

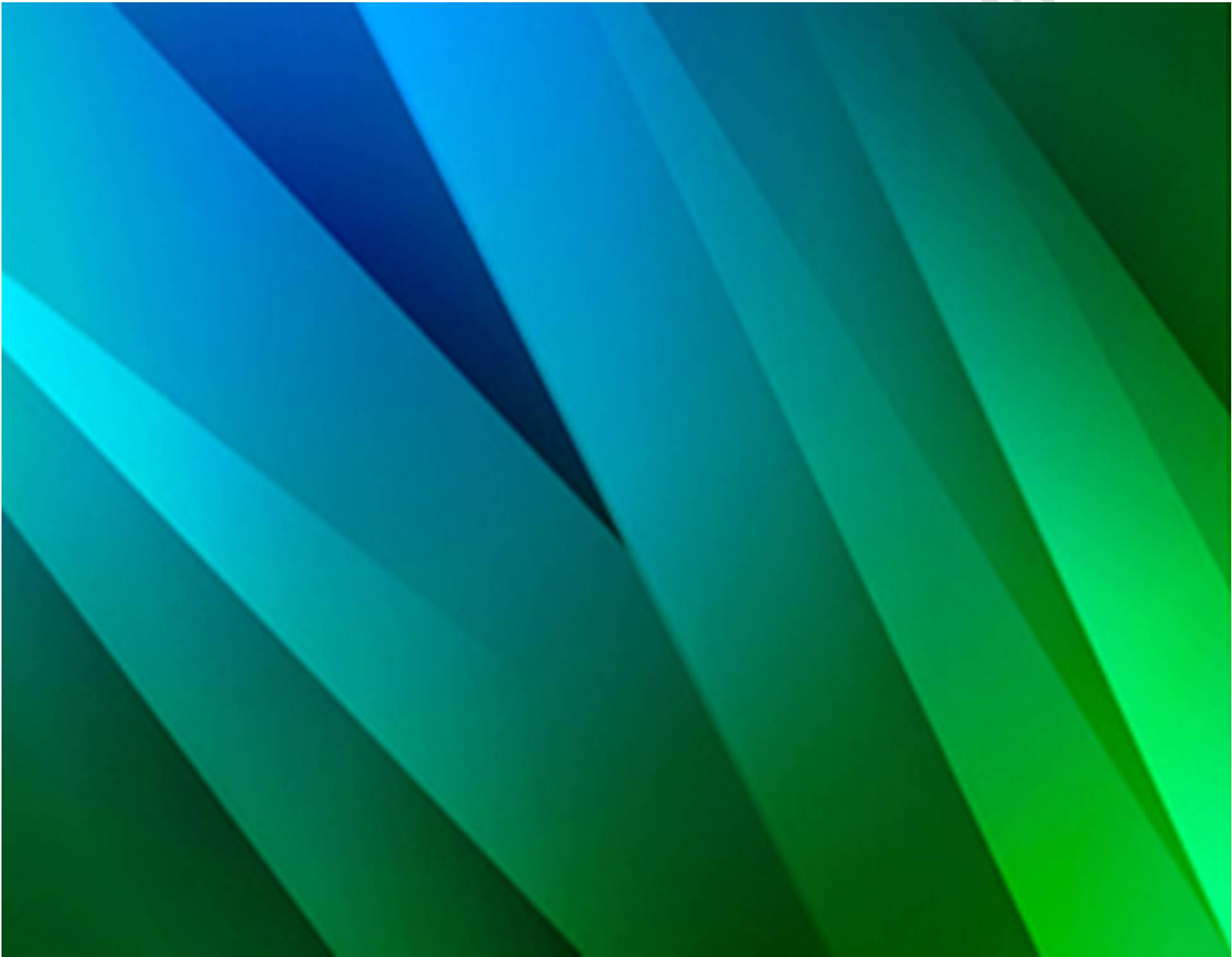


FROST & SULLIVAN  
INSTITUTE

# 2021 Frost & Sullivan Institute **Enlightened Growth Leadership Award**

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Excellence in Best Practices





## Congratulations!

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Frost & Sullivan Institute, in partnership with Frost & Sullivan, is proud to present Baker Hughes with the Enlightened Growth Leadership Award.

