



**THINK  
DIFFERENT**

**CE PROFILE 2018**

**ControlExpert**  
Redefining Rules.

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# IN A WORD

Dear reader,

We are all witnessing changes on a scale that has never been seen before. Modern technologies, computers and machines are advancing unceasingly into all aspects of life, changing them fundamentally; and the same is of course true for the world of work. You do not have to be a prophet to be able to predict that the professional world as we know it will no longer exist in 10 or 20 years. The reason for this is the exponentially growing technological progress being made through digitalization.

As a trailblazer in this field, we at ControlExpert are always looking for ways to sensibly integrate the latest technologies into existing processes in order to simplify and accelerate them. It follows that we are also not new to topics that are now the subject of much discussion, such as deep learning, artificial intelligence, blockchain, automatic image recognition, voice assistants and telematics. Our Research & Development Division has allowed us to not only acquire a great deal of theoretical knowledge over the past years, but also to do that which is in our DNA: roll up our sleeves and get things done. By performing countless tests and model experiments, we have gained valuable knowledge that already benefits our customers, as it will of course continue to do in the future.

But amidst all of this, we are not simply throwing the latest technology at every potential use case. We carefully consider each individual process point and test and evaluate the feasibility and necessity of an improvement.

One thing is for sure: Artificial intelligence will play a dominant role in the claims processes of the future. However, without human intelligence, we will not be able to make any progress. The spirit of innovation of our product owners and the enthusiastic flexibility of our developers and programmers are just as essential as the know-how of our vehicle experts, which they acquired through decades of work experience. After all, progress can only be made if one thinks differently to before. By constantly asking: How can this be done better? You can sense the drive to always find answers to these questions in all of us; in all countries, divisions, offices, and at all levels. Therefore, the choice of slogan on the cover of this year's C€ Profile was an easy one: "Think different."

We invite you to take a look at this future with us, as well as at current products, projects and developments. We hope that you enjoy the read and learn a great deal!

Gerhard Witte

Kai Siersleben

Nicolas Witte



CLAIMS PROCESS OF THE FUTURE

CONTROLEXPERT INSIGHTS

DIGITAL IS NOW

C€ PRODUCTS

# CLAIMS PROCESS OF THE FUTURE



## TELEMATICS

P. 06

Use of acceleration sensors that have already been used in ESC/ESP sensors for a few years. Using Big Data and our product SpeedCheck, the position and extent of damage can be determined in real time.



## CHATBOT & CARLEXA

P. 10

Instant messaging services for processing claim cases – 24 hours a day, 7 days a week.



## POSTMASTER®

P. 14

Digital communications platform for connecting the automotive industry. It allows car dealers, repair shops, and auto body shops to send their cost estimates, expert reports, images, and invoices as a package to over 130 recipients with a single click.



## EASYCLAIM/GO

P. 18

Web-based claims processing using a mobile device and photos. A claim can be processed within a few hours – from claim reporting to cost estimate.



## AUTOMATIC IMAGE RECOGNITION

P. 22

Software based on proprietary algorithms and artificial intelligence that automatically recognizes auto parts and damage to the vehicle in pictures. Automatic image recognition is used in many of ControlExpert's products.



## SPEEDCHECK

P. 26

Web-based application that can be used to quickly and effectively forecast the costs of a vehicle claim.



## 3D PRINTING

P. 30

With 3D printing technologies, repair shops will soon be able to print vehicle replacement parts on-site and prepare them for installation. ControlExpert's core task is the development of an adequate communication infrastructure.

The complete processing of a claim case can take up to a month to process. That is too long. What if this process could be shortened to, say, just a few hours? Wishful thinking? No — That's our vision.

As if an accident wasn't enough of a pain, often the victim's troubles are only just beginning. Considering the accident itself, documentation of the claim, determination of the claim amount and appropriate repairs, reviewing the contract details, selection of a repair shop, delivery of replacement parts, and performance of the repair itself, accidents cost a lot in terms of nerves and time. Today's claims process is in principle the same as it was 30 years ago. On average, 28 days pass before a claim is fully processed. Victims either need to have a lot of patience or a good deal of self-initiative to reduce the waiting time.

Watching Nicolas Witte, Managing Director at ControlExpert, speak about this subject, it is apparent that he sees a lot of potential for change. The 32-year-old is one of the driving forces in the company based in Langenfeld, Germany when it comes to picking up on trends and developing solutions for the future from them. Today, CE products like EasyClaim and SpeedCheck are already contributing to the acceleration of time-consuming processes through digitalization. These will also play an important role in future claims processes. But this is nowhere near enough for the ControlExpert team. Their vision is to design the entire claims process so that it is available on demand for

the user. The technologies required for this have long been in existence – they only need to be properly adapted and applied.

The company's team of IT specialists, vehicle experts, programmers, data scientists and research & development specialists are working tirelessly towards precisely this goal. "To begin, we took a detailed look at each part of the process chain and asked ourselves: How could this be done better? How can we simplify this step? This of course takes into consideration the trends of the future and the newest technologies", explains Nicolas Witte. The result is computer vision/automatic image recognition, voice control, telematics, drone technology, Deep Learning and 3D printing - all topics that will without a doubt be a part of the future. The result is a vision for the claims process of the future. However, even while working on this vision, the ControlExpert team has realized that this future is not far off at all. In principle, we are already living in this very future.

So what does the claims process of the future look like? Let us take you on an exciting journey through each of the various technologies (see the insets on the left). ■



## NICOLAS WITTE

Managing Director at ControlExpert

"Our vision is to design the entire claims process to be available on demand for the user – meeting the hopes and expectations of our customers. The technologies needed for this have long been in existence – we only need to properly adapt and apply them."



TELEMATICS



CHATBOT & CARLEXA – P. 10



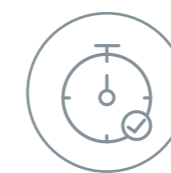
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TELEMATICS

# CLAIM INFORMATION IN SECONDS

An accident cannot be reversed. But it is possible to make sure that it is forgotten as quickly as possible. This includes receiving a summary of the damage as soon as possible. In the first step of the future's claims process, this only takes a few seconds. Sounds utopian? Nope, just telematics. And a little physics.

"WHEN AN ACCIDENT OCCURS, WE WILL BE ABLE TO QUANTIFY THE DAMAGES BEFORE THE VEHICLE EVEN COMES TO A STOP."

DANIEL KLIMA,  
Operational Excellence Specialist,  
ControlExpert

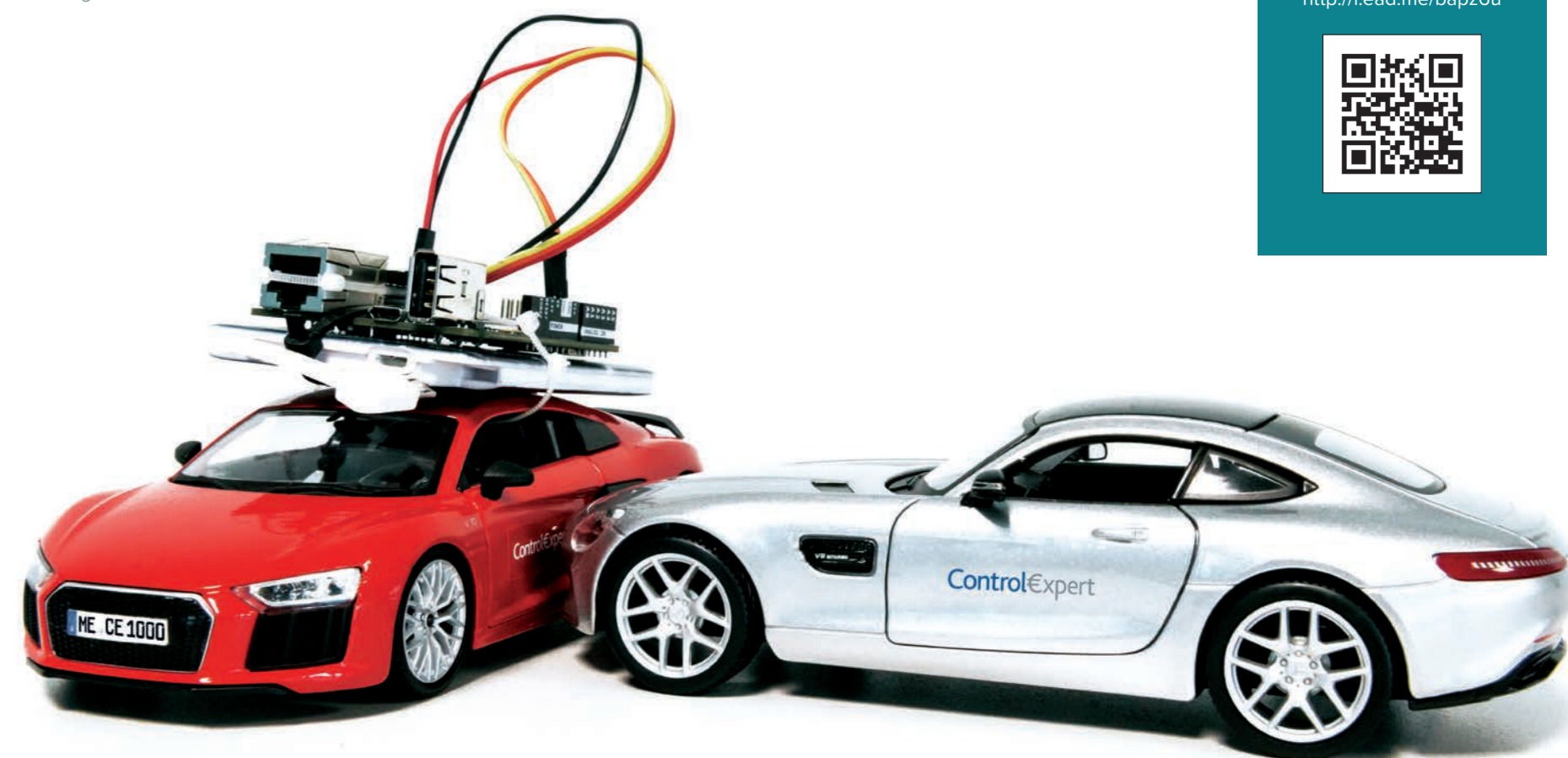
"When an accident occurs, we will be able to quantify the damages before the vehicle even comes to a stop." Those hearing the conviction in Daniel Klima's voice as he says this will have no doubt that this will happen. The trained mechanical engineer, who works at ControlExpert's Research and Development Division, knows what he is talking about. "Vehicles are driving data sources. Massive quantities of data are obtained through onboard telematics sensors. The important question here is: How can we use this data in the future to benefit our customers?"

To learn how data is obtained, Daniel Klima and his colleagues make use of a proven method: Test, test, and re-test. They built a mathematical dynamic model that they have validated using real test data. In order to provide a better overview of the results for those without extensive mathematical know-how, they used two model cars and an accelerometer from an electronics store to build a demonstrator. In the trials they conducted, the sensor was able to determine which forces were acting on the vehicles, and from where. Position, direction, magnitude – that's

physics. If this telematics sensor data is linked with existing data, including data on the vehicle model and insurance rates, binding claim predictions can be created, cost clarity can be provided, and approvals can be issued in a short time – fully automatically. In the existing application SpeedCheck (see second box on the right), which already provides reliable real-time claim predictions, all information can be collected and channeled. Still: Everything depends on the data.

"Data is the oil of today", says Dr. Andreas Witte, Head of the ControlExpert Research and Development Division. In this context, the questions of data privacy and data sharing are certainly the most difficult to resolve. But until those questions are resolved, the research will go on. Already today, ControlExpert is working on pilot projects with major automotive manufacturers, validating and improving real data every day. Because one thing is for sure: Telematics will play an important role in the claims processes of the future. Dr. Andreas Witte is not the only one who is certain of this. ■

Telematics model: The red model vehicle is equipped with a motion sensor on its roof. If the silver car drives into the side of the red car, the sensor registers a collision.



Claims processing with telematics  
Link to video:  
<http://l.ead.me/bapz6u>



**DR. ANDREAS WITTE**

Head of Research and Development at ControlExpert

Since the beginning of 2015, Dr. Andreas Witte has been the Head of the Research and Development Division at ControlExpert. His focus has been on business intelligence, machine learning, Big Data analytics, artificial intelligence, and much more. Prior to coming to ControlExpert, he worked at the Fraunhofer Institute and at RWTH Aachen, where he still lectures. At RWTH, Dr. Andreas Witte studied mechanical engineering and obtained his Ph.D. in the fields of production and signal processing.



**DANIEL KLIMA**

Operational Excellence Specialist at ControlExpert

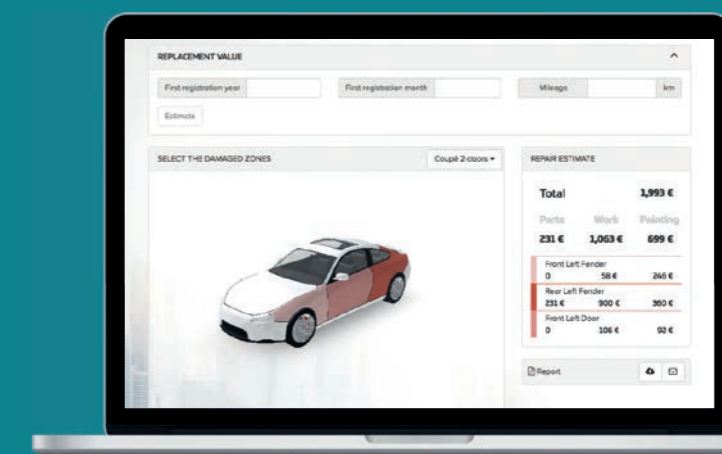
Daniel Klima started in 2015 in the Research and Development Division at ControlExpert. After his master's degree in mechanical engineering, during which his research focused on the fields of Industry 4.0, IT, and service engineering, he joined ControlExpert. Here, he developed a prediction model for internal planning that is actively used today.

