



NEWS RELEASE

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Texas A&M Harnesses the Power of its Cross-industry Network of Leaders to Produce List of Top Innovations

[COLLEGE STATION, Texas] - Texas A&M Innovation, with the support of The Association of Former Students, is proud to unveil **Future 12**: a dynamic list spotlighting the most groundbreaking innovations poised to transform industries and reshape our future. This announcement, made during **Innovation Forward 2024**, highlights emerging technologies across diverse fields, from pharmaceuticals and sustainable energy to AI-driven cybersecurity and advanced manufacturing.

Future 12 is more than just a collection of ideas; it represents a convergence of expertise from Texas A&M's extensive network of Former Students and industry leaders. This year's list was created starting with a survey of 6,000 Former Students holding senior leadership positions within their organizations, then validated through interviews with Texas A&M's accomplished experts. We aimed high, engaging industry leaders, including virtually every Fortune 100 company, to ensure that the innovations represented in Future 12 have far-reaching impact. The Association of Former Students played a crucial role in supporting this initiative, helping bring together the expertise needed to identify these key innovations from across industries ready to drive substantial change within the next 24 months.

Future 12 aims to serve as an inspiration and catalyst. This year's list celebrates innovations such as quantum computing advancements, solid-state battery breakthroughs, swarm drone technologies, and strides in plastics recycling—all geared toward addressing global challenges while pushing the boundaries of technology and sustainability.

"Future 12 as a beacon for what's possible," said Pete O'Neill, Chief Innovation Officer at The Texas A&M University System. "These innovations highlight amazing new products and technologies that are on the brink of delivering benefits for all of us."

The Future 12 Innovations

- 1. AI for Drug Development:** Using AI to accelerate pharmaceutical research, enabling faster and more cost-effective drug discovery. [Read more.](#)

2. **Predictive Analytics Shaping the Future of Farming:** Utilizing predictive analytics to maximize yields, conserve resources, and address agricultural challenges proactively. [Read more.](#)
3. **AI-Powered Medical Imaging Transforming Diagnostics:** Revolutionizing medical imaging by improving accuracy, speed, and diagnostic capability. [Read more.](#)
4. **Miniaturized Quantum Chips Empowering the Future of Industry:** Bringing quantum computing to the forefront of industry transformation with miniaturized chips. [Read more.](#)
5. **A New Era in Travel and Defense with Hypersonic Flight:** Redefining transportation, defense, and logistics with hypersonic flight technology. [Read more.](#)
6. **Next-Generation Artificial Hearts:** Advancing artificial heart technology to provide life-saving solutions for patients with severe heart failure. [Read more.](#)
7. **Solid-State Batteries Unlocking New Energy Solutions:** Enhancing energy storage capacity and safety for electric vehicles and renewable energy applications. [Read more.](#)
8. **Swarm Drone Technology Revolutionizing Modern Industries:** Utilizing collective intelligence in drones to revolutionize agriculture, disaster response, and more. [Read more.](#)
9. **Environmentally Friendly Plastics:** Developing innovative recycling methods and biodegradable plastics to reduce environmental impact. [Read more.](#)
10. **Advanced Cybersecurity for Secure AI Systems:** Leveraging AI to detect and respond to cyber threats in real-time, ensuring data integrity. [Read more.](#)
11. **Modular Power Solutions for Smart Energy Grids:** Advancing distributed energy creation and management to enhance grid resilience and efficiency. [Read more.](#)
12. **Automating the Future of Manufacturing:** Transforming manufacturing with AI and automation to improve efficiency, precision, and scalability. [Read more.](#)

For more information about **Innovation Forward 2024** or to view the full list of **Future 12** innovations, please visit <https://innovation.tamus.edu/events/innovation-forward/future-12/>

About Texas A&M Innovation:

[Texas A&M Innovation](#) promotes an innovative and entrepreneurial culture among A&M's research community and uses a rigorous process to guide projects from new innovations through market commercialization. We encourage industry partnerships, support startups and entrepreneurial commercialization, make connections to mentors, funding, and other critical resources to accelerate commercialization of System IP. Through our work we strive to promote regional economic development, and ultimately impact the lives of people locally, nationally and globally.

For more information about IF2024, speaker line-up and agenda, visit our [website](#).