A KNOWLEDGE-DRIVEN FUTURE FOR ENERGY AND UTILITIES

Enabling critical business decision-making with unified data

DRIVING CHANGE IN A HIGHLY DYNAMIC MARKETPLACE

It’s hard to think of a sector under as much pressure as energy and utilities, as growth in populations and technology usage drives changes in how we consume these services.

Changing market dynamics: managing the unpredictability and knock-on effects of energy availability and costs is key.

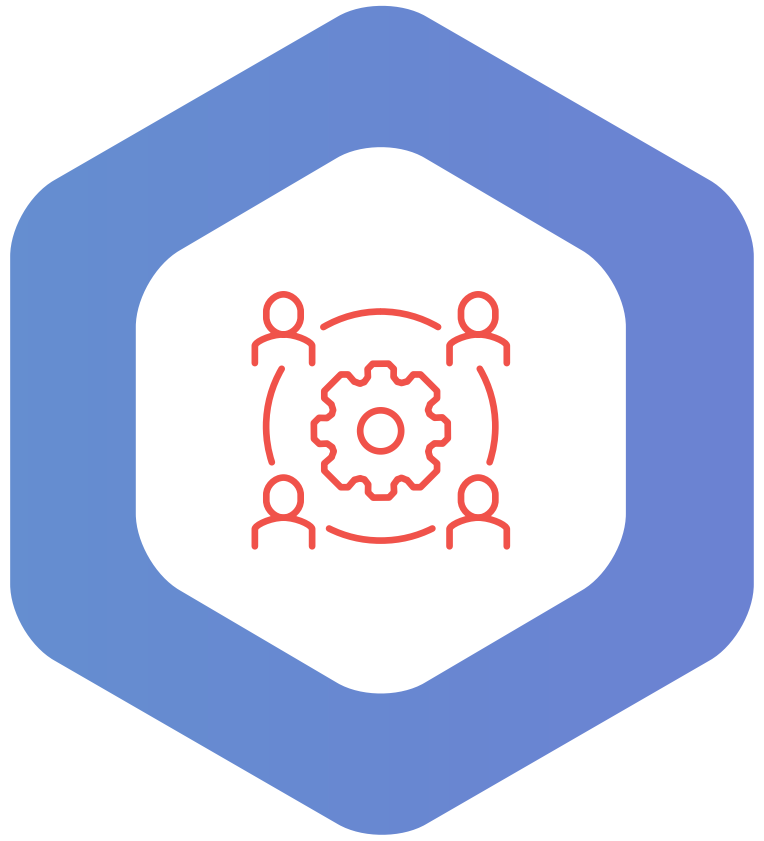
The general trend is toward greater energy usage, driven by growing populations and growing wealth, but we're also seeing change in the types of energy we use, with a significant increase in demand for renewable sources – and in consumers providing back to the grid. Meanwhile global supply chain issues, whether political or geographical, add to the complexity.

Infrastructure challenges: investing in sustainable and long-term infrastructure is more important than ever.

Most energy and utility companies have an aging grid infrastructure based on components that have been in place for decades and are complex and expensive to replace. It can be hard to add new network features – for example, geospatial data that could integrate environmental factors into planning systems – or to expand capacity to keep up with demand. And it can be expensive to manage fixes, for example leakage in water network.

Increased compliance requirements: companies need to find new ways to adopt the complex processes needed to track and report on the right data, particularly with legacy infrastructure.

From decarbonization and net zero commitments to the use of renewables, environmental sustainability is now a key issue for business stakeholders. In addition, there's significant compliance and regulation in both the energy and utilities sectors, with regular updates and changes.



Customer experience. It's time to develop new products and services, but also to create a focus on customer services and digital engagement.

The perception of energy and utilities businesses is poor among customers, thanks to a combination of high price rises and high profit awards, and poor infrastructure management creating, for example, the paradox of hosepipe bans in times of significant leakage. Customer expectations are changing too, with expectations of more digital and multichannel service delivery.

THE IMPORTANCE OF DIGITALIZATION ON DATA

In order to deal with the challenges of operating in such a complex and dynamic marketplace, energy and utilities companies have had to invest in many different business systems and solutions over the years.

This invest in many different business systems and solutions creates an increasingly diversified data environment, with many different types of data stored in many different locations.

For example:

The Internet of Things (IoT) enables you to more easily update grids and networks by providing sensors and connections that can bring digitalization to core assets. But it's also increasing the amount of technical data available, and significantly increasing the number of locations where data is stored. It means there are many IoT devices retaining and processing their own data locally, rather than a single store of IoT data.

Smart meters are just one example of a project that's generating exponential volumes of data. But often, each new project like this comes with a new, separate data store, resulting in organizations running a large number of different data warehouses, lakes and stores, all with their own data structures and interfaces.

Energy and utilities companies are increasingly seeing the business value in cloud services – or where moving to the cloud is too complex, a hybrid model. But this results in a complex data management challenge, with business-critical data stored across premises and locations with different operating and access models.

It's why many energy and utilities businesses are looking for new ways to manage multiple data touchpoints, to enable data democratization – better data sharing (securely, reliably, and with timely access) for the people who need it. And to enable critical business decision-making with unified data.