**BENEFITS OF TELEMATICS**

- Reliable information about the course of events leading up to an accident and the extent of the damage
- Fault is quickly determined
- Development of "telematics rates" that are based on driver behavior
- Automated processing (towing and replacement vehicles can be ordered automatically, immediate ordering of replacement parts possible, and where necessary the arrangement of a custom appointment at the repair shop)

**SPEEDCHECK – RESULTS IN A FLASH**

With the web-based application SpeedCheck, the costs of a vehicle damage claim can be predicted quickly and effectively. SpeedCheck's claim amount prediction determines a settlement amount based on claims with comparable damage elements that already exist in the database, allowing insurance companies to provide a binding settlement offer in real time to the policy holder and/or claimant. Repair shops can also have the cost estimate performed using SpeedCheck, saving valuable time.





## THE SEVEN DEADLY SINS OF AGING

### CELL LOSS

Occurs for example in the form of death of nerve cells in the brain, leading to schizophrenia and Alzheimer's disease.

### MITOCHONDRIAL MUTATION

Increases the likelihood that diabetes, high blood pressure, and high blood lipid values will develop.

### INTRACELLULAR WASTE MATERIALS

Created during an important deacidification process for cells. May lead to Alzheimer's, Parkinson's, or Huntington's disease.

### CANCER

Refers to the formation of malignant tissue growths in the human body that crowd out or destroy healthy tissue.

### EXTRACELLULAR WASTE MATERIALS

Intracellular waste materials that are transported through the cell wall into extracellular areas. Cause headaches, nausea, discomfort, diarrhea, and other symptoms.

### OLD CELLS

Develop through the natural process of aging and can trigger conditions such as diabetes, cardiovascular diseases, cancer, dementia, arthritis, and osteoporosis.

### CROSS-LINKING PROTEINS

Proteins used in the food industry as cheap emulsifiers/stabilizers are suspected of triggering autoimmune diseases, among other effects.

## AUBREY DE GREY

# WHO WANTS TO LIVE FOREVER?

Life as we know it has a beginning and an end. But gerontologist Aubrey de Grey is working on finding a way for us to live forever. Setting aside the associated moral quandary for a moment, this possibility presents us with challenges that we have never faced before.

Can you imagine yourself being immortal? Turning 100, 200, 500, or even 1,000 years old? Living to experience the lives of your children, grandchildren, and great-grandchildren? How would your pension handle this? Immortality would completely take care of our pension system issues once and for all. And what would reproduction look like? With immortality, the desire to leave something behind on earth after death would likely no longer be as strong as it is today. On the other hand, a ban on reproduction might also be put into place to avoid overpopulating the planet. Because if nobody dies, where are all the people supposed to live? Perhaps in space?

With thoughts such as these, we notice that immortality is a difficult concept for us humans to grasp, and is still unimaginable. At the same time, the notion of immortality is discussed as the greatest threat to humanity. Whatever one's personal views on the subject might be, one researcher from London already has his own vision of how we could achieve immortality – and is working hard towards this goal.

Aubrey De Grey, 54 years old, is considered to be one of today's most influential gerontologists. De Grey, who is a computer scientist at the University of Cambridge's Department of Genetics, taught himself what he knows about gerontology. But he is not interested in freeing humanity from death. Rather, he would like to see aging become a thing of the past. In his opinion, aging is "only one of many possible causes of death." Still, his work is controversial. He gained worldwide attention a few years ago by presenting new scientific approaches that he claims could stop aging in humans. Aubrey De Grey considers the dream of staying young and healthy forever to be an achievable goal. He believes the actual problem lies with the consequences that society would then have to deal with.

"A REJUVENATING CURE CAN BE COMPARED WITH THE MAINTENANCE OF A CAR: TO KEEP THE BODY IN TOP CONDITION AT ALL TIMES, MORE FREQUENT VISITS TO THE 'CELL WORKSHOP' ARE NECESSARY. IF KEEPING EVERYTHING WORKING RELIABLY IS ENOUGH, SERVICING ONCE EVERY FEW YEARS WILL SUFFICE."

AUBREY DE GREY,  
British bioinformaticist and theoretical biological gerontologist

### THE SEVEN DEADLY SINS OF AGING

In Aubrey De Grey's view, there are "seven deadly sins" of aging that lead to death (see box on left). He considers these deadly sins to be types of damage. For each type of damage, he suggests targeted strategies to fight them. In an aging body, undesirable cells increasingly accumulate. These accumulations can cause problems, for example in the joints. By activating the body's own killer cells, however, it could be possible to avoid such accumulations. Since these cells only gradually accumulate in the body, at first they do not cause any damage. It only becomes more serious when a certain threshold is exceeded. For Aubrey De Grey, this also leads to the conclusion that these accumulations only need to be prevented from reaching this threshold. If this were achieved, it would be as if signs of aging were simply eradicated. The damage thus remains at a manageable level. Aubrey De Grey answers the question of how frequently such "rejuvenating cures" are needed with an analogy from the automotive world: In order for the body to always be in excellent condition, it would have to go more frequently into the "cell repair shop." If simply keeping aging processes at bay and ensuring that everything works reliably is enough, a visit once every few years is sufficient.

### WHO WILL LIVE TO SEE THE END OF AGING?

In De Grey's opinion, the prospect of eliminating aging is only 30 years away. Of the seven problems to be solved, three of these are currently being researched through animal testing (cancer, cell death, and aged cells). It is estimated that the remaining four problems will take another 15 years to solve. Perhaps even much longer. Aubrey De Grey's biggest problem currently appears to be funding for his projects. Still, the British scientist is not the kind of guy who would let something so worldly as money hold him back. He will find a way. And we can be excited to see where this leads. ■





## CHATBOT & CARLEXA

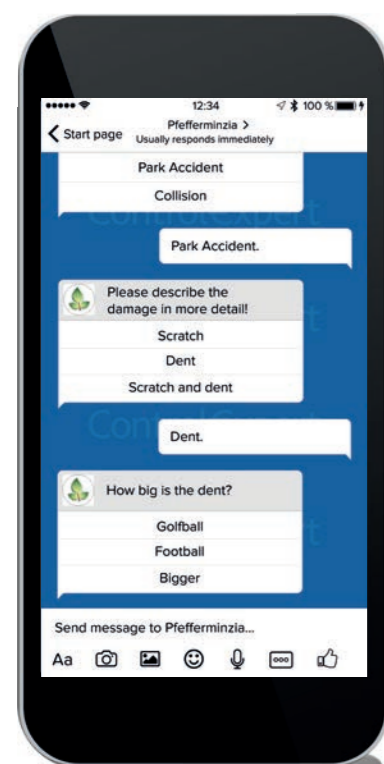
# WE HAVE CONTACT

Regardless of how large the claim is: When an accident happens, claimants are grateful for any help and guidance they can get. What happened? What needs to be done now? Who is supposed to take care of what, and when? Questions like these can make one's head spin. Already today, the answers to these questions are increasingly provided by digital text-based and speech-based dialog systems.

It still sounds a bit like a scenario from an 80's science fiction movie: Two parties have a conversation, whether spoken or in writing, and talk about current events or explain complex issues. But one of the two conversation partners is not human. What once looked like a chilling, somewhat anxiety-producing vision of the future has long become reality. But now it is anything but chilling or anxiety-producing. Chatbots, as these messaging apps are frequently called, are used today in many aspects of our lives. While the number of messaging app users worldwide was still only 1.07 billion in 2014, that number is expected to increase to nearly 2.2 billion users by 2019.<sup>1</sup> So it is no wonder that they already play a role in the claims processes of the future, and will play an increasingly greater role. The same applies to the speech-based "colleagues" of chatbots: Digital assistants such as Amazon's Alexa are on the rise around the world and in all aspects of life.

As a digitalization expert, ControlExpert works on the development and implementation of automated dialog systems. The advantages, both for claimants as well as insurers, are clear. This will provide both parties

with the option of fully automated processing of claims – 24 hours a day, 7 days a week. And it is nowhere near as cold and factual as one would initially expect from software. Chatbots not only win our favor through nearly unlimited specialized knowledge, but also through enormous empathy. Often, one can no longer tell whether they are dealing with a human conversation partner or not. It is therefore highly likely that even you, dear reader, have already communicated with a chatbot without your conversation partner identifying themselves as "not human". Even speech-controlled audio systems have reached a point where they blur the boundaries between reality and virtual reality. One clear demonstration of this was presented at #\_hackNEXT, the Allianz hackathon for the insurance industry, held in Munich in spring 2017. >>



A ControlExpert IT team took part in this competition. An IoT (Internet of Things) solution was developed in connection with artificial intelligence and cloud computing, making claims adjustments possible with Amazon's voice assistant Alexa. The resulting product with a working title of "Carlexa" allows customers to report e.g. parking damage from the comfort of their living room couch. In combination with other CE products such as Speed-Check, the vehicle is identified, located, and the claim is calculated. At the end of the conversation with "Carlexa", the customer then decides whether to accept a payout or take the vehicle to a repair

shop. In the very near future, claims and communication with claimants will thus be handled by chatbots or systems such as "Carlexa", either through mobile devices or vehicle-integrated audio systems. The claimant will receive a rapid response not only regarding the claim amount but will also be steered through the rest of the process. What is the claim amount? Does the vehicle need to be towed? Which repair shop should I use? Where is it? All this is handled in seconds – fully automated in a reliable manner – and much friendlier than in the gray science fiction visions of the 80s. ■

Claims reporting with Carlexa  
 Link to video:  
[I.lead.me/baqpjW](https://lead.me/baqpjW)



Fig. 1: #\_hackNEXT 2017 – the hackathon for the insurance industry. A joint initiative of Allianz Deutschland AG, the technology consulting firm DataArt, the insurance analysts Franke and Bornberg, and the strategy and management consultants zeb.



Fig. 2: The ControlExpert hackathon team at #\_hackNEXT 2017.



"IN THE VERY NEAR FUTURE, CHATBOTS OR SYSTEMS LIKE 'CARLEXA' WILL COMMUNICATE WITH CLAIMANTS TO HANDLE CLAIMS, EITHER THROUGH MOBILE DEVICES OR VEHICLE-INTEGRATED AUDIO SYSTEMS."

MICHAEL KUBIOWICZ,  
 Key Account Manager,  
 ControlExpert

<sup>1</sup><https://de.statista.com/themen/1973/instant-messenger/>

**INVOICECHECK**

# INVOICE CHECKING BY EXPERTS

Is it actually possible to more effectively and efficiently audit repair costs? This is a subject that many have already thought about and worked on. Many customers, claims adjusters, and just as many insurance experts. But like so many things in life, the infamous devil is in the details.

"InvoiceCheck brings with it an innovative and customer-oriented product and a well-tested, systematic procedure. This brings the 'black box' of auto body repair invoices to light. InvoiceCheck is able to do what many wish they could do", explains Nick Pawlak, Head of InvoiceCheck at ControlExpert. The recipe for success to check each invoice is on the one hand through perfectly prepared and intelligently linked data, and on the other hand through the expert knowledge of the employees.

**DIGITALIZED KNOWLEDGE AS A VALUE-CREATING FACTOR**

At ControlExpert we not only know what the lump-sum costs are, but also each individual item behind them. We also know which manufacturer has individual specifications regarding labor values, included/combined work and repair instructions. This makes the costs transparent. It demonstrates savings potential and shortens the time to completion of a case. "We live in a digital, networked world in which time is also money, as we all know", says Nick Pawlak. A rate of achievement of 80% of the savings potential lends support to his claim.

**ALL CURRENT DATA ON THE RADAR**

Computers have long become so smart that they can review large quantities of data and complex information more rapidly than humans can. ControlExpert recognized this value-add of digitalization at an early stage and built up a division dedicated to professional data management. The team is focused on the completion and supplementation of manufacturer specifications as well as maintenance of inventory data, such that an extensive dataset has been accumulated over the years.

**SPECIALIZATION PAYS OFF**

The technical expertise of the vehicle experts is at least as important as the databases described above. In order to be able to provide the highest degree of professionalism, we divide our vehicle experts into manufacturer teams. For example, this means that a vehicle expert with years of practical work experience in a BMW workshop is dedicated to the review of BMW invoices. Even when it comes to this, ControlExpert adjusts every possible aspect to ensure the highest degree of quality.

**CALL ME MAYBE!**

Particularly for technical discussions with the workshop regarding opaque flat rates or invoice items, a phone call by our vehicle experts to the workshop can be a big advantage. Discussions can be held on equal footing, and most importantly concluded quickly. If desired, ControlExpert is also happy to directly forward calls to our vehicle experts.

**RESULTS AT A GLANCE**

Since our InvoiceCheck product is used by more than 30 customers, we can always compare the results of an individual customer with those in the industry as a whole. Through easy-to-read, detailed reporting, we provide the customer with useful notes on additional potential for optimization.

**AUTOMATED PAYMENT**

If it is operationally favorable for the customer, ControlExpert works to close claims and even provide automated payouts if desired. ControlExpert handles the default values in the system and ensures integration of adjustment data into the customer system. This makes it possible to perform the entire settlement process even more rapidly and digitally. ■



**NICK PAWLAK**

Head of InvoiceCheck at ControlExpert

"InvoiceCheck brings with it an innovative and customer-oriented product and a well-tested, systematic procedure. This brings the 'black box' of auto body repair invoices to light. InvoiceCheck is able to do what many wish they could do."



**DID YOU KNOW..?**

63% of all repair shop invoices have issues.



