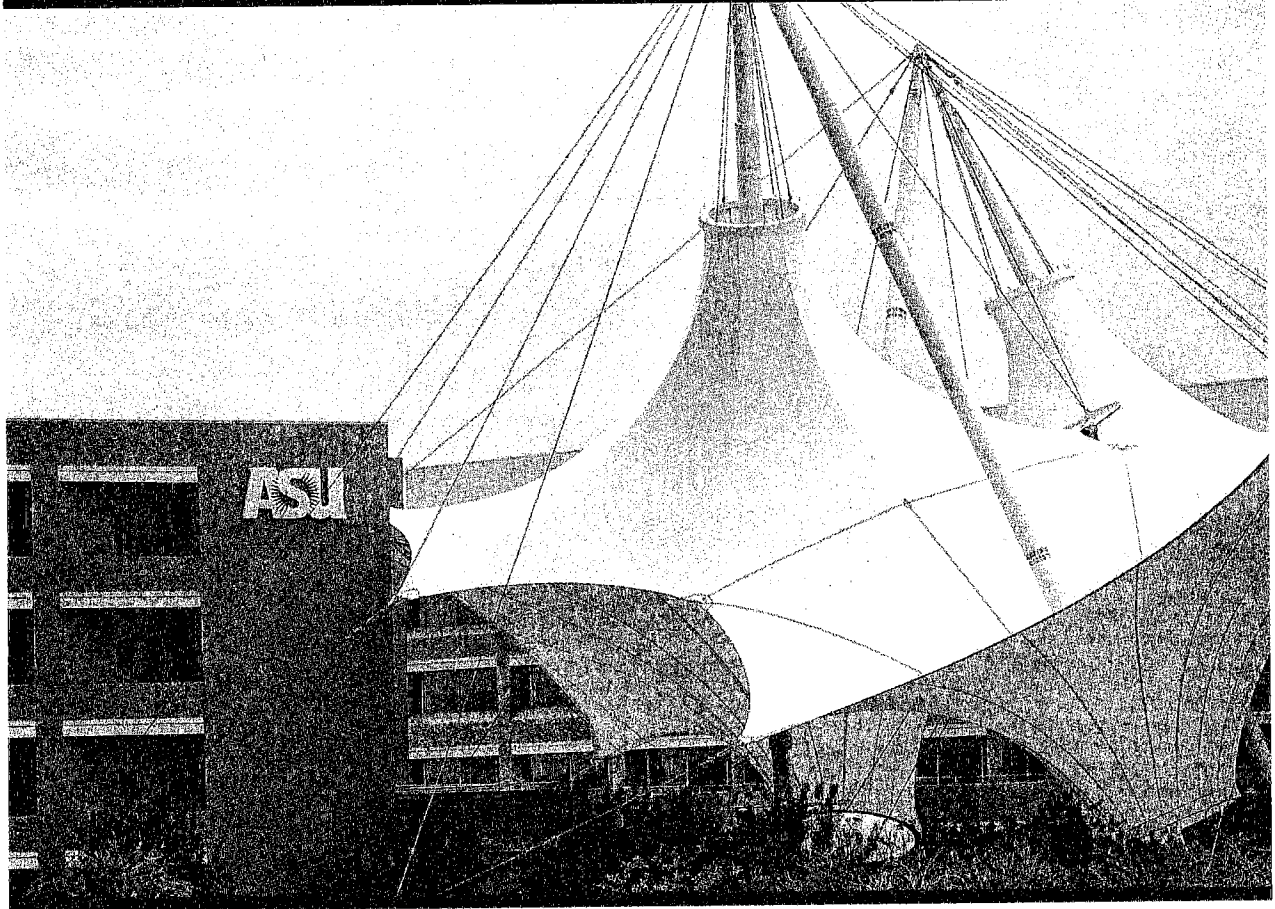


INNOVATION



LAUNCHING PAD

ASU SKYSONG HITS ENTREPRENEURIAL HIGH NOTES IN 4 YEARS

By J. Craig Anderson
The Republic | azcentral.com

Arizona State University's SkySong business-development program has undergone dramatic changes in its first four years of existence. In some respects, the program is still trying to define its proper role in the community.

Founded in 2008, ASU SkySong opened in the middle of a recession as an effort to connect Arizona State University's pool of intellectual talent with the Phoenix area's vibrant but fragmented entrepreneurial community.

Program administrators are now pushing even harder to encourage entrepreneurs and businesses to license and market a variety of ASU-developed inventions that include an anti-nerve gas, a plant-based antibody for West Nile virus, security improvements to mobile cloud computing, tunable microchip-based microphones and a 3-D face-recognition system.

They recently launched a major new competition focused on university-owned intellectual property and are revamping one of ASU SkySong's existing business-development programs, school officials said.

Unusual in that it straddles the line between academia and private enterprise, ASU



Top: AlphaStripe co-founders Eli Chmouni (right) and Pete Chinnici brainstorm at ASU's Edson Student Entrepreneur Initiative.

