

# IDEAL INSURANCE GROUP OPTIMIZES INPUT MANAGEMENT WITH NEW AI TECHNOLOGIES

With the introduction of the Cognitive Classifier from Insiders Technologies and deep learning-based OCR, the IDEAL Insurance Group has achieved a new level of quality in input management. Outstanding recognition rates enable the case-closing processing of simple requests directly in the inbox.



## CUSTOMER

IDEAL Versicherung

## COUNTRY

Germany

## HIGHLIGHT

New AI technologies allow higher automatization

## PRODUCTS

smart FIX

smart INVOICE

The Berlin-based IDEAL Insurance Group offers its customers products to cover biometric risks and innovative retirement provision concepts. During more than 100 years of existence, IDEAL has established itself as a driver of innovation in the insurance industry. It made a name for itself with product innovations such as the private long-term care pension and the first completely digital insurance account, IDEAL UniversalLife.

The insurance company processes over 500,000 documents a year, with around 750,000 pages in input management. The incoming documents are very diverse: handwritten letters, photographed documents, faxes, emails with various attachments in a wide range of file formats or embedded in the message, medical records, or official documents.

## CHALLENGES IN INPUT MANAGEMENT AT IDEAL

The insurance group has been using smart INVOICE for incoming invoice processing since 2004 and began introducing smart FIX for input management shortly afterwards. Since 2017 - driven by the sharp increase in electronic incoming mail - IDEAL has been using smart FIX for all input management - for the life, property,

## CHALLENGES

- ✓ A high proportion of handwritten documents require next-level OCR
- ✓ Scan quality of receipts decreases significantly with self-service photos
- ✓ Document types; such as certificates and combinations of text and images
- ✓ Further increase the degree of automation, especially for difficult documents

liability, and long-term care insurance segments, with good to very good results.

Documents with little and largely similar text, such as certificates, often offer few textual clues for a precise classification. Marriage, birth, and death certificates have many common terms such as surname, first name, or date of birth and can often only be distinguished by the title. If this was difficult to read due to watermarks or a poor-quality cell phone photo, it made automatic classification difficult too.

IDEAL was looking for a solution that would recognize all documents in the inbox with as little manual effort as possible, read the required data, process it in a structured and fully automated manner (dark processing), offer it for processing, or transfer it to a follow-up system.

Another challenge was the desire to complete simple tasks - such as a change of address or bank details - at the first contact with the document.

## BREAKING PREVIOUS BOUNDARIES WITH NEW TECHNOLOGIES

Insiders Technologies is constantly improving its products in a customer-oriented manner and incorporating new technologies. The new Cognitive Classifier combines image-based classification with optimized text-based classification through advanced technologies, such as Natural Language Processing (NLP) and Deep Learning. Other methods, such as transformer networks, can also be integrated.

With the recognition of visual features, the Cognitive Classifier can now automatically recognize and process document certificates with seals, notarial documents, or photo attachments.

In addition, the universal Integration Layer for OCR (ILFO) allows the integration of various OCR components to fulfill special use cases. Together with the ILFO, deep learning-based OCR was also introduced at IDEAL.



*"Thanks to Cognitive Classifier and ILFO, we were able to crack the tough nuts in input management and make a significant leap in process automation. It's great to implement new AI technologies in close cooperation with the manufacturer."*

CARSTEN DICKAU

BUSINESS ANALYST,  
IDEAL

*"The strength of Insiders lies in the combination of a good platform constantly being further developed and good advice that proactively identifies new possibilities for AI. Instead of a myriad of different start-up solutions, the smart products provide a reliable platform to implement innovations quickly."*

CARSTEN DICKAU  
BUSINESS ANALYST,  
IDEAL

## BENEFITS

- ✓ A combination of Cognitive Classifier and deep learning OCR reliably achieves high recognition rates for classification and extraction
- ✓ Significant increase in automation in the overall process by introducing product innovations
- ✓ A combination of different AI technologies from a single source acts as a catalyst for existing solutions

## INSIDER'S INNOVATIONS PROVE THEIR WORTH

IDEAL was already known to Insiders Technologies as a first mover who would try out new things and was also extremely technically adept. When the product innovations became available, Insiders proactively offered the insurer the opportunity to test them on particularly challenging documents in input management.

IDEAL chose the 'death certificate' document class as the use case for the test, as this is a frequently occurring document in life insurance and is also a great example for all those documents particularly challenging to read with classic OCR, due to printed watermarks. A significant leap in quality was achieved in the test: 97% of the death certificates could be correctly and automatically read, and in only 3% of cases was a human verifier needed.

To cut a long story short, the test results impressed IDEAL so much that the Cognitive Classifier and the optimized OCR were introduced for all the insurers' document classes. By combining image and text information, the Cognitive Classifier excels even with document classes that were previously difficult to classify, and increases recognition rates by a further 15 percent to almost 100 percent. The alternative OCR connected via ILFO also contributes significantly to a higher level of automation, with improved recognition of poor-quality photos, faxes, scans, and handwritten documents thanks to more precise field data extraction. The handwritten documents frequently occurring at IDEAL are now processed more efficiently with the deep learning-based OCR.

## CONTINUOUS IMPROVEMENT IN PROCESS AUTOMATION

IDEAL can now process previously difficult or impossible-to-read information with the new, innovative AI components. The case-closing processing of simple input management tasks has been implemented. The IDEAL example shows that providing a platform on which a wide variety of AI technologies can work together always results in customer process improvements.

## KEY FACTS

- ✓ smart FIX for the entire input management in the insurance business
- ✓ smart INVOICE for processing incoming invoices
- ✓ 500,000 documents with around 1 million pages p.a. and high heterogeneity
- ✓ Cognitive Classifier increased recognition rates for difficult-to-process document classes to almost 100 percent
- ✓ Automated recognition and processing of death certificates increased to 97 percent
- ✓ Next Level OCR also processed handwritten documents with high precision





## SMART FIX: USE CONTENT INTELLIGENTLY

smart FIX is the market-established standard product from Insiders Technologies for the automated processing of all general input management - regardless of input channel, format, and structure. All incoming documents are captured in one system and classified based on textual and visual characteristics. Relevant information is automatically extracted, validated, and forwarded to the right business process. This allows you to optimize your processes from data receipt through to the completion of the transaction..

<https://insiders-technologies.com/de/mailroom-automation>

## ABOUT IDEAL

The IDEAL Insurance Group operates in the life insurance, property, and casualty insurance segments. For over 100 years, IDEAL has focused on the interests of its customers. In 2002, IDEAL was the first insurer to introduce private long-term care pension insurance and is still the market leader in this area today. Unique to the German insurance market is IDEAL UniversalLife, a transparent insurance account that combines components of old-age and risk provision in just one contract. Thanks to its lean structure and financial strength, IDEAL offers innovative insurance solutions and multiple award-winning products.

<https://www.ideal-versicherung.de>



## ABOUT INSIDERS TECHNOLOGIES GMBH

Insiders Technologies is a technologically leading and market-established provider of software for Cognitive Process Automation. More than 4,000 customers from all industries rely on the innovative solutions of the product house from Kaiserslautern to optimize their document-centric business processes. As the most successful spin-off of the German Research Center for Artificial Intelligence (DFKI), Insiders has made it its mission to transform cutting-edge AI into real customer benefits. Thanks to the latest Deep Learning technologies, the software solutions understand heterogeneous content, extract business-relevant information, automate transactions and shorten response times. In doing so, the technological pioneering spirit and agility are a guarantee for continuous innovations and products on the pulse of time.

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