

Use case

PROCESSING MEDICAL CLAIM FORMS WITH ARTIFICIAL INTELLIGENCE

How to use deep learning to capture physicians' handwriting, enhance the operational efficiency of health insurance funds and reimburse millions of citizens faster and more accurately



Customer: [Partenamut](#)

Industry: [Health Insurance](#)



Document Manager Awards 2017
Project of the Year

CONTEXT & CHALLENGES

CONCEIVE

Healthcare and Health Insurance - Belgium's digital ecosystems

Health insurance funds in Belgium (locally known as "mutualities") are currently undergoing digital transformation... with a deadline.

The challenge is dual: on one hand, the federal government demands that most paper-based medical claim forms be electronic by 2019; on the other hand, all these (private) companies are receiving less and less government funds.

As a result, Belgian mutualities are adapting their digital strategies while looking at implementing more cost-efficient solutions.

In other words, Belgian mutualities are becoming smarter.

THE CUSTOMER

Partena Group – Mutualité libre (FR) / Onafhankelijk ziekenfonds (NL) is an independent health insurance fund and one of the largest in the country.

- 1.3 million members
- 1000+ employees
- 300 partners
- 52 agencies
- 1/3 of Brussels citizens
- 15% of Wallonia citizens
- 20.000 reimbursements every day

THE PAIN POINTS

Partena has been scanning documents for decades, outsourcing their business processes to Moonoia since 2009. It soon realized that, in order to tackle the document challenges of a new era, it needed solutions that would innovate everything from technology and processes to employees and customers. Pain points to be addressed include:

- VOLUMES – Millions of documents have to be processed every month
- ACCURACY – As data becomes the most valuable resource for companies everywhere, data quality becomes vital for Business Intelligence and decision making
- MANUAL VALIDATION – As data sources multiplied, document quality decreased. Human operators manually entering data imply higher and higher operational costs
- TURNAROUND TIMES – Reimbursement speed in the age of "instant gratification"
- LESS LOYAL CUSTOMERS – Life-long membership for services is a thing of the past

CONTEXT & CHALLENGES

THE DOCUMENT

Medical claim forms in Belgium are VERY complex documents issued by medical institutions or practitioners each time a patient interacts with the health system. The patient must send the form to his health insurance company for reimbursement.

The form is not optimized for optical character recognition and contains around a dozen handwritten fields as well as:

- Barcodes and QR codes
- Printed text
- National security number
- Personal signature
- Official stamps and seals

This complexity poses a lot of problems for traditional OCR. There is a huge gap today between the reading performance and the desired level of automation.

Errors and inaccuracies make their way into the forms, resulting in wrong nomenclature codes, inconsistent data concerning payments, discrepancies about patient data, fraud.

HIERNA INVULLEN OF KLEEFBRIEFJE V.I. AANBRENGEN

Naam en voornaam van de patiënt: *Krist Silvana*

Verzekeri: **8885988 653846 6 P**
KROL SILVIANA
ARIEL HERPELSTRAAT, 324
INSZ: **9730 WORTBOEM**
110/110 36524595167 ISEN

Adres van de patiënt:

GETUIGSCHRIFT VOOR VERSTREKTE HULP
IN TE VULLEN DOOR DE VERSTREKKER

Naam en voornaam van de patiënt: *Krist Silvana*

Bezoek (1)
Datum: *10/2/16* Nomenclatuurnr.: *102535*

Rescepten:
Andere verstrekte hulpmiddelen (2)

Datum van de verstrekking	Nummer v. d. nomenclatuur	Datum van de verstrekking	Nummer v. d. nomenclatuur

SAMPLE

Voorgescreven door: *ja* K.B. 1
op datum van:
RIZIV-identificatienummer van de voorschrijver:
Laboratorium of apparatuur of dienst erkend onder nummer: **1/45524/73/4**

Datum van ontvangst van het voorschrift:
Patiënt is gehospitaliseerd / ambulante (1):
Nummer van de instelling:
Dienst:

(1) Schrapen wat niet past
(2) De niet gebruikte vakken doorhalen

Identificatie van de verstrekker: *ja* K.B. 5.07.2002
EUR
1/45524/73/44 16*0006/47

BVBA dr BERNARD INGELMANS
Algemene geneeskunde
GROENSTRAAT 78
8320 AVELGEM
Datum: *18/8/16*
Handtekening van de verstrekker: *[Signature]* A

ONTVANGSTBEWIJS
Geïnd voor rekening van KBO nr.: 881694320432
Ontvangen de som van: *€35* EUR Datum: *18/8/16*
Handtekening

CONTEXT & CHALLENGES

Medical claim forms contain multiple handwritten fields.