Above: DJ Sterling works on his Live Video ReMix Shows project at ASU's Edson. PHOTOS BY CHARLIE LEIGHT/THE REPUBLIC

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ASU SkySong

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SkySong made a major directional shift in 2010 from a university department intended to spark student interest in entrepreneurship to one directly charged with creating jobs, bringing to market the fruits of ASU research and contributing to statewide economic development.

ASU SkySong officials said they have achieved a number of successes, including the establishment of 55 companies selling ASU-developed inventions, eight of which have been acquired by or merged with other companies and two that have completed initial public offerings.

Still, spotty tracking of some participants during ASU SkySong's first two years prevents it from providing data about the current status of all ventures grown under the program's guidance.

Officials at the university-led accelerator said ASU SkySong is just now starting to gain momentum and is likely to start producing much more dramatic results in the years ahead.

"At the end of the day, our collective objective is helping entities to create jobs and wealth," said Gordon McConnell, assistant vice president of innovation, entrepreneurship and venture acceleration at ASU SkySong since 2010.

McConnell's predecessor, Julia Rosen, has gone on to become an ASU associate vice provost and vice president of ASU Online.

Not to be confused with SkySong Innovation Center, the business incubator owned by the city of Scottsdale, ASU SkySong is a major tenant of SkySong with a staff of 34 employees who administer a number of university-sponsored entrepreneurship organizations and programs on the premises.

Those include the Edson Student Entrepreneur Initiative, Arizona Technology Enterprises, ASU Venture Catalyst and its latest endeavor, the Arizona Furnace Accelerator.

Edson Initiative

The Edson Student Entrepreneur Initiative is a privately endowed, annual contest in which teams of aspiring student entrepreneurs develop and submit business plans for evaluation.

As many as 20 winning teams each year receive up to \$20,000 apiece in seed funding, office space, mentorship and training to develop their ventures. The endowment that funds Edson generates a total of \$200,000 annually.

Students submitted 338 applications to the Edson program in 2012, according to ASU, a 35 percent increase from the 250 applications received in 2011.

Brent Sebold, venture manager for Edson, said several student-run companies involved with the Edson program in 2011 have won national entrepre-

neurship awards, placed at the top of international competitions and are generating significant revenue.

In late 2011, an Edson initiative winner called G3Box was named "College Entrepreneur of the Year" by *Entrepreneur Magazine*.

The company, founded by four ASU students, converts discarded steel shipping containers into mobile medical clinics that can be shipped to developing countries or anywhere else they are needed.

Two other Edson winners were among the five finalists for the magazine's college entrepreneur award in 2011: Elens Technologies, which creates diagnostic reference tools and smartphone apps for veterinarians and students, and Boson Inc., a provider of stereoscopic 3-D software and hardware systems and high-fashion eyewear.

The Edson initiative was founded in 2004 and had been shuffled around from one university department to another before finding a permanent home at SkySong in 2008, said Meagan Garrett, ASU SkySong marketing and communications manager.

Before 2010, ASU did not track the ongoing status of student companies born under the Edson program, Garrett said, and as a result there is no readily available data on how many are still in business.

Sebold said ASU SkySong intends to track future Edson successes and failures. He attributed the policy change to McConnell's leadership and the shift in ASU SkySong's mission from entrepreneurship promoter to job creator.

Technology Enterprises

Arizona Technology Enterprises is an independent, non-profit organization owned by ASU that serves as the university's exclusive intellectual-property-management and technology-transfer organization. It procures patents for ASU-developed inventions and seeks out private companies to bring those inventions to market.

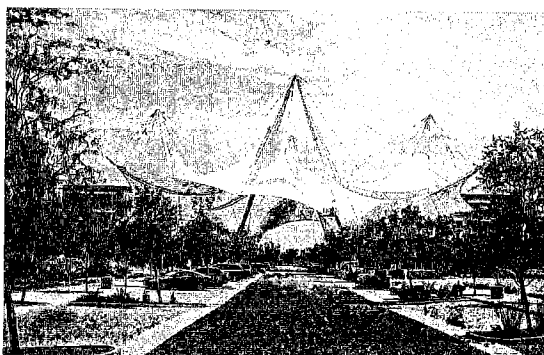
As a state-owned institution, ASU cannot own an equity stake in any private company, said Charlie Lewis, vice president of venture development at Technology Enterprises.

The solution was to create an independent organization, which ASU did in 2003. Technology Enterprises takes a small stake, usually between 1 percent and 5 percent, in the companies it helps create, Lewis said.

It also receives licensing and royalty fees from both startups and established companies for the use of ASU-developed intellectual property, he said.

When an ASU staff or faculty member develops a patent-worthy invention, the details of that invention are submitted to Technology Enterprises, which takes legal ownership of that intellectual property and procures the necessary patents, Lewis said.

