [30] in the Harvard Business Review.

The term “innovation” is nowadays confused with the term “success”, and the adjective “innovative” is often used to indicate “successful”. But innovations are not necessarily successful, because being new is in itself not a value. This can be shown from the following three facts that are often neglected by the many innovation guidebooks on the market:

Innovations are risky.

80 % of all product launches onto the market fail in the first three months. Says marketing guru Martin Lindstrom [33]: “From soft drinks to paper towels to chocolate bars to hair dryers, the list of fallen products is like a roll call of the dearly departed.”

According to John T. Gourville [21], there is a disparity by the factor nine between what managers think their customers want and what the customers really want. This results from the necessary behavior modifications which a new product imposes onto its users and which are often not accepted by the potential customers. Examples of products which imposed too great a behavior modification onto the potential customers are the online-grocer of Webvan, the high-tech scooter of Segway, in which Apple-boss Steve Jobs and Amazon-boss Jeff Bezos invested their money, and the digital video recorder (DVR) of TiVo.

Innovations are laborious.

Inventions and innovations are by no means easy money, but simply hard work. A prerequisite for inventions is a high degree of expert knowledge: “In the musical area ten years of intensive practice and preoccupation with the topic are the minimum. And in other areas of expertise it is similar”, says professor of psychology Franzes Preckel [26] who researches the highly skilled.

But even a high degree of the necessary knowledge is no guarantee for inventions, as the following example of a company [30] shows: “In the late 1990s, Gillette had a toothbrush unit (Oral B), an appliance unit (Braun), and a battery unit (Duracell), but lagged in introducing a battery-powered toothbrush.”

And even after a successful development of a new invention, the market success is no sure thing as the examples cited above prove.

Innovations are often unwanted.

Half of the disparity between managers and customers in the evaluation of new products that was cited above is caused by the customers who overestimate the

known product they already possess, in comparison to the new product, by the factor three. So, Gourville [21] arrives at the sobering conclusion: “Many companies spend billions on research and development – only to find out afterwards that the consumers reject the innovation rigorously.”

This disparity certainly contains the fact that many companies continuously miss their customers’ needs with their new products. They tend to take the Reverse Qualities of the Kano model as Attractive Qualities. A big part is, however, the inertia of the customers concerning behavior modifications. Koestler calls it the “disruptive aspect” and Schumpeter “creative destruction”.

That innovation is just a hype can be proved with two examples from different industrial sectors:

Music Industry

The business with the most creative potential is probably the music industry. In its business environment a lot of Breakthrough Innovations have taken place. The Internet has, for example, expanded the market for music by a new sales channel and offered the opportunity to distribute music on online-platforms without the annoying production of sound storage mediums. Moreover the possibilities of marketing for music have increased by leaps and bounds, and the possible combinations with other media (e.g. music videos, motion pictures or computer games) are quasi infinite.

In the logic of the innovation believers the success of this business should have skyrocketed because of these innovations. But instead the music industry fights a losing battle with sinking turnovers and profits for years. The music industry also laments most loudly about product piracy – as if this phenomenon was unheard of in other industrial sectors.

Domestic Appliances

The industrial sector of domestic appliances is not necessarily best known for its innovativeness. Eventually we still cook and clean with water. For years this business has been characterized by incremental innovations of small performance enhancements – e.g. less water consumption, more power of the spin cycle in the washing machine. Really groundbreaking technical innovations are a rare thing in domestic appliances – with the exception maybe of the vacuum cleaner without a bag and the induction stove which for some came as a surprise, even a shock. But where is, for example, the dish washer with ultrasound? Or the nuclear-powered washing machine that washes a shiny bright white? Zippo! Nevertheless the business still has good turnovers and profits.

These two examples from different industrial sectors show conclusively that innovations not only do not lead to success, but that they are obstacles on the way to success. The main reason for this lies in the existing innovation resistances which will be described subsequently.

Innovation Resistances

Innovation resistances result from the “discoveries of yesterday” which have hardened into the “commonplaces of today” – as Arthur Koestler described it in his quote above. Schumpeter [54] distinguishes between two categories of resistances in this context. The first category of resistances results from the backpressure of the milieu: “Every deviant behavior of a member of the social community comes up against the disapproval of the other members. This fact is well-known to sociology, and can be verified very easily from the daily experience. If you clothe yourself in a different way than the other individuals of the society or the same group of society, if you distinguish yourself in manners and habit, they will react against it. This reaction can be of different type and intensity.” Or in the words of the British economist and philosopher John Stuart Mill [40]: “Originality is the one thing which unoriginal minds cannot feel the use of.”

The second category of resistances comes from within oneself [54]: “It is a mental fact, that it is infinitely easier to walk a well beaten path than to pursue a new one. [...] It demands a new and totally different act of volition which not everybody is capable of, and it always involves the risk of different and totally new dangers. [...] We pursue the familiar paths on our own volition every day and even relatively minor changes cost effort of will, arouse aversion and are regarded as something unaccustomed and alien.” This is the well-known mental inertia which all too often affects all of us and appears as recurring patterns of thought, well-caved routines of behavior and daily rituals.

The historian J.B. Bury [7] describes the same phenomenon with the following drastic words: “The average brain is naturally lazy and tends to take the line of least resistance. The mental world of the ordinary man consists of beliefs which he has accepted without questioning and to which he is firmly attached; he is instinctively hostile to anything which would upset the established order of this familiar world. A new idea, inconsistent with some of the beliefs which he holds, means the necessity of rearranging his mind; and this process is laborious, requiring a painful expenditure of brain-energy.”

The brand new is bothersome for us because it needs more energy than the well-known. This is of course a well-known procedure: Known routines of behavior proceed on a deeper level of consciousness in a nearly automatic way – I was tempted to write “wired to the spinal cord”. In contrast new ways of behavior

demand our full attention. Think about the first time you were in driving school compared to the way you now cruise through rush hour traffic. And you see the difference.

It is not so much the problem to pursue a new path, but to leave an old one. Let us once again turn to Arthur Koestler [31] for a fitting quote: “To acquire a new habit is easy, because one main function of the nervous system is to act as a habit-forming machine; to break out of a habit is an almost heroic feat of mind or character. The prerequisite of originality is the art of forgetting, at the proper moment, what we know.”

Not only the individual as a customer or an employee of a company possesses these innovation resistances, but also the company as a whole is subjected to this inertia. Schumpeter [54] already realized this for the companies at the beginning of the twentieth century. His portrayal of the innovation resistances from this time reads like a description from today and is therefore quoted at length at this point: “Already in the lower ranks of the industry, in the ranks of medium-sized and small enterprises, we find that most of them work with outdated machines, with outdated commercial combinations and without much initiative. New machines, new commercial combinations are introduced only and not till they are offered from the outside, the former obtruded by an agent, the latter paved with orders and offers for the “factory owner”. Even then he is often reluctant and demands e.g. special guarantees, advance payments or securing of prices, credit accommodation etc. or he simply refuses to come into contact with an unfamiliar market. If you look at such economic agents, you easily come to the conclusion that the individual initiative does not play a major role in the economy.”

Many innovators have already encountered these resistances which blocked the path of their innovations. The former American president Benjamin Franklin experienced them vividly, when he invented the lightning rod through his famous experiments with a kite. Now some of the arguments follow that were put forward against the lightning rod [67] – without claim to be complete:

- Storms are the voice of God and, thus, cannot be tamed by iron bars.
- Lightning rods do not have any detectable effect, but church bells disperse the storm by agitating the air.
- The earthquake of 1755 that shook Boston – a town with a lot of lightning rods – was a punishment of God against the use of lightning rods.
- Lightning rods can stop the artillery of heaven as much as Saint Peter could walk on water.
- A bolt of lightning is a sign of disapproval from God. It is impious to not let it develop its full impact.

We can see from the quality of the arguments the strength of the innovation resistances which hit poor Benjamin with full force.

The disapproval of lightning rods was so strong that the church of San Nazaro in Brescia, Italy, that had stored 200,000 pounds of gunpowder in its vaults, did not have a lightning rod in 1767 – 15 years after Franklin's invention. When it was struck by lightning in the same year, the explosion destroyed one sixth of the town. More than three thousand inhabitants died [67].

The Second Fundamental Law of Uninnovativeness

As we already assumed, innovation does not necessarily mean success. Innovations are risky, laborious and often even unwanted; they generate resistances from the individual and from the social milieu. The examples above show that many promising ideas do not turn into inventions, and that even very promising inventions are in many cases not good for innovations.

After the examination of all the existing evidence, we can draw the conclusion that uninnovativeness pays off. The target should, in any case, be the prevention of innovations. In principle innovations can be prevented at two points: at the point where the idea turns into an invention and at the point where the invention is popularized and turns into an innovation. The following two chapters of this book will explore in more detail how to prevent inventions (chapter 3) and how to prevent innovations (chapter 4).

Of course you can and should use the existing resistances to innovation, when preventing inventions or innovations. Charles H. Duell, the commissioner of the United States Patent and Trademark Office, said already in the year 1899: "Everything that can be invented has been invented." – before the invention of television, video recorders and the Internet. This quote is the cornerstone for innovation prevention, because it again shows us that the existing things have a big inertia, a strong persistence, a nearly insurmountable resistance towards the new things. Nowadays one says: "Old technologies fight back."

This sounded very different at the times of the Roman poet Ovid⁵, 2,000 years ago. He, as is known, claimed: "The better is the enemy of the good." But Ovid comes from a different time than Duell where inventions and innovations did not matter so much. Even the term "innovation" had to be invented by Schumpeter much later. Moreover Ovid did not work in a patent office which reduces the weight of his saying considerably.

⁵ His full name, was by the way, Publius Ovidius Naso. Would you buy a used car from a guy with such a name?

The second fundamental law of uninnovativeness is therefore called in Ovid's honor "Anti-Ovid" and goes as follows:

The good is the enemy of the better.

Chapter 3

How to Prevent Inventions

Before we talk about the prevention of innovations in chapter 4, we will engage ourselves with the prevention of inventions, the step before innovation, in this chapter. Archimedes, the universal genius of the Greek and allegory of the creative epiphany, serves as a case study. Starting from this, practicable methods for the invention prevention will be deduced and described using examples from the business world.

Case Study Archimedes – The Eureka!-Effect

Archimedes of Syracuse (born around 287 BC probably in Syracuse on Sicily; dead 212 BC probably also in Syracuse) – one of the most eminent scholars of the ancient world – was authorized by Hieron II, tyrant of Syracuse, to determine the gold content of a crown which Hieron had ordered from a local goldsmith. For this, Hieron had given the goldsmith a certain amount of gold and wanted to make sure, that all the gold was used in manufacturing the crown. He had the suspicion that the goldsmith had “diluted” the crown with ignoble metals, e.g. silver. Now, Archimedes knew the specific weight of gold, and the weight of the crown could be measured. But for the determination of the gold content he needed to know the volume without destroying the crown – large shoes to fill.