THE DOCUMENT

<p>A.R. 15.07.2002 12,48 EURO EUR 5ed651cb-ba82-492b-bd5e-00064c919021</p>	<p>A.R. 15.07.2002 OUI EUR 9539341-1bcd-4417-b0a8-0006c52985f</p>	<p>A.R. 15.07.2002 38 EUR 6b46495e-f83b-4c45-b590-0006b82da6ec</p>	<p>K.B. 15.07.2002 24,50 EUR 6fa9214e-9ac6-4a3f-8b2c-0006e1d3c2bc</p>	<p>A.R. 15.07.2002 OUI EUR 07b27462-face-452b-854b-0006c4c57996</p>	<p>A.R. 15.07.2002 25 EUR 7afcd839-b326-4a8b-9332-0006c6689864</p>
<p>A.R. 15.07.2002 OUI EUR 7d8a7514-43bd-495b-b49a-01131358acfe</p>	<p>K.B. 15.07.2002 28 EUR 7d8a6251-9ee4-43cd-8014-014cc947a7e6</p>	<p>A.R. 15.07.2002 OUI EUR 7d8db819-a7ca-4ae4-974f-00a5c519c537</p>	<p>K.B. 15.07.2002 K EUR 7ef758ef-299a-43d5-83d5-00198e5160f8</p>	<p>A.R. 15.07.2002 OUI EUR 7fa78ae7-717a-4b3b-eadc-0006b01661c2</p>	<p>A.R. 15.07.2002 33,00 EUR 7b5744f-c57b-4b3b-eadc-0006b01661c2</p>
<p>A.R. 15.07.2002 OUI EUR 7b79956-c9f9-4e6b-995b-002fa67aad71</p>	<p>K.B. 15.07.2002 1a EUR 08fcbcb-f3ad-4965-a0c2-00e67af6614c</p>	<p>A.R. 15.07.2002 OUI EUR 8e8995f-639c-41ab-a0c3-013758a9ad0f</p>	<p>A.R. 15.07.2002 OUI EUR 8b357a37-dae6-4e21-a63c-001823bae5d8</p>	<p>A.R. 15.07.2002 OUI EUR 8bf6b789-8ea2-496b-9437-00eca0a608c</p>	<p>K.B. 15.07.2002 EUR 8cf1f141-9a9b-464a-9446-0006750379a</p>
<p>A.R. 15.07.2002 OUI EUR 8deb1327-dac3-402f-a3d9-016323df74c</p>	<p>A.R. 15.07.2002 25 EUR 9abfcda-99fe-4a8b-bcae-000091d9e6b9</p>	<p>A.R. 15.07.2002 OUI EUR 9aea7915-70bb-4c3b-4ab7-01634c962798</p>	<p>A.R. 15.07.2002 OUI EUR 9b4afca2-e9c2-4759-e632-0075c362b1b6</p>	<p>K.B. 15.07.2002 15 EUR 9bae33e7-f05b-4d20-9c7a-00185a51e208</p>	<p>K.B. 15.07.2002 42 EUR 9becab3-380e-480b-9aac-001926c0c544</p>
<p>A.R. 15.07.2002 35 OUI EUR 9c3902cb-f92b-4d8f-a119-00a5603a240c</p>	<p>A.R. 15.07.2002 OUI EUR 9d46f88-d118-4666-8bb3-000006aa27a1</p>	<p>A.R. 15.07.2002 OUI EUR 9dc52334-61e4-4d8b-ae00-00bc69451a3f</p>	<p>A.R. 15.07.2002 OUI EUR 9d8a7d8f-23a4-47d0-ad87-004654ca3d6</p>	<p>A.R. 15.07.2002 OUI EUR 9ef7a21f-fd31-4847-a7ac-010231d99f5c</p>	<p>A.R. 15.07.2002 EUR 9f46bc1-8100-416e-bb4c-000a1d53878</p>
<p>A.R. 15.07.2002 OUI EUR 9f703ac-5a6b-49c7-9c66-01196f193a86</p>	<p>A.R. 15.07.2002 OUI EUR 10da58b2-213a-4b36-9337-0119ca288d1</p>	<p>A.R. 15.07.2002 OUI EUR 14d68de-938a-43bc-480c-0131af23cc9</p>	<p>K.B. 15.07.2002 24,50 EUR 16c4669-62c1-4add-8da1-01312832430b</p>	<p>K.B. 15.07.2002 29 EUR 017d2ac-cba0-47b5-bba0-007627bae42</p>	<p>K.B. 15.07.2002 EUR 18ac454-b348-4ba1-ac01-017a0d309ab</p>
