

The Hydrogen Solution

The advantages of using RYAI**LITI's
Knowledge Engineering (RKE) AI platform to
move your business forward intelligently**



AI in the Age of Digital Transformation

- **Hydrogen and artificial intelligence are set to play a “critical role” in supporting grid stability and scaling up green energy, new research from EY says.**
 - **Biannual EY Renewable Energy Country Attractiveness Index**
- **Industry leaders are looking for innovative ways to meet their sustainability goals. Hydrogen is a valuable resource that can help companies achieve carbon reduction and reduce energy costs.**
 - **AspenTech, Accelerating the Hydrogen Economy through Digitalization**



Why AI for Hydrogen?

Hydrogen is seeing strong momentum with announced projects for delivering generation and storage at scale.

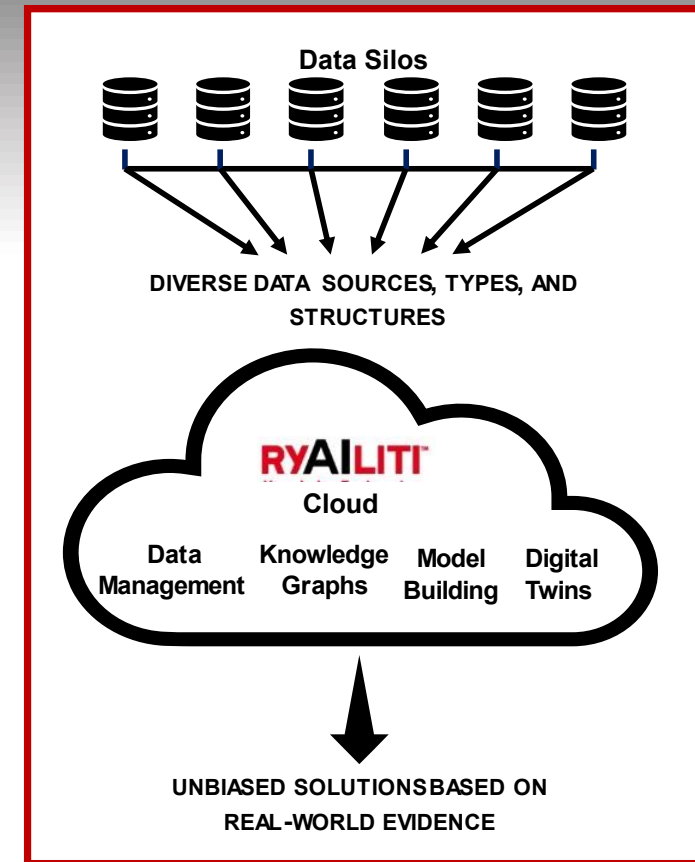
- **The Hydrogen Council believes hydrogen can address 18% of global energy demand**
- **Using AI and analytics will reduce operational risks improving uptime, safety and reliability**
- **Integrating AI technologies with energy management systems helps make hydrogen more competitive with traditional fossil fuels**

However, hydrogen poses several challenges:

- **It does not exist alone in nature. Rather, hydrogen combines with other elements forming well-known compounds such as water, natural gas and petroleum.**
- **It presents unique safety and logistical hurdles for storage and distribution.**
 - **Even when highly compressed hydrogen has one of the lowest energy densities by volume of any available fuel however, its energy density by weight is approximately three times that of gasoline or natural gas**

Why RYAILITI?

- The RYAILITI cloud addresses the challenge to all types of Hydrogen production whether gray, blue or green – controlling cost and ensuring project viability options
- The RKE platform and Digital Twins ecosystem solves real-world challenges delivering dynamic responses to complex changes fueling continuous innovation
- RYAILITI delivers advanced analytics helping Hydrogen leadership increase efficiencies, while mitigating biases generating objective scenario analysis
- We help with the transition to a low-carbon, hydrogen-based energy future



How its Done

- **RYALITI's** cloud-based platform leverages biological methods and principles drawn from emerging research to address real-world complexities and navigate change.
- Using historical data and Digital Twin simulations of processes RKE allows Hydrogen companies to be better prepared for the challenges facing today's energy transitions.