## INVOICECHECK ADVANTAGES

- Applicable to vehicle and liability damages
- Acceleration of process thanks to valid data formats
- Integration of manufacturer specifications
- Training of claims adjusters by ControlExpert
- Reduced claims adjuster workload through direct phone consultations between ControlExpert and the repair shop
- Maximum transparency through detailed web reporting, including industry comparison



# POSTMASTER® COMMUNICATION IS EVERYTHING

As a digital communication platform, PostMaster® is a central element of the claims and maintenance processes of the future. It can be used to handle all technologies and processes, and will also be compatible with the technologies of the future. Even today, ControlExpert has achieved something great with PostMaster®. The digital networking of an entire industry.



**"FULLY AUTOMATIC SETTLEMENT, RAPID REPLIES, QUICK PAYMENT, EASY TO USE – THAT IS PRECISELY WHAT ALL OF THE CUSTOMERS IN OUR NETWORK VALUE."**

HENRIK LANGE,  
Automotive Sales Manager,  
ControlExpert

Steffen Kinski, Automotive Sales Manager at ControlExpert, has no doubt: PostMaster® is a unique success story. When it launched eight years ago, the web-based platform revolutionized claims and maintenance settlement for the German automotive industry. The proof of its success is in the numbers: "A communication platform lives on its users alone. Without people to work with it, even the best platform doesn't accomplish anything. In 2017, more than half a million transactions were settled using PostMaster®. This figure speaks for itself." There are even a few more successful figures like this one.

Nearly all insurance and leasing companies in Germany are recipients of PostMaster®. More than 5,000 associated auto repair shops use it to send correspondence. They generate their cost estimates, images, invoices, and expert opinions as usual in their dealer management systems and then send everything as a package to their partners in the corporate, leasing, and insurance

industries. Henrik Lange, Automotive Sales Manager, says: "Fully automatic settlement, rapid replies, quick payment, easy to use – that is precisely what all of the customers in our network value." And the number of customers is growing. For example, in 2017, PostMaster® was able to win over another industry leader, Porsche Financial Services.

A dedicated interface was developed for Porsche Financial Services, through which all 87 Porsche centers in Germany can now communicate easily using PostMaster®. This allows them to manage all maintenance packages using the digital platform. Other companies also expect big advantages to come from the digitalization of their maintenance and claims processes, as demonstrated by the active pilot projects with Opel Leasing, Real Garant Versicherung AG, Adelta.Finanz AG, and other partners, to name a few. The future holds great promise in this area. >>



The PostMaster® Team (from left to right):  
Steffen Kinski,  
Jacqueline Jarzabek,  
Levent Sakir,  
Alexandra Labudde,  
Henrik Lange

## INTERNATIONAL ROLLOUT, SPEEDCHECK INTEGRATION

Speaking of the future: By 2018, PostMaster® will also be rolled out in Switzerland – with the goal of establishing the platform there as the market standard, as is already the case in Germany. Even for German customers, a lot of promising additional functionalities are in store this year. Currently, a lot of work is being done to integrate the CE product SpeedCheck. SpeedCheck allows amounts to be determined in seconds, thereby providing workshops with an effective additional tool for fully automated cost estimates. It will still be some time before pioneering technologies such as 3D printing, automatic image recognition, and telematics are used to simplify and accelerate claims processing. But when that time comes, PostMaster® will also provide the ideal interface for the flexible, transparent, and analytical networking of all of these processes. This success story will definitely continue. ■



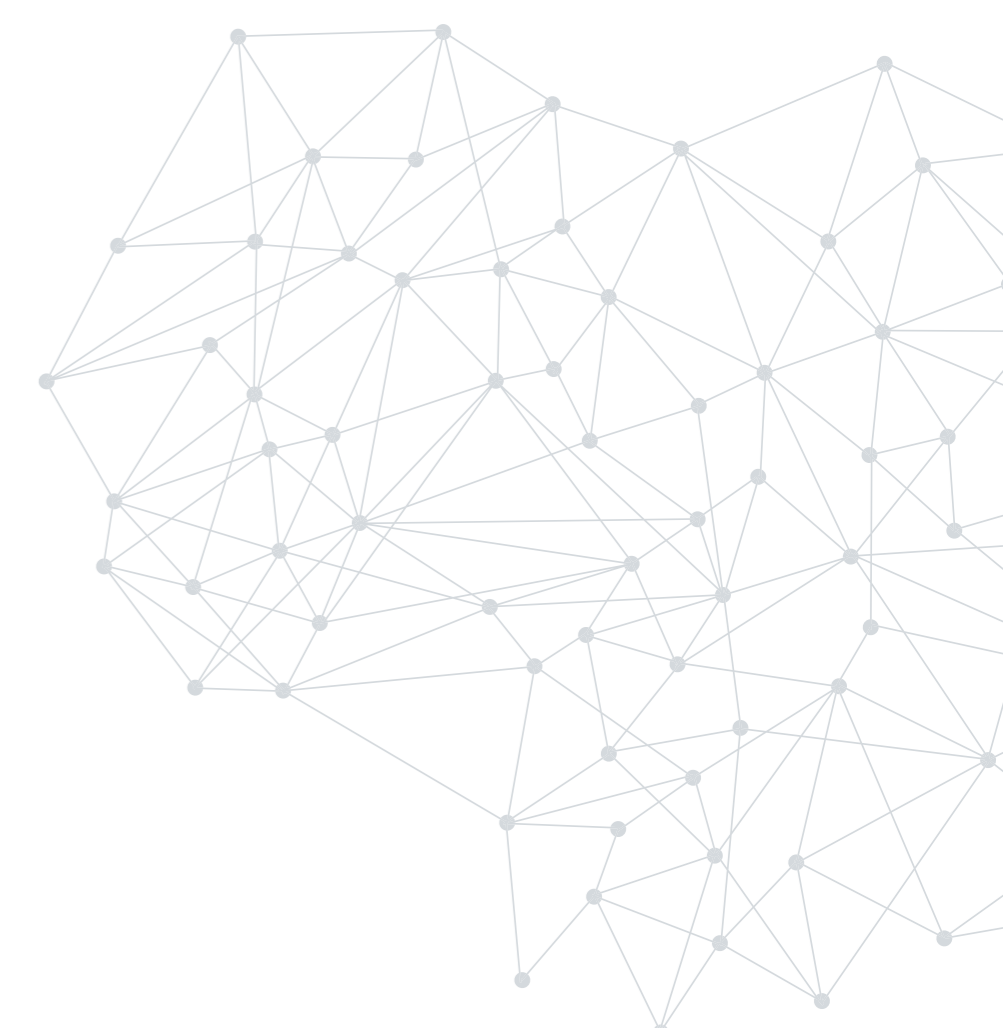
### STEFFEN KINSKI

Automotive Sales Manager at ControlExpert

Steffen Kinski is the new face of the PostMaster® team. With 10 years of work experience in a paint shop, he possesses profound and practical know-how. He also served as a lecturer for the Düsseldorf Chamber of Crafts and trained aspiring vehicle painting masters. Before he joined the PostMaster® team, Steffen Kinski had already been working at ControlExpert for two and a half years – most recently as the team leader for claims.



Partnership between Porsche and ControlExpert: With integration of PostMaster® into the Porsche Partner Network (PPN), all 87 Porsche centers in Germany are now connected to PostMaster®



## ADVANTAGES OF POSTMASTER®

- Time and cost savings through digital communication
- Ease of use, no duplicate entries
- Binding, rapid repair approvals
- Direct interfaces to the dealer management system
- Rapid payment settlement
- Secure payment transfer in compliance with bank standards
- More than 130 recipients





# UDEMY

## WILL E-LEARNING MAKE SCHOOLS UNNECESSARY?



"FROM THE VERY FIRST DAY, WE WANTED TO CREATE A PLACE WHERE ANYONE CAN LEARN PRACTICALLY ANYTHING. WE RECOGNIZED THAT A MARKETPLACE MODEL IS THE MOST REALISTIC WAY TO ACHIEVE OUR AMBITIOUS GOAL IN THIS WAY. WE WANTED TO MAKE IT EASY FOR EXPERTS TO TEACH THEIR COURSES, EXCHANGE IDEAS, LEARN FROM EACH OTHER, AND AT THE SAME TIME PROVIDE A FANTASTIC SERVICE EXPERIENCE."

EREN BALI,  
CEO and Co-Founder of UdeMy

With a platform like UdeMy, anybody with access to the Internet anywhere in the world can provide themselves with an education that will secure their prospects for the future. The importance of lifelong learning continues to increase, as digitalization is making the world of work increasingly faster-paced and more complex.

And this transformation is not without consequences. Many old careers will disappear through technological developments such as artificial intelligence, robotics, and biotechnology. This is a change that at first glance might seem melodramatic. But many new careers will also arise. According to estimates, in the future about 65% of today's elementary school students will work in careers that don't yet exist and that we cannot yet even imagine today. It is therefore more important than ever for employees to be open to new technologies and to lifelong learning in order to continually adapt their knowledge to new challenges.

### UDEMY: ON THE PATH TO REVOLUTIONIZING LEARNING

The online portal for e-learning, UdeMy, is committed to the topic of learning. This young startup from Silicon Valley is not yet really known in Europe and Germany, but it is quite possible that Eren Bali, the creator of this e-learning platform, will soon be mentioned in the same breath as Mark Zuckerberg. Just like Zuckerberg revolutionized social communication on the Web with Facebook, Bali and his UdeMy makers have turned the entire field of digital learning upside down.

### UNBELIEVABLE: E-LEARNING HAS ALREADY BEEN IN EXISTENCE FOR 50 YEARS

It's hard to believe, but the idea of learning various things by electronic means is already more than 50 years old. The first wave of hype came in the 80s with the keyword "Computer Based Training" (CBT), and with the opening up of the Internet to ordinary people, there were repeated attempts to make courses available on

the web. "e-learning" became a buzzword. Since then, there have been plenty of offerings scattered throughout the Web. But it was only after the arrival of UdeMy in May 2010 that a platform existed on the market which enabled course providers and interested learners to meet. Before that time, e-learning was almost entirely proprietary, meaning it was dependent on a specific hardware and/or software platform, or was dependent upon specific data formats and their corresponding channels. The platform developed by Eren Bali, Oktay Caglar, and Gagan Biyani, on the other hand, provided a marketplace for interactive and multimedia courses that learners can complete at any time and anywhere using computers, tablets, or smartphones.

### FROM E-LEARNING TO WEB LEARNING

From the very beginning, Eren Bali relied upon independent course providers hence, people who wanted to teach something to other people could offer their content on the UdeMy platform and earn money. With the right niche and activity, some have been able to earn a lot of money – there are already a few UdeMy millionaires.

Most of the more than 55,000 courses that are currently offered are paid courses. And rightly so: The quality of the courses is quite high, and the reactions of those who completed them overwhelmingly positive. Most of the current course offerings are related to career-oriented training and development. Through UdeMy courses, students can study foreign languages, even exotic ones like Farsi or Swahili, learn accounting, or become acquainted with the classical methods of personal time management. >>

There are however many more subjects beyond those that bring career success. There is also an extensive range of hobby courses, from music to cooking and everything imaginable. The German-language course "Play guitar like a pro" ("Gitarre spielen wie ein Profi"), with more than 2,000 participants, is a regular UdeMy bestseller. In 38 lessons, students learn not only to play the instrument but also to master it. Even more successful is a course from the USA on drawing that turns every beginner into an artist in 28 lectures, and has already attracted 20,000 people to register for the course. Increasingly, even traditional school subjects are being offered in an increasing number of languages. These are used to supplement ordinary school instruction. But the teaching profession is also experiencing an upheaval: The teacher of the future will present his knowledge in a more skillful manner and will have to possess a high degree of technical

knowledge. The presentation of content will be more project-oriented and will increasingly be provided through the use of digital solutions. Students will work through the materials more and more independently and also present their work. Educators will no longer need to obtain further education in all subjects and will also no longer need to prepare and provide materials on paper. Instead, there will be more freedom to meet the needs of students and tailor offerings to their individual deficits.

### UDEMY SETS STANDARDS AND EVALUATES COURSES

To ensure high quality, UdeMy has strict standards for course providers and evaluates the courses with a high proportion of video content are preferred, and purely text-based lessons are not desired. To set potential e-teachers up for maximum

success, the platform gives course providers a range of tools, thus ensuring the desired high standards. With these tools, not only can videos uploaded to YouTube or Vimeo, Powerpoint presentations, and course materials be incorporated as PDF and ZIP files, but there can also be live transmissions of lesson units. The platform is at the center of all of this, since the marketplace for courses is only a part of the business model. In the future, UdeMy will increasingly direct their attention to companies that want to redesign their internal training and professional development programs to include e-learning, or want to optimize their existing programs. The courses developed in this manner could be published on the company's intranet and the platform can be hosted on company-internal servers. UdeMy is also becoming increasingly more active in companywide professional development, primarily in the USA and Canada. The number of

courses leading to recognized diplomas and certificates – particularly in technical subjects – is constantly growing. More and more accredited educational institutions and organizations are contributing their content and standardized testing.

### E-LEARNING TURNED UPSIDE DOWN

UdeMy is already an exciting platform. More and more investors agree and are providing the startup from Silicon Valley with plenty of capital for improvement. This form of web learning has what it takes to change the fundamental principles of school and continuing education, providing people primarily in poorer countries and places with a lack of infrastructure with access to the important resource of education. ■

### TOPIC OF THE FUTURE: OPEN EDUCATION

UdeMy is part of the MOOC (Massive Open Online Course) movement, which is trying to provide open-access education outside of schools, universities, and other institutions. The goal is for anyone to be able to learn anything on the Web for free, independent of age, status, location, income, or other socio-demographic or economic criteria. Everything is of course provided in a multimedial and interactive manner. Since this is a movement, users also get a say in what content is provided.