<p>K.B. 15.07.2002 OUI EUR 18c5148-bb7b-488b-aa39-00cc4467167</p>	<p>A.R. 15.07.2002 OUI EUR 019cab7b-1e6c-4017-b779-013178b7e6c</p>	<p>A.R. 15.07.2002 OUI EUR 2ba742b-3a9f-496b-a163-01313782e79</p>	<p>A.R. 15.07.2002 OUI EUR 216c21e8-150b-4e6b-878f-00ec5326681f</p>	<p>K.B. 15.07.2002 EUR 26a78c3d-8393-4963-bef0-00bd37bc33</p>	<p>K.B. 15.07.2002 33,8 EUR 23c4651-0278-471a-87ec-00a4202929a4</p>
<p>A.R. 15.07.2002 OUI EUR 24e6c8b2-ea8b-478d-86de-3049f634142</p>	<p>A.R. 15.07.2002 OUI EUR 038facc-33af-47ca-41c2-b000-00e602754e4</p>	<p>A.R. 15.07.2002 OUI EUR 38c12d8b-b95c-4059-a75e-0078489b5d8c</p>	<p>A.R. 15.07.2002 NON EUR 38cc79b-3983-42ba-88a7-0102d9480f9c</p>	<p>A.R. 15.07.2002 OUI EUR 41c6d9f-27c9-42cf-b039-0030077b36c</p>	<p>A.R. 15.07.2002 EUR 42c3706d-d109-4eb-ae75-00800c80942</p>
<p>A.R. 15.07.2002 OUI EUR 43023ca-99d9-4a07-bf40-005f48553267</p>	<p>A.R. 15.07.2002 OUI EUR 45afdbd7-3a0c-4c38-854b-00000212f6c8</p>	<p>A.R. 15.07.2002 25 EUR 496fca5d-039b-4d8f-925e-00022ac0e25f</p>	<p>A.R. 15.07.2002 EUR 048a2a21-edcc-4a46-9184-0006a866db1f</p>	<p>A.R. 15.07.2002 25,00 EUR 49e5921-41e6-4e7e-b32c-00304a95259</p>	<p>A.R. 15.07.2002 EUR 53a62a-3916-4b5d-ae00-016393008c7c</p>
<p>A.R. 15.07.2002 25,00 EUR 53d838e-31c1-42af-a113-0019328a627</p>	<p>A.R. 15.07.2002 OUI EUR 59f952b-160b-440c-87ec-007932ac492a</p>	<p>A.R. 15.07.2002 24,00 EUR 0060e82-6824-46e7-9eaa-00183678180a</p>	<p>K.B. 15.07.2002 EUR 60ec22c7-adaf-4603-ae07-0006a5009f</p>	<p>A.R. 15.07.2002 EUR 61baf5d9-d0fe-402a-884c-000ca18901c8c</p>	<p>A.R. 15.07.2002 OUI EUR 619529b-788d-49d0-904f-0030bd415026</p>
<p>A.R. 15.07.2002 OUI EUR 63a72d6e-c8ab-489c-b0c0-002b25fa1a29</p>	<p>A.R. 15.07.2002 OUI EUR 65c9484b-7925-bdff-898a-00c96cbaf6</p>	<p>A.R. 15.07.2002 OUI EUR 66c08724-59f7-4d42-9abc-0143aed69c</p>	<p>A.R. 15.07.2002 OUI EUR 66e4a73-42e1-41c9-b579-017a1b678d89</p>	<p>A.R. 15.07.2002 OUI EUR 671ca19-d97b-401a-b17f-000042cab79</p>	<p>A.R. 15.07.2002 OUI EUR 74c92772-6484-4a26-a643-00ab33a3e812</p>
