



FROST & SULLIVAN
INSTITUTE

Frost & Sullivan Institute Enlightened Growth Leadership Awards - Emerging Companies

Companies Driving a Sustainable Future, 2023.





Congratulations!

Frost & Sullivan Institute, in partnership with Frost & Sullivan, is proud to present Solum with the Enlightened Growth Leadership Award for Emerging Companies¹, 2023.

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 a new norm, 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 globally identify startups that exhibit a proactive approach in leveraging their business practices to drive 'innovation to zero'. These companies prioritize addressing global priorities through the development of groundbreaking products and services. 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 Solum 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' while also leveraging technology and innovation to cover a previously unserved market segment.

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 Executive Director, Frost & Sullivan Institute

¹ Emerging Companies: For the purpose of this award, we define Emerging Companies as companies that are 3-5 years in the market and have products/services focused on innovating global challenges to zero.



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.



Introduction

In the face of the numerous challenges that our planet encounters, emerging companies find themselves navigating through a dynamic and constantly evolving business landscape. Moreover, these challenges also present opportunities for innovation and technology leverage to achieve long-term competitiveness and healthy growth within a reasonable period. By innovating to zero on global priorities, emerging companies can stay competitive and make a meaningful difference in the world. To succeed, emerging companies must differentiate themselves from competitors by filling market gaps and embracing disruptive technologies. By surpassing existing standards and fostering innovation, they can pave the way for a sustainable future.

About the Company

Solum is a Spanish technological company founded by three engineers specializing in renewable energy for micromobility. It is specialized in providing green energy generation and management solutions for Smart Cities. They have gained recognition for their groundbreaking innovation in the field of renewable energy. One of their notable achievements includes the development of solar flooring using photovoltaic (PV) technology. By seamlessly integrating solar panels into flooring surfaces, Solum has revolutionized the way renewable energy is harnessed and utilized. Its cutting-edge solution provides an efficient means of generating clean energy and offers a sustainable and aesthetically pleasing alternative



to traditional solar panels. It has secured a sum of €750k through its third funding round. The most recent funding round was obtained on September 12, 2022, with notable investors such as Telefonica, Capital Energy, and Fondo Bolsa Social. Solum is striving to shape the future of sustainable energy and mobility using innovative technologies and solutions Solum aims to drive the transition towards a more sustainable and eco-friendly future, where clean energy and efficient mobility play a central role.

Award Justification

- **'Innovating to Zero' on Global Priorities**

Solum's state-of-the-art technology solution can convert road pavements into electric charging hotspots without any damage to urban aesthetics or the environment. Solum's diverse range of charging infrastructure offerings for green bicycles, scooters, and cars with minimal installation and maintenance costs can effectively solve the charging conundrum in urban areas and accelerate the transition to the

"With a focus on cost-effective and sustainable charging solutions, Solum's efficient solar pavements for personal and commercial use contribute to the global transition to net zero emissions, while strategic partnerships, R&D efforts, and expansion plans have fueled their remarkable growth since 2019."

- Priyanka Sharma, Research Analyst

vision of zero – zero greenhouse gas emissions. The company also places a high emphasis on the sustainability of its entire value chain. To this end, all their products are locally manufactured in Spain, supporting the local economy, and creating both direct and indirect quality jobs. Nearly 80% of the company's suppliers are based out of Spain which helps in reducing the carbon footprint of the materials used even further.

Frost and Sullivan Institute applauds Solum's range of cost-effective charging solutions and its focus on the sustainability of its operations which, if scaled, can potentially accelerate the transition to a carbon-neutral economy.

- **Impact on Market**

Solum has achieved remarkable growth since its establishment in 2019, driven by its unwavering commitment to research and development (R&D), the introduction of innovative products, strategic partnerships, and successful expansion into 9 countries, where it has established a network of over 450 charging spots. In 2021, following Solum's victory in the Micro-mobility Startup Challenge, PERSEO, the company joined forces with Iberdrola(Avangrid in the US), marking a significant milestone. This collaboration has provided Solum with an unparalleled opportunity to introduce its products to the



global market and make a substantial impact on a worldwide scale. By partnering with Iberdrola, Solum has gained the means to actively promote sustainable mobility and drive the widespread adoption of electric vehicles on a larger scale thereby catalyzing a meaningful transformation within the industry.

Likewise, in February 2023, Solum collaborated with Alai Secure, offering the company multi-coverage and multi-country technology enabling Solum to centralize its services with a single M2M/IoT (Machine to Machine communications/Internet of Things) operator and continue its expansion in Europe, Latin America, and North America. The partnership enables centralized services, optimal coverage, and enhanced security for Solum's charging stations, promoting sustainable mobility.

As winners of the #ChallengeMyCity initiative, 2022, Solum has received significant funding to deploy solar-powered docking stations for e-vehicles in Milan, Toulouse, and Madrid, making remarkable advancements in micromobility and transportation links. Additionally, Solum has installed solar charging stations for electric scooters with battery storage systems in Barcelona, Istanbul, and Thessaloniki, as part of the "Cleanergy 4 Micromobility" project, addressing crucial micromobility challenges like vandalism. These initiatives hold the potential for Solum's permanent integration within the cities' infrastructure, further enhancing sustainable transportation options.

Frost and Sullivan Institute recognizes Solum's innovation prowess, quality excellence, and ability to customize the product portfolio to match customer requirements that have enabled it to scale its global presence across nine countries within four years of incorporation.