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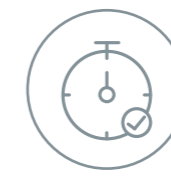
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EASYCLAIM/GO



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# EASYCLAIM CLAIMS PROCESSING, THE SMART WAY

Good ideas take hold: The web-based application EasyClaim went from being an insider tip to a shooting star among leading insurance companies. It's no wonder: The latest technologies and updates are regularly integrated into EasyClaim. EasyClaim is already accelerating the claims settlement process tremendously. And not only here in Germany, but also abroad.

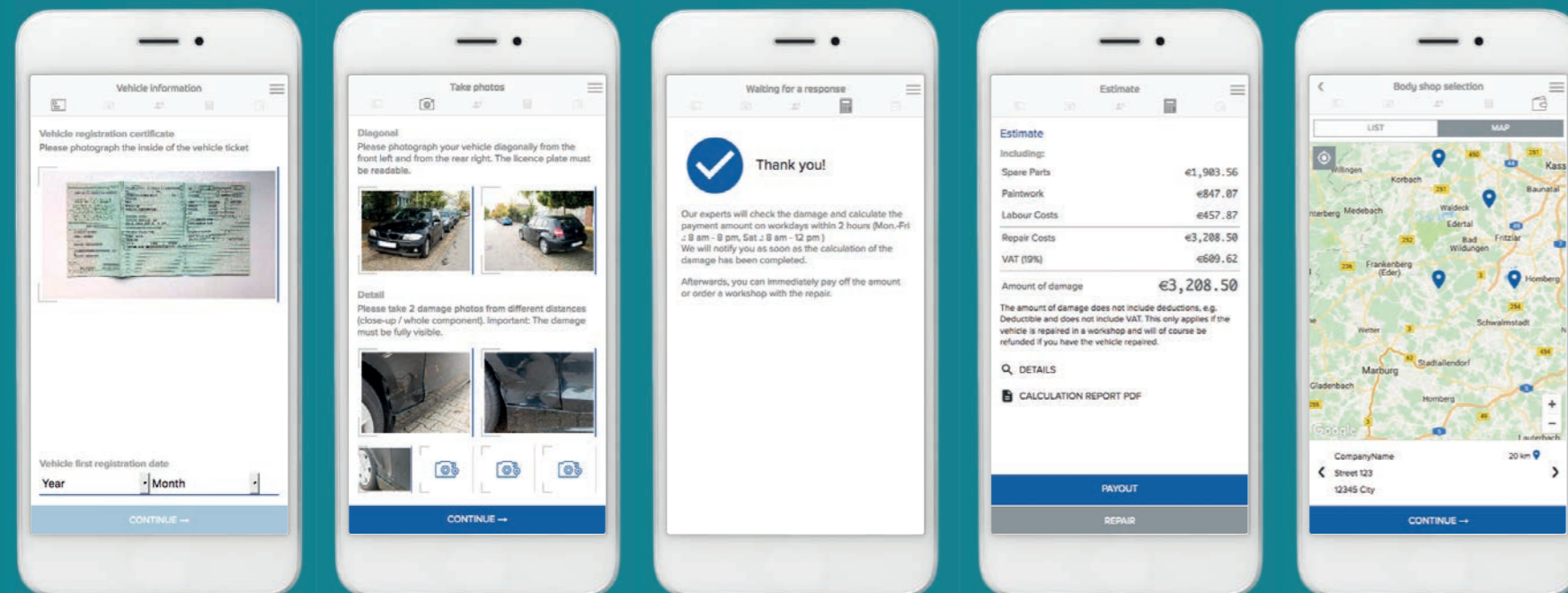
## THE FUTURE IS NOW

In the case of EasyClaim, no exaggeration is necessary. The "smart time-saving machine" by ControlExpert has already been allowing for the rapid and easy handling of claims by smartphone for the past 2 years. Through integration with the latest technologies, it will accelerate this process even further in the future.

Originally developed as an app for iOS and Android, the software now runs as an HTML5 app in web browsers and therefore flexibly on all common end devices. EasyClaim permits rapid, already in part automated exchange

of information between the claimant and his insurance company in the event of a claim. A special feature is the sharing of photos of the damaged vehicle. These are first sent to ControlExpert, where vehicle experts in the truest sense of the word can visualize the damage. "And they do this quite quickly", says Jörg Breuer, Head of Sales and authorized representative at ControlExpert. "Within a few hours the claimant receives information about the claim amount." After this, the claimant can decide whether he wants a cash settlement or would like the car to be sent directly to a repair shop. >>

## HOW EASYCLAIM WORKS



1

Identify vehicle  
(Photo of vehicle registration  
and dashboard).

2

Add photos of vehicle  
(Two overview photos and  
at least two pictures of the  
damage).

3

Sending of the data.  
Claim amount is determined  
by vehicle experts.

4

Receipt of the cost estimate  
within a few hours. Choice  
between a cash settlement...

5

...or going to a  
repair shop.

## VIDEO MOVES PEOPLE

Videos are a part of our everyday lives and are here to stay. The uploading and sharing of videos are becoming more and more popular. Video is becoming the most important means of communication for the future. Clearly, ControlExpert is also taking advantage of this trend for EasyClaim, and will provide a video upload function in the future. Claimants will then be able to upload not only photos but also videos of damage zones. And much more: The claim adjuster can provide instructions as needed via video chat for the purposes of claim documentation.

## QUALITY ENSURES SUCCESS

In addition to being rapid and simple to use, the high quality of the claim amount determination is decisive for the success of EasyClaim. More than anything, this is ensured by ControlExpert's experienced vehicle experts. Even here, the newest technologies are taking hold. Artificial intelligence in the form of automatic image recognition will very soon prepare and simplify the inspection process for vehicle experts by e.g. pre-sorting photos or removing images with insufficient quality.

Hence, even in this field, it will be the combination of human and artificial intelligence that leads to the best result for all parties involved in the claims process. ■



### JÖRG BREUER

Head of Sales and Authorized Representative  
at ControlExpert

"EasyClaim is the perfect tool for increasing customer satisfaction. Today's customers expect quick, simple, and digital claims processing, which we are able to offer with EasyClaim."



### STEPHAN SAUEREISEN

SK Vehicle Special Damages  
Württembergische Versicherung AG

"With our colleagues in the communications industry, we were able to positively anchor the topic of EasyClaim into everyday business through various marketing activities such as newsletters, videos, and on-site training sessions."



EasyClaim  
Tutorial  
Link to video:  
<http://l.ead.me/baqiq0>



## EASYCLAIMGO

# REAL HANDS-ON WORK AND DIGITALIZATION

While the web-based EasyClaim greatly simplifies communication between the claimant and the insurance company, the application EasyClaimGo offers primarily repair shops and manufactures many advantages. Reliable cost estimates, reduction of workload for the service consultant, efficient internal processes, and increased customer satisfaction are only a few of these.

An employee opens the application using a login and first receives an overview of all open repair orders and their status. In which cases has the cost estimate not yet been made, which repair is complete, etc. If a vehicle involved in an accident comes "fresh" into the repair shop, the employee enters data such as vehicle model, license plate number, and VIN using EasyClaimGo, takes photos of the damage zones, and sends the information collected to ControlExpert with a single click. Within a very short time, generally within two hours, the repair shop receives a reliable cost estimate for repairing the damage. In short: With EasyClaimGo the entire cost estimation process is done away with. This of course saves a repair shop a lot of time that can be used more effectively somewhere else. Alternatively, the data can also be entered into EasyClaimGo by the repair shop customer himself. To do so, the customer opens a link and then takes photos of the damage and vehicle registration himself. Then the cost estimate is again generated by ControlExpert and made available to the repair shop. Replacement parts that are needed immediately can also be ordered or measures to prepare for the repair can be initiated. The settlement process is thereby greatly shortened. Both repair shops and their customers benefit. This leads to the obvious conclusion: Hands-on work and digitalization perfectly complement each other! ■



EasyClaimGo  
Image video  
Link to video:  
<http://l.ead.me/baqiqf>



# CONTROL€PERT INTERNATIONAL



JAN LANGKAU,  
Business Development Manager,  
ControlExpert

"I look forward to work closely with our international subsidiaries in order to develop our business in existing markets. The C€ success stories in many countries are a fantastic foundation to expand our geographical footprint into new markets. The combination of trendsetting software, technical knowledge and unparalleled service quality remains key to success to serve our customers globally."

## INTERNATIONAL C€ PRODUCTS

**REINSPECTCHECK**  
Provision of IT systems and tools for divisions within insurance companies for the quality control of partner repair shops and partner experts. The customer benefits from the technology and the data but also contributes his own hands-on knowledge.

**SUBROCHECK**  
Review of claims between two insurance companies, in particular for direct settlement. All claim documents, such as expert assessments, repair shop invoices, and towing or rental car invoices are reviewed and negotiated to case conclusion with the other insurance company.

**TIRECHECK**  
When replacing tires, TireCheck uses data to automatically check whether the correct wheel/tire combination has been selected and whether the most economical supplier has been chosen. TireCheck is useful in particular after tire theft.

**POLICYCHECK**  
With PolicyCheck, the customer obtains a quick review of the condition of any prior damage to a car before a policy is issued. This is done completely without a physical inspection and is entirely digital.

**USA**

"SubroCheck is already one of the most modern auditing processes on the American market. With EasyClaim we are once again offering a revolutionary service for the customer journey."

**COLOMBIA**

"With the EasyClaim adaption for lawyers, we are revolutionizing the Colombian claims process by providing a strong technical foundation for the negotiation process."

**ARGENTINA**

"Our TireCheck is a unique approach to control cost in the area of tire replacement. The extensive rollout of the product ExpertiseCheck in 2018 will be another strong driver for the market."

**UNITED KINGDOM**

"The special characteristics of the British market are a challenge for us. We are identifying very exciting potential areas for new and existing ControlExpert solutions."

**REGIONAL DIRECTOR**

"2017 was a year of success in which our subsidiaries around the world achieved great success. In 2018, we will expand into new markets and expand our portfolio of services in existing markets. We will continue to be the professional digitalization partner."

**ITALY**

"With our auditing processes, we are a strong partner for the big Italian insurance companies. In 2018, our services such as PolicyCheck will be strong drivers for the Italian market."

**CHINA**

"We have integrated clever, artificial intelligence-based algorithms into our products. This clears the way for settling a large number of claims quickly and efficiently."

**HONG KONG**

"As a digitalization company, we have been able to take the market by storm. We continue to achieve reductions in costs and support our customers with efficient management of the claims process."

**MEXICO**

"The nationwide rollout of EasyClaim is the next step in the direction of a new digital customer journey on the Mexican market."

**CHILE**

"We will consolidate our operations in Chile, Central America and the Caribbean, generating long-term business relationships, in addition to developing the local ControlExpert team, to meet the needs of our customers."

**BRAZIL**

"The dynamic nature of the Brazilian market demands fast and innovative solutions. With PolicyCheck, we will bring our next digital service to market in 2018."

**SPAIN**

"The Spanish market has unbelievably large potential for our auditing processes. The successful PolicyCheck tool will not only be ready for the Spanish market, but will also be usable worldwide."

**SWITZERLAND**

"In 2015, we had a successful start in Switzerland with SpeedCheck. 2018 will be the year of our auditing processes, such as GlassCheck and InvoiceCheck."

**POLAND**

"With new partners and strong new products, we will continue our success story in 2018."

**TURKEY**

"The Turkish market has great potential for a new kind of 360° claim auditing. ControlExpert is the go-to source for automated and digital auditing and expert assessment services."

Kevin Meyer

Daniel Pereda

Carolina Borrás

Juan Onesto

Alejandro Oltra

Aroldo Almeida

Jakob Otting

Paul Sykes

Germán de la Merced

Christian Zimmermann

Alessio Casarin

Wojciech Wiśniewski

Cagri Akin

Markus Hillebrand



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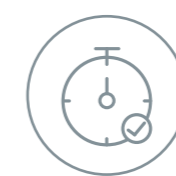
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AUTOMATIC IMAGE RECOGNITION



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# AUTOMATIC IMAGE RECOGNITION TAKE A LOOK!

In the claims process of the future, software will be able to use photos to recognize which auto parts have been damaged in an accident and whether a replacement is necessary. Until then, there is one task on the agenda for computers: Learn, learn, and learn again.

Multidimensional matrices, convolutional layers, fully connected layers, bounding boxes, and neural networks – if one asks Stephen Seiler, Senior Data Scientist in the Research and Development division of ControlExpert how exactly automatic image recognition works, his answers are always highly detailed. As an image recognition mastermind, the Data Scientist is totally in his element at ControlExpert. Fortunately, he knows how to explain the overall picture so that an interested layperson would not be overwhelmed by technical jargon. "Facebook, Google, Apple – all of them are working on applications such as facial recognition. These same methods and algorithms can also be used by ControlExpert on images of cars", says Kai Siersleben, Managing

Director at ControlExpert, summarizing the topic. Image recognition is in fact one of the most active fields of research worldwide. "Right now everybody is doing research in this field", says Stephen Seiler. "The community is incredibly active and works closely together. The mutual exchange of knowledge benefits everyone." Due to the very complex and complicated nature of the field, it would not be possible in any other way. Hence, reading research articles and combing through blogs, tutorials, and online workshops provides the foundation for his work. The research and development team at ControlExpert has, among other things, the goal of training the software using vehicle parts and having it be able to automatically recognize them in images. Over the past few months, the team has made massive progress: A number of auto body parts can already be recognized with great accuracy.