<p>A.R. 15.07.2002 OUI EUR 74e52ca4-9972-431e-8d34-0020642c4443</p>	<p>A.R. 15.07.2002 OUI EUR 75a368e8-80fe-484c-b369-01318ab7452c</p>	<p>A.R. 15.07.2002 OUI EUR 77b230a5-b783-452f-b34d-00bd39f4e037</p>	<p>A.R. 15.07.2002 OUI EUR 80e46ef-938b-4709-8099-0006c3478c</p>	<p>A.R. 15.07.2002 OUI EUR 82caa05-c964-478b-9323-0006a3d0ca</p>	<p>A.R. 15.07.2002 OUI EUR 85e40af-23ac-4a2e-baef-00a292929cc</p>
<p>A.R. 15.07.2002 OUI EUR 88b67ad-68da-48b3-87e1-0163a607444</p>	<p>A.R. 15.07.2002 OUI EUR 89afec8-397b-4c5e-a907-00cc45047c2</p>	<p>A.R. 15.07.2002 M EUR 95d8550-a86a-4a0a-a77e-00183a42769</p>	<p>K.B. 15.07.2002 G50 EUR 95d8550-a86a-4a0a-a77e-00183a42769</p>	<p>K.B. 15.07.2002 EUR 97993a31-d03e-412b-832e-00060f5d8f36</p>	<p>A.R. 15.07.2002 OUI EUR 998d49f-3771-42ab-8a67-00ac29979ab</p>
<p>K.B. 15.07.2002 EUR 103ae64-5ab1-42b7-ba4d-00c94a03003</p>	<p>A.R. 15.07.2002 3a EUR 119d0169-93ae-40ba-ae3a-00ec716d4495</p>	<p>K.B. 15.07.2002 2a EUR 127d879a-ba3b-420b-ae07-007879564531</p>	<p>A.R. 15.07.2002 OUI EUR 134cf09-ccee-4899-ae32-0044a06403c</p>	<p>K.B. 15.07.2002 EUR 1894f6a-abb6-4251-bd4f-000471fd40b</p>	<p>A.R. 15.07.2002 OUI EUR 236cf1e7-3222-4734-839f-0004c5ed1ea</p>
<p>A.R. 15.07.2002 OUI EUR 406a5e36-561d-4753-839b-00a5d1ee8dfc</p>	<p>K.B. 15.07.2002 EUR 45d448e-980c-49fa-9152-014a2c85c98</p>	<p>K.B. 15.07.2002 EUR 463ba2b4-f8d8-497e-b993-00000c84703</p>	<p>A.R. 15.07.2002 OUI EUR 629202b-4698-4140-980b-0149a73773b8</p>	<p>K.B. 15.07.2002 EUR 64bbbab-c11e-4d2b-9ba1-0006a18a86b</p>	<p>A.R. 15.07.2002 OUI EUR 647aa512-408b-4a61-b1b5-0006c9b3af9c</p>
<p>K.B. 15.07.2002 29 EUR 685bc395-f30d-4512-8b5c-0119ca5af3042</p>	<p>K.B. 15.07.2002 OUI EUR 702d23f-bcc3-48de-8771-016369d7f62</p>	<p>K.B. 15.07.2002 EUR 722fd8e-19af-484b-9e00-0000114a6df</p>	<p>A.R. 15.07.2002 OUI EUR 797b93e-89f5-437b-8084-00a662c8f8d</p>	<p>K.B. 15.07.2002 EUR 815c79eb-8c99-4add-b73e-001933807fc</p>	<p>K.B. 15.07.2002 EUR 82a643c-b496-48d9-81c5-0006b003b5e</p>
<p>A.R. 15.07.2002 OUI EUR 95190af-0593-4489-88a0-00030b393ad</p>	<p>A.R. 15.07.2002 OUI EUR 01008e9-0b4c-4097-ba41-000138878ad</p>	<p>K.B. 15.07.2002 EUR 4626d8b0-2920-49e4-8880-0102c28b7920</p>	<p>A.R. 15.07.2002 OUI EUR 4721ef02-0c43-4aa1-bd14-004800b730ea</p>	<p>A.R. 15.07.2002 OUI EUR 5789ca7-aac0-4a7a-9a23-01026199a60f</p>	<p>A.R. 15.07.2002 OUI EUR 66a490b-622b-4a25-8546-014b02790018</p>