Archimedes thought for several days about the problem, but could not find a solution. Not until he took a bath and observed, how the water was squeezed out by his body and flowed over the edge of the bathtub, he realized that the volume of the crown could be measured through water displacement. He cried out: “Eureka!” – Greek for “I have found it!” – and allegedly ran naked through the streets of Syracuse – probably pretty dizzy from the new insight. Thus, Archimedes became the allegory of spontaneous flashes of inspiration.

The negative effects of innovations have already been described extensively in the second chapter. Also this creative episode from the life of Archimedes had some serious consequences: The goldsmith was found guilty of counterfeit and executed by the tyrant. After this creative insight of Archimedes the easy life of goldsmiths in general was over because they now had to use exactly the amount of gold which the tyrants of this time gave them. So a nice opportunity of auxiliary income was over, and they had to do with the meager pay they received – while the tyrants saved some bucks.

The question of this chapter which deals with the prevention of inventions is, however: Why did Archimedes not find the solution immediately? He was a

brilliant mathematician and physicist and moreover an ingenious inventor and engineer. Archimedes calculated for example an approximation for the number pi and laid the foundation for infinitesimal calculus; he found the lever principle and the basics of hydrostatics; he invented a water pump, astronomical tools and military equipment which drove whole armies back, such as the parabolic mirrors which set the ships of the Romans on fire. He knew the specific weight of gold. And he certainly knew that his body displaced water in the bathtub. All necessary ingredients were there. But nevertheless Archimedes could not connect the single strands directly to one solution. Only if we understand how this invention came about, we can find effective means to prevent inventions.

Inventions, such as the ones Archimedes used to generate on a regular basis like nobody else in the next 2,000 years, are based on creativity. The creative process has the following four steps:

- preparation,
- incubation,
- insight and
- feasibility study and realization.

The word “incubation” is a medical term and characterizes the period from the infection with a germ to the outbreak of the illness. In the figurative sense of the creative process it describes the “infection” with a problem in the preparation step to the “outbreak” of a solution as an insight. In this period the problem which was analyzed during the preparation phase is internalized into the subconscious, while on the outside nothing seems to happen. This state ends only through the – mostly spontaneous – appearance of a creative idea in the consciousness.

Creative ideas come from existing knowledge which is combined in a new and surprising way for an innovative solution. This knowledge generates its importance on the background of a specific context. The context characterizes the interconnectedness of the knowledge and constitutes a certain meta-order for the knowledge. So we can assume that Archimedes had stored the knowledge to calculate volumes in his context “geometry”, but not his knowledge about water displacement. Creative solutions are normally not found within one context, but generated in a context-spanning way.

How this takes place is described vividly by Arthur Koestler [31] in his book “The Act of Creation” through the term “bisociation”: “I have coined the term ‘bisociation’ in order to make a distinction between routine skills of thinking on a single ‘plane’, as it were, and the creative act which [...] always operates on more than one plane. The former may be called single-minded, the latter a double-minded, transitory state of unstable equilibrium where the balance of both emotion and thought is disturbed.”

Koestler makes the two contexts clear by drawing two planes which are perpendicular. The search on one plane – within one context – does not lead to an adequate solution, because the solution is outside of this plane. It lies on a different plane – within a different context. Only through a connection between these planes respectively contexts one gets from the initial starting point of the problem to the target of the search – the creative solution.

To come back to the initially described example of Archimedes: Archimedes searched for the solution to his problem within the context of “geometry” where he stored all the methods to calculate different volumes and where he as a mathematician and an engineer suspected the solution must be. There, however, he could not find an adequate solution. Only after he switched to the context of “personal hygiene”, he found the solution to his problem. The connection between the two contexts formed not until he observed how the water flowed over the top of the bathtub. In this critical moment, both contexts were active in Archimedes, whereas the context “geometry” was latently present at the back of his mind, while the processes in the context “personal hygiene” were consciously perceived. The connection resulted from his knowledge about “water displacement” which had a reference to “personal hygiene” (the body displaces water while bathing) as well as to “geometry” (the displaced water is a measure for the volume of a body). Through this lucky constellation the creative spark could leap between the two contexts and ignite the idea: Eureka!

Let us now go from the bathroom of Archimedes to the kitchen of Teresa Amabile. “Being creative is like cooking a stew”, she says. When cooking a stew you need three ingredients – similar to the act of being creative [20]:

- The main ingredient, the meat or vegetables of the stew, is the expert knowledge: He who knows nothing cannot achieve anything creative.
- The spices or herbs of the stew which bring to bear the flavor of the main ingredients are the creative skills of thinking, with which new combinations of knowledge can be created: Without mental flexibility, everything stays in the same old routine, and nothing new will be created.
- Finally, the fire under the stockpot is the passion respectively the intrinsic motivation for the subject at hand: You cannot be creative, if you do not like the thing you are doing.

Now, how can you spoil this soup? From all the things described so far, five general principles can be deduced which are the prerequisites of the Eureka!-effect and increase the inventive strength [13]. Through the reversal of these principals effective methods for the prevention of inventions can be developed:

- *Limit your horizon:* The fewer different contexts are present, the lower the likelihood of Eureka!

- *Retain your perspective:* The fewer combinations of knowledge from different contexts are tested, the lower the likelihood of Eureka!
- *Avoid paradoxes:* Knowledge must not allow contradictions, and creativity must not resolve them, because foul compromises prevent Eureka!
- *Prevent the ripening of ideas:* Without time for incubation, in which ideas can ripen, there will be no Eureka!
- *Debase creativity:* Mistrust in the own knowledge and the own creativity are a potent weapon for the prevention of Eureka!

Limit Your Horizon

Knowledge is the raw material for creativity, because: “Without existing knowledge or capabilities, creativity is just a blind process, in which something new is created which has no connection whatsoever to reality.” [49]. Archimedes had a profound knowledge, e.g. concerning geometry, mechanics, hydrostatics, material sciences and manufacturing technology, which he could bring to the table to solve the problem. If Archimedes had not been a universal genius, but a finicky specialist, he would not have had the necessary contexts for his creative idea to measure the volume of the crown through water displacement, but would have been wandering about forever in the context “geometry”.

The chance to find a creative solution is immensely increased by the number of contexts an individual has created. Thereby the number of possibilities does not increase in a linear way with the number of contexts, but in an exponential way with the number of possible combinations of contexts. Therefore it is essential for an inventor to not only have a profound knowledge of his area of expertise and his industrial sector, but “to look beyond his own nose” – so to speak.

Paul Horn, the chief researcher of IBM, once expressed this in an interview in the year 2000 [35]: “You must want to know everything, you must want to try everything to get ahead. The point is not to think intensely about one thing. The point is to think as broadly as possible. That would be my motto, even if it sounds crazy: Think more broadly, think broader.”

The French mathematician Henri Poincaré had the same notion, when he described in an essay [46] how he used to solve mathematical problems through the combination of knowledge. Thereby he discovered the following: “Among chosen combinations the most fertile will often be those formed of elements drawn from domains which are far apart. Not that I mean as sufficing for invention the bringing together of objects as disparate as possible; most combinations so formed would be entirely sterile. But certain among them, very rare, are the most fruitful of all.”

That this approach is not always successful, but involves a multitude of trials and errors, is probably clear to everyone. Like Poincaré indicated in his quote, through these combinations a lot of absolutely useless ideas are created. That is why Hermut Kormann, controller of the German company Voith AG, defines creativity as follows [5]: “Creativity means that a lot of things amount to nothing.”

Thus, contexts outside the area of expertise have the highest risks of an original solution. For example, the method of generic benchmarking looks only at solutions from outside the industrial sector of a company and adapts them to the branch of the company, such as the examination of pit stops in formula one races to improve the ground time of airplanes. The generic benchmarking is fortunately the most difficult form of benchmarking and demands a high ability to abstract. However, it leads to solutions – and this is the grave danger of this method – which turn the operating mode of whole industrial sectors inside out. For instance, Toyota adapted the business principle of American supermarkets for the automotive industry where it is now universally known as the Kanban principle and is successfully used by nearly every company.

You can use the following methods to limit the horizon:

1. Method “Think narrowed”

Teresa M. Amabile [2] advises everyone who wants to kill his creativity: “Keep doing what you’re doing.” Or to use the quoted words of Paul Horn somewhat differently: “Think more narrowly, think narrowed.” Knowledge is always affected by the two conflicting values of stability and adaptability. Stability is necessary so that the knowledge can become a structural framework to arrange one’s experiences. Adaptability allows for the further development of knowledge to adapt it to further findings. An exaggeration of stability leads to rigidity of the knowledge [12]. This rigidity is the best guarantee that no new knowledge contexts will be created. Your main argument in the company is the focus on core competences according to the old saying “Cobbler, stick to thy last!” Another argument is the optimality of previously found solutions: “For this problem we already found an optimum solution.”

2. Method “Inexperienced”

Knowledge is based on data and the experiences of the employees. Do it like the Chinese government does: Hold back data and limit the experiences of your employees. Thereby they will only seldom have a new idea. And if they get one after all, this idea will not be very profound and easy to rebut.

3. Method “Heavy headed”

Knowledge has not always an explicit form, but more often it is in the heads of the people. And not all knowledge can be described without difficulty. The physicist and philosopher Michael Polanyi [47] introduces what he calls “tacit knowledge” with the words: “We know more than we can tell.” Examples for tacit knowledge are the recognition of faces or the playing of a musical instrument.

You should make sure that the knowledge of your employees stays in their heads and that they do not try to comprehend it consciously, because only explicit knowledge can be improved and shared with others. If one of your employees, by chance, becomes aware of his tacit knowledge, you should at least prevent the documentation of this knowledge.

4. Method “No community”

If you cannot prevent the development of new knowledge, you can at least inhibit the process of sharing this knowledge. You can avoid that this individual knowledge becomes collective knowledge which is available to a team, an organizational unit or – Heaven forbid! – the whole company. Just impede the communication and the knowledge exchange of your employees, especially in the form of communities of practice.

5. Method “Incomparable”

A popular method to doubt the results of a benchmarking session is to question the comparability. While the intra-company and the intra-industry benchmarking demand a high argumentative skill to achieve this, the inter-industry benchmarking can be dismissed quite simply with the following remark: “In our industrial sector this solution will not work.” You need to search really hard to find someone who can refute this argument.

Another popular method to prevent the comparison with others is to emphasize one’s own uniqueness. Everybody likes to be unique. Therefore your remark “We are unique. This solution does not fit us.” will bring you the applause of your co-workers. It is like in the movie “The Life of Brian” by Monty Python, in which the protagonist Brian tells a crowd of people: “You’re all individuals. You’re all different.” Everyone agrees. Except for one fellow who says: “I’m not.”