### SUCCESS THROUGH DEEP LEARNING

Just being able to make it this far required a lot of preparatory work and computing capacity. Significantly more computing

power than before is required for current artificial neural networks (keyword: deep learning). These models benefit the most from parallel computing units such as the Graphics Processing Unit (GPU) used for graphics cards. We are now using multiple graphics cards in parallel in order to further accelerate model development. For the next step, it was necessary to obtain vehicle image material. Once these images have been collected, they are first labeled in pre-processing, meaning all visible and relevant information is repackaged into what are called label files. Once a sufficiently large dataset of labeled images exists, then the actual "learning" of the models for the computer begins. A suitable training environment is set up, and a neural network is implemented, and then it is unleashed: Deep learning begins. The duration of training ranges from a few hours to several days. Image recognition is a complex task with high computing demands. Therefore, an iterative approach is used to increase accuracy with each repetition. After the training, the actual evaluation begins, meaning: Which images has the computer correctly recognized? Which replacement parts does it now >>

recognize better? Which predictions are not yet correct? This evaluation is also performed by computer programs. With a constantly growing image database, the computer executes learning process after learning process, thereby making its predictions more and more precise. The models are then trained until they no longer exhibit any increases in accuracy.

### FASTER CLAIMS CALCULATIONS THROUGH IMAGE RECOGNITION

Particularly for claims auditing, automatic image recognition brings with it enormous advantages. The present claim calculation can be compared with the submitted images and be validated. Image recognition therefore directly supports the vehicle experts at ControlExpert, increasing the quality of the auditing process. This facilitates the creation of claim prognoses for EasyClaim – but much more than this is possible. Read our article on EasyClaim on page 18. ■



### STEPHEN SEILER

Senior Data Scientist at ControlExpert

Stephen Seiler is part of the Research & Development Division at ControlExpert. With a background in software development he is working in Data Science already for a couple of years. At ControlExpert he is focusing on predictive analytics and machine learning.



"FACEBOOK, GOOGLE, APPLE – ALL OF THEM ARE WORKING ON APPLICATIONS SUCH AS FACIAL RECOGNITION. THESE SAME METHODS AND ALGORITHMS ARE ALSO USED BY CONTROL EXPERT ON IMAGES OF CARS."

KAI SIERSLEBEN,  
Managing Director, ControlExpert

## BENEFITS OF IMAGE RECOGNITION

- Auditing by vehicle experts is facilitated and verified
- In the future, automatic preliminary audits will be possible
- Images can be automatically attributed to damage zones
- Faster and more efficient processes

# REPORT HOW DIGITALIZATION IS CHANGING OUR LIVES

Looking into the faces of those attending a presentation by Achim Berg, one sees the entire spectrum of human emotions. You can see astonishment, enthusiasm, anticipation, agreement, but also pensiveness and insecurity. Above all, the President of the digital association Bitkom is urging everyone to take a critical approach when it comes to the future – doing nothing is no solution.

Today, no topic is discussed more at home and at work than digitalization. By now, everyone has at least an idea of what changes, benefits, and disadvantages come with it. It's no wonder: For some time already, we have been in the middle of a technical revolution. Certainly, this is not taking place for the first time, but there has never been so much progress and development in human history as in the last 100 years. But this time it is different: While previous growth progressed linearly, developments in the digital revolution are occurring exponentially. The reason for this is the constant improvement of technical capability, such as for example computing speed. It doubles about every 18 months. One might be inclined to say: Well that's nice, but nothing can go on forever. But that is just not the case. The developments driven by digitalization will not stagnate and neither will they slow down. Quite the contrary: They will progress at a speed that even experts have a hard time properly estimating.

## UNDERSTAND DIGITALIZATION OR PERISH

According to Achim Berg, the biggest task for companies is to be aware of this exponential growth and understand it. Those who sleep through digitalization are destined to perish. He sees a clear focus on the development of platforms. Google, Apple, Facebook, Amazon, Visa – all worldwide top companies are platforms that enable the exchange of data between interdependent groups. This includes companies like Uber, airbnb, and FlixBus – archetypal platforms, archetypal winners of digitalization. Uber does not own a single taxi, airbnb does not own a single vacation home, and FlixBus does not own a single bus. But they make it extremely easy

for the involved parties to communicate with each other and do business. For Achim Berg, open platforms are the key to a successful digital strategy. He notes almost incredulously that around 62% of all German executives can't even begin to describe what the term "platform" means.

## BACK TO THE FUTURE – THE (R)EVOLUTION IS IN FULL SWING

What fundamental changes does the world of work face? According to Berg, in the next 20 years, about half of the tasks performed by humans will be taken over by machines and computers. Dedicated production tasks will be performed exclusively by machines, in other words robots, in the not too distant future. The progress made in the last two years in fields such as deep learning, Internet of Things, virtual reality, and augmented reality leave no doubt that the historic transformation of the world of work is irreversible. Still, there is no reason to paint gloomy scenarios. New, challenging jobs will be created for people. Digital education in schools is already of immense importance. While Germany may be the world leader in some fields – it is for example the market leader in artificial intelligence and holds the most patents for autonomous driving – the education and training of specialized workers lags behind. Promoting and developing the careers of the future is a necessity. Creating a suitable infrastructure for this is indispensable. The way to "Work 4.0" requires extensive gigabit networks, intelligent infrastructures, e-government, and more. And this is all needed fast, because the (R)Evolution is already in full swing. For Achim Berg, there is no question that today's actions will decide which companies will also be able to take part in the discussion in the future. Digitalization waits for nobody – but it does offer tremendous opportunities to all. ■

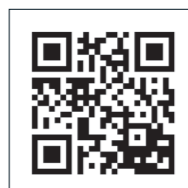


"THERE ARE ALREADY MORE NETWORKED DEVICES THAN PEOPLE ON EARTH, AND HIERARCHIES AND ORGANIZATIONS WILL DISAPPEAR. OPEN SOURCE AND OPEN INNOVATION MOVEMENTS WILL BECOME A NEW FACTOR."

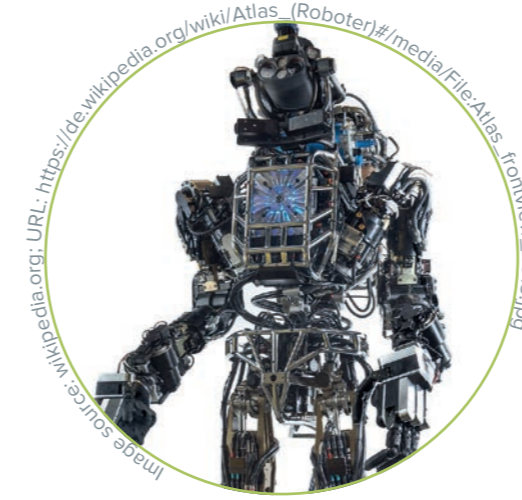
BEATRIX PAESSENS,  
Director of Marketing,  
ControlExpert

## WILL YOUR JOB BE TAKEN BY A MACHINE?

Find out here: <http://n.pr/2zVzYwB>



## RAPID DEVELOPMENT OF HUMANOID ROBOTS



**ATLAS – 07/2013**

Boston Dynamics

Load-bearing capacity: –  
Height: 1.80 m  
Weight: 150 kg



Link to video:  
<http://q-r.to/bapwmS>



**ATLAS – 11/2017**

Boston Dynamics

Load-bearing capacity: 11 kg  
Height: 1.50 m  
Weight: 75 kg



Link to video:  
<http://q-r.to/bapxN6>



**SPOTMINI – 11/2017**

Boston Dynamics

Load-bearing capacity: 14 kg  
Height: 0.84 m  
Weight: 30 kg



Link to video:  
<http://q-r.to/bapxNC>



## ACHIM BERG

President of Bitkom, Vice President of BDI, Private Equity Partner at General Atlantic, Chairman of the ControlExpert Advisory Board

Achim Berg completed his Diplom degree in informatics at the Technical University of Cologne in 1989. He went on to complete the European Potential Management Program at the European Economic School EAP in Paris, London, Madrid, Rome, Berlin. His resume is impressive: Executive Board of Deutsche Telekom/T-Com, Microsoft, and arvato AG. He was recently named the president of the industry association BITKOM and vice president of the Federation of German Industries (BDI). He enjoys spending his free time with his family and with sporting activities such as mountain biking and skiing.



Shopping with VR glasses is already possible – in the Tommy Hilfiger Store in New York



# SPEEDCHECK CLAIM AMOUNT PREDICTIONS WITH BIG DATA

Is it possible to predict the amount of a claim without a vehicle expert assessing it? Yes it is, and quickly, simply, and very effectively at that — with the web-based application SpeedCheck. But SpeedCheck also plays a vital role for other products and innovations by ControlExpert.

After an accident, the claimant wants above all one thing: Rapid determination of the claim amount. Thanks to SpeedCheck, a prediction is made with the wave of a hand. The application makes use of statistics from millions of verified transactions. This way, the current vehicle damage can be classified according to comparable damage elements. This comparison takes just seconds. Already while the claimant is reporting the claim to his insurance company, the claim adjuster opens the application, marks the damage zones in a 3D model, and generates a claim amount prediction. In parallel and in real-time, a vehicle replacement value and the average

hourly rates of regional repair shops are determined. This makes it possible to provide the insured party with a binding settlement offer in very little time. In the future, voice assistants and sensor data will be able to communicate directly with the SpeedCheck platform – directly from the vehicle.

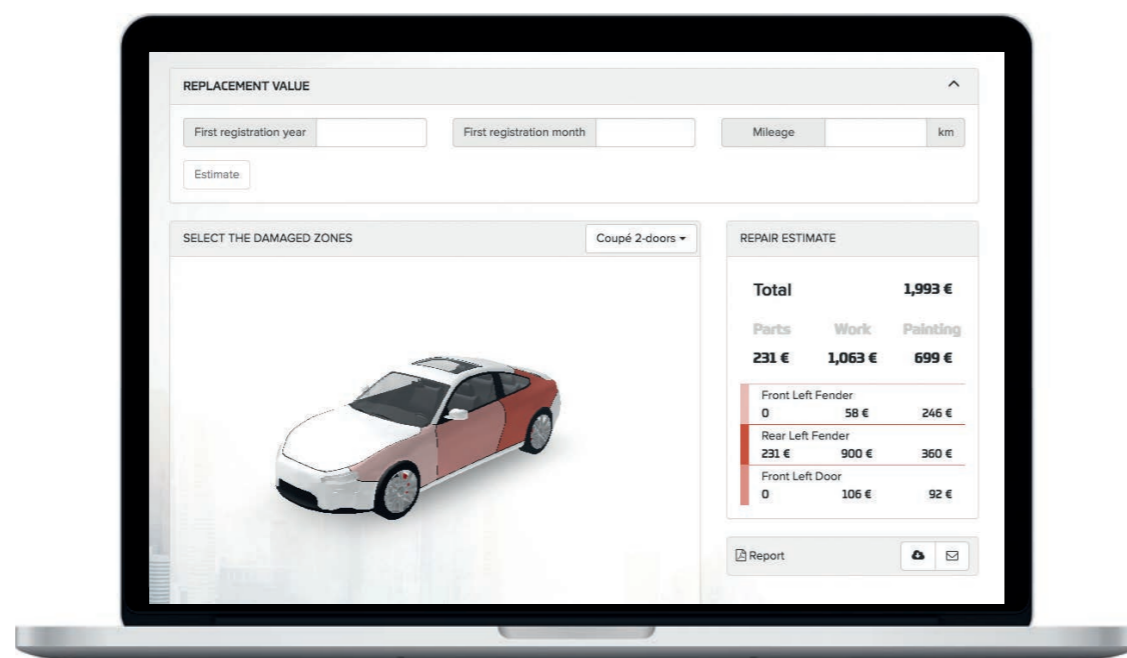
The difference between the prediction and the actual claim amount is already very small. This is a result that Engin Akin, Product Owner of SpeedCheck, is justifiably very proud of. "Differences this small are phenomenal." The basis for this is the data. "Our enormous dataset provides us with information about the possible ex-

tent of the damage, which the naked eye simply couldn't do in such a short time. If for example in 99% of cases of damage to the bumper of a certain vehicle, there is also damage to the radiator behind it, then it can be assumed with great confidence that it must also be replaced in the current case, and the claim amount must be adjusted accordingly." This database-aided determination of damage components enables the repair shop, the leasing company, the claim adjuster, and the car rental agency to respond quickly and accordingly, and puts the insurance company in the position of being able to provide the claimant or injured party with a binding settlement offer in real time. >>



"SPEEDCHECK IS AT THE CORE OF MANY OF CONTROL-EXPERT'S PRODUCTS. DATA FROM EASYCLAIM, TELEMATICS, AND IMAGE RECOGNITION ARE PROCESSED IN SPEEDCHECK. THE RESULT FORMS THE BASIS FOR DECIDING ON A REPAIR ORDER OR AN AUTOMATIC PAYOUT."

