

Irava Energies

ElasticDocs™

Analytics

Software-as-a-Service



The **AI Solution**
for Unstructured
Geoscience,
Engineering and
Energy Data

ELASTICDOCS™

Intuitive
Knowledge
Container

- Software-as-a-Service
- Analytics

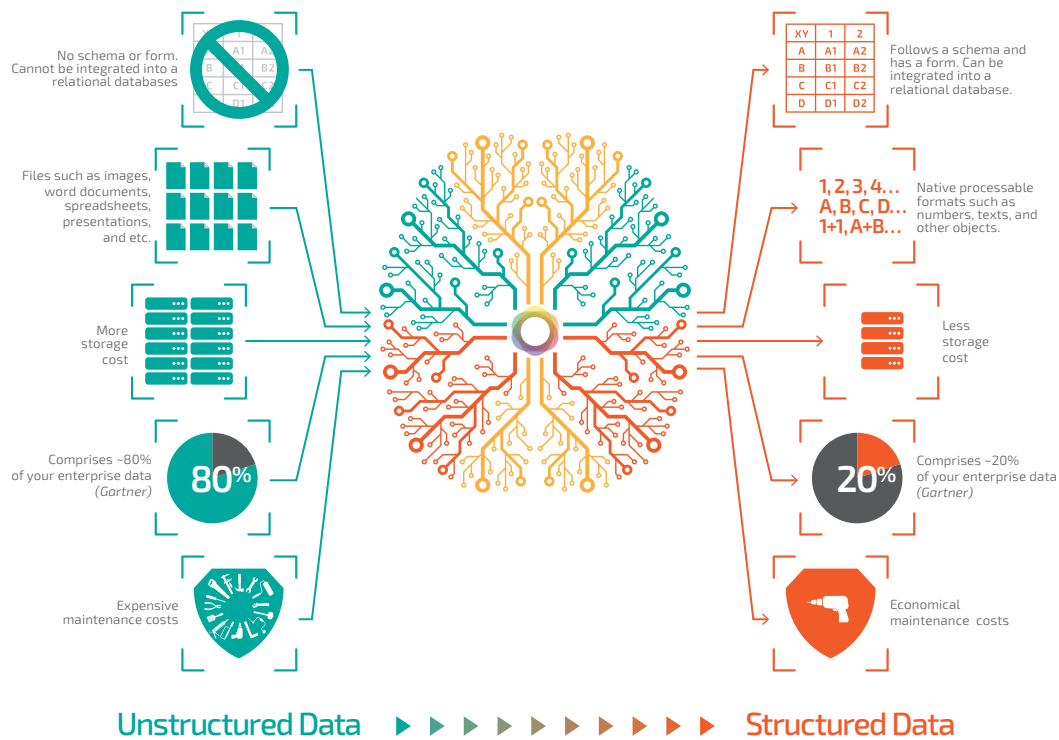


Your company's data is **exploding**

Have you ever wondered what happens to the data your company accumulates every single day? For the last 100 years the energy industry has been collecting and creating data on the earth's subsurface, with 80% of it unstructured, unprocessed, and unreadable. This lost data can be the key to discovering newer, better sources of energy. It can lead to finding the advantaged barrel, the best location to install a windmill farm or the place to efficiently produce naturally occurring geothermal energy. Wouldn't it be practical if your geoscientists, engineers, and data managers can discover and analyze this data right away instead of spending more than 50% of their time searching or reacquiring expensive energy data?

Read the earth's data better with

ELASTICDOCS™



The best solution to this data problem is **ElasticDocs™**, our Intuitive Knowledge Container. It can quickly and easily transform unstructured data to reader-friendly structured data. What's more, it's instantly available for search, retrieval, and information extraction, faster than any technology in the industry today. Through its innovative artificial intelligence platform and search-and-cluster technology, it enables professionals to browse through thousands of your proprietary corporate reports and publications in minutes.

