



Ethical application of AI

Using AI for better compliance solutions

Enhesa uses AI to ensure our customers get immediate visibility of regulatory changes around the world.

We've strategically incorporated machine learning into our systems to access, collate, and categorize jurisdictional and legislative changes. This has three main functional benefits:

1. It provides our experts with the latest relevant updates, empowering them to analyze and interpret that data more efficiently
2. It allows us to make this information and our experts' interpretations available to our customers through platforms and services even faster, with the help of AI-powered accessibility tools
3. It provides customers and experts alike with data that has been enriched via selectively collated insights, comparatives and reports, automated benchmarking and analytics, and the connection of proprietary content sets

But the use of AI raises a series of significant ethical questions — all of which our dedicated team of AI specialists consider with every application of generative AI and machine learning.

In this eBook, we'll explore the ethical issues that need to be addressed when using AI and how we incorporate this in the development of our solutions.



We use AI carefully, choosing only to implement processes that provide real benefit to our customers.

Alexander Sadovsky, Chief of Artificial Intelligence at Enhesa

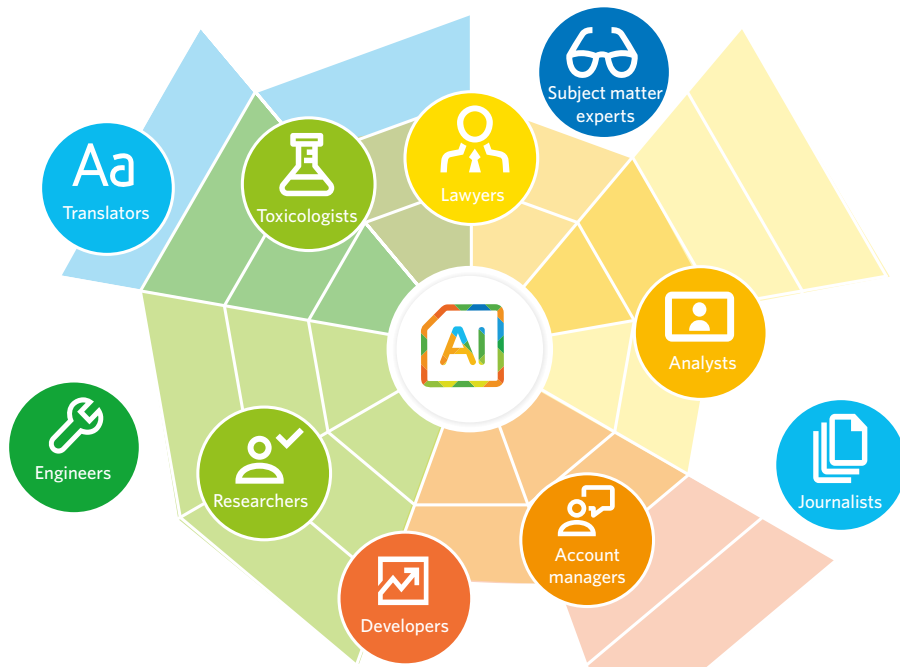
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1. Enhanced information retrieval and human expert insights

At Enhesa, we have a multidisciplinary team of international in-house experts, and it's this wide-ranging experience that makes Enhesa so effective for so many businesses around the world.



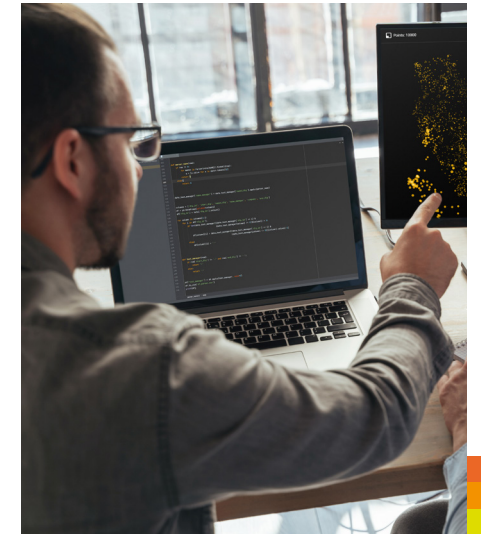
Our specialists work hard to deliver timely, curated compliance intelligence to support our customers' operations. But with such a vast amount of incoming data, it's increasingly challenging to source and compile everything our experts require to provide the quality insights we're renowned for.

This is where enhancing operations using AI comes in.

At Enhesa, we use AI at two main stages of the process — in the retrieval and collation of data, and in the way we make that data available and accessible to our customers.

Expert-created, AI-enabled intelligence

For the last 30 years, our legal analysts have tracked EHS and product regulations and chemical intelligence across more than 400 global jurisdictions and deliver this content as actionable intelligence for our clients. This exclusive, expert-created content comprises analysis, interpretation, and categorization — forming a uniquely comprehensive library of “big data” that spans across international compliance intelligence, product news and insights, and vital chemical information. Our AI algorithms draw on this data, empowering our experts to identify new regulations, interpret legislative content, and localize their guidance.