- **Technology and Innovation**

Solum's groundbreaking solar pavement utilizes photovoltaic technology to generate clean energy from unused urban spaces without compromising its aesthetics. Its flagship offerings, Helios, and Arena, showcase relentless innovation. Helios, a sustainable parking and charging solution for personal mobility vehicles, offers anti-theft features, intelligent control, and easy installation. Arena, a solar floor with integrated photovoltaic cells, is durable, anti-slip, and adaptable to various surfaces. The solar pavement's 20-year resistance, low maintenance, and cost-effectiveness make it an ideal light electric vehicle charger. Additionally, Solum's mySolum application enables remote configuration, management, and monitoring of charging stations, promoting transparency and flexible pricing. Frost and Sullivan Institute recognizes Solum's white space innovation and sustainable solutions, which accelerate the adoption of green mobility and bring charging stations closer to consumers.



Conclusion

Solum's exceptional accomplishments in sustainable transportation, showcased by their flagship offerings like Helios and Arena, which deliver intelligent and sustainable charging solutions, coupled with their unwavering commitment to sustainability, position them as a well-deserving recipient of the prestigious 2023 Enlightened Growth Leadership Award for Emerging Companies. Their strategic partnerships, successful initiatives, and groundbreaking solutions not only showcase their leadership in micromobility and transportation systems but also serve as a testament to their transformative impact on the industry. Solum is undeniably at the forefront of driving positive change and spearheading a revolution in transportation and energy consumption.

Frost and Sullivan Institute congratulates Solum on its achievements and applauds the company's significant contributions to helping the world transition towards a carbon-neutral economy through the adoption of green mobility.



What You Need to Know about the Enlightened Growth Leadership Recognition

Frost & Sullivan Institute, in partnership with Frost & Sullivan, has announced the first edition of the Enlightened Growth Leadership Awards - Emerging Companies: Companies Driving Sustainable Future, 2023.

With the rising challenges caused by climate change, inequality, and access to technology, it becomes increasingly important for companies to create novel solutions and develop products and services to innovate to zero. The Enlightened Growth Leadership Awards recognize emerging organizations committed to making the world a better place and are part of the solution to challenges our world faces today.

The emerging companies we have identified demonstrate proactivity in utilizing business practices to 'innovate to zero' and address global priorities through their products and services. These Companies represent the startups globally that we have identified as moving the world in the right direction.

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.

Innovation and Technology: 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 megatrends 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 ongoing growth opportunities and strategies for our clients is fuelled by the Innovation Generator™.

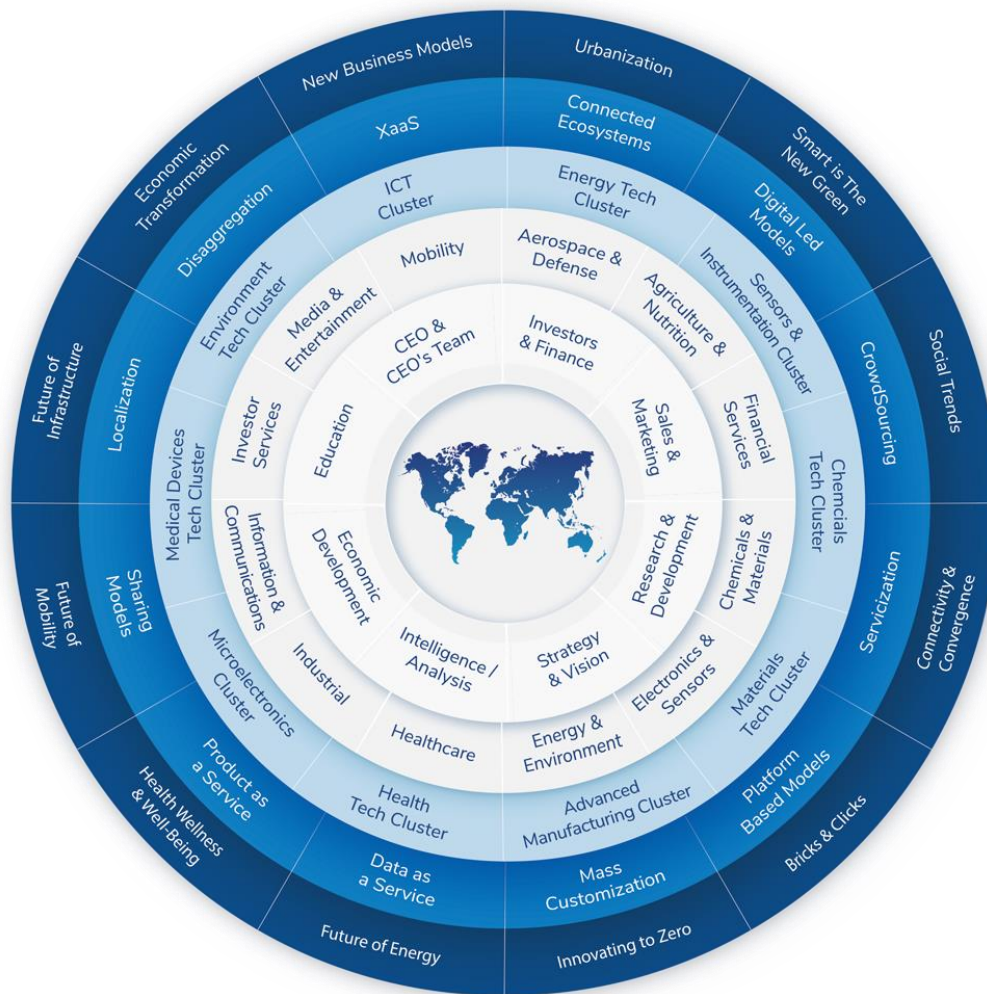
Key Impacts:

- **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.



Analytical Perspectives:

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



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