<p>A.R. 15.07.2002 OUI EUR 669b017-6d8e-4096-b46c-000007ecb8f3</p>	<p>A.R. 15.07.2002 28,60 EUR 666a231-10e1-4e6b-9785-00183209291</p>	<p>A.R. 15.07.2002 OUI EUR 936fcb34-4a89-4a40-a1a8-000f1a6b3a67</p>	<p>K.B. 15.07.2002 24,50 EUR 9409f73d-ae5f-480e-e542-0131616c12b</p>	<p>A.R. 15.07.2002 OUI EUR 1495ab3-39f5-893b-b0ef-007049778b4a</p>	<p>A.R. 15.07.2002 OUI EUR 019421e9-e854-47ed-b001-0009f048b52</p>
<p>A.R. 15.07.2002 OUI EUR 23255b5c-b9f6-4203-bd45-8096f1848956</p>	<p>A.R. 15.07.2002 OUI EUR 22189ba-1307-4277-ae45-0102c8303f48</p>	<p>A.R. 15.07.2002 OUI EUR 23935c27-0779-4684-878b-01027441c5a2</p>	<p>A.R. 15.07.2002 OUI EUR 4990e63-683c-49e9-9a29-0163a1c3f5c</p>	<p>A.R. 15.07.2002 OUI EUR 60120e9-4196-4a95-b211-014a5314d44</p>	<p>A.R. 15.07.2002 OUI EUR 8326959-b8b2-484c-983c-0102ba1c120e</p>
<p>A.R. 15.07.2002 OUI EUR 88982af-54e5-473e-92e7-011a3511c968</p>	<p>A.R. 15.07.2002 OUI EUR 4408186f-1168-454a-95a3-0003cee5b162</p>	<p>A.R. 15.07.2002 OUI EUR 454139c1-0ccc-40e8-877a-000900817997</p>	<p>A.R. 15.07.2002 OUI EUR 47588aa-b391-4a27-8816-00044275143a</p>	<p>A.R. 15.07.2002 OUI EUR 803744d3-4466-463b-ba9e-0148974683f</p>	<p>A.R. 15.07.2002 OUI EUR 88950af-5ac6-480e-e32d-0000a5553db</p>
<p>A.R. 15.07.2002 OUI EUR 118997ad-72b-46ea-8aee-0102b282d51e</p>	<p>A.R. 15.07.2002 OUI EUR 2265051f-af48-4081-a23c-0163bb0a8d43</p>	<p>A.R. 15.07.2002 20,00 EUR 4529423c-0b61-42c2-8e29-014a600a87a2</p>	<p>A.R. 15.07.2002 OUI EUR 8762379-9d44-498d-6a03-0103534377a4</p>	<p>A.R. 15.07.2002 OUI EUR 882095b-e588-480b-8c7b-000fcccac3c</p>	<p>A.R. 15.07.2002 OUI EUR 1351635f-a371-4b0f-ae33-0006c3b7d9b</p>
<p>A.R. 15.07.2002 OUI EUR 148037e6-743-437b-beca-00a095ce23cf</p>	<p>K.B. 15.07.2002 OUI EUR 2106309-8a2e-4aeb-8483-0163398ae5</p>	<p>A.R. 15.07.2002 OUI EUR 2438758-9984-40c9-9993-011a26a99958</p>	<p>A.R. 15.07.2002 OUI EUR 31828143-04c8-4849-878a-0119b9f78a2</p>	<p>A.R. 15.07.2002 OUI EUR 3329912-8925-400b-8a64-01661791faa</p>	<p>A.R. 15.07.2002 OUI EUR 5011984-794f-454a-bc9f-00400c19f463</p>
<p>A.R. 15.07.2002 OUI EUR 53821244-7e6f-478b-9d44-00d43cc847a</p>	<p>K.B. 15.07.2002 OUI EUR 6448267f-1bb6-4a54-bf06-002938a629</p>	<p>A.R. 15.07.2002 OUI EUR 75988272-486e-4a43-b665-0000012a01</p>	<p>A.R. 15.07.2002 OUI EUR 8022490-b877-4214-8e35-0000048c3e4d</p>	<p>A.R. 15.07.2002 OUI EUR 90458773-28cf-4959-9e3f-000fba0b39f</p>	<p>A.R. 15.07.2002 OUI EUR 92746202-91a9-4a30-a114-000d2561a9e</p>