GERHARD WITTE,  
Managing Director and Founder,  
ControlExpert



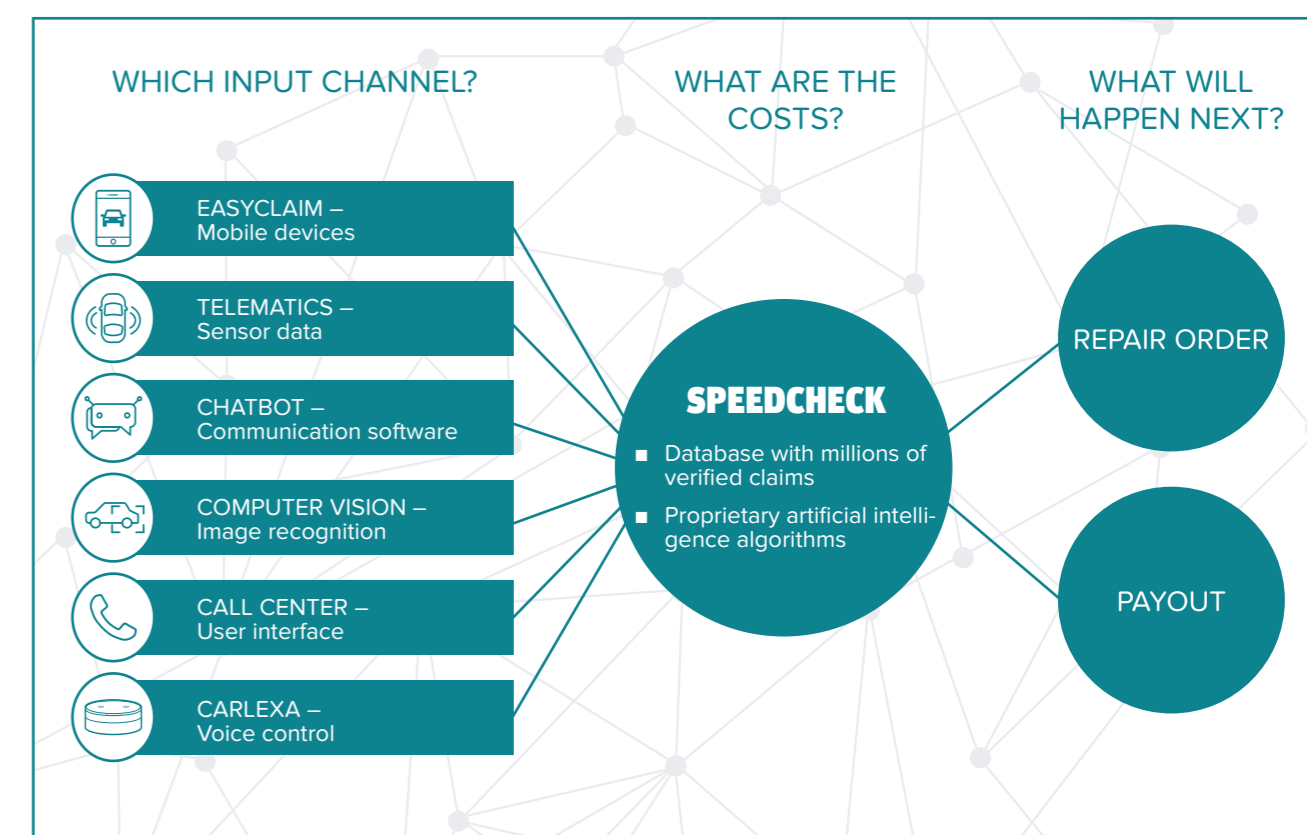
This party then has the option of either choosing a fictitious payout or to have a repair performed. SpeedCheck therefore allows all parties participating in the claims process to better control how the claim proceeds.

### VISION: SPEEDCHECK

SpeedCheck will soon also be able to make an enormous contribution to product development at insurance companies. "Based on the existing data on insurance policyholders, such as age, residence, vehicle model and previous behavior with respect to previous settlement offers, we are able to predict in advance which offer the claimant will accept." The insurance company thus has the option of providing the insured party with a targeted offer. And this is only one area that ControlExpert is working on. For example, by using artificial intelligence and telematics, SpeedCheck will soon deliver even more precise and rapid results. "We are looking very closely at what top trends and technologies can be used to make the application even better", says Akin. The latest result of this spirit of innovation is the combination of SpeedCheck with the voice control technology Alexa in the product Carlexa. It enables fully automated communication between the claimant and the insurance company. Hence, there are many anchors that ensure that SpeedCheck will also play an important role in the claims processes of the future. ■

## ADVANTAGES OF SPEEDCHECK

- Simple claims management starting from initial contact with the claim management system
- Determination of regional hourly labor rates
- Determination of expected repair costs through historic mass data
- Selection of damage zones based on a 3D vehicle model
- Simple, rapid vehicle identification based on HSN/TSN, VIN, or a free text search
- Determination of the replacement cost



### ENGIN AKIN

SpeedCheck Product Owner at ControlExpert

Engin Akin was recruited to ControlExpert in 2014 by a friend. He first began as an Application Developer before he became the Product Owner for SpeedCheck two years later. He particularly likes the work atmosphere in the entire company, which is shaped by a spirit of research, mutual respect, and team spirit.

# MOBILECHECK THE UNIVERSAL CLAIM CHECK

MobileCheck was launched as a digital solution for claims assessment for mobile devices such as mobile phones, tablets, and notebooks. But now, the application has developed into a complete universal solution for liability and special insurance. Whether it is glasses, household devices, hearing aids, or drones, a great deal is possible. And much more is planned:

"Our vision for MobileCheck is to be able to check everything that can be delivered by the post." For Jens Breer, MobileCheck Team Leader at ControlExpert, the possibilities of the product are only bounded by the limits of postal delivery. And MobileCheck is truly a development that invites one to think even further. Originally designed as a digital solution for the settlement of mobile phone damages, MobileCheck is increasingly becoming a key product – not only for ControlExpert, but also for insurance companies. The reasons are obvious: It is a single tool that can change the way all kinds of things are done. MobileCheck does in fact cover the entire case process. From the shipping of the damaged goods to determining the plausibility of damage, current market value, and repair costs – as well as sending the evaluation report – everything is included. What insurers value the most, however, is how ControlExpert is able to manage all communication with the claimant, saving them a great deal of time and money. The number of insurance companies that take advantage of Mobile Check has grown to 25.

## MOBILECHECK IN NUMBERS

If one takes a look at the numbers, it quickly becomes clear why the product is in such high demand: With nearly 30,000 transactions, MobileCheck has achieved two-digit growth in the last 12 months. The savings rates are also convincing. Savings for electronics items after appraisal of the current market value lie at 52%, and for glasses 38%. About 35% of all damage claims also remain unsettled because the claimant does not send in the device after it is requested, or the image of the damage proves to be implausible when reviewed. Results such as these are also enabled by the very high quality of the inspection and expert assessment. In addition to close collaboration with large, manufacturer-authorized contract repair shops, as well as a network of specialized expert evaluators, damaged goods received are also subject to an internal inspection by certified technicians at ControlExpert.

## MOBILECHECK AS A HUB FOR ALL PARTICIPANTS

In order to continue to maintain the satisfaction of all participants at such a high level in the future as well, development of MobileCheck will continue. "We imagine MobileCheck as a hub that connects insurers, experts, manufacturers, and claimants with each other, without them having to communicate with each other themselves. We take care of that. This also means that it doesn't matter what kind of object is subject to a claim inspection. Anything that the claimant can separate themselves from will work." If you ask Jens Breer and his colleagues at ControlExpert, the potential of MobileCheck is far from exhausted. One thing is certain: The future holds great promise! ■

## ADVANTAGES OF MOBILECHECK

- Significant savings – up to 50% of claim expenses
- Complete handling of correspondence
- Highest-quality inspections and short processing times
- Data sharing via digital interfaces is possible
- Manufacturer-authorized repairs
- Possible savings through special conditions for insurers



### JENS BREER

Head of MobileCheck at ControlExpert

Jens Breer started in 2010 as an expert in the MobileCheck division. His goal is to continually expand the MobileCheck product range and to design the processes to provide a high level of service as well as transparent and cost-effective repair service solutions.



### THORSTEN JÄGER

Continentale Sachversicherung AG

"What we like the most is the 'single source' solution. Especially when it comes to communication with the end customer, it can sometimes be difficult if his most beloved gadget, his smartphone, is taken away from him. This is why speed and finesse are in demand. And there are many other aspects that we also like about ControlExpert."

# AUTOCHECK FULLY AUTOMATED QUALITY CONTROL AND REPAIR APPROVAL

With AutoCheck, cost estimates and invoices are subject to a detailed audit. Communication for this is 100% digital. This saves a great deal of time and money.

If a claims manager insists on his own network of repair shops or fixed network partners, AutoCheck comes into play. Developed as a quality management tool for repair shop networks, AutoCheck is used almost immediately after an accident. Many leasing companies, claims managers, and car rental agencies are enthusiastic users of AutoCheck. If one of these parties files a claim, he is directed to the nearest repair shop. The cost estimate generated by the repair shop is digitally and automatically sent to ControlExpert and subject to an automated audit by AutoCheck. At the end of this review process, there is always a repair authorization provided to the repair shop. If no inconsistencies are found, this is issued within minutes. If irregularities are found, however, a ControlExpert vehicle expert contacts the repair shop within no later than two hours and clarifies any issues. This way the repair shop not only saves time, but also knows exactly under what conditions which repairs should be performed. The invoice payment is also handled digitally, meaning: The repair shop does not need to wait long for its money. Product Owner Thomas Baier says:



"WHENEVER A CLAIM IS TO BE MANAGED, AUTOCHECK COMES INTO PLAY AND IS THEREFORE THE PERFECT TOOL FOR THE MANAGEMENT OF PARTNERS."

KAI MÜLLER,  
Head of IT,  
ControlExpert

"With AutoCheck, the repair shop is practically asking for permission to repair the vehicle based on the cost estimate submitted. Last but not least, fully digital invoice processing is handled by AutoCheck."

## A DIRECT LINE: POSTMASTER®

Communication with AutoCheck is 100% digital and highly automated. This is made possible through integration with the PostMaster® platform. From authorization to payment, the case passes through numerous digitalized rule sets, delivering binding and transparent results in a short time. Ultimately, this saves time and money for all involved in the claims process. For example, insurance companies benefit both from the clear specifications and rules of conduct for its network partners as well as from the structured data and digital communication options. Through its combination with PostMaster®, AutoCheck has a "hot" connection to the repair shops. This tool is continuously being improved in order to be able to provide even more efficient and digitalized results. ■



### THOMAS BAIER

AutoCheck Product Owner at ControlExpert

Thomas Baier has been part of the ControlExpert team for the past four years. Trained in business information systems, he started as a product manager for PostMaster®, then later took on primary responsibility for EasyClaim, and is now the face of AutoCheck. He learned the necessary tools at IT corporate consultancies, where he worked in the areas of requirements management, technical project management, and software development.



3D printing technology is gaining influence in all aspects of life. The possibilities and changes that will come about for the automotive industry can already be seen to some extent. One thing is for sure: The replacement parts industry will be revolutionized. Development, manufacturing, and sales will need to be completely reconsidered. An innovation team funded by Leitmarkt-Agentur.NRW is right in the middle of this thought process. And Control€Expert is right alongside them.

With the "Claims Process of the Future" developed by Control€Expert, auto repairs now only last a few hours instead of a few days. Primarily through the use of 3D printing technology, the time required in this field will soon be greatly reduced: Even before a damaged vehicle comes into the repair shop, all of the information and data required for a repair are already there. Repair shops can print vehicle replacement parts right there on site and have them ready for installation. What might have sounded like visions of the future just a few years ago is now a reality. 3D printing technology is now mature and tested, and the know-how exists – now

things can really take off. Well, not quite. Because there are still a few things to resolve.

Here is what Dr. Andreas Witte, Head of the Research and Development division at Control€Expert, has to say about this: "Completely new questions arise from the transformation of the physical parts market into a digital industry." If replacement parts are shipped digitally in the future, where will manufacturers make their money? How will the digital product data be secured? How can a 3D printing-based service be protected from tampering? How do we handle the question of liability? With support from Leitmarkt-Agentur.NRW, since May 2017 an innovation team consisting of the Fraunhofer Institute, Ruhr-Uni Bochum, TU Dortmund, a 3D printing service provider, a machinery manufacturer, a maintenance firm, and Control€Expert have been dedicated

to questions such as these. This collaborative project will primarily research digital rights management, various licensing models, intellectual property protection, and IT security over the next three years.

Control€Expert's core task is the development of an adequate IT infrastructure; in other words, a platform that serves as a medium of communication for order processing and data transfer, connecting all participants with each other. "Our focus is on the development of a secure, cooperative order processing workflow. In this process, production systems and products should also be enabled to communicate via the Internet with people and also with each other", says Dr. Andreas Witte. "With the triumph of 3D printing, completely new business models will arise – and our responsibility is to ensure that there are only winners." ■



**DR. ANDREAS WITTE**  
Head of Research & Development  
at Control€Expert

"With the triumph of 3D printing, completely new business models will arise – and our responsibility is to ensure that there are only winners."

**THE ADVANTAGES OF 3D PRINTING TECHNOLOGY**

**FOR MANUFACTURERS**

- Digital warehouses
- No preproduction
- No warehouse costs
- No long logistics chains

**FOR REPAIR SHOPS**

- No waiting for parts delivery
- Fully automated delivery
- In-house 3D printer or 3D supplier in the area

**FOR INSURANCE COMPANIES**

- Faster processing
- Increased customer satisfaction
- Reduction of claim amounts

**RESEARCH PROJECT "IT'S DIGITIVE"**

- **RESEARCH QUESTION:**  
How can 3D printing be implemented in value creation chains?
- **RESEARCH TASK:**  
Development and design of a 3D-based service for secure, collaborative order processing.
- **CONTROL€XPERT'S TASK:**  
Development of a communication platform and transfer of the requirements to the maintenance processes in the automotive industry.
- **PARTICIPATING PARTNERS:**



➤ **SUPPORTED BY:**



Team Leader Dr. Andreas Witte (second from the right) and the Research & Development Team



MESOSPHERE

# SILICON VALLEY – NOW A SUBURB OF HAMBURG – AND SOON ALSO BERLIN?

Florian Leibert is currently inspiring Valley techies like no other. Together with Tobias Knaup and Ben Hindman, he has founded one of the hottest startups: Mesosphere. The three men have developed software that controls 10,000 computers as if they were one. This trio of founders is on the cutting edge of the digital age and at the epicenter of artificial intelligence and cloud computing. Leibert frequently jets from the Valley to Hamburg, where the startup has already opened a branch, or to Berlin, where the next office will perhaps be located. Here in Germany he finds not only customers, but also some of the best developers.