Retain Your Perspective

Life is always a question of perspective, like in the famous joke: Says one laboratory rat to the other: "I have trained this guy in the white lab coat to give me food every time I pull this lever." Apart from humorous consequences this insight also has quite practical ones. For instance, one patient of the Austrian psychiatrist Paul Watzlawick [54] said after therapy: "The way I saw the situation it was a problem; now I see it in a different light, and it is no problem any longer." Apparently the reality of the patient did not change one bit, but her mental attitude towards reality changed. Watzlawick calls this therapeutic method reinterpretation. Concerning our case study this means the following: If Archimedes had always taken a shower, but had never taken a relaxing bath, then he would not have used water displacement to solve his problem.

If the whole world view of a person can be reinterpreted through a change of perspective, imagine the gigantic dangers which result for industrial problems which could not be solved with the existing perspective. A change of perspective requires to regard a problem from different sides and angles, to leave well beaten paths of thought and pursue new ones, and to question and – if necessary – abandon customs and assumptions hold dear. To incorporate all this in one person is – Thank goodness! – very difficult. An auxiliary means is the interdisciplinarity of project teams: Different professional, functional and hierarchical, as well as social and cultural perspectives lead to a rich and diverse mix.

A prerequisite for a new perspective in research and development is to separate customer wishes or needs from the possible solutions, as it is done in the method Quality Function Deployment (QFD). This leads to a critical scrutinizing of basic assumptions which are imbedded in every industry. For instance, the developers of the company Dyson asked the provocative question: Why does a vacuum cleaner needs to have a bag? They deliberately separated the customer need "suction of dust" from the solution "hovering with a bag" and developed a vacuum cleaner which filters the dust from the air through centrifugal forces – without any bag. Maybe the next question will be: Why does a vacuum cleaner has to have suction, anyway? And: Where is this whole questioning thing supposed to lead us?

You can use the following methods to retain the perspective:

1. Method "Unquestionable"

Do not pose extraordinary questions. And do not allow that others pose such questions to themselves or to you. On the contrary, just dismiss questions like "Why does a vacuum cleaner has to have suction?" as nonsensical. Always yield

to the arguments of the accepted doctrine. On enquiry, why this has to be so, just answer with a short: "It must be like that." In product development of companies it is advisable to consistently mix and attach customer demands and possible solutions: "Customers want a bag in their vacuum cleaner." This way you solidify the already existing solutions.

2. Method "In my experience..."

Always argue from your experience: "In my experience this is so and so." With this method you make it very clear: There is only one perspective, namely yours. This method is especially suitable for members of the elderly population who show through their graying temples or the entirely missing scalp hair that they have a lot of miles on the clock and, thus, a lot of experiences at hand. It really does not matter at all, if your experiences concern things which are totally different or do not exist for so long that your old age could be any advantage, such as the Internet.

The psychologically clever thing about this method is that it links the factual issue with your person. Nobody can question your experience, without questioning you as a person. Thus, anybody who disagrees with your experience comes across as a meanie and can in no way win the argument against you. At most, he can achieve a draw in using the same method as you: "In my experience it is the exact opposite." Therefore the decision about the factual issue is not possible and you will win anyway: The issue is postponed.

3. Method "One best solution" / "Catch-22"

One popular method in engineering departments to increase the creativity of the employees is to demand two or three conceptual designs for every engineering problem from the design engineer instead of just one. A head of the engineering department of a medium-sized company in Germany which produced electrical appliances tried this method and got what he deserved. One employee who seems to have been very dedicated to invention prevention used the counter-method "One best solution". He submitted one conceptual design as usual. When asked where the alternative conceptual design was, he replied: "If it could have been done better, I would have done so."

A more elegant variant of this method could be named "Catch-22" – after the famous satire of Joseph Heller. The first step is to abide by the rules of your superior in pretence and to submit two conceptual designs. When he chooses one of them, you look at him with watery eyes and say in an offended tone of

voice: “You didn’t like the other one?”⁶ You will see how fast your superior will be cured.

4. Method “Homogeneous is beautiful”

Pin your hopes on intradisciplinarity instead of interdisciplinarity and on homogeneity instead of heterogeneity. The best thing is to combine a group of men in midlife (aged between 50 and 60 years) with uniform professional qualifications in the field of natural science and engineering. The advantage of this age group is that all the members can use the method “In my experience...” without hesitation (see method 2). You will see how a chauvinistic pub culture develops quasi automatically in this group which quickly kills all new suggestions with little jokes – especially from younger team members or from women. This composition of your group should, however, not prevent you from writing interdisciplinarity and diversity management into your company mission statement. This makes your company look sexy. Besides, everybody else does the same.⁷

5. Method “Evasion maneuver”

The psychologist Friedemann Schulz von Thun [57] distinguishes four sides of every message. Apart from the content (= what the speaker says) he also discriminates self-revelation (= what the speaker reveals about himself), relationship (= how the speaker positions himself in relation to the listener) and appeal (= what the speaker wants to induce in others). This insight can be used by switching from the content to one of the other three aspects of a message every time somebody brings in a new perspective.

The evasion maneuver using the aspect of self-revelation insinuates negative emotions in the one who brings in a new perspective: “You seem to be very frustrated to make such a suggestion.” The evasion maneuver using the aspect of relationship aims at the way how the new perspective was communicated: “You are not allowed to talk to the attendees in this way.” And for an evasion maneuver using the aspect of appeal you simply say something like: “So, you want to change everything around here.” You will see how effective this technique is from impeding new perspectives.

⁶ This method originally derived from a book from Dan Greenburg called “How to be a Jewish Mother” [22]. In the book a case is described where a mother gives two shirts to her son as a present. The rest of the story can be concluded quite easily from the example above. So, what is just to a Jewish mother, is equitable to a design engineer.

⁷ The situation of Diversity Management in German companies is characterized in the article „Geschlossene Gesellschaft“ (= „Private Function“) in the German business magazine *Manager Magazin* [42].

A variant of this strategy, especially for people who were born under the zodiac sign of Libra (meaning people who strive to keep a balance), is to nip disputations – even constructive ones – in the bud by always emphasizing that we are all of one opinion and that nobody wants to march to a different drummer. Cover everything with emotional gravy and make yourself cozy. “A tamed dispute is the spring of the new”, says the German sociologist and politician Ralf Dahrendorf [10]. And harmony runs this spring dry.

Avoid Paradoxes

A paradox leads from consistent assumptions via coherent thoughts to a contradictory result. The best-known paradox is probably the Liar Paradox. Epimenides is supposed to have said: “All Cretans are liars”. This sentence becomes a paradox, because Epimenides himself was Cretan whereby the sentence can be translated into “I am a liar” or “I am lying”. Thus, if Epimenides is telling the truth, then he is lying, and if he is lying, he is telling the truth – apparently an indissoluble contradiction.

Also Archimedes had to overcome a contradiction: Either he could have determined the exact volume of the crown by destroying it. Or he could have left the crown intact and just estimated the volume. A foul compromise would have been to saw the crown into several regular geometries, measure them and, afterwards, solder them back together. On enquiry by the tyrant, Archimedes could have said: “The only possible solution was this compromise. It couldn't have been done any other way.”

Concerning innovations one wants to have a certain result which contains a conflict of goals – e.g. high engine power and low gas consumption. From this contradiction one searches for conditions, under which the realization of the conflicting goals is possible. In other words: One tries to resolve the contradiction by going the path backwards – from the conflict of goals via creative ideas to realizable solutions. The contradiction is not regarded as God-given to turn to – mostly foul – compromises. So innovations are different from politics: Here a compromise is not the best solution, but the least creative one.

For instance the method TRIZ – the Russian acronym for Theory of Inventive Problem Solving which in English countries is therefore sometimes abbreviated by TIPS – assumes that only the overcoming of contradictions leads to innovative solutions. A central element of this method is a matrix of contradictions where typical pairs of contradictions are assigned to 40 inventive principles. A pair of contradictions contains two of altogether 39 system features whose modification typically leads to a trade-off. That means that the improvement of one feature leads as a rule to the deterioration of the other one, e.g. lower weight leads to

less strength. The inventive principles are general advices for a possible resolving of the contradiction [1].

The standard example of TRIZ-disciples is the pizza box in which a pizza is delivered by a delivery service. There are two requirements for a pizza box: “The pizza should stay hot” and “The pizza should stay crisp”. These two requirements are contradictory. If the pizza should stay hot, the pizza box must preferably be shut so that the heat cannot leak out. But then the moisture of the pizza is collected in the box so that the pizza will become soft. If the pizza, however, should stay crisp, the moisture must leak out through holes in the box – but with it the heat so that the pizza gets cold. The usual solution is to make little holes in the pizza box whereby the pizza arrives at the customer with a lukewarm temperature and a consistency somewhere between crisp and soft. Through the TRIZ-method the company Pizza Hut was able to resolve the contradiction by putting a corrugated cardboard made of blotting paper into the pizza box which absorbs the moisture and renders holes unnecessary. The pizza stays hot as well as crisp.

You can use the following methods to avoid paradoxes:

1. Method “Two-valued logic”

There is an English saying which goes: “You can’t have your cake and eat it, too.” So in any case, insist on the two-valued logic and, in case of doubt, refer to Aristotle: *Tertium non datur* – A third does not exist. Concerning the contradictions in inventions the saying should go: “You can’t have your pizza and enjoy it, too.” Pizza is either hot and soft or cold and crisp. *Tertium non datur*. Hot and crisp is simply not possible. You have to be content with what you got. *Basta!*

2. Method “Contradiction unresolved”

History and literature show us that contradictions better stay unresolved. Examples such as the atomic bomb or ring tones, such as Frankenstein and Icarus immediately come to mind. So always refer to the dangers of new technologies and ignore the benefits.

The protagonists in Douglas Adam’s science fiction novel “The Hitchhiker’s Guide through the Galaxy” wear sunglasses which go dark, when a danger appears so that they do not need to see it and, thus, do not fear it. Rip the dark glasses from the noses of your employees so that they are fully aware of all the dangers of their innovations for themselves, the company and society as a whole.

3. Method *“Blind spot”*

At the spot in the eye where the visual nerve goes from the eye to the brain there are no photoreceptors so that we have a “blind spot” there. But we do not perceive it, because the brain replaces the missing data “in a meaningful way” so that we have the impression of a complete visual field. Or as the physicist and constructivist Heinz von Foerster [16] describes it: “We do not see that we do not see.” This insight leads to the method “Blind spot”: Do not negate the existence of contradictions, but simply ignore them. Every time someone indicates a contradiction concerning an invention, act as if you do not know what he means. You can also present every minor improvement as a Breakthrough Innovation. For instance, you could sell an IT-tool for document management as an IT-tool for knowledge management without further ado. This way you show very elegantly that the problem has already been solved without having to resolve the contradiction.

4. Method *“Be creative-paradox”*

Another method is to simply turn the table and use paradoxes as a means of invention prevention, namely the so called “Be spontaneous”-paradox. The “Be spontaneous”-paradox goes back to the Austrian psychiatric Paul Watzlawick [63] who defines it as a “request for a certain behavior which by its nature can only be spontaneous”. “This sort of request puts the recipient in an untenable situation, since he, if he wanted to act upon it, had to be spontaneous in a context of obedience, of compliance, thus of non-spontaneity.” In our case the request is conceivably simple. Just tell your employees: “Be creative!” You will see how this shot misfires and how everybody will become – in the tense effort to be creative – absolutely uncreative.