Frost & Sullivan's global team of growth pipeline experts continuously identifies and evaluates growth opportunities across multiple industries, technologies, and regions of the world. As the world emerges into the new norm disrupted and accelerated by the COVID-19 pandemic, it is becoming increasingly important for companies to leverage opportunities to shed old ways of thinking, build value chains that leave no stakeholders behind, and create foundations for stable growth to thrive in these new environments. We identify companies that demonstrate the commitment to embrace emerging technologies and protocols and generate opportunities for all while sustaining continued growth and highlighting best practices for sustainable development. This approach involves deep strategic deliberation around best practices and the development of core analytics across the entire value chain of specific products and services. Against the backdrop of these analytics, Frost & Sullivan Institute, in partnership with Frost & Sullivan, recognizes Baker Hughes for its valuable achievement.

Frost & Sullivan strictly reserves this recognition to companies at the innovation to zero and growth forefront in their respective industries. These companies demonstrate proactivity in utilizing business practices to 'innovate to zero' and address global priorities while securing sustainable growth over a span of their enduring association with Frost & Sullivan. These companies also uniquely leverage technology and boost their industry partner ecosystem to serve ever-evolving customer needs in a way that facilitates environmental initiatives and supports the planet's well-being. Moreover, by combining business sense with a moral imperative, these companies demonstrate aspirational ideals beyond the simple goal of generating profits. This recognition is also a token of our gratitude towards our clients whom we have accompanied on their journeys towards transformational growth. In this context, Baker Hughes' recognition holds an even greater significance in reaffirming its longstanding relationship with Frost & Sullivan.

Moreover, this recognition is the result of many individuals (employees, customers, partners, and investors), making critical decisions every single day to support the organization and meaningfully contribute to its own future in a sustainable and socially responsible way. Frost & Sullivan in partnership with Frost & Sullivan Institute enthusiastically acknowledges and celebrates their contributions.

Once again, congratulations on your accomplishments, and we wish you great success in the future.

Sincerely,

David Frigstad

Chairman

Frost & Sullivan and Frost & Sullivan Institute



## Best Practices Criteria for World-Class Performance

Frost & Sullivan Institute leverages Frost & Sullivan's rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria for each nominated company. Baker Hughes excels in multiple criteria.



### Introduction

Governments, organizations, and businesses can significantly minimize their carbon footprint by adopting green energy and implementing sustainable practices along their supply chain. Since 2000, the world witnessed significant progress in the renewable energy sector, especially wind and solar energy. The energy generated from wind and sun overtook nuclear energy in the first half of 2021.<sup>1</sup> Despite the gradual shift to renewables, burning coal and other fossil fuels still lead the global energy mix. As a result, the world is rapidly transitioning toward a temperature increase beyond 1.5 degrees Celsius (a threshold set by the Paris Agreement) any time between 2030 and 2050. The obvious way to curb this rapid temperature increase is to strictly follow the 17 sustainable development goals (SDGs) set up in 2015 by the United Nations General Assembly. Countries and governments should communicate their sustainable progress through nationally determined contributions (NDCs) while businesses and firms should play their roles towards minimizing global climate change by abiding by the 10 UN global compact principles.

### 'Innovating to Zero' on Global Priorities

Baker Hughes is one of the most prominent energy technology companies with a presence in more than 120 countries. As a company that deals with energy and energy-related products, it has a separate sustainability steering team that comprehensively reports on the company's contribution to people,

<sup>1</sup> <https://ember-climate.org/project/global-electricity-review-h1-2021/>



planet, and principles. Baker Hughes considers people as its primary assets. The company has a keen eye for innovative minds and diverse perspectives. It has more than 55,000 employees from several communities and backgrounds working to facilitate access to energy across the world. The company recognizes the massive energy gap in low-income communities and strongly believes that the transition to sustainable energy must include elements of diversity, equity, and inclusion (DEI). To advance the notion of DEI within the organization, Baker Hughes emphasizes gender representation in the workforce. As a result, it has achieved significant progress over the years. In 2020 alone, the company experienced a hiring rate of 27% for women, which is a 5% increase from 2019. In the United States, an impressive 36% of its employees identify as members of different minority groups.

