



On Nov. 1, the Arizona State University community held Innovation Day.

But 1,000 of the participants didn't just revel in the university's successes. They're tackling some of its problems.

Student-athletes and international students are brainstorming ways to engage international students in sports events so they feel like they belong in America. A faculty led team is creating opportunities to foster employees' well-being and career success. Staff are cultivating experiences that support students' emotional and social needs. Community-led teams are addressing safety on campuses and initiating ways to boost degree completion in northern Arizona.

The initiative, called ASU Spark, uses a democratic method for igniting ideas that was conceived, prototyped and tested at ASU. Proposals were submitted by everyone from long-time faculty to one person who had been at ASU for three months. In some teams, a dean and an intern might work together, and facilitators are trained to ensure everyone's ideas are



Zainab Al Nasr and Pengjian Wang collaborate on Innovation Day to determine how athletics might encourage more inclusivity with international students using the ASU Spark Method.

given equal consideration. “To me, that is the story of innovation at ASU,” says Minu Ipe, the knowledge enterprise architect and senior fellow for leadership and institutional design at ASU. “It’s the sense that it doesn’t matter who you are, that this institution allows you to solve problems, to imagine what the future could be, to live in that space of ‘What could we be?’ And then you get an opportunity to mobilize people around you, figure out how to solve the problem, and have an impact.”

ASU’s innovation story often gets told through marquee examples — undergrads designing a spacecraft funded by NASA, daring collaborations between dancers and scientists, students fashioning wearable technology with a Nobel Prize winner. But all of that emerges from something subtler: an innovation mindset encouraged in every

student, teacher, employee and community member.

“People feel empowered,” says Maria Anguiano, senior vice president and university planner in the Office of the President. “There’s a mindset that things can be done and therefore we should do them.” When you set goals and create a can-do culture, she adds, “that literally trains everyone’s minds into a problem-solving mode.”

Lifelong access to learning

Anguiano, a first-generation college graduate, is particularly passionate about ASU’s efforts to solve one of society’s biggest problems: a lack of access to higher education. ASU is bucking exclusivity by setting a goal to achieve excellence through inclusivity. But that mission opens the door to an array of challenges, because it requires meeting the needs of a wide variety of people at

every stage of their lives.

ASU faculty combine forces with public and private sector partners to develop online courses infused with virtual reality, artificial intelligence and game-based learning. Learners can build the confidence and know-how they need to start a business, gain the skills to generate sustainability reports, prepare for a project management certificate, and integrate science-based mindfulness practices into their lives.

“Innovation is impact,” says Nikhil Dave, an undergraduate student and researcher in Knowledge Enterprise’s interdisciplinary Luminosity Lab. “It’s a matter of making meaningful impact, whether that’s within a small community in one person’s life, or in a whole society. That’s something cool about ASU.”

Programs “are not innovation

for innovation's sake," Anguiano emphasizes. "It's innovation because there's a problem to be solved, which is that there is not enough access to higher education."

One access-expanding initiative grew out of a problem at Starbucks: 74% of its U.S. employees considered themselves students or aspiring students, but only 32% were enrolled in school. So ASU unveiled the Starbucks College Achievement Plan, an unprecedented partnership that allows Starbucks employees to earn a bachelor's degree through ASU Online.

At annual forums, Starbucks program graduates tell stories that are "unbelievably moving," says Phil Regier, university dean for educational initiatives and CEO of EdPlus, ASU's international system of digital

learning opportunities. "They are stories about people overcoming dramatic odds, about people who never thought they'd be able to achieve a university degree."

On the other end of the spectrum, many adults want to enhance their work and life skills and earn certificates without officially entering a university. For these professionals, ASU recently debuted Universal Learning. The program is designed to help them keep up with a rapidly changing world at their own pace and on their own terms from anywhere and any time they can join in.

"Here you can dream it, think it and act on it almost right away," says ASU President Michael M. Crow.

Fertile environment

This fall, ASU welcomed its largest, most diverse, and most academically prepared first year

"To me, that is the story of innovation at ASU. It's the sense that it doesn't matter who you are, that this institution allows you to solve problems, to imagine what the future could be, to live in that space of 'What could we be?'"

— MINU IPE, ASU'S KNOWLEDGE ENTERPRISE ARCHITECT AND SENIOR FELLOW FOR LEADERSHIP AND INSTITUTIONAL DESIGN

class ever — an accomplishment that is also driven by a mission, Ipe says. That includes support of first-generation students. ASU received a First Forward designation from the Center for First-generation Student Success in 2019.