CONTEXT & CHALLENGES

Medical claim forms contain multiple handwritten fields.

THE DOCUMENT



THE SOLUTION

FROM BPO TO AI

When the idea to use “cognitive capture” for medical claim forms was first proposed, Partena was already outsourcing document processing to Moonoia (BPO services provided by Moonoia included scanning, recognition, document management, validation, archiving & hosting,

disposal, etc.), with Manufast – a company specialized in printing and outgoing mail operations - handling exceptions and manual validation.

Until 2015, nobody in the Belgian health insurance industry had ever attempted to use artificial intelligence to automate data extraction and document processing.

Moonoia saw an immense opportunity in the millions of medical claim forms passing through the systems of Partena.

Moonoia approached Partena with an intelligent, innovative and never-before seen solution, expressing the willingness to build the Proof of Concept at its own expense.

2016 provided extremely promising results: the docBrain technology developed by Moonoia was outperforming traditional OCR engines while offering – for the first time - full visibility and insight across all stages of the processes, across multiple departments and even across multiple company branches.

Partena decided to switch from traditional OCR to using deep learning neural networks for data extraction, while Moonoia committed to:

- Improve recognition rates to over 99%
- Increase automatic detection of inconsistencies, completion errors and even fraud
- Decrease overall manual work involved by more than 70%
- Ensure a smooth transition without disrupting the existing business flow

THE SOLUTION

WHY COGNITIVE CAPTURE?

Traditional optical character recognition needs machine printed text or at the very least clearly defined fields (the characters need to have spaces in between) in order to deliver acceptable results. So, there is a good reason to use deep learning technology to perform recognition on non-constrained documents containing cursive handwriting such as medical claim forms.

Moonoia trained its own in-house developed platform called docBrain on millions of medical attestations and now uses deep learning neural networks to recognize even the most difficult areas on a paper document, often illegible to human operators.

Looking at accuracy levels of 99% combined with intelligent content analysis detecting completion errors, Partena can now process medical claim forms from reception to reimbursement up to 80% fully automatically – without any human interv

DOCBRAIN – HOW DOES IT WORK?

docBrain is an in-house developed set of technologies and platform which uses deep learning neural networks (DNNs) to extract data automatically and continuously improve its own capture performance.

docBrain has an extensible architecture that shields the complexity of the underlying technology from the consuming application(s).

How it works:

First, the consuming application sends 'jobs' to docBrain using a Service Oriented Architecture interface like REST to perform certain tasks such as image optimization, document type classification or recognition.

The docBrain web service distributes the tasks according to their nature and sends them to the different recognition engines at its disposal.

The different engines process the tasks and report the results back to the docBrain web service.

Finally, the docBrain web service sends the results back to the consuming applications.

“Looking at the project in retrospective, the benefits – besides the visible cost reductions – were quality increase, stability and, most importantly, workforce flexibility. Thanks to process intelligence and predictability, we are now able to anticipate peak times, optimize traffic and workforce, and introduce training programs or non-core activities just when the time is right.”

Thierry Naniot,
HUB Manager, Partena
Group

THE OUTCOME

All the initial criteria and key metrics were (over)achieved:

- Over 70% reduction of manually-handled operations. A true step forward towards straight-through processing.
- 7.7 million documents successfully processed in the first year
- Significantly shorter turnaround times
- Unprecedented ROI (outstanding recognition and automatic classification helped reduce other costs associated with rework)
- Seamless integration with in-house Electronic Document and Content Management (EDM, ERP) systems ensured low implementation costs
- Better monitoring and reporting brought stability, predictability and process intelligence across departments and across companies
- Customer satisfaction has shown a steady, positive trend since the solution was implemented

LEARN MORE ABOUT THIS PROJECT

Watch the webinar

Copy the link below and paste it into your browser if the button above doesn't work:

<https://www.moonoia.com/watch-webinar-medical-claim-forms>



AI MADE EASY FOR END-TO-END DOCUMENT PROCESSING

docBrain is a unique AI platform built to conceive, assemble, deploy and manage end-to-end solutions based on neural network models to solve a wide range of document processing challenges - including document classification, text and image recognition, data extraction and validation.

By applying machine learning principles, docBrain succeeds where classic scanning and OCR technologies fail – at automatically extracting complex content.