Furthermore, Baker Hughes fully supports the goals set forth by the Paris Agreement, and is putting significant effort into limiting the global temperature rise by 1.5 degrees Celsius. The company has developed a comprehensive roadmap with nine building blocks to achieve net-zero scope one and two carbon emissions by 2050. Its 2030 goal is to reduce scope one and two emissions by 50% across the company from the base year of 2019. The company has already made significant progress in its net-zero

*"Baker Hughes fully supports the goals set forth by the Paris Agreement, and is putting significant effort into limiting the global temperature rise by 1.5 degrees Celsius. The company has developed a comprehensive roadmap with nine building blocks to achieve net-zero scope one and two carbon emissions by 2050."*

**- Analyst, Frost & Sullivan**

journey and has successfully reduced scope one and two carbon emissions by 14.5% in 2020 alone compared to 2019. In addition, Baker Hughes implements several energy-efficiency programs internally, including formal energy audits. It is gradually shifting to energy-efficient equipment and lighting systems. In 2020 alone, it completed 17 lighting projects, including replacing and upgrading heating and air conditioning across its sites. Currently, the company's share of renewable and zero-carbon electricity is 22%, which is a remarkable 7%

increase from 2019.

Besides reducing carbon emissions, Baker Hughes follows several best practices to ensure safety, health and wellness, security, privacy and cybersecurity, integrity, and sustainability within the organization. The company has a distinct health, safety, and environment (HSE) management system framework that continuously supports the HSE performance improvement and ensures legal compliance across its facilities worldwide. To guarantee world class operating standards, the company holds several multi-site certifications. For instance, its 102 sites are ISO 14001 certified (environmental management systems), 63 sites are ISO 45001/OHSAS 18001 certified (occupational health and safety management systems), and 273 sites are ISO 9001 certified (quality management systems).

Frost & Sullivan applauds Baker Hughes' significant effort to reduce carbon emissions internally and across its sites. Its contributions to facilitating energy access and increasing workforce diversification while following company-wide best practices to ensure safety and sustainability are highly commendable.

### **Growth Excellence**

Despite disruptions brought upon by the COVID 19 pandemic, Baker Hughes was consistent to lead the energy transition by focusing on highly differentiated areas to ensure stable earnings and cash flows. The company's growth strategy involves improving its core competitiveness and delivering high



productivity solutions. To drive this strategy forward, the company has developed three prominent approaches, which are:

- **Transform the core:** Baker Hughes is gradually investing in new business opportunities and focusing on improving margins through portfolio rationalizations and new business models while divesting non-core businesses, including rod lift, surface pressure control flow, and specialty polymers, among others. Likewise, to enhance productivity and cost-effectiveness, the company is prioritizing remote operations, especially in the oilfield services and turbomachinery and process solutions sector. The gradual shift to remote operations has also allowed the company to integrate digital technology and artificial intelligence components through BakerHughesC3.ai for superior reliability and production optimization.

*“Baker Hughes is committed to developing and deploying products and services that offer low-carbon solutions across several industries. To help customers meet their carbon reduction targets, the company deploys highly advanced methane-detection equipment in every new installation.”*

**- Analyst, Frost & Sullivan**

looks for opportunities to expand across high-potential segments such as industrial power, industrial asset management, non-metallic materials, and chemicals. For instance, in 2020, Baker Hughes and Saudi Aramco formed a joint venture called Novel to develop and commercialize an extensive variety of non-metallic products for the energy sector. The company is investing in several other sectors such as chemicals, power, food and beverage, mining, and manufacturing.

- **Position for new frontiers:** As a part of this approach, Baker Hughes is committed to developing and deploying products and services that offer low-carbon solutions across several industries. To help customers meet their carbon reduction targets, the company deploys highly advanced methane-detection equipment in every new installation. Its best-in-class sensing and control technology, Flare.IQ helps eliminate venting, reduce flaring, and pinpoint fugitive emissions, which is prominent in the oil and gas sector. Also, to realize the decarbonizations goals set by the Paris Agreement, Baker Hughes boasts a state-of-the-art compact carbon capture technology that largely enhances its carbon capture, utilization and storage capabilities, reducing carbon footprint up to a remarkable 75% compared to conventional technologies.