If a business licenses the in-



With a winglike shade structure rising above it, SkySong Innovation Center in Scottsdale is hard to miss. MICHAEL SCHENNUM/THE REPUBLIC

ASU SKYSONG PROGRAMS

» **Edson Student Entrepreneur Initiative:** A privately endowed annual contest in which winning teams of ASU students get help developing their startup businesses.

Success: Past winners have gone on to win several major awards and grants, including G3Box, which was named "College Entrepreneur of the Year" in 2011 by *Entrepreneur Magazine*.

Challenge: Better tracking of current and future participants to determine whether the Edson initiative contributes to entrepreneurs' long-term success.

» **ASU Venture Catalyst:** A startup accelerator that provides mentorship and business-development assistance; open to both ASU students and non-students.

Success: The program has become hugely popular and a significant catalyst for growing Arizona small businesses.

Challenge: Venture Catalyst has yet to recoup its costs through windfall and change-of-ownership payments.

» **Arizona Technology Enterprises:** An independent, non-profit organization that patents ASU-developed intellectual property and licenses it for commercial use.

Success: It has collected \$17.6 million for ASU and its researchers from companies licensing ASU-developed intellectual property.

Challenge: There remain hundreds of inventions developed at ASU that have yet to be licensed or brought to market.

» **Arizona Furnace Accelerator:** An annual business-development competition, like Edson, in which applicants must utilize intellectual property developed at ASU or another participating institution.

Success: The competition, which is currently accepting its first batch of applications, has secured private funding to cover its expenses.

Challenge: It remains to be seen how successful it will be in creating companies that license academics' inventions.

Source: ASU SkySong

vention to bring it to market, Technology Enterprises splits all resulting proceeds into thirds, he said, with one-third going to the inventor, one-third to his or her laboratory and one-third to ASU's general research fund.

The estimated proceeds thus far from Technology Enterprises licensing agreements have been about \$17.6 million, Lewis said.

Given the non-profit nature of ASU and Technology Enterprises, a licensing deal that resulted in billion-dollar proceeds from the next Apple or Facebook could complicate things financially for the university and its tech-transfer entity.

"That's one of those great problems we'd love to have," Lewis said.

Venture Catalyst

ASU Venture Catalyst is a startup accelerator that provides mentorship and assistance in various areas of startup creation including business-plan development, management-team assembly, product

development and business networking.

Venture Catalyst is a joint project of ASU and Technology Enterprises that was created in 2010 via a \$1 million allotment of federal economic-stimulus funds.

Participants in the Venture Catalyst program do not have to be enrolled in ASU, and Venture Catalyst is compensated for the services it provides through "windfall payments" and "change-of-control payments" that pay off if and when the incubated company generates a significant amount of profit, is merged or sold, or completes an initial public offering.

After 18 months of operation, Venture Catalyst has yet to receive any such payments. McConnell said the goal for the accelerator program is to make it financially self-sustaining by the end of its third year.

The program is about to undergo a significant change that involves grouping future participants into "cohorts" that will go through a six-month business-development program together, Garrett said.

Until now, participating companies have not been grouped together in such a manner, and there has not been a set amount of time for each participant, she said.

The first cohort is scheduled to start in October, she said. The goal of grouping participants into cohorts is that they'll learn more by working together and having a shared experience.

Furnace Accelerator

The Venture Catalyst program also is gearing up to launch its own Edson-inspired competition, called the Arizona Furnace Accelerator, which is a joint venture among ASU, Northern Arizona University, Dignity Health (formerly Catholic Healthcare West) and other public and private institutions.

Participants in the competition can be from anywhere in the world but must create a business in Arizona that utilizes intellectual property developed at one of the participating institutions.

Startups chosen to participate in the Furnace Accelerator will receive at least \$25,000 in seed funding, a six-month mentorship and development program, office space within SkySong or NAU, and participation in an "investor day," in which company principals will present their business plans to potential investors.

The Furnace Accelerator program will be privately funded by as-yet-undisclosed benefactors. The first group of winning applicants is scheduled to be announced in mid-October.

ASU SkySong officials are hoping the competition will help bring to market more ASU-developed inventions and technologies that have yet to be licensed for commercial use.

"That's the catalyst for Furnace. ASU's got all this IP (intellectual property) that no one is using," said Jodi Deros, vice president and managing director of ATOMdesign, a Scottsdale-based marketing firm that works with local business-development groups.

Jonathan Coury, a Phoenix attorney who oversees a program for law-school students to act as consultants to ASU SkySong startups, said the greatest benefit of SkySong thus far is that it has created a venue for disparate groups interested in promoting entrepreneurship in Arizona.

"What I like about SkySong is it's essentially a meeting place for emerging-growth companies," said Coury, who also chairs this year's 20th annual Invest Southwest Capital Conference, which brings together startup companies and investors. "I think SkySong is fantastic."

While several SkySong companies have applied to be showcased at the Invest Southwest conference, so far none has been accepted, he said.

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