

InnovationSpace Explores Nanotechnology for Affordable & Renewable Clean Energy

InnovationSpace at Arizona State University is a transdisciplinary education and research lab that teaches students how to develop products that create market value while serving real societal needs and minimizing impacts on the environment. CNS-ASU sponsors three teams to visualize how futuristic nanotechnology product scenes can translate into usable products.

Students in the 2008-2009 program are exploring the promise of nanotechnology in solving energy problems. Teams of students from design, business and engineering are creating product concepts that use nanotechnology to improve access to affordable and renewable supplies of clean energy:



NOME Focusing on how to assist victims of natural disaster where a significant amount of existing infrastructure and shelter has been destroyed, the *Nome* product concept



offers shelter that regulates its interior temperature via solar energy. With its nano-photovoltaic exterior surface, low weight batteries and structural material of varying flexibility, the *Nome* is air transportable and designed for simple and quick setup.



EVERWELL

The *Everwell* system improves the functions of daily life for people who live in remote rural areas. Specifically addressing the lack of clean, accessible water on the Navajo Indian reservation, where people must travel to communal wells every few days and transport water in large, heavy containers, the *Everwell* product concept can be used in the home to collect clean drinking water directly from the air. Nanotechnologies are utilized in its thermal material for water collection and temperature regulation, solar power, sensors for water level, and water filtration.



The *Tangent* product concept offers energy-efficient commuter transportation in congested urban environments. It is a foldable, portable personal transport device that can be plugged into any wall outlet for a quick charge. Due to its nano-photovoltaic skin, it is also solar-powered.

go on a
tangent



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