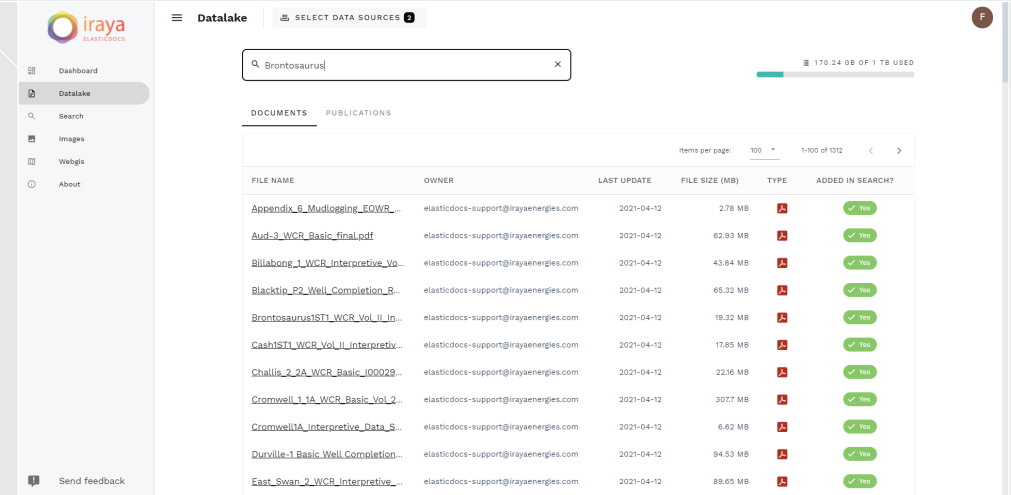
Here are just a few of its state-of-the-art features:

- Equipped with GIS layers to geolocate information and provide understanding on the availability of information within a particular area.
- Proven track record for geoscience and engineering data and pre-trained on large data repositories worldwide.
- Built with an interactive, user-friendly interface that brings the value of machine learning to the energy industry as a functional and web-based software. It can be accessed by multiple users, anytime and anywhere.
- Produces outputs of structured data such as .csv tables, heat maps, and knowledge graphs that provide valuable knowledge and quantitative insights that meet your business needs.
- Your data and our technology are constantly updated and kept evergreen.
- Processing time is up to 40-times faster than any manual workflow reducing project turnaround by up to 75%. This means a week's worth of work is reduced to just an hour.

With **ElasticDocs™**, you can read the earth's data **4 times faster**, accelerating your company's decision-making process. A month's worth of deliberations is now reduced to a week. Decisions that save your company more than a hundred hours a year and millions of dollars.

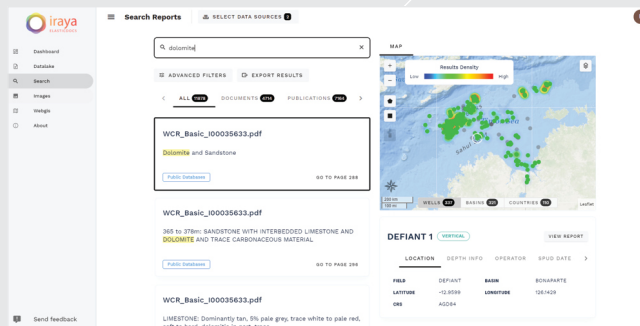
What is the **value** from processing **unstructured data**?

The **ElasticDocs™** cloud-enabled web solution makes unstructured data instantly accessible:



DATA MANAGEMENT

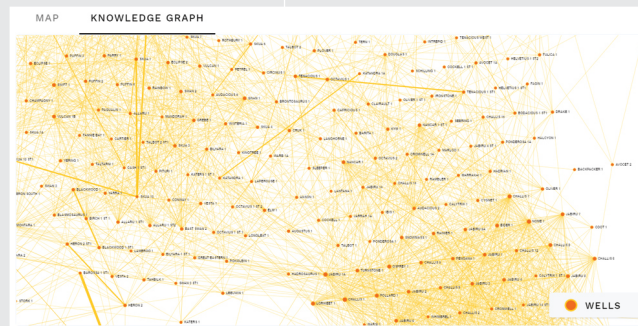
Remove data silos
Infinitely scalable data lake solution