Thus, by focusing on the three core areas, Baker Hughes achieves superior business performance. In 2020, the company witnessed an outstanding revenue of USD 20.7 billion with more than USD 518 million in free cash flow. Clearly, the company is positioning itself for several new frontiers by focusing on rigorous research and development (R&D). In 2020 alone, the company spent USD 595 million in R&D and was granted more than 3000 patents. Frost & Sullivan praises Baker Hughes' exceptional business strategies to lead energy transition across several industries and achieve extraordinary business performance.



### *Technology Leverage / Innovation*

Baker Hughes maintains a rigorous culture of research and innovation to lead the energy transition of the future. The company offers products and services across all the segments of the oil and gas industry, including upstream, midstream, and downstream. Despite oil and gas being a major contributor to greenhouse emissions, Baker Hughes' technologies ensure highest throughput while increasing efficiency and reducing emissions. For instance, its turbomachinery and process solutions segment provide the most efficient gas turbines and compressors in its class. Its NovaLT™ family of gas turbines is more than 37% efficient in simple-life cycle configuration and up to 85% efficient in cogeneration configuration. In addition, with high R&D investments, the company is involved in several innovative ventures to bring various transformative technologies in the market. For example, Baker Hughes' developed an integrated monitoring technology called LUMEN to detect, reduce, and prevent methane leaks, which is a major challenge in the oil and gas industry. It has both ground-based and aerial drone-based variants and seamlessly quantifies leakage rate and identifies leak location through real-time streaming.

Frost & Sullivan admires Baker Hughes' superior technology leverage to transform the oil and gas industry while ensuring sustainable practices and developing products with industry-leading reliability and efficiency.

### **Conclusion**

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Globally, several industries are witnessing a shift to renewable energy practices. However, total decarbonization is very far-off and fossil-fuel burning still leads the energy mix in the current scenario. To curb global carbon emissions, Baker Hughes is leading global energy transition across several industries. The company aims to achieve net-zero scope one and two emissions by 2050. Currently, its share of renewable energy and zero-carbon electricity is an impressive 22%. The company ensures stable earnings and seamless growth by transforming its core business, investing for growth in strategic areas, and positioning for new frontiers as a leading energy technology company.

For its exceptional growth strategy driven by a strong moral imperative and overall performance, Baker Hughes earns the 2021 Frost & Sullivan Institute Enlightened Growth Leadership Award.





## What You Need to Know about the Enlightened Growth Leadership Recognition

Frost & Sullivan Institute's Enlightened Growth Leadership Award recognizes the company that addresses the global priorities as identified by the Institute and demonstrates sustainable growth in the industry.

### Best Practices Award Analysis

For the Enlightened Growth Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

**'Innovating to Zero' on Global Priorities:** The company demonstrates proactivity in 'Innovating to Zero' in terms of one or more of the following global priorities that form the seven pillars of the Frost & Sullivan Institute:

- i) **Environment:** Environmental initiatives can include climate change, vulnerable groups, behavioral change, international governance, waste management, or others.
- ii) **Education:** Education can encompass equal access, gender parity, EdTech, quality education, education resources, vocational training, or others.
- iii) **Infrastructure:** Infrastructure can incorporate infrastructure as a basic right, technology and infrastructure, environment and infrastructure, urban infrastructure, and financing models, among others.
- iv) **Healthcare:** Healthcare can comprise healthcare crisis, mental health, finance, healthcare systems, advanced healthcare, and technology and healthcare, among others.
- v) **Security:** Human security can refer to transnational governance, human security, food security, or others.
- vi) **Human Rights:** Human rights can involve governance, special group rights, justice, or other such elements.
- vii) **Economics:** Economics can pertain to inequality, new economic regime, FinTech, behavioral change, or others.