### COMPUTING CENTERS, COMPLETELY RESHAPED: RADICAL AND DISRUPTIVE

If there is an Achilles' Heel of the digital revolution, then it is the massive amounts of data that it produces. Information researchers currently estimate that the global volume of data will double every two years. E-mails, online services, IoT — soon self-driving cars will be mass-produced, and much more. Information that will need to be processed in real time, or the services will crash. Or disappear. Therefore in the future, computing centers will be needed in which 1,000 computers work in parallel. Or 10,000.

### WE HAVE REINVENTED THE CLOUD, AND CREATED A SUPER CLOUD

"We have developed software that controls these swarms of computers so easily that they behave as if they were a single computer", summarizes Leibert. Behind all this is something like the operating system for the 21st century and the reinvention of cloud computing. Its basic function is to manage applications across computing center boundaries. Mesosphere combines two important functions: It controls the programs distributed across different computers with previously unseen flexibility, and efficiently expands this concept to cloud computing.

### COMPANIES NEED FEWER SERVERS FOR GREATER LOADS – THIS DECREASES COSTS

Mesosphere makes it easy to save millions of data points and process them in real time. This open source software creates a new avenue for operating IT services on a network; computing power from here, storage capacity from there, data analysis by a third party and sensitive data from one's own machine. With Mesosphere, the mix of data and services, and the management of computers and programs is stan-

dardized but also individualized. Customers can install components for Big Data and artificial intelligence in just minutes. Leibert knows: For each company, it will soon be a matter of life and death to make use of artificial intelligence.

### AN OPEN SOURCE TECHNOLOGY AND THE COMPANY AROUND IT

The success of the startup speaks for itself. More than 1,000 companies around the world already use Mesosphere, including names like Apple, Twitter, airbnb, eBay, and many other big players. They know that computing and storage capacity are the energy of the future, a digital economic currency that can be made freely available on the marketplace for use via cloud computing. Another reason for success: Mesosphere is an open source software, and the basic option can be used for free. The startup earns its money with program extensions and services. The company now has 200 employees. Smart brains, developers, programmers, visionaries, and unconventional thinkers.

### TECHNOLOGY: SILICON VALLEY – NEXT DESTINATION: BERLIN?

"A city like Berlin would be super attractive as a business location", says Leibert. But first there need to be a few incentives to stoke the fire: Higher returns for investors, more investment, more startups. Currently, Mesosphere has five offices on three continents. Perhaps number six will be in Berlin. ■



"THE DIGITAL REVOLUTION IS COMING QUIETLY, WITHOUT A SOUND. BUT IT IS COMING WITH GREAT FORCE."

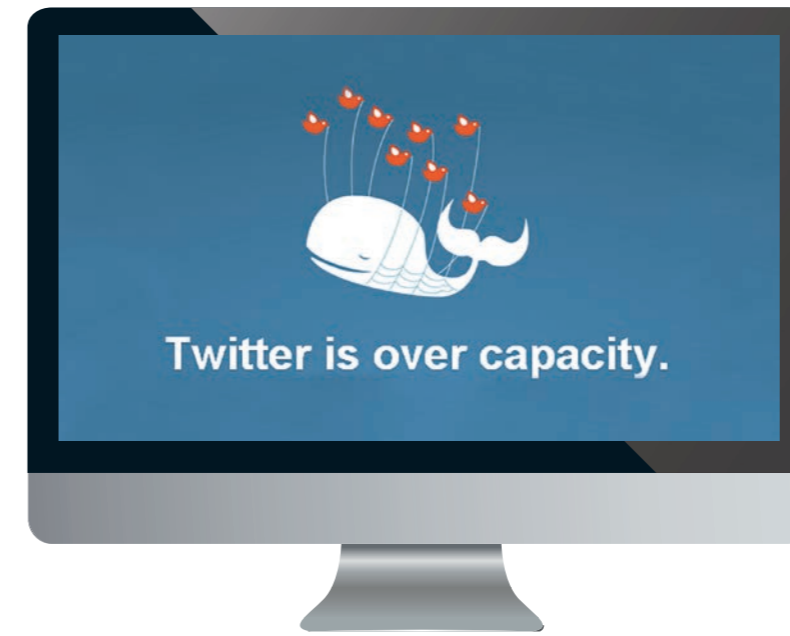
FLORIAN LEIBERT,  
Founder and CEO,  
Mesosphere



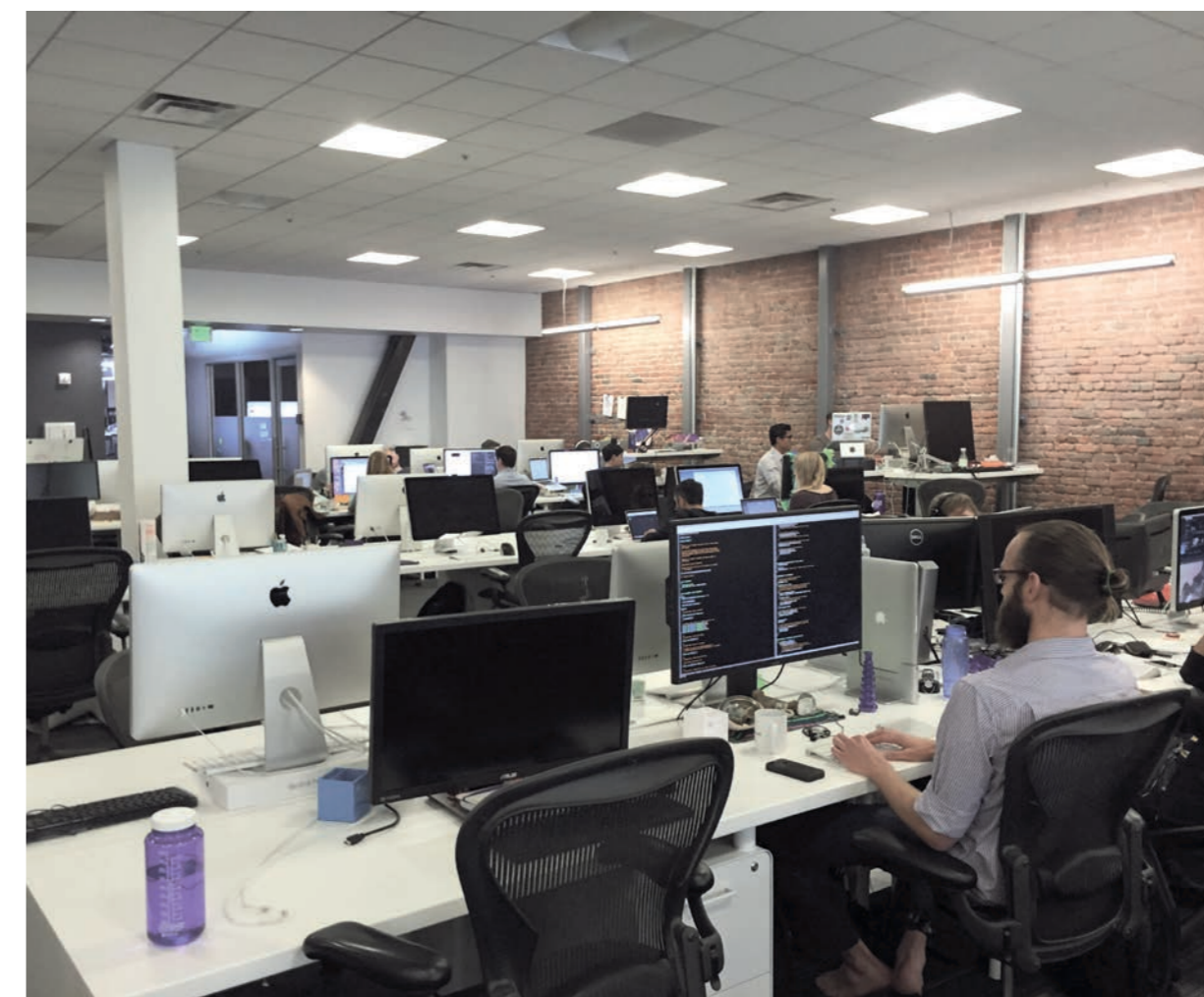
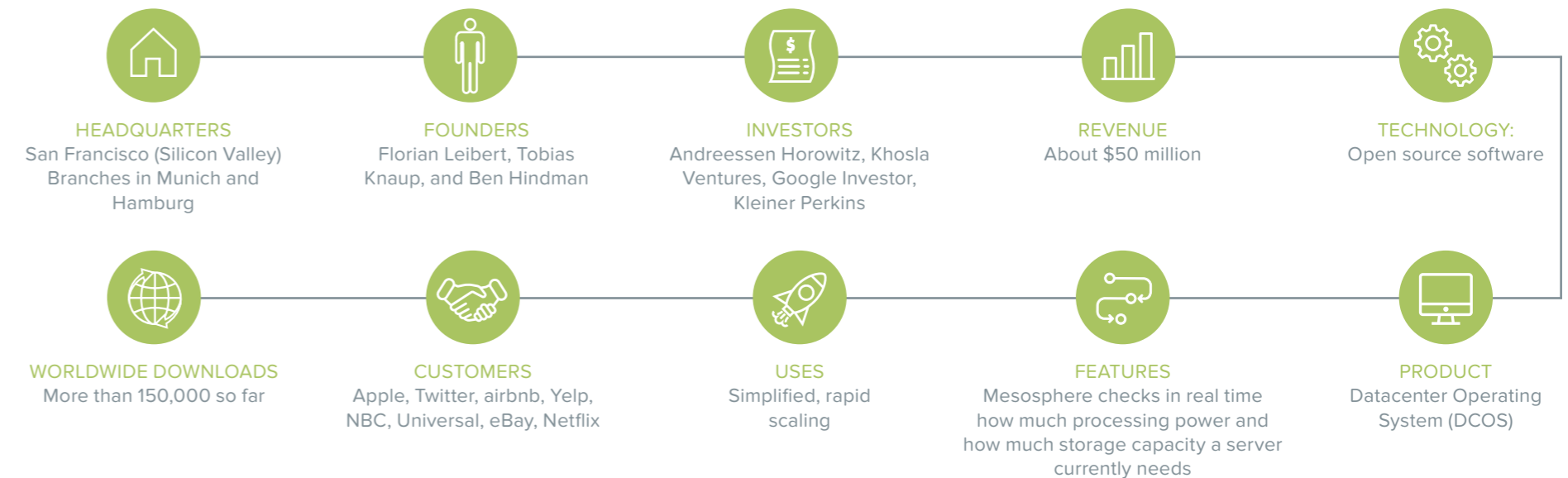
Image source: mesosphere.com (URL: <https://brand.ai/mesosphere/mesosphere-brand-guidelines>)

## HOW IT ALL BEGAN

Twitter is over capacity. The image of the "Fail-Whale", the symbol for the service's crash, was used for Twitter almost every hour in 2009. Stars like Justin Bieber and Barack Obama discovered Twitter for themselves in those days. This got the streams of followers moving. As soon as a tweet was posted, it had to be shared with all followers – millions of times! The technical architecture was close to collapsing. Leibert, who worked at Twitter, quickly introduced an open system called Meso. This allowed Twitter to handle the floods of data. Leibert's hour of success was also the birth of Mesosphere.



## MESOSPHERE FACTS



Impressions from a visit to Mesosphere by Nicolas Witte, on location in Silicon Valley



# BETWEEN BOOKS, BYTES, AND BRAKE PADS HOW DIGITAL EXPERTISE IS DEVELOPED TODAY



Up-to-date, extensive specialized knowledge in the field of vehicles is the basis for the daily work of our more than 350 vehicle experts. That is why the topic of continuing education is emphasized at ControlExpert. But how can such a large team be kept up to speed on the state of the art? And what role does digitalization play in this topic?

As with many other areas, ControlExpert also works to provide continuing education for the combination of humans and machines. "At the C€ academy, we regularly bring the 'who's who' of the industry to us to be able to discuss the newest technologies and repair methods face to face", explains Philipp Haac, Head of Operations at ControlExpert. In collaboration with vehicle manufacturers and well-known institutions such as KTI and DEKRA, seminars, presentations, and training sessions are held on various topics. The most recent highlights were training sessions on the topic of electromobility, fraud detection, and driver assistance systems. Because of the number of training sessions and the large number of different experts, an enormous body of technical knowledge is accumulated. And it is constantly growing. "The most important thing is that employees have fun with the new technologies. There are often technical discussions of new repair methods in our hallways", says Philipp Haac.

## THOUGHTS ARE BECOMING DIGITAL

We now know that vehicle know-how at ControlExpert is created through training & education, practical work experience, passion for cars, and professional training. >>



"THE C€ ACADEMY PLAYS A BIG PART. THANKS TO THE LAST WORKSHOP 'MIRACLE CARBON', I AM ABLE TO MUCH MORE REALISTICALLY ESTIMATE REPAIR COSTS."

KARSTEN REUSSWIG,  
Vehicle Expert,  
ControlExpert



"NOT LONG AGO, I STILL REPAIRED VEHICLES MYSELF – TODAY I TEACH THE COMPUTER WHAT TO LOOK FOR WHEN CALCULATING REPAIR COSTS."