INTEGRATING INTELLIGENCE TO EMPOWER PROGRESS

With Denodo, you can make unified data a reality, leveraging extensive business insight without ripping and replacing your existing systems or shifting everything to the cloud.

Denodo integrates all your complex data across your whole technology stack, bringing it together in a singular view that's easy to manage, so you can quickly deliver the exact real-time business intelligence you need.

This is achieved through a logical data management layer that sits on top of all your data sources, using more than 200 data adaptors to connect to them reliably and securely.

To deliver the right insights using BI and data science tools

Using data management tools including query optimization, AI/ML recommendations, embedded MPP (massively parallel processing) engine, security & governance

From data sources including traditional databases, data warehouses and cloud stores, Hadoop and NoSQL, files, apps and SaaS services

Defragment **your business**

Handling distributed and varying data stacks is complex and time-consuming. Denodo supports many different paradigms, delivering data from all your data sources into a single access layer across your whole value chain, from call-center agents to field engineers.

- Connect all your data points to maximize network and grid clarity, and improve performance and uptimes.
- Consolidate siloed data stores into a common structure, regardless of where they're located or how they're set up.
- Provide a unified end-to-end view of operational insight to your ops teams and the wider business.
- Tie together customer touchpoints – from call centers to smart meters – to create a seamless view of customer and market demand.

Establish a **knowledge-driven environment**

Understanding optimal, best practice data structures is difficult in a world that's increasingly complex, with a mixture of on-premises and cloud systems. Denodo creates an environment that enables you to access unified data in real time, to ensure compliance at every level, even in a fast-moving industry.

- Democratize data across the business to give all your workers highly relevant insights that enable them to make decisions at the right time.
- Personalize your services more deeply using customer and network data to tailor experiences and attract more like-minded customers
- Better track the infrastructure performance data that will help you hit your goals, for example leakage or outages.
- Use real-time data of resourcing levels to change how you service customers, to improve the experience of their interactions.

Increase **cost and time efficiencies**

Rip and replace, and new implementations are costly and long to deliver ROI. Denodo removes the time and costs associated with this by leveraging your existing data and systems accurately, without replication or replacement.

- Accelerate access to insights that reduce critical business downtime, costs, and the time to issue resolution.
- Target customers with the most appropriate offers, quickly and efficiently.
- Easily establish controls and reporting to demonstrate compliance with regulations across your whole value chain.
- Predict and de-risk situations such as energy debt and payment defaults with a more rounded understanding of your customers.

THE DENODO DIFFERENCE

So what does all this mean for your business in practice? It means you're choosing a partner who is focused on delivering compelling outcomes across the energy and utilities industry. For our customers, we deliver a combination of data innovation, agility and security.

DATA INNOVATION

We have more than 20 years of data management expertise, with an award-winning data platform that has realized more than 400% ROI and millions of dollars in benefits for our customers. We're recognized as a leader in the Gartner Magic Quadrant for Data Integration Tools from 2020 to 2023. And in the Forrester Wave Enterprise Data Fabric and Data Virtualization report.

DATA AGILITY

We deliver real-time insights from all data types and sources, working seamlessly with business systems across your value chain. The Denodo Platform establishes a real-time data access layer between data sets, whether they're stored in a data center or the cloud. This removes the importance of geography, and can dramatically speed up the time to build and deliver your data services – to days instead of weeks.

DATA SECURITY

We enable simplified, centralized access management and data governance across all your data sources, ensuring data security while also providing visibility and access to a broad range of data sources and systems. We'll help you manage the security of new 'smart' infrastructure, and ensure safe data sharing with business partners, suppliers, and customers.

WORKING WITH DENODO

TransAlta wanted to reduce its data center footprint to zero and make the move to a fully cloud environment. But as the project progressed, it became clear to the TransAlta team that not all of its applications could be moved to the cloud – and where they had, there was now significant latency.

With the Denodo Platform, we were able to create a real-time data access layer between the data centers and the cloud, abstracting TransAlta from the complexities of accessing the cloud, and creating a central point for managing authentication for its users.

Today, TransAlta is a knowledge-driven business. It has a full data mart for near-real-time data access for energy trading, removes the need for ETL data transformation and reduces costs. And TransAlta's Wind Operations Group is now able to make real-time decisions about machine power downs during inclement weather.

As an organization generating massive amounts of data from across the value chain, VTTI was struggling to extract the insights it needed. So VTTI started the process of looking for a next generation data management technology, and evaluated a number of different competitive solutions.

With the Denodo Platform, we created a single layer to access all the underlying data sets, as well as connecting to data from external sources. Just as importantly, VTTI was able to create the solution it needed in only a couple of weeks, compared to two months with the competing platforms.

As a result of working with Denodo, VTTI can now deliver business innovation by incorporating data from external sources into the business; and leveraging data to reduce the company's carbon footprint, optimize inventory, and manage transportation, while also defragmenting the business with a single source of data truth.

denodo

It’s time to empower your people

If you’d like to know more about how we can help your business, please get in touch.

CONTACT US

Denodo. Integrating intelligence, empowering progress.