

# The Evening Tribune

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## Alfred University to become home for first-ever Center for Glass Innovation

*CGI will develop next generation glass materials and improve glass manufacturing processes*

ALFRED — Governor Andrew Cuomo announced a new nation-leading collaboration with the New York State College of Ceramics at Alfred University to bolster markets for recycled glass and improve the quality of glass available for recovery throughout New York.

The Center for Glass Innovation (CGI) was established at the New York State College of Ceramics to develop next generation glass materials and improve glass manufacturing processes to optimize material performance for industrial and government applications.

A significant emphasis of the CGI is on developing new high-performance materials, low-cost feedstock alternatives, and energy efficient manufacturing processes that result in a reduction of the glass manufacturing industry's carbon footprint.

The CGI's first major initiative — a collaboration with the New York State Department of Environmental Conservation (DEC) — will use \$1.7 million in funding from the state's Environmental Protection Fund over three years to research ways New York State-based glass manufacturers can increase their utilization of recycled glass feedstock. It is anticipated that this will result in a significant reduction in the amount of glass currently going to landfills, specifically by improving the quality of glass cullet for reuse and recovery.



Sarah Blood, Alfred University assistant professor of glass, at work in her studio. *Provided*

This initiative, first announced by Governor Andrew Cuomo in his 2020 State of the State Address, will play an instrumental role in helping recycling markets and municipal recycling programs find new and more profitable ways to recycle glass.

“As New York seeks ways to support the state's materials recovery centers, increased reuse of glass represents a tremendous opportunity, especially given the large volume of glass that currently ends up in landfills each

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year,” commented Gabrielle Gaustad, Dean of the Inamori School of Engineering and Vice President for Statutory Affairs at the NYS College of Ceramics. “It is critical to develop economical techniques to expand the use of recycled glass for value-added products. We anticipate the outcomes from this project will result in significant reductions in carbon generated by more traditional glass manufacturing processes.”

The NYSCC at Alfred University is one of the preeminent glass science education and research institutions in the country, and is the only one offering bachelor’s, master’s, and doctoral degrees in Glass Science Engineering. Glass Science Engineering faculty and students at Alfred University will lead research efforts at the Center for Glass Innovation.

Private sector industrial involvement from across New York State will include a number of glass manufacturers and firms supporting the glass manufacturing supply chain including: Corning Incorporated, Guardian Glass, Anchor Glass, Tesla/SolarCity, Monofrax, St. Gobain, Owens-Illinois, Corelle Brands, Hillcrest Industries, and Andella Glass, as well as the Glass Manufacturing Industry Council. The Center for Advanced Ceramic Technology (CACT) at Alfred University — one of 15 Centers for Advanced Technology (CAT) in New York State — will facilitate and support research partnerships between the Center for Glass Innovation and the private sector.

“For over 120 years, the College of Ceramics has been a leader in glass research,” said Mark Zupan, Alfred University president. “Over the past 30 years, our Center for Advanced Ceramic Technology has been supporting the growth of the state’s technical ceramics and glass industry by providing access to Alfred’s unique technical infrastructure and knowledgebase. The CACT will be an important resource in engaging New York’s glass companies in this DEC-funded effort.”



Mark Zupan *Provided*

Alfred University is currently collaborating with Hillcrest Industries, of Attica, a leading manufacturer of glass microbeads used for reflective road marking, to develop a process that will increase Hillcrest’s recycling efficiency. The project — funded by a FuzeHub grant awarded to Alfred University glass science professors

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Alexis Clare and William Lacourse — will permit Hillcrest to recycle its glass powder waste by reprocessing it into a dense solid glass. The recycled glass will be used in reflective glass beads used by Hillcrest, as well as a wide range of new glass microbead products that may spur development of other business ventures making use of the technology.

The Glass Science program at Alfred University has a history of large multi-faculty research programs with national and international influences and implications. In the late 1980s, L. David Pye (emeritus professor of glass science) led research into the development a vitrification process at the **West Valley Demonstration Project** in West Valley, NY, to convert stored radioactive waste into a stable glass for disposal in a federal repository. The highly successful Center for Glass Research — funded by the National Science Foundation and a host of glass companies — worked for more than 20 years improving glass manufacturing processes.