



Knowde Chooses Grid Dynamics to Build a Modernized, Best-in-Class Search Engine for the Chemical Industry

Key Takeaways:

- Knowde turned to Grid Dynamics' consulting experts to develop an advanced semantic search for its chemicals B2B digital marketplace, given the company's leadership and expertise in designing high-end, domain-specific bespoke search implementations.
- The Knowde marketplace features an extensive online catalog of chemicals, ingredients, and polymers, comprising more than 160,000 products, 4,000 formulations, and 250,000 documents.
- Grid Dynamics leveraged a composable MACH (Microservices-based, API-first, Cloud-native SaaS, Headless) architecture to deliver new semantic search capabilities and integrate them into the Knowde ecosystem quickly and effectively.
- Built and launched in less than six months, the new search platform achieved a 30% uplift in key customer engagement metrics.

San Ramon, CA, August 23, 2022 – [Grid Dynamics](#) Holdings, Inc. (NASDAQ: GDYN) (Grid Dynamics), a leader in enterprise-level [digital transformation](#) services and solutions, announced today that [Knowde](#) selected the company's agile business and technology consulting experts to build an advanced semantic search for its B2B digital marketplace, featuring an extensive online catalog of chemicals, ingredients, and polymers.

Within six months, Grid Dynamics developed and deployed a [semantic search](#) solution in a composable MACH (Microservices-based, API-first, Cloud-native SaaS, Headless) architecture which seamlessly integrated into the Knowde ecosystem and delivered a 30% increase in customer engagement once launched.

The Knowde digital marketplace provides customers with access to thousands of suppliers around the globe, helping companies bring innovative new products to market in an accelerated time frame. Industry professionals across many disciplines, including manufacturing, marketing, R&D, and procurement, use the marketplace to conduct complex queries for documents such as safety data sheets, technical data sheets, brochures, and formulation sheets, as well as product names, chemical compound names, and producers or brands.

With more than 160,000 products, 4,000 formulations, and 250,000 documents, Knowde's online search must account for more than 100,000 unique terms. However, before working with Grid Dynamics, Knowde's online search could not deliver relevant, contextualized search results geared towards each visitor's unique profile and needs.

"With deep search experience and expertise, the Grid Dynamics team identified solutions to problems we had been struggling with for years," said Wojciech Krupa, Knowde Co-founder and CTO. "They quickly solved issues related to the complexities of the chemical industry and our robust taxonomy and classification system. In less than six months, the team delivered new search capabilities that now help our customers quickly find whatever they seek based on their field and unique profile. The results have been far greater than we imagined, delivering long-term benefits to our brand and the overall business."

Combining Semantic Search and Composable Commerce for the Largest Chemicals B2B Marketplace

With an understanding of Knowde's unique challenges and business goals, Grid Dynamics introduced a new semantic search packaged business capability (PBC), implementing a semantic query parsing (SQP) technique and improved results ranking. The new search PBC allowed for natural, loosely coupled, and seamless integration with the rest of the platform, and fully leveraged the vast Knowde knowledge graph. Additionally, Grid Dynamics' microservices-based approach ensured fast speed-to-market for new features and aligned well with the overall [composable commerce](#) modernization strategy.

The new semantic search delivered by Grid Dynamics includes several essential capabilities:

- Multi-stage concept-oriented search for automated balancing of precision and recall
- Query expansion with domain-specific knowledge graphs
- Intent classification
- A query understanding system based on the graph representation of a query

"Our work with Knowde is yet another example of our team's deep experience in search and natural language processing and how we apply that experience to new, sophisticated domains," said Eugene Steinberg, Head of Digital Commerce for Grid Dynamics. "In partnership with Knowde's subject matter experts, we were able to tackle complex technical and business challenges and design a modernized search platform uniquely suited to the chemicals industry."

Read the case study [here](#) to learn more about Grid Dynamics' work with Knowde.

About Grid Dynamics

Grid Dynamics (Nasdaq: GDYN) is a digital-native technology services provider that accelerates growth and bolsters competitive advantage for Fortune 1000 companies. Grid Dynamics provides digital transformation consulting and implementation services in omnichannel customer experience, big data analytics, search, artificial intelligence, cloud migration, and application modernization. Grid Dynamics achieves high speed-to-market, quality, and efficiency by using technology accelerators, an agile delivery culture, and its pool of global engineering talent. Founded in 2006, Grid Dynamics is headquartered in Silicon Valley with offices across the US, UK, Netherlands, Mexico, Switzerland, India, and Central and Eastern Europe.

To learn more about Grid Dynamics, please visit www.griddynamics.com. Follow us on [Facebook](#), [Twitter](#), and [LinkedIn](#).

Forward-Looking Statements

This communication contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 that are not historical facts, and involve risks and uncertainties that could cause actual results of Grid Dynamics to differ materially from those expected and projected. These forward-looking statements can be identified by the use of forward-looking terminology, including the words “believes,” “estimates,” “anticipates,” “expects,” “intends,” “plans,” “may,” “will,” “potential,” “projects,” “predicts,” “continue,” or “should,” or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include, without limitation, quotations and statements regarding product capabilities and the benefits of our affiliations with Knowde.

These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results. Most of these factors are outside Grid Dynamics’ control and are difficult to predict. Factors that may cause such differences include, but are not limited to, any factors limiting product capabilities or the benefits of our affiliations with Knowde.

Grid Dynamics cautions that the foregoing list of factors is not exclusive. Grid Dynamics cautions readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Grid Dynamics does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or any change in events, conditions or

circumstances on which any such statement is based. Further information about factors that could materially affect Grid Dynamics, including its results of operations and financial condition, is set forth under the “Risk Factors” section of the Company’s annual report on Form 10-Q filed August 4, 2022 and in other periodic filings Grid Dynamics makes with the SEC.

Media Contact:

Nancy MacGregor

Trier & Co. for Grid Dynamics

415.309.5185 | nancy@triercompany.com