User-facing Enhesa Fusion AI for natural language and image-driven search



We're also delivering powerful AI tools directly to your teams: **Fusion Vision** interprets an image taken in an Office environment and searches our Compliance Intelligence scopes to surface relevant requirements. **Fusion Search** in Compliance Intelligence and Regulatory Baseline lets users type in a simple prompt or plain-language question to receive recommendations as to which requirements and regulations may apply to them.

Human analysis, powered by AI

At Enhesa, we've been providing expert EHS regulatory analysis and compliance tracking to major corporations for over 30 years. In the world of toxicology, our PhD scientists also utilize AI to comb through hundreds of studies around chemicals and the environment published each day. Additionally, in product compliance, our AI helps create and curate content, while also providing our authors with a birds-eye view of legislation — so they can efficiently digest sources for research and effectively produce the content our clients require.

That means we've accumulated decades of data uniquely organized into our expert-created topics, which unify requirements across global jurisdictions. This human-created experience and expertise contributes to the "big data" that makes AI at Enhesa so effective for our clients.

Today, AI enhances the work our analysts do and the solutions we provide. But we ensure that regulatory experts maintain oversight of all our content to preserve the core value we've always provided to our customers: human regulatory expertise.

While we embrace the use of technology like AI for the benefit of our clients and employees, our priority is to provide best-in-class insights and solutions. We use AI for collecting raw information, but it's our experts and their knowledge, analysis, creativity, and insights that bring the real value to what we offer our clients.



Our systems are — and always will be — developed by humans as tools for humans to increase efficiency and accuracy, while always keeping the focus on the intrinsic value of our experts.

Alexander Sadovsky, Chief of Artificial Intelligence at Enhesa

2. Data quality and safety assurance

Keeping the application of AI safe is of key importance to ensure quality services while maintaining the security of individuals and businesses. Whether it's handling personal information, processing protected data, or communicating vital insights that could have major influence on a company's future decisions and actions, we establish suitable data safety thresholds at the foundational level of development.

Protecting personal data

The majority of our models are focused around proprietary analysis performed by our experts on public legislature and chemical information. When we do include user behavior or actions in our model training, our models act on aggregated data, meaning all individual data is kept anonymized and protected. Wherever possible, personally identifiable information (PII) is obfuscated or hidden to prevent leakage into any models.



Proprietary legal data for model training



It's quite common for companies to use external remote workers or fully automated pipelines to label their data for them. These workers or automated systems will rarely have the legal training we consider fundamental for the data that we're handling — let alone an understanding of EHS regulation.

Through our own research, we've seen evidence that algorithms trained by legal experts as opposed to non-legal experts are of a higher quality. This is why we maintain an elegant balance of human expertise and machine learning to achieve the best quality compliance solutions.

Our models work on proprietary legal data, industry trends, and product usage collected by Enhesa. This is isolated from customer personal identifiable information, which is never comingled with other customer data or used for learning.

Algorithm testing with in-house experts



We only ever use in-house subject matter experts when training and testing our algorithms. By keeping tasks like this "in the Enhesa family" we can assure the quality of what's produced.

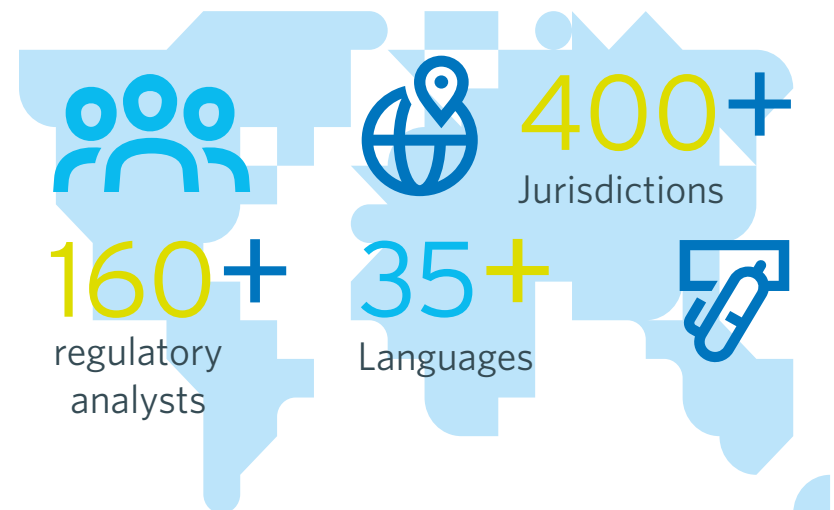
3. Not getting lost in translation

We collect legislative and regulatory data from over 400 jurisdictions worldwide, in more than 35 languages. We don't want anything to be misunderstood.

For our team of 160+ legal experts, AI has been a vital part of that process for years. But our experts remain at the core of this process — including when it comes to translations.

There's always a risk of the nuances of legislation or regulations being lost in translation. It's important to remember that AI isn't perfect and is always learning. AI provides the ability for machines to think in probabilities, which — with careful human curation — lets us know which translations need language experts to step in.