5. Method *“Double bind”*

A paradox in communication can be expanded into a full-blown double bind. A double bind is suited for complementary relationships in which a subordinated person is dependent on the relationship and cannot elude it, such as an employee related to his boss. In this situation you can generate a double bind through a request which is “disobeyed through obedience and obeyed through disobedience”. The possible reactions of the recipient concerning this “untenable absurdity of every double bind” are increased insecurity, work-to-rule or isolation, sometimes even schizophrenia [63].

A possible request for a double bind is: “Here you have all the opportunities to be creative, as long as you first do your work properly.” If an employee tries to be creative, you can insinuate that he has not done his work properly. But if he does

his work properly, you can complain that he is not creative enough and only does work-to-rule.

Prevent the Ripening of Ideas

In the incubation phase of the creative process the problem to be solved is internalized into the subconscious. Or to put it more demotic: You have to ease down the problem. This means that you do not try directly to find a solution, but that you are ready to endure being without a solution for a while. You do not fall into an operative hectic rush or an overreaching zest for action and get entrapped in details. But after the thorough preparation phase you have to carry the problem around “in the head” for a little while, until the time is ripe for a solution. If Archimedes had not had taken the time for a relaxing bath, but had said: “I must hurry. The tyrant wants a result from me. I stay at my desk as long as it takes to find a solution.”, then the idea to measure the volume through water displacement could not have ripened in his head.

In Taoism there is a phenomenon for the ripening of ideas called “Wu-wei” which can be best translated as “Not-intervening”, “Letting it happen” or “Not-forcing”. J.C. Cooper [8] explains the term “Wu-wei” as follows: “Problems are solved which means “released”, if the tension fades and one is able to understand the true nature of a thing (by “sleeping on” it), or through a sudden intuitive flash of thought which occurs, when the rational thinking subsides and makes way for a spontaneous insight of reality.” Not for nothing Archimedes had his idea during a relaxing bath.

A graphic description of incubation is given by Henri Poincaré [46] who could not solve a tricky mathematical problem until he got away from his desk and went on an excursion: “Just at this time I left Caen, where I was then living, to go on a geological excursion under the auspices of the school of mines. The changes of travel made me forget my mathematical work. Having reached Coutances, we entered an omnibus to go some place or other. At the moment when I put my foot on the step the idea came to me, without anything in my former thought seeming to have paved the way for it [...]. I did not verify the idea; I should not have had time, as, upon taking my seat in the omnibus, I went on with a conversation already commenced, but I felt a perfect certainty. On my return to Caen, for conscience’ sake I verified the result at my leisure.”

While during preparation you still have a direct influence on your activities, the search for a solution during incubation can only be influenced indirectly. That is especially hard to swallow for managers, because management always means to a certain degree control. That is why managers have a need for control. But creativity is – at least during the incubation phase – a purposeful loss of control.

You can use the following methods to prevent the ripening of ideas:

1. Method "Killer-Controlling"

For all creative projects conduct a strict controlling which does not allow any kind of deviation. Act out your compulsion to control to the fullest. For instance, demand daily status reports about the progress of the project. This way you can nip any creative idea in the bud. Just remember: The controller is, in case of doubt, the best friend of the invention preventer.

2. Method "Give me a solution!"

Unfortunately you cannot bar your employees from taking a bath from time to time – at least not outside office hours. This is neither practicable nor desirable on the grounds of hygienic and olfactory reasons. But you can prevent your employees from letting their ideas ripe during office hours by using the following method: Do not let them get away without a solution. Always quote the nice manager-saying: "Don't give me problems, give me a solution." Especially when your employees try to analyze a problem from all angles. Tie them to their desks and say: "Do not come again, until you have found a solution."

3. Method "Harassment calls"

Expect that your employees always answer the phone, when you call them, and that they respond to e-mails immediately, even when they are not in the office. With modern technology such as mobile phones and Black Berries this is possible. If you have the slightest suspicion that one of your employees incubates a new idea, call him several times a day with trivial requests and bombard him with e-mails.

4. Method "Old hat"

If an employee is able to present a new idea, despite of this time pressure, pretend that this idea is not so new at all, but rather passé: "The time for this idea is already over." Or in other words: "We have tried this already unsuccessfully. This is an old hat." Or as a demotic saying: "This is old wine in new skins." If your employee is not convinced, tell him about a project which was already accomplished, preferably in a time, when he was not yet in the company or even before his birth. Then send this employee into the archive in the basement to

search for the dusty project documentation. You can bet that he will abandon the frustrating search after two days at the latest.

5. Method "Like cures like"

As we have already seen, the term "incubation" is taken from medical science and labels the period between the infection with a germ and the outbreak of the illness. Thereby the idea is put on the same level as a germ. As a cure a homeopathic medicine is advisable according to the homeopathic saying "Similia similibus currentur" (translation "Like cures like"). Just say: "The time is not yet ripe for this idea." Or "Let us not jump the gun on this. We have to take our time to analyze this thoroughly." And always remember: Homeopathy may only be used in small dose. Otherwise you have to fall back on traditional medical science (see methods 1 to 4).

Debase Creativity

In our society creativity seems to be reserved for a certain class of people, mainly artistic persons in painting, music and literature and in similar economic sectors such as advertising, fashion and media. On the contrary, industry and science are still a bit critical concerning creativity. Of course, they want to nurture innovations, but in a more systematic, almost unsophisticated way. If Archimedes had thought: "Creativity is only for poets like Homer and Aeschylus. I as an engineer stick to what I know best.", he would not have had the idea to seek his solution in the context of "personal hygiene".

Ernst Peter Fischer [15], professor for the history of science, mourns that nowadays the scientists "claim all sorts of things for themselves, but not creativity. They are rather revolutionary or, if this does not work, orderly, correct, precise, comprehensive and devotionally focused on the details. But to be creative, meaning to be disorderly, rather imprecise, speculating, imaginative and unstressed by details - nobody wants to be that."

The motto for creativity is: First chaotic, then systematic. First divergent thinking to generate creative ideas, then convergent thinking to develop realizable innovations from these ideas. This demands from the researchers and developers that they face the unknown and have confidence in their creativity. According to George Polya [48] the "open secret" of successful problem-solving is as follows: "The open secret of success is to throw your whole personality into your problem."

You can use the following methods to debase creativity:

1. Method “Killer-Rationality”

The neuroscientist Rodolfo Llinás [51] says: “The neuronal processes which lie at the heart of what we call creativity have nothing in common with rationality. That means, if we look at how the brain generates creativity, then we see that it is not a rational process at all; creativity is not bound to thinking.” This means in reverse that too much rationality kills creativity.

Be the hard-as-bone skeptic who expels creativity through forceful rationality. Always emphasize the details which are still unclear – and concerning new ideas, there are many such unclear details. Do it like the German comedian Dieter Hallervorden in his classic comedy “Didi der Doppelgänger” (translation: “Didi the double”) in which he plays the role of a tough manager who likes to say in meetings: “I need more details.” When his employees reply “But you already have all the details.”, he counters: “That is only your opinion.” And finally, to bring the discussion to a worthy close he adds: “Write it down. I will concern myself with it later.” Mission accomplished, idea dead.

2. Method “Pseudo-Brainstorming”

An especially perfidiously method to debase creativity is the “pseudo-brainstorming”. To illustrate this let me tell you an example from real life: Once upon a time a consultant did a workshop on creativity techniques at a company from the electronics industry. One part of the workshop was to perform a brainstorming session to collect ideas for the motor of a new washing machine. First the consultant explained the rules of the brainstorming method to the employees of the company. He especially emphasized that during the brainstorming session no criticism is allowed, no matter how eccentric the ideas may be. The employees agreed to all the rules. They actually became increasingly impatient, because they already knew by heart all the rules for a successful brainstorming session. After the session had started, only the “usual suspects” of ideas were named: direct current motor, alternating current motor etc. To inspire the employees a little bit the consultant suggested “combustion motor”. Almost immediately this remark provoked a flush of criticism and verbal abuse: “This is absurd.” and “We cannot write this down. Otherwise we will make fools of ourselves.” So the remark of the consultant was crossed out, and the rest of the brainstorming session proceeded in a rather harmonious way.

3. Method “Small c-defense”

A method which is especially useful when ideas for incremental improvement are concerned, e.g. from an employee suggestion scheme, is called “Small c-defense”⁸ according to the psychologist Daniel Goleman. Just say: “This idea does not help on very much.” Concerning ideas which deal with internal improvements of an organization, e.g. to make processes lean, you could use the following variant: “This idea does not help on very much *in the market.*”

4. Method “Big C-defense”

The method “Big C-defense” uses the reverse argument of the “Small c-defense”: “This idea is one size too big for us.” It is especially suitable for ideas containing the latent danger of a Breakthrough Innovation.

5. Method “Wittiness is next to Godliness.”

If all this is of no use, then you must bring heavy ordnance to the battle. Then you can only count on one thing: Mock it! The following formulations may be a first aid: “Oh, look! Here comes our little Leonardo da Vinci / Einstein / Archimedes.” Or “Oh, our Mr. Smith has one of his brainstorms. Do not get blown away!” Learn your lesson from the philosopher Henri Bergson [4]: “When laughing we are confronted with the unacknowledged intention to humble and thereby improve our neighbor.” You will realize how quickly your employees are “humbled and thereby improved”.

The Third Fundamental Law of Uninnovativeness

In the comedic play “Le Bourgeois gentilhomme – The Bourgeois Gentleman” by Molière the businessman Monsieur Jordain realizes to his utter astonishment that he has spoken prose his whole life without noticing it. Knowledge and creativity work in a similar way. Writes the German psychologist and brain researcher Ernst Pöppel [49]: “[...] I suspect that in the drawers of many people treasures slumber which are good for innovations and thus for value creation, but which are not used.” Knowledge and creativity do exist in the people. Therefore you have to prevent them in time and completely. This chapter showed you the basic methods of a civilized society. But these methods were not valid in all times and at all places.

⁸ See chapter 2 under „Types of Innovation“

For instance, Arthur Koestler reports in his book “The Thirteenth Tribe” [32] that the Volga Bulgars of the first millennium AD had a custom to hang men with special knowledge and a high creativity up a tree and let them rot there. His comment to this custom is as follows: “This leads one to believe that the custom should be regarded as a measure of social defence against change, a punishment of non-conformists and potential innovators.” With this all reservations against all too brisk inventors and innovators described in chapter 2 under “Innovation Resistances” are confirmed. Or to come back to John Stuart Mill [40] once more: “Originality is the one thing which unoriginal minds cannot feel the use of.”