**Growth Excellence:** The company demonstrates healthy growth over a span of 10 years. It focuses on short-term and long-term growth strategies to maintain a superior industry position. The executive team's vision aligns with the company's growth strategy, effectively translating this vision into growth. The socially responsible organization enforces strategies to increase its share of the customer wallet, successfully differentiating itself from competitors and positively impacting its market share. It also adopts strategies to build upon achieved growth and sustain continued growth while highlighting best practices for sustainable development.



**Customer Value Chain:** The company pays heed to the planet's well-being and addresses environmental initiatives such as climate change, carbon footprint reduction and elimination, waste management, or clean energy production. Its key value proposition is refined by building on client feedback and continuously improving products and services. The organization prioritizes its customers' needs and provides significantly greater value for the price. It offers exceptional customer value by providing the best purchase experience to customers, placing importance on providing a high degree of satisfaction amongst existing and potential clients, or ensuring the best and differentiated service experience.

**Integrated Coopetition - Industry Partner Ecosystem:** The company makes use of unique business models such as corporate partnerships and public-private collaborations to boost the industry partner ecosystem. By combining business sense with a moral imperative, the company demonstrates aspirational ideals beyond the simple goal of generating profits. The organization's efforts to cooperate with competitors reveal its cognizance of a broader vision and endeavors towards positively impacting the overall industry.

**Technology Leverage/Innovation:** The company incorporates or uniquely leverages technology, standing out among the competition. The technology addresses key future needs and applications and is disruptive to or supersedes existing technologies. The company's technology or technology leverage can be diversely applicable or has created new markets or applications where none existed before. It has introduced creative features and functionality by jumping through hoops to convert its vision into a reality. The organization has a structured process or best practices to incubate new technologies developed internally or through strategic partnerships. The company's innovations or technology incorporation has the potential to become an industry standard.





## About Frost & Sullivan Institute

Frost & Sullivan Institute (FSI) is a non-profit organization dedicated to utilizing business practices to address global priorities. The genesis of the institute goes back to our vision of either creating, or becoming part of a solution that addresses threats to humanity. Frost & Sullivan Institute has identified strategic imperatives for transformation and believes that by using a Socratic approach, we can truly accelerate innovation to zero. The Institute works in collaboration with leading analyst teams, its internal research team, industry experts, and other partners. It works closely with Frost & Sullivan Inc. to leverage in-house thought leadership in order to identify opportunities for transformation that will arise from innovation, disruptive technologies and overarching mega trends that will alter the world as we know it today. To learn more about FSI, visit <https://www.frostandullivaninstitute.org/>.

## About Frost & Sullivan

Frost & Sullivan is the Growth Pipeline Company™. We power our clients to a future shaped by growth. Our Growth Pipeline as a Service™ provides the CEO and the CEO's growth team with a continuous and rigorous platform of growth opportunities, ensuring long-term success. To achieve positive outcomes, our team leverages over 60 years of experience, coaching organizations of all types and sizes across 6 continents with our proven best practices. To power your Growth Pipeline future, visit Frost & Sullivan at <http://www.frost.com>.

## The Growth Pipeline Engine™



Frost & Sullivan's proprietary model to systematically create on-going growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

### Key Impacts:

- **Growth Pipeline:** Continuous flow of Growth opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership

## The

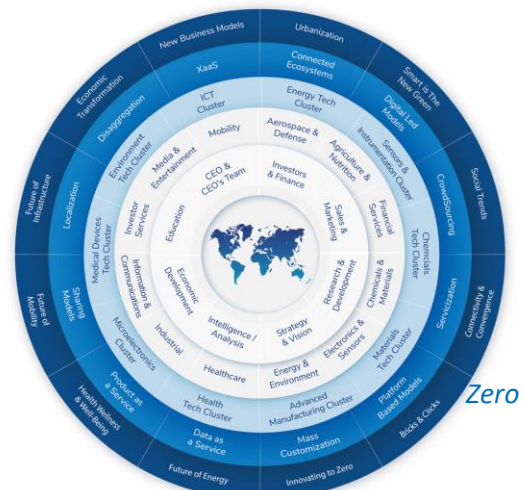
## Innovation Generator™

Our six analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

### Analytical Perspectives:

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