SEARCH AND RETRIEVAL

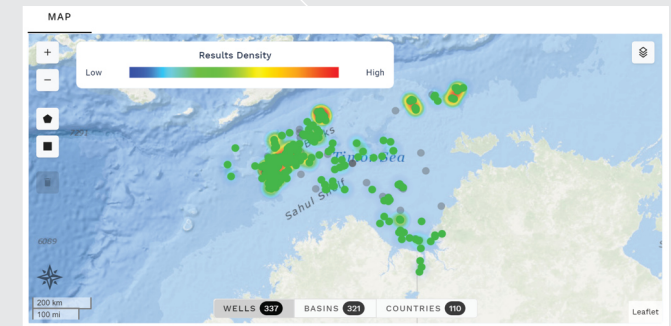
Text: Instant cognitive search and ranking of results, retrieval and full traceability to original document location with geolocation information, search results with metadata can be exported as .csv files

Images: auto classification, pattern recognition, clustering and search of text within images



KNOWLEDGE GRAPH

Correlates related well events from one document to the other, establish an information highway within the document corpus



HEAT MAP

Quantify extracted information in map view according to data density and generate instantaneous map

Iraya creates specialized Pods for customers

- ▶ Higher order dashboard analytics available from unique Pods which focus on specific domain needs.

ElasticDocs™ also offers interoperability options with our partners by providing API connectors. With this feature, multiple innovative solutions by leading industry partners can be accessed by our customers within a single ecosystem.

Our network of AI partners is expanding. The Pods that are currently available include, but not limited, to:

- Look-Back Analysis
- Petrophysics
- Rock Physics powered by Qeye



Iraya's solutions for **better** data management

ElasticDocs™ as SaaS Solution

Through an **SaaS (Software-as-a-Service)** enterprise solution, the ingestion cost is based on the volume of data, plus a one-time infrastructure setup. The annual subscription cost is based on the number of users. Our sales managers can help design the optimum deployment package for your organization based on your business needs.

Iraya ElasticDocs™ Analytics Service

Iraya's team consists of expert domain geoscientists, data scientists, and industry-certified machine learning practitioners. We are there to help ensure that your company or organization fully leverages on the power of AI by combining human-in-the-loop quality control and analytics process.

We step in when:

- Algorithms are not understanding the original input
- The input data is not interpreted correctly
- When the data you are looking for is rare and not available
- When data needs to be converted to actionable insights

▶ Enabling New Digital Workflows

We will continue to help you with subsurface analytics by recommending the suitable AI algorithms at every step of your work processes. In addition, Iraya Energies will customize an innovative solution that fits your data analytic requirements and project objectives. And lastly, we can provide expert insights at a scale and pace that's never seen before.

Industries Where We Work:

- **Oil and Gas**
- **Carbon Sequestration and Storage**
- **Geothermal**
- **Geotechnical**
- **Windfarms**
- **Facilities and Engineering**
- **Mining**

Technical Specifications

Input Data Format	Unstructured data including but not limited to Word, PDF, PPT, Excel, JPEG, etc
Input Data Quality	Variable input data quality may range from : vintage, typewritten, OCR-ready Handwritten (optional)
Technology	AI-enabled, end-to-end pipeline composed of optical character recognition (OCR), natural language processing (NLP), image recognition, geolocation and elasticsearch
Advanced Search	Deep search within the full corpus
Advance Filters	Geospatial filter, metadata filter, document type filter
User Interface	Intuitive, user-friendly web browser
Language	Ability to translate over 70 languages
Infrastructure	Fully native cloud, enterprise-grade security, availability, compliance and manageability powered by Azure AWS and Google Cloud (optional).
Processing Speed	Full pipeline at 100,000 pages/ month
Tagging	Auto-image recognition using convolutional neural network
Metadata	Automated Metadata extraction through natural language processing Customer-provided metadata can be incorporated for easy search
GIS Layers	Enabled Customer-specific cultural data can be integrated upon request
Outputs	Structured data including but not limited to: search results in csv format, classification-ready images, instantaneous heatmaps, knowledge graph Table extractions in .csv format
Deployment and Support	Fully virtual from initialization to deployment On-site support (Optional)
Quality Control Principle	Human-in-the-Loop

CONTACT US FOR MORE INFORMATION

It's time to read the earth better with us at Iraya. Find out how we can turn your unstructured data into insights and knowledge. To learn more about **ElasticDocs™** and what we do at Iraya, visit our webpage: www.irayaenergies.com or contact us at info@irayaenergies.com.

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