A similar thing happened to Archimedes who was always on the look-out for new ideas. According to the records of the historian Plutarch, Archimedes concentrated on a problem – a complicated calculation with the help of a diagram – during the Roman siege of Syracuse. This way he did not notice that the Romans had already broken through the lines of defense and conquered the city. When a Roman soldier told him to come with him, Archimedes barked at him: “Do not disturb my circles!” Thereupon the angry soldier stroke him dead with his sword. Thus, the immense knowledge and the exuberant creativity of Archimedes – admittedly combined with a not quite diplomatic answer – led directly to his demise.

Since we want to prevent a relapse into such barbaric conditions, we formulate another fundamental law of uninnovativeness in this chapter which focuses especially on the prevention of inventions. The French writer and painter Francis Picabia is supposed to have said: “Our head is round so that our thoughts can change directions.” If we combine this saying with the circles of Archimedes, we get the third fundamental law of uninnovativeness, called “Anti-Picabia”:

Our head is round so that our thoughts can go in circles.

Chapter 4

How to Prevent Innovations

After we have become acquainted with the methods to prevent inventions in chapter 3, we will now turn to the prevention of innovations – more precisely the prevention of the realization and popularization of inventions. As a case study we use Thomas Alva Edison, the “inventor”⁹ of the light bulb, who made it into the history books as the “Sorcerer of Menlo Park”. Thereby we will focus primarily on the prevention of Breakthrough Innovations which, as we have seen in chapter 2, result from creativity with a “big C”. But also the danger of incremental innovations which result from creativity with a “small c” will not be neglected, but is recognized with a separate closing chapter, before the fourth fundamental law of uninnovativeness is formulated.

Case Study Edison¹⁰ – Let there be Light!

Thomas Alva Edison (born 11th February 1847 in Milan, Ohio; dead 18th October 1931 in West Orange, New Jersey), the “inventor” of the light bulb and numerous other products in the areas of energy, raw materials, communication and media, once said: “Genius is one percent inspiration and ninety-nine percent perspiration.” This saying shows that Edison was less of an inventor and more of an entrepreneur who developed existing products further. The “Sorcerer of Menlo Park” was especially known for his skills to bring products to marketability. Thereby he arrived at the staggering number of 2,000 patents in his lifetime. He achieved this not through his brilliant ideas, but through his tenacity and stamina, as he himself acknowledges: “I am more of a sponge than an inventor. I absorb ideas from every source. My principal business is giving commercial value to the brilliant but misdirected ideas of others.”

The prime example of the skills of Edison in popularizing a product idea is the “invention” of the light bulb in the year 1879. Other inventors had already developed bulbs with glowing wires years ago. For instance, the American John Wellington Starr had already filed a patent for an electric bulb in 1845. And the German Heinrich Göbel later alleged in a lawsuit that he had built an electric bulb in 1854. The existing models, however, had massive problems because of the short burning time of the bulbs which burned out after only a few minutes. Imagine the effort to change light bulbs for reading the newspaper in the evening. Furthermore the cities and houses in America had no electricity at that time – not

⁹ The reason why the word “inventor” is written in inverted commas will be explained in the course of the case study.

¹⁰ All quotations from Edison as well as historical data and facts are from [60] and [44].

to mention all the other countries. The big cities of the nineteenth century were illuminated by gaslight.

Edison had the vision to illuminate the American cities with electric light. Once he got this into his head, he did not stop until he solved the problems described above. As he describes it the first step is an idea, but then difficulties do appear. At first one thing does not work anymore, then another one. A lot of little errors and difficulties appear, and a tense seeking, researching and working lasting for months is necessary, before it is possible to talk about a commercial success – or even a failure. It inured to his benefit that he was not a lonely inventor, but had founded Menlo Park, a laboratory with occasionally hundreds of employees, so that he could begin his challenging task with enough manpower.

Edison solved the first problem by trying out more than 6,000 raw materials for the filament with his team of researchers, until he finally used carbonized cotton fiber. Furthermore he developed a pump to improve the vacuum inside the bulb. With these measures he accomplished that in October 1879 a light bulb burned for 40 hours. Shortly after that a modified light bulb even burned for 170 hours so that Edison could file a patent on 4th November 1879 for his light bulb with carbon filament. Later light bulbs of Edison with bamboo filament burned for up to 1,200 hours.

The second problem – i.e. the lacking environment for a successful product introduction – was solved, because Edison and his team also developed the whole infrastructure. His “Edison Electric Light Company” worked on – apart from the improvement of the light bulb – dynamos, distribution networks made of copper wire, switches, bulb sockets, fuses, electric meters and electrical sockets. As a test object he developed an independent illumination system for the ship “S.S. Columbia” for which the first 115 light bulbs and own dynamos were built. Finally he founded the “Edison Electric Illuminating Company of New York” with the aim to illuminate the streets and houses of New York to fulfill his vision.

The described case study shows one thing very clearly: The inventor – such as Archimedes – and the entrepreneur – such as Edison – have totally different personalities. Therefore an inventor-entrepreneur is very rare. The inventor is predominantly focused on the technological task. He simply tries to obtain natural scientific-technological knowledge with which he can solve the problem. If the solution has any further practicability, if other people can use it, is beyond the horizon of the inventor. Often he is not even interested in it, because the question does not arise to him. If he is interested in the further applicability of his invention, he believes that his idea convinces the people quasi automatically because of its technical finesse.

The entrepreneur, on the other hand, is only rudimentarily interested in the knowledge on which the invention is based. For him, the only thing which matters

is, how he can make the invention usable for the populace and thereby how he can make it economically exploitable. The entrepreneur has a vision of a better future which he pursues with tenacity and the absolute will for success. To this vision, he subordinates everything else. He knows that the popularization of a new product is hard work, but he is also generally willing – as Edison was – to invest his whole fortune into his idea – a thought which would not occur to the inventor in his wildest dreams.

The differences in personality between inventor and entrepreneur were also discovered by Joseph Alois Schumpeter [54] and described in his famous book “Theorie der wirtschaftlichen Entwicklung” (English edition: “The Theory of Economic Development”) in 1912: “The entrepreneur is neither principally himself the inventor – where he is, there is a coincidental aggregation of functions –, nor is he the henchman or the aide-de-camp of the inventor so that the inventor is the actual entrepreneur. [...] As already said, for the economic incidents, only the entrepreneur comes into consideration, inventions play only a secondary role – they multiply the already infinite number of possibilities.”

Edison was also aware of the differences between him and inventors, although he always saw himself as an inventor. But he said in discrimination to other inventors: “Nearly every man who develops an idea works it up to the point where it looks impossible, and then he gets discouraged. That's not the place to become discouraged.”

The tenacity and the absolute will for success are also mentioned by Schumpeter [54] as main criteria for an entrepreneur. He describes in his work already cited above how the entrepreneur pushes his products onto the market: “Our man of action does not follow a given or immediately expected demand. He imposes his products on the market. This is an incident well-known to every businessman. If a new product has to be introduced to a market, it is imperative to persuade the people to its application, under certain circumstances even to force them.” Schumpeter himself showed signs of an entrepreneur, when he set himself the following goals [45]: “I want to be the greatest lover of Vienna, the best horseman of Europe and the most important economist of the world.” He realized two out of these three by his own account.

This absolute will for success also shows itself in Edison who at times invested his whole fortune into the production of light bulbs plus infrastructure. At one point in his life he declared that if there were no factories to build his inventions, then he would build the factories himself. And if his financial backers were anxious, he would provide the capital himself. His slogan was: “Factories or death!”

The tenacity of the entrepreneur is a double-edged sword. Its danger shows itself especially, when the entrepreneur has betted on the wrong horse. Then he runs unperturbed and with high velocity, but unfortunately he runs into the wrong

direction. This also happened to Edison in his confrontation with the inventor Nikola Tesla and the entrepreneur George Westinghouse on the question, if direct current or alternating current are better suited for the supply of private households with electricity. Alternating current has the advantage over direct current that it can be sent through cables over long distances without much loss. Edison, on the contrary, put all his eggs in one basket, namely the decentralized supply with electricity through local power stations whereby the electricity in form of direct current will be sent through cables only for short distances, like he had realized it on the "S.S. Columbia", for instance.

In his conviction to follow the right vision Edison did not even shy away from electrocuting animals through alternating current to show its dangers. Among the animals was the elephant Topsy whom the owners of the Luna Park on Coney Island wanted to be killed, since his behavior was erratic – he had killed already three persons. Edison had the execution of the elephant filmed by one of his new cameras – probably to achieve positive spill-over-effects.¹¹ Finally Edison helped in the development of the electric chair to execute murderers and other dangerous criminals. Tesla and Westinghouse tried vehemently to prevent the electric chair, but did not succeed. Therefore Edison leaves an ambiguous impression concerning this question. Or like an old saying goes: "Where there is light, there is also shadow."

One danger which comes from the difference of personality between inventor and entrepreneur is the exploitation of the inventor by the entrepreneur. The British author H.G. Wells [66] who achieved fame through prognoses and science fiction novels ("The Time Machine", "The Invisible Man", "The War of the Worlds" etc.) described this danger very graphically for Great Britain of the nineteenth century. His description is still valid: "There is a necessary unworldliness about a sincere scientific man; he is too preoccupied with his research to plan and scheme how to make money out of it. The economic exploitation of his discoveries falls very easily and naturally, therefore, into the hands of a more acquisitive type; and so we find that the crops of rich men which every fresh phase of scientific and technical progress has produced in Great Britain, though they have not displayed quite the same passionate desire to insult and kill the goose that laid the national golden eggs as the scholastic and clerical professions, have been quite content to let that profitable creature starve. Inventors and discoverers came by nature, they thought, for cleverer people to profit by."

The inventor Nikola Tesla fared no better when he – long before the confrontation on direct current versus alternating current – went into employment for the entrepreneur Thomas Alva Edison. Edison immediately realized Tesla's genius and ordered him to increase the performance of a direct-current dynamo. As a

¹¹ The original footage of the electrocution of the elephant Topsy can be watched on the Internet under <http://commons.wikipedia.org/wiki/Image:Topsy.ogg?uselang=de>

reward he offered him 50.000 US-\$ - a substantial amount of money in those times. When Tesla delivered the dynamo with the promised increase in performance after a year of hard work, he only got a warm handshake by Edison as a reward: “Tesla, you don’t understand the American humor.” [23]

Nikola Tesla [59] writes in his autobiography that the inventor is “often misunderstood and stays unrewarded”. He takes comfort in the following words: “But he [the inventor] finds an appropriate compensation in the satisfying exercise of his capabilities and in the awareness of being one out of the especially privileged class of those without whom mankind would have perished in the bitter fight against the remorseless forces of Nature.”

Another danger which exists for the entrepreneur as well as the inventor is failure. Inventions are not always successful, but you only hear the stories of the successful inventors and entrepreneurs. It is often forgotten that many inventors end as nutty scatterbrains, and many entrepreneurs impoverish as failures. Arthur Koestler [31] whom we have already met in chapter 3 on the topic of creativity describes this danger using the history of science as an example which is also valid for business and industry alike: “The martyrology of science mentions only a few conspicuous cases which ended in public tragedies. [...] Apart from a few lurid cases of this kind we have no record of the countless lesser tragedies, no statistics on the numbers of lives wasted in frustration and despair, of discoveries which passed unnoticed. The history of science has its Pantheon of celebrated revolutionaries – and its catacombs, where the unsuccessful rebels lie, anonymous and forgotten.”