Our language experts provide translations that AI can learn from in the future, progressively getting closer to real-time legal document translation. Given these translations, our experts can then take the final steps with their deep understanding of jurisdictional specific law to make sure regulations are accurately represented as intended.



4. Compliance solutions that drive innovation

Bias in AI can lead to unfair treatment of individuals based on race, gender, age, or other characteristics, perpetuating discrimination and inequality.

The root causes of AI bias are multifaceted, with various aspects involved, such as:

- Biased data sets
- Flawed algorithms
- A lack of diversity among those who design the systems
- A lack of human supervision

It's therefore important to reduce AI bias to focus on creating fairer algorithms and higher quality data collection.



AI-human collaboration

It's not just the performance of the algorithm that's important, but the combined process and outcome of both the AI and the person supervising it.

At Enhesa, our in-house team of AI engineers work with our regulatory experts to ensure there's always a human in the loop — both in algorithm development and outcome review.



Data cleanliness

For many of our projects, we prefer and tend to only use our own internal content as data. This assures the machine is learning only from data that's been carefully curated by our legal experts and — in the case of machine translation — trained translators. This synergy guarantees that human oversight is in place.

Language nuances

Language differences can cause bias, such as in gendered languages like Spanish, so we pay special attention to this during the training stage.

Different language varieties within a language can also result in misinterpretations, if not properly accounted for. We develop specific models for them to get the correct results — like the nuanced differences between Portuguese and Brazilian Portuguese.

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Transparency and trust

We ensure our AI systems deliver high accuracy while significantly reducing the likelihood of false positive outcomes by prioritizing transparency and understanding. This involves providing clear insights into the model's functioning, the data it was trained on, the features it considers important, and the reasoning behind its predictions.

This not only promotes trust and accountability but also enables the identification and correction of biases and errors within the AI system. This commitment ensures that we maintain transparency, build trust, and continuously improve the performance and fairness of our AI systems.



5. Enhesa's AI policy

Our day-to-day work is guided by our AI policy, which limits the reach of AI within the organization.

Our policy ensures that all our employees act responsibly when using AI for work purposes, including acting with due diligence, considering and promoting data privacy matters, and abiding by applicable laws and regulations. The policy covers how employees must:

- **Protect personal information at all times**, including their own, their colleagues', and Enhesa's clients'
- **Understand their AI use case fully** to help curate any prompt and get the most accurate information from any AI model or system
- **Never place blind trust in AI**, particularly generative AI systems, with all results double-checked by humans
- **Only use approved AI systems** to protect data

The Enhesa AI policy also outlines a **whistleblowing procedure** and path to report any violations.



Continued product delivery

Our AI policy outlines the methods we have in place to assure continued product delivery to our clients, even if our AI systems would be temporarily unavailable or jeopardized.



Restricting AI use

Our AI policy also draws a firm line across what AI can be used for. High risk use cases — such as hiring processes, for example — can be identified and kept strictly clear of any employment of AI.



6. Our CO2 impact statement

As a company dedicated to sustainability and environmental responsibility, we'd be remiss to not acknowledge the impact that heavy computer processing has on the environment.

We believe we should only innovate when we can provide real added value to our employees and customers, which is why our AI and machine learning implementations are carefully considered and calculated against factors such as air emissions.

Here is Enhesa's official statement in regards to its sustainable practices in relation to AI development and use ...

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Enhesa acknowledges the importance and the impact of Scope 3 category 1 related to purchased goods and services, which includes the data hosting services that are key to our activities and the services and products we create.

That is why Enhesa has established a Procedure for conducting Greenhouse Gas Inventory and Reporting. This procedure is based on the Corporate Accounting and Reporting Standard (revised edition) issued by Greenhouse Gas (GHG) protocol. In this procedure Enhesa accounts for the mentioned category and conducts annually the GHG inventory.

Furthermore, our Suppliers and Business Partners Code of Conduct together with our Sustainable Procurement Policy set the framework so that Enhesa can improve on having better information for our GHG inventory and to better address any opportunity or negative impact.

Specifically, our Sustainable Procurement Policy aims at enabling buyers within Enhesa to choose suppliers aligned with our commitments to reduce our carbon footprint, to partner with suppliers with good labor practices, and with an aim to continuously improve as us. For example, we ask vendors if they can share the carbon footprint for the use of their product/service, to improve the accuracy of our GHG emissions related to the use of a service. We also ask vendors whether they have a science-based GHG emission reduction target validated by a third party (e.g. Science Based Target initiative).

Our Suppliers and Business Partner Code of Conduct sets the expectations for suppliers and business partners to have good labor practices, to aim to reduce their GHG emissions against a credible and ambitious target – and be open to share information related to sustainability to work together on common challenges.

With all of this in place, Enhesa puts sustainability at its center, knowing that sustainability is a journey and that it requires effort and continuous improvement.



See how Enhesa uses AI

AI



To find out more about how Enhesa uses AI to enhance our solutions and deliver even better results for our clients, take a look at the AI section of our website.

Empowering businesses
to create a more sustainable future.

[Enhesa.com/AI](https://enhesa.com/AI)