CHRISTIAN ESCHE,  
Vehicle Expert,  
ControlExpert

What happens with this technical knowledge? How is it made digital? How can machines be enabled to work with this knowledge and automate processes? The answer is: Through rules. Rules can be created for a number of relevant claim scenarios. ControlExpert has its own "task force" of IT specialists and vehicle experts who digitalize their expertise and many years of experience as rules. This on its own is a true innovation. ControlExpert has managed to simplify the technical aspects of rule development to the

point that a vehicle expert is able to develop a rule without assistance. They are effectively digitalizing their own knowledge and experience. Another driver for new rules is the information and specifications of manufacturers. All new rules at ControlExpert have one thing in common: They are subject to an intensive and detailed test phase before they are used in applications such as AutoCheck, ExpertiseCheck, or InvoiceCheck. ■



## PHILIPP HAAC

Head of Operations at ControlExpert

"At the C€ academy, we regularly bring the 'who's who' of the industry to us to be able to discuss the newest technologies and repair methods, face to face"

## TRAINING PROGRAM EXCERPT: C€ ACADEMY

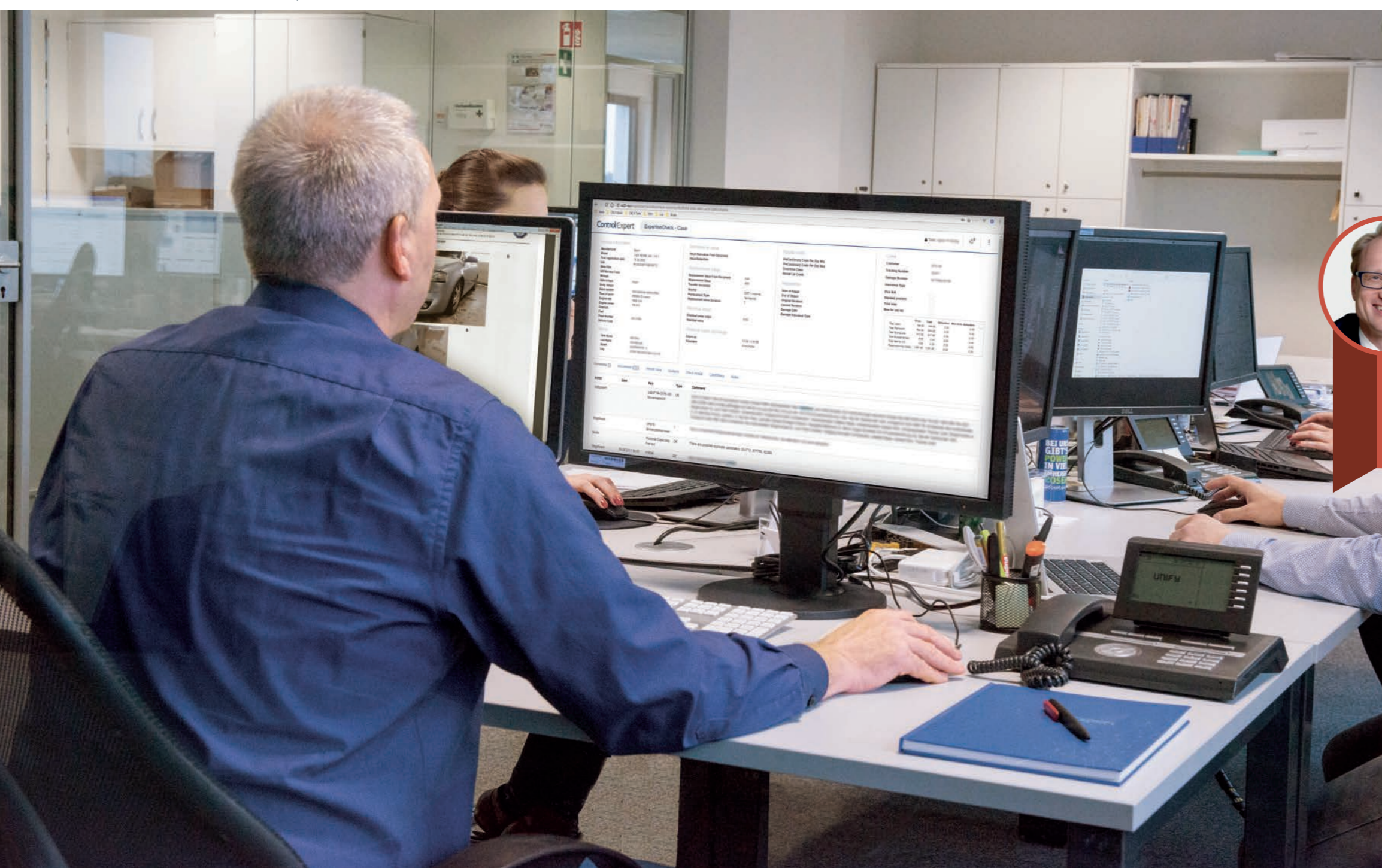
- FLAT RATES IN INVOICES
- CHASSIS MEASUREMENT
- PLAUSIBILITY – CAUSALITY
- TOTAL LOSS
- UNREPAIRED PRIOR DAMAGE
- SIDE PANEL – REPAIR INSTEAD OF REPLACEMENT
- DAMAGE DETERMINATION FRAUD DETECTION
- NEW HEADLIGHT AND ASSISTANCE SYSTEMS
- NEW BODY STRUCTURES AND JOINING TECHNOLOGY
- SPECIAL CHARACTERISTICS OF PAINT
- ELECTRIC VEHICLES
- DAMAGE FROM WILD ANIMALS

**EXPERTISECHECK**






# RELIABLE SAVINGS WITH CASH SETTLEMENT

Technical review and evaluation of an expert assessment or a repair shop's cost estimate requires deep vehicle know-how. Flat rates, manufacturer specifications and repair methods are only a few topics that require consideration and solutions. The ace up ControlExpert's sleeve is the combination of artificial intelligence and vehicle know-how. This further increases the quality of claim reviews.

Frank Klose, Head of ExpertiseCheck and GlassCheck, reviews a cost estimate



## ADVANTAGES OF EXPERTISECHECK

-  Combination of machine learning and vehicle know-how
-  Full digitalization all the way down to the item level
-  Proprietary repair shop database based on millions of audited transactions
-  Faster processes and greater savings
-  Transfer of structured, meaningful data and reports, as well as repair cost studies

A cost estimate or expert assessment undergoes two audit scenarios at ControlExpert: A rule-based check and the in-depth check. For the rule-based check of the process, the CE Analyzer comes into play. Our module for rules, artificial intelligence and machine learning independently checks for inconsistencies. All based on millions of audited transactions. The Analyzer reviews current replacement part prices, hourly labor rates, painting and associated hourly rates, and much more. The Analyzer receives the necessary information from our complex database. For this, customer-specific, technical, and vehicle-specific rules

are checked. The Analyzer also has access to this data. If the Analyzer detects errors in the process, this is sent to one of our vehicle experts for in-depth review. All details are then rigorously checked. In the automotive world this means: Review of causality, plausibility, and a fraud check. Nothing slips past our experts. For example, repair methods are examined very closely. Is it easier or cheaper to paint a certain part while it is on the vehicle, or would it be better to remove it? Our vehicle experts are also the best at estimating and evaluating the calculated repair costs. After all, practically all of them have worked in re-

pair shops and know how long is needed for certain repairs, and even when a repair is not needed. "To be able to answer tough questions from repair shops, you really need to know what you're talking about", says Frank Klose, Head of ExpertiseCheck and GlassCheck at ControlExpert. "Our goal is to accelerate processes through automation. For example, determining the replacement costs and the listing on salvage exchanges happens automatically. This frees up employees to be able to focus on complex decisions." This is how ControlExpert uses ExpertiseCheck to achieve faster and more precise audits. ■



**MARKUS TROCHE**

Head of Vehicle Claims, Zurich Gruppe Deutschland, Managing Director Zurich Service GmbH

"With ExpertiseCheck, we have practically brought packaged vehicle know-how into our own house. The efficiency is enormous and is reflected in cost savings."



"EXPERTISECHECK IS ONE OF OUR CORE PRODUCTS. WE WORK DAILY ON CONTINUAL IMPROVEMENTS AND FURTHER INNOVATIONS. A LARGE NUMBER OF RULES MAKES AUDITING INCREASINGLY PRECISE, ALLOWING US TO OFFER NEW MODULES SUCH AS SMARTREPAIR AND FRAUD DETECTION."

FRANK KLOSE,  
Head of ExpertiseCheck and GlassCheck, ControlExpert

INSIGHTS

# CONTROL€XPERT FULL OF ENERGY

## WORK HARD, PLAY HARD

Whether it's the song "All Summer long" at a summer party, or the Christmas song "Let it snow" at a Christmas party, the people at Control€xpert work hard but also don't pass up a good chance to celebrate. Besides delicious food, good cocktails, and funny photos from the photo booth, most people dance long into the night. They follow the motto: Work hard, play hard.



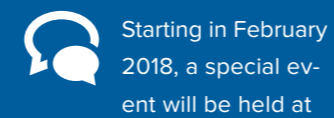
## ALWAYS ON THE MOVE

Wherever there is lots of thinking, research, and development going on, people should not neglect taking some time to recharge. At Control€xpert this usually means: Out into the fresh air! Ideally together. We choose to participate in a lot different types of sports: Squash, spinning, waterskiing, jogging. Under the motto "C€ Runs" ("C€ läuft"), employees went out for group distance running sessions. Regular training even culminated in 2017 with participation in a half marathon. But fans of other sport types also had plenty to do. A "C€ Fit" Facebook group, in which employees organized a wide variety of activities, quickly formed. In 2017, the group's activities included a visit to the climbing park at Fühlinger Lake, participation in the Orthomol FunRace, standup paddling, and fitness boot camps. And what's on the agenda for 2018? Lots of exercise! Beach volleyball, table tennis, yoga, pilates, and spinning are already on the schedule. One thing is certain: It won't be boring. Control€xpert will make sure of that.



## INTRODUCING...

### FIRST THURSDAY



Starting in February 2018, a special event will be held at Control€xpert on every first Thursday of the month. At each FIRST THURSDAY event, there will be a short update on general happenings and two presentations. One thematic focus is on IT and technology, while the other is vehicles and technology. Afterwards, the topics of the next FIRST THURSDAY will be decided and of course creature comforts will be provided in the form of pizza and beer. We look forward to it!



**MANUEL KOLREP**  
Head of MobileCheck

The sales of complex software solutions and services is Manuel Kolrep's special expertise. The 35-year-old was most recently able to improve the sales and marketing projects of well-known partners such as Microsoft and Adobe. At Control€xpert, he is responsible for the Mobile-Check division as well as its vision. In addition to evaluations of mobile phones, tablets, laptops, and glasses, there are plans to soon include checks of household devices, hearing aids, and e-bikes. In his free time, he enjoys exploring new gastronomic offerings in Düsseldorf, spending time with family and friends, or traveling the world.



**ROY HEIDERICH**  
Head of Product Management

The native of Cologne knows the insurance business like the back of his hand. Roy Heiderich draws upon 21 years of career experience, including for insurance companies such as Generali Deutschland Schadenmanagement GmbH and Gothaer Versicherung. For 13 years, he also worked successfully as a corporate consultant for Steria Mummert and 67rockwell Consulting. At Control€xpert, he will be working in project management starting in 2018, and will collaborate closely with the domestic and international sales teams. Outside of work one can find this typically cheerful native of Cologne either out playing tennis or at the 1. FC Köln stadium.



**PHILIPP NYTSCH**  
Vehicle Expert

The trained and certified vehicle service consultant is an expert, in particular for Volkswagen vehicles. He is able to draw upon 11 years of career experience. Now 28 years old, he left his hometown near Dresden at age 16 to start his apprenticeship in Hilden as a vehicle mechatronics technician, at the same company that Michael Schumacher did his apprenticeship at. After Philipp Nytsch had successfully worked as a deputy master vehicle mechanic, he pursued advanced training as a service consultant. At Control€xpert, he supports the InvoiceCheck Division and is responsible for activities with Allianz. He enjoys spending his free time on the soccer field as well as on the sidelines, and loves spending time with his family.



**JAN LANGKAU**  
Business Development Manager

Jan Langkau has lived the last eleven years mainly out of his suitcase in order to further develop and expand the international operations for a large residual value platform. Subsequently, he was responsible for the international expansion of a marketing agency specializing in automobile manufacturers and their dealers. His enthusiasm for international business development and sales remains high, which is why he has been working for Control€xpert as Business Development Manager since February. He is looking forward to working with the team and add value to the firm. In his spare time, he prefers to focus on his passion for flying and aviation.



**ANDRÉ GROTHUES**  
Head of International Platforms

Having studied business information systems, he draws upon 15 years of career experience in software development. He is an experienced leader of developers, testers, product owners, Scrum Masters, and data analysts working around the world. At Control€xpert, he will lead the team forward as the Head of International Platforms. In his private life, André Grothues is very musical – he plays the piano and keyboard. When he is not spending time with his little daughter, he can be found on the badminton field.



**PAUL SYKES**  
Country Manager, UK

Paul Sykes has spent most of his career in the British insurance industry, including as the managing director of Audatex UK. He knows the product portfolio of the insurance industry in Great Britain and South Africa inside and out. Starting in the beginning of 2018, he will be the Country Manager for Control€xpert UK. He enjoys spending his free time with his family, and likes to tinker on his cars with his son.



**OSCAR LÓPEZ**  
Scrum Master

Agile software development is the pet passion of Spaniard Oscar López Sánchez. During his 26 years of professional experience, he was a project leader for international teams and was also responsible for IT projects for Lufthansa, Vapiano, and Vodafone. He also taught various Scrum training sessions. At Control€xpert, he supports the IT division as a Scrum Master.



# **WMIHT** **DIFFERENT**

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