The “Pantheon of revolutionaries” of inventor-entrepreneurs from Germany is described in the handbook of *Deutsche Aktionsgemeinschaft Bildung-Erfindung-Innovation e.V. (DABEI)* [9], a non-profit organization promoting education, invention and innovation in Germany. Here you can find illustrious names such as Herman Oberth (astronautics), Konrad Zuse (computer), Hans Sauer (high performance relay), Artur Fischer (Agfa-flashcube, Fischer-plug), Felix Wankel (Wankel-engine), Ludwig Bölkow (aerospace industry) and Walter Bruch (television, television camera). The “catacombs, where the unsuccessful rebels lie” are left open by the book.

The *Wirtschaftswoche*, a famous German business magazine, shows in one of its issues innovations from Germany, such as automobile, airbag, chip card, plug, jet plane, record player and thermos flask, and adds another 50 new innovations “for which the world envies us” and which “have the potential to create hundred thousands of new jobs”. To be fair the German inventions which were rejected by German companies and marketed by foreign ones, such as computer, microprocessor, MP3-formate, LCD-technology and compact disc, are also mentioned [41].

Now, how can all this be used for the prevention of innovations? On the basis of Edison innovation can be described as an electric circuit. The processes of an electric circuit can be calculated by a formula which is very important in the field of electronics – Ohm’s law:

$$U = R * I$$

Or transformed into:

$$I = U / R$$

Current flow (I) equals the quotient of electric potential (U) and electric resistance (R).

Translated into the field of innovation this law becomes the innovation formula: Innovation flow (I) equals the quotient of innovation potential (U) and innovation resistance (R). Innovations can only flow freely, if there is a high potential for innovations and if the innovation resistances are small. The other way around this means that the innovation flow runs dry, if the innovation potential is low and there are big innovation resistances. The innovation potential depends on the motivation respectively the passion of the employees which can be controlled by adequate motivational incentives. Innovation resistances have a negative effect on the existing freedom to unfold one’s creativity – the employees must not may. Finally one can impede the innovation flow by limiting and not developing the innovation capabilities – i.e. the competence to realize ideas – of the employees. These three variables of the formula are now described in more detail.

Reducing the Voltage – Breaking the Entrepreneurial Spirit

The variable “innovation potential” is influenced through the right motivational incentives to prevent the passion for innovations. In doing so, it is not sufficient to rely on extrinsic motivation alone – i.e. on motivation through external incentives. It is much more important to motivate the employees in an intrinsic way to be uninnovative – i.e. to influence the inner drive of the employees. The employees should feel no passion for their job, but should develop a fear as big as possible for the failure of innovations.

As the physicist and Nobel laureate Richard Feynman [14] wrote, innovation is a question of the handling of failure: “To develop working ideas efficiently, I try to fail as fast as I can.” A “culture of failure” can be fostered through certain incentives. For instance, the company Carl Zeiss awards not only prizes to successful innovation projects, but also to unsuccessful projects, as long as they were abandoned in time and the knowledge was shared with other projects in a useful way. Says Zeiss-CEO Dieter Kurz [6]: “The prize should be an incentive to learn something even from the shards of a project.”

Often failure is sold as an opportunity. As the author Christiane Zschirnt [68] who wrote a whole book about failure has accurately observed, the issue is a little more complex: “He who fails perceives it as: *‘Now, everything is over’*, and says at the same moment: *‘What happens next?’*. In failure an end and a beginning overlap, so it is always both at the same time: an opportunity *and* a dead end. Failure exposes to a contradictory experience where two incompatible extremes meet at the same moment. The line on which one moves is accordingly a thin one [...]” This thin line gives you the opportunity to get the employee from creative entrepreneurial spirit to paralyzing fear with just a little push.

You can use the following methods to break the entrepreneurial spirit:

1. Method “Work creation program”

Act according to the motto: “He who makes the suggestion gets the work.” So employees who file a suggestion for improvement do not get fame and glory as well as, where appropriate, a financial bonus, but first and foremost only more work. And who wants to do more work!

2. Method “Mao”

Should this excess work not scare your employees off, act like the Chinese dictator Mao: “Punish one, educate one hundred.” If one of your employees makes a mistake – and he who promotes innovation is bound to make mistakes sooner or later – then strike mercilessly: Search for a scapegoat, most suitably the most entrepreneurial one of your employees, and punish him in a way which also affects the other employees of his department, most suitably where it hurts your employees most (e.g. “No more business class flights in the near future.”). Learn your lesson from the drill instructor in Stanley Kubrick’s movie “Full Metal Jacket” who made all soldiers of the unit make press-ups, when one of them had made a mistake.

Use the comprehension of the human inability to think in a multi-causal way which the great author Aldous Huxley [28] described in his book about a case of the inquisition: “To think about events realistically, in terms of multiple causations, is hard and emotionally unrewarding. How much easier, how much more agreeable to trace each effect to a single and, if possible, a personal cause! To the illusion of understanding will be joined, in this case, the pleasure of hero-worship, if the circumstances are favourable, and the equal, or even greater pleasure, if they should be unfavourable, of persecuting a scapegoat.”

3. Method “Status quo”

An especially popular method of innovation prevention is to give oneself the appearance of innovativeness and then judge every new product idea according to the status quo. This saves you from the bad image of being a procrastinator. So incite your employees and demand innovations from them. If your employees develop new product ideas and want to realize them, then ask them: “Who else is doing it?” or “Is this a reliable solution?” or “What do the competitors do?”. In the best case you will achieve a double bind by this, as already described in chapter 3 as a method using paradoxes, which – as you might remember – through its “untenable absurdity” leads to, when applied correctly, schizophrenia of the employee. If none of your employees finally shows any sign of entrepreneurial spirit, accuse them of not being innovative, although you have demanded it time and again.

Increasing the Resistance – Constructing Innovation Obstacles

The second variable “innovation resistance” determines how far your employees are involved in the innovation process. As the initially described case study of Edison has shown, a common entrepreneurial vision is an essential prerequisite for the achievement of innovations. The prevention of a vision is a nearly insurmountable obstacle.

To realize a vision the employees of a company need a certain degree of freedom, i.e. they must be allowed to be innovative. As the German scholar Wilhelm von Humboldt [27], brother of Alexander von Humboldt who is famous for his expeditions, put it in the eighteenth century: “The true purpose of man [...] is the highest and most proportional education of his potencies as a whole. For this education, freedom is the first and indispensable condition.” The British philosopher and economist John Stuart Mill [40] refers to Wilhelm von Humboldt, when he comes to the conclusion: “Genius can only breathe freely in an *atmosphere* of freedom.”

Therefore freedom is very important for innovations. Here a glance at the company is helpful which almost exclusively makes a living out of generating innovations as fast as possible: Google. At Google the employees have 20 % of their time as “creative time” to work on new ideas without thinking about their application. Thereby Google forms small teams consisting of three to five employees, but a large number of them of about 300 [25].

Another innovation resistance is fear of mistakes: the employees are not supposed to make mistakes. Prerequisite for innovation is an adequate corporate culture concerning mistakes and learning. Mistakes and misapprehensions are still “one of the last taboos in economic life”. Nevertheless it seems to be en

vogue as a corporate leader to appear to be very tolerant of mistakes. It is kind of cute, when distinguished managers admit their “favorite mistake” in the German business magazine *Wirtschaftswoche*, when for instance Jeffrey Immelt, CEO of the American GE-group, which is active in the electrical industry and plant engineering, acknowledges a “20-million-dollar flop” smiling contentedly [54]. The question which arises in the disposed reader is, how the facial expression of Jeffrey Immelt would be, if one of his subordinates admitted such a flop.

Schoemaker and Gunther [52] claim in the title of their article in the Harvard Business Manager: “Make more mistakes: It is worth it”. They advise to conduct experiments not only to confirm your assumptions, but also to deliberately apply “wrong” measures to put your assumptions to test. In all fairness they also say that this approach is only advisable, if certain conditions are met, if for instance the potential gain of the mistake exceeds the costs and if the risks of the mistake are limited: “For a producer of jet engines it would be downright foolish to test ill-conceived engines where breakdowns are to be expected on a fully occupied airplane.”

Also Wolf Lotter [36] takes up the cudgels in the German business magazine *brand eins* on behalf of mistakes: Mistakes must not be seen as a personal failure, but as an opportunity for progress. Instead of searching for a scapegoat, one should ask about the causes of the mistake and the perspective for learning from it, because people who do not make mistakes are seldom creative or innovative: “To err is human. Being erratic, too. He who does not try anything, will not get smart. Only stupid people believe that they are perfect.”

You can use the following methods to construct innovations obstacles:

1. Method “Go see the doctor”

Visions are also termed beacons, lighthouses or north stars. If you take these sign posts from your employees, you construct a first big obstacle for innovations. He who does not know his destination cannot arrive there. Act according to the motto: “People with visions should go see the doctor”. Do not give your employees a vision and suppress any vision your employees might give themselves.

2. Method “Limited”

Through a limitation of freedom you can work against the “potencies” of your employees which were described by von Humboldt and Mill. Freedom in a company could be time (e.g. “creative time” at Google), budget (e.g. small “creative budgets” without complex approval procedures) and resources (e.g.

access to experts or testing equipment) for testing and experimenting. Also the rigorous punishment of mistakes, as described in the last chapter, has – apart from the motivational effect – an enormous effect concerning innovation prevention.

3. Method “Leonardo culture”

For employees with an especially distinctive creativity which cannot be suppressed by the methods described in chapter 3 there is the following method: As paradoxical as it may sound, but you can use the exuberant creativity of your employees to build innovation obstacles. Therefore you need to establish a Leonardo culture in your company respectively your department. Leonardo da Vinci, the Renaissance man par excellence, documented a lot of inventions in drafts and pictures which were ahead of his time by many centuries, but apparently he did not realize one single idea. The reason for this was that because of his creativity the ideas gushed out of him so that he had no time left to follow them through and realize them. In his notebook he wrote the following slogan which may be your leitmotif: “Cogitation is a noble act. Execution is a servile one.” [24]

Encourage your employees to have as many eccentric ideas as possible which they might even document in detailed reports and surveys. If someone wants to realize one of these ideas, tell him with reference to the corresponding report or survey: “We already had this idea. Develop a new one.” Many Leonardos in your company are no problem. But you have to make sure that there is no Edison among your employees who absorbs the idea “like a sponge” and develops it further.

Impeding the Current Flow – Stifling Innovation Capabilities

The variable “innovation capabilities” is all about the refusal of a targeted human resources development for the method skills for a vital idea generation and realization. It is true that in human resources development the saying applies: “A fool with a tool is still a fool.” But we want to make sure at this point that those employees who are no “fools” still do not have the “tools” at hand respectively in their head. Of course we like the “fools without tools” most, but life is, as is well-known, not a rose garden.

In times of knowledge explosion and increasing knowledge diversification it is almost impossible for the employees to be an all-rounder or a universal genius like Archimedes. Therefore when it comes to innovation capabilities, the optimum manning of a project is of the utmost importance to achieve the diversity of knowledge and interdisciplinarity necessary for the task through capable team

members. Concerning idea realization small teams such as the ones at Google are – in contrast to idea generation – more effective than big ones and therefore to be prevented at all cost.

A third possibility to influence the innovation capabilities is to enlarge the circle of idea generators and realizers through open innovation to your customers, suppliers and cooperation partners. For instance, Google puts many new programs as beta-versions onto the Internet and optimizes them via feedback of the first users. In this way the product ripens at the customer – called “banana principle” – and the customer apparently seems to have fun.

You can use the following methods to stifle innovation capabilities:

1. Method “No tool”

Concerning the advanced training of your employees act according to the motto: “For him whose only tool is a hammer every problem is a nail.” Therefore ridicule all the creative methods. Here are some suggestions:

- Bionics: “We should really learn from the birds and the bees how to innovate.”
- SCAMPER: “Already the name makes me laugh.”
- Morphological box: “Morpho-what?”
- TRIZ: “Sounds like a cookie brand to me.”

Accept only brainstorming as a method for idea generation. Then turn to the method “Pseudo-brainstorming” as described in chapter 3 under “Debase Creativity” and do not save on criticism.

Methods for the realization of ideas, such as project management, can be rejected with the following argument: “We have already tried it. It is a giant effort and of no use.” (Emphasize the vowel “i” in “giant effort”.)

2. Method “Not invented here”

Use the “Not invented here”-syndrome in your organization or organizational unit which says that the members of a sworn-in group have difficulties to accept solutions from people from outside the group: “A stick-in-the-mud will try nothing new.” Form a strong bond between your employees and let them re-invent the wheel time and time again. This way you will channel the creative energies of your employees in the most productive way without risking big changes. In the best case you will create an atmosphere where every employee is skeptical

about any idea of the other employees so that learning in your organization becomes impossible.

About half of the innovations are realized through the inclusion of customers, suppliers or cooperation partners [18]. Seal off your company against information from your customers, suppliers and – if you have them – cooperation partners so that nobody makes a contribution to the improvement of your products or services. They do not have a clue anyway – least of all the customers.

3. Method “Diversity of opinion”

As already described, when we dealt with innovation obstacles, Google forms small teams to realize ideas. While during idea generation a certain group size and heterogeneity is necessary, it is obstructive concerning idea realization. Thus, form big teams according to the motto: “Every opinion has to be heard.”

If one of your teams comes to a solution all the same, expand the circle of participants even further, since not all opinions have been heard yet. It is the same principle as with working committees. If necessary, expand the circle of participants so that it includes the plant protective force, cleaning squad and company driver. Make sure that any of your employees can stop the innovation at all times and for any reason, if he does not like it. This way you will immunize your organization against innovations.

CIP – the Lingering Danger of Incremental Innovations

“[...] a fabric company that made complicated woven materials had a long-standing problem: yarn breakage during production, which was reflected in the cost of the company’s products and represented a competitive disadvantage. But the top team at the fabric maker continued to talk about the company’s search for really big product innovations, such as totally new materials. A new executive, who believed in opening the search for innovation to all employees, joined the company. After a meeting discussing the need for change, a veteran factory worker, who had joined as a young immigrant and still spoke with a heavy accent, tentatively approached the new executive with an idea for ending the breakage. The company tried it, and it worked. When asked how long he had had that idea, the worker replied, `Thirty-two years.’” [30]

This excerpt from the Harvard Business Review shows the lingering danger of incremental innovation and its methods which even achieve to elicit an innovative secret from a worker – actually an immigrant for whom it is much more difficult to open up because of linguistic and cultural barriers – after such a long time.

Let us now turn to incremental innovations or to innovations which derive from creativity with a “small c”, as Goleman put it. The methods of incremental innovations have their origin in the Toyota Production System which developed from the pressure of the difficult market conditions for the Japanese automotive industry at the end of the Second World War. Out of this pressure the Toyota-managers Eiji Toyoda and Taichi Ohno made a “benchmarking-trip” to the USA to study the Ford Production System. Especially the employee suggestion system of the Ford Motor Company and the business principle of American supermarkets were adapted and consistently realized by Toyota.

The spread of the system in the automotive industry of the West began in 1990 with the publication of the MIT-survey “The machine that changed the world” by James P. Womack, Daniel T. Jones and Daniel Roos, in which the term “Lean Production” was used for the first time. This term is often misunderstood: It does not mean slimming of hierarchies, but slimming of business processes. This slimming craze concerning hierarchies transforms the company into an undernourished organization which is all skin and bones. Meanwhile the term “lean” is used with all kinds of nouns, amongst others such illustrious constructions such as “Lean Thinking”, “Lean Six Sigma” or even “Lean Innovation”.

Out of the motivation to avoid wastefulness arose the principles of continuous improvement which is one of the cornerstones of the Toyota Production System: There is nothing which cannot be improved. This finally resulted in the Japanese management tool Kaizen (Japanese for “Change to the better”) which is known in English-speaking countries as “Continuous Improvement Process” (CIP). Here the motto goes: “He who does not have a problem has a problem.”

The method CIP can be illustrated by the CIP-wheel. The wheel symbolizes the continuous improvement which forges ahead uphill on an inclined plane. So things are looking up. The drive mechanism of the wheel is the transparency of the business processes. Stumbling blocks on the way up are various forms of wastefulness. Standardization is the wedge which is put under the wheel so that it will not roll downhill again.

There are two basic strategies to prevent continuous improvement to happen which affect different parts of the wheel:

Putting stumbling blocks in the way

The basic idea of this approach is to make the wastefulness big so that continuous improvement is of no use. Metaphorically speaking you put piles of wastefulness in front of the wheel which are so big that the CIP-wheel cannot get under way. There are many starting points for this; Eiji Toyoda distinguished

between seven forms of wastefulness: errors and rework, waiting time, transportation, wastefulness within the production process, storage, movements without value added and overproduction. Just pick the form of wastefulness you like!

The success of this approach depends on your company's general affinity to wastefulness – measurable by the so called pigsty-factor. An explanation for the effectiveness of this approach is given by system theory which conceives the pigsty as a system. The system pigsty has a so called tipping point – a critical point from which the system “tips”. “The tipping point is the moment of critical mass, the threshold, the degree of heat when water starts to boil.” [19]. To add a few more metaphors: The tipping point is the straw which breaks the camel's back, the snow flake which causes the avalanche and the beer which makes you shit-faced.

Under this threshold of the pigsty-factor wastefulness is considered to be annoying and tedious and will be removed by continuous improvement. But when the tipping point of the pigsty has been crossed, the system tips. Wastefulness now becomes preservative or even reinforcing for the system. The system suddenly needs wastefulness to survive. Modern bureaucracies such as your local tax office or university departments may serve as drastic examples.

The big advantage of this method is the longevity of a stable pigsty-system which can only be brought under the tipping point through big innovation efforts – the “big C”. The disadvantage is the fact that practicability depends very strongly on the corporate culture. As an individual you do not stand a chance to change the pigsty-factor significantly. For this you need whole organizational units or even the whole organization. Quite the contrary: For an individual this method borders to sabotage, and thus you are in constant danger of being caught and punished severely.

Choking the drive

A more sophisticated method is to avoid transparency in the company. In the picture of the CIP-wheel this approach affects the drive of the wheel and tries to choke it slowly until it comes to a standstill. Thereby it assumes the common saying: “What the eye doesn't see the heart doesn't grieve over.” This method exists in two variations.

During my career as a management consultant I found out over the years and in many companies that the number of bad news decreases with the level of hierarchy of the receiver and that the number of good news increases accordingly. This means that breakdowns, bad luck and busts are transformed on their way through the hierarchy of the lower and middle management into

strengths, opportunities and victories. The interested reader can find an explanation for such behavior of the lower and middle management in Maslow's pyramid [39] on the level of safety needs. The need for safety of the lower and middle management is backed up by a psychological idiosyncrasy of the upper management not to ask about the generation of a key figure (How was this figure calculated?), but only about the meaning of this key figure (Whom can I give a pasting for this?). Therefore there basically exists a cultural mechanism in every organization big enough which clever managers can use to their advantage.

The second variation is known to everyone who used to serve in the army under the term "camouflage yourself and trick the enemy" – which in the military is mainly used for the daily office work, not in combat, e.g. "How can I dodge physical education?". The approach is divided into three steps: Draw the curtain over all your activities. Hold back all compromising information as long as possible. And generally question all illustrative key figures (see "Limit your horizon" in chapter 3 concerning comparability).

The advantage of this approach is that it is much more elegant than the method of stumbling blocks, can be intensified continuously, since there is no tipping point, and is a good opportunity for individuals to prevent continuous improvements in the company. The main disadvantage is however, as shown in the example at the beginning of this chapter, that opacity is only a thin protective layer against innovation. The danger of detection is a constant doom on your company and, as the example shows, it is even possible that your cover blows after many years.

Despite all the disadvantages and dangers these two methods are still widely used in companies. Apart from these methods two other solutions spontaneously appeared in two different cultures. These solutions do not have the disadvantages described above, because they affect the standardization – the wedge in the picture of the CIP-wheel. They are named after their culture area in which they are predominantly used:

The German Method

The German Method uses fixed standard in the sense of a "one-best-solution" which means as much as: "This standard is the best there is, there was and there ever will be." In the picture of the CIP-wheel this means that you do not only put a wedge behind the wheel, but also in front. Additionally you nail it down as well as glue and weld it to the plane – just to be sure.

Best Practice-Example: From my career as a management consultant I know an especially nice example of the German Method of a company from the service sector. The company billed its turnover on an hourly basis. In the course of an

analysis new ideas for services were generated, for which a product-based accounting would have been necessary. The controller shot them all down on the grounds that they could not be calculated with his standardized cost accounting in the ERP¹²-system. This example shows two main circumstances of the method. Firstly it illustrates in a graphic way the potential for innovation prevention of EDP¹³-standards which, after the introduction, nobody will question – ever. Secondly, in cases of doubt, the controller is still the best ally in the fight against innovation.

The German Method is characterized by the following attributes:

- Target: Risk minimization
- Advantage: Standards are rigorously maintained not matter what.
- Motto: “Das haben wir schon immer so gemacht.”¹⁴ respectively “Never change a winning wedge.”
- Guiding idea: German virtues (“Dienst ist Dienst, und Schnaps ist Schnaps.”¹⁵)

The Italian Method

The Italian Method uses tender standards in the sense of flexible solutions. The tender standards are characterized by an easygoing introduction of standards in connection with a high bureaucratic effort to maintain the standards in the daily work. In the picture of the CIP-wheel this means: Only waxen wedges are used which will disintegrate within a short period of time so that the wheel rolls downhill again. At the same time the waxen wedges melt to a sort of lubrication film on the plane so that the wheel which is now at the bottom of the plane can only be rolled up again with the utmost effort. Sisyphus would have been delighted.

Best Practice-Example: In an Italian company of the manufacturing industry the accounting of projects used input standards of the ERP¹⁶-system which were defined in such a way that every time the complete input procedure had to be conducted anew. Therefore the accounting of a new project took months – sometimes even longer than the lead time of the project itself – no matter how many projects one had already done with this company. The employees defended their standard tooth and nail, although it demanded a completely new input every time. Their main argument was that it was their standard which could therefore not be changed.

The Italian Method is characterized by the following attributes:

¹² ERP = Enterprise Resource Planning

¹³ EDP = Electronic Data Processing

¹⁴ Translation: “We have always done it this way.”

¹⁵ Translation: “Service is service, and schnapps is schnapps.”

¹⁶ ERP still means Enterprise Resource Planning.

- Target: Flexibility maximization
- Advantage: Everyone has enough to do despite standards.
- Motto: “Dal dire al fare c’è di mezzo il mare.”¹⁷
- Guiding idea: Italian zest for life (“La vita e bella.”¹⁸)

The Fourth Fundamental Law of Uninnovativeness

The wise Confucius once said in nearly prophetic anticipation of Edison living about 2,000 years later than the sage: “It is better to ignite a light than to rail against darkness.” On the other hand the German poet and author Erich Limpach said: “Too much light increases the value of the shadow.”

This saying by Limpach is confirmed by our case study about Edison. Since Edison was not the real inventor of the light bulb, he had to undergo many patent lawsuits, e.g. with the German Heinrich Göbel. Moreover there was a strong resistance from industry so that Edison was pushed out of his own company and turned to other topics. In retrospect Edison drew a sobering conclusion about his engagement for the popularization of the light bulb and said that the invention of electric light did not bring him any profits, only forty years of lawsuits.

Our case study of Edison thus shows that Confucius was on the wrong track with his saying. We do not want to accuse him thereof because the situation 2,000 years ago was probably a little different. In connection with Erich Limpach’s “value of the shadow” he delivers us the fourth fundamental law of uninnovativeness, called “Anti-Confucius”:

It is better not to ignite a light and to enjoy the darkness.

¹⁷ Translation: “Between saying and doing lies the wide ocean.”

¹⁸ Translation: “Life is beautiful.”

Chapter 5

How to Leave One's Brain at the Factory Gate

A survey of the Swiss professor Urs Füglistaller [18] found out that only a quarter of the ideas of a company are created inside the company; three quarters of the ideas are generated outside the company. Even if you apply all the tools described in this book, it can happen that your employees – maybe only by accident – incubate creative ideas.

Ideas come into existence in the head of the individual. Sources of ideas are, as already described in chapter 3, the knowledge and the creativity of the individual. Knowledge is the raw material of ideas; creativity is the process which produces new ideas from the raw material of knowledge. Therefore it is not sufficient to prevent the innovation of one's employees, colleagues and superiors. Everybody must develop his own uninnoventiveness. Everybody can contribute to this and leave one's brain at the factory gate.

Jordan Ayan, the founder of Create-it! Inc., describes tips and tricks in his book "Aha!" [3], how everybody can become creative in his private and professional environment. You can use these to become uncreative by turning his advices into the opposite. If, for instance, he describes in his chapter "Design an Enriching Environment" how to design one's work environment in a most inspiring way, just do what the author of the guidebook in your hands did and transfer your office into the basement of your house. There you are free from all the influences stimulating and supporting creativity. My appeal to you is: Put your money where your mouth is!

Germany, for instance, is altogether on a good way concerning this matter. The international PISA-survey which was discussed extensively in the press has shown that Germany lags behind the other industrial nations concerning education and natural scientific knowledge and is classified – according to subject – somewhere between the second and the third world. With this result we are, as OECD-coordinator Andreas Schleicher put it, "first in the second league" [43].

The "Sylter Runde" (translation: "Round Table of Sylt") founded and hosted by Professor Norbert Szyperski assessed the innovation strengths and weaknesses of the USA, Germany and Southeast Asia in its memorandum "Integrative Innovation" [58]. Reminder: The "Sylter Runde" divides the development of new products into the steps invention, innovation, perfection and imitation. Indeed, Germany is strong concerning invention and perfection of products compared to the USA and Southeast Asia. But Germany is comparatively weak concerning innovation, meaning the implementation of inventions, and imitation. Apparently

Germany is a people of tinkerers and perfectionists who have lost their entrepreneurial spirit and do not understand anymore how to realize their ideas – or the ideas of others – into marketable products. If they now manage to abandon the creative ideas they are at the final destination of absolute uninnovativeness.

Maybe then the forecast of Joseph Alois Schumpeter [53] becomes reality in which he foretold the decline of capitalism, but other than Karl Marx prophesized it, not through a revolution but through a “Vertrusting” (= the turning into trusts) of institutions and the gradual disappearance of the innovative entrepreneurial type. The entrepreneur is replaced more and more by “compromise personalities” who are not the best in the technical or economic field, but who understand best how to deal with political parties, the public opinion and authorities.

My hopes rest on the next generation to realize uninnovativeness in all its facets to its fullest degree.

The Fifth Fundamental Law of Uninnovativeness

The physicist and philosopher Heinz von Foerster [17], also called the “Socrates of Cybernetics”, takes human beings for non-trivial machines. Trivial machines give the same output, whenever being fed the same input. Non-trivial machines do not do this, because they can change their internal conditions. From this he derives the following fact about the education of our children: “Unfortunately the western rationalized tradition fell in love with trivialization operations so much that everything must be trivialized, even our children. Imagine you ask your son: ‘Tell me how much is 2×2 ?’ and he says: ‘green’. What happens? You send him to a state-run trivialization institution so that later he will always say ‘4’.”

Another example for the trivialization of the non-trivial machine “human being” comes from the possible answers which a student can give to the question “When was Napoleon born?”. The right answer in the context of the school system is “1769”, because it is expected. Wrong in this context is, for instance, the answer “Seven years before the American Declaration of Independence”, because it is not expected and does not fit into the schema [16].

Heinz von Foerster [16] once formulated the following imperative: “Act always so as to increase the number of choices.” Trivialization of human beings, i.e. limitation of their experiences and their creative capabilities already in younger days, leads directly and without detour to uninnovativeness. The fifth fundamental law of uninnovativeness, thus, is called “Anti-von Foerster” and goes as follows:

Act always so as to decrease the number of choices.

Epilogue and Acknowledgements

When the Austrian psychotherapist Paul Watzlawick who unfortunately died in 2007 wrote his most famous book called “Anleitung zum Unglücklichsein” (English edition: “Situation Is Hopeless, but not Serious – The Pursuit of Unhappiness”), he was probably pretty irritated about all the psychological guidebooks and self-help books drowning the book market. When asked the question “Is there a particular reason why you wrote this book now, in 1983?” at a reading, he answered [65]: “I don’t know how the situation is on the European book market, with which I am much less acquainted. But America at the moment drowns in a wave of ‘How to’-books, such as ‘How to become happy’, ‘How to become successful’ etc. Already many years ago I had [...] the feeling that these serious books which really want to emphasize the positive have a contrary effect.”

When I take a look at the book market of today, I have a similar feeling concerning innovation. To make one thing clear from the start: I think innovations are important, especially for national economies without noteworthy reserves of natural resources, such as the German one. But innovations are by no means a cure-all. And the way, in which innovation guidebooks time and again try to establish creative methods or introduce innovation management, is as unimaginative as the approaches they would like to eliminate. The result is often an insufficient realization in the company.

The main causes for this situation are – in my opinion – largely based on the following three misconceptions:

1. Innovations do by no means click like clockwork, but require hard work and dedication and nevertheless are very risky. For innovations one needs a very high frustration threshold because one inevitably meets resistance and suffers failure. It does not help to keep quiet about this fact or to conceal it by telling the same success stories time and again. In doing so one will end with a high number of “burnt children” who will give up after the first failed attempt and “dread the fire” in the future.
2. Not every new item qualifies as a Breakthrough Innovation, even if your marketing department tells you otherwise. Here some more straightforwardness and modesty would be nice. Constant sensational reports wear off by and by and are rather prejudicial than beneficial to the cause – a similar effect as the constant catastrophic reports concerning environmental issues. This in my opinion also applies to the overdoing world of media.
3. If you want to get innovations, you have to act accordingly, you must have the courage and open-mindedness for new things as well as the

adaptability. Then you cannot bring arguments such as “hedging one’s bets”, “established solution” or “traditional approach” to the table. On the whole, a little more entrepreneurial spirit in the sense of Schumpeter would be nice.

If the summary sounds a little mundane, then I am sorry. But these are the things which I am missing painfully in the whole debate about innovation.

If you recognized your boss, a colleague or maybe even yourself on one or the other page of this book, I do hope that you are good-natured about it and can laugh about it. I will not exclude myself: I also have used some of the methods described in this book. But insight is the first step to improvement. So I want this book to be understood as a prescription of the symptoms it tries cure and hope that in this case really like cures like.

At this point I do not want to miss the opportunity to thank the people who contributed decisively to the content of this book:

- I thank my good friend Guido Maetzing for the cover cartoon of Archimedes in the style of the Ghostbusters logo and for calling my attention to the book “Anleitung zum Unglücklichsein” of Paul Watzlawick.
- Thanks go to my fellow board member of DABEI e.V. – a German non-profit organization promoting education, invention and innovation in Germany – Dr. Alexander Kantner for the idea of the innovation formula on the basis of Ohm’s law.
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- To my wife Stefanie goes a big “Thank you” for taking care of our two small children, while I was busy writing this book.

Of course, I am solely responsible for all errors and inaccuracies. If you want to write to me to correct errors or to tell me your experiences concerning uninnovativeness, you can do so via e-mail (c.deckert@carsten-deckert.de) or via my personal website (www.carsten-deckert.de). If you are interested in a consulting offer concerning innovation you might want to visit the website of my company Deckert Management Consultants GmbH (www.deckert-mc.com) to get some information.

I dedicate this book to my children Laura and Felix.

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The guidebook “The Pursuit of Uninnovativeness” does for innovation management what Paul Watzlawick’s book “Situation is Hopeless, but not Serious – The Pursuit of Unhappiness” did for self-help. It shatters some of innovation management’s basic assumptions, mocks its mumbo-jumbo and mercilessly reveals its inadequacies and broken promises.

Carsten Deckert shows the numerous methods companies and individuals use to prevent innovations and to make their lives and the lives of others generally uncreative and unimaginative. Hence it invites you to critically question some of your beliefs about innovation previously held dear and to put your own behavior – and that of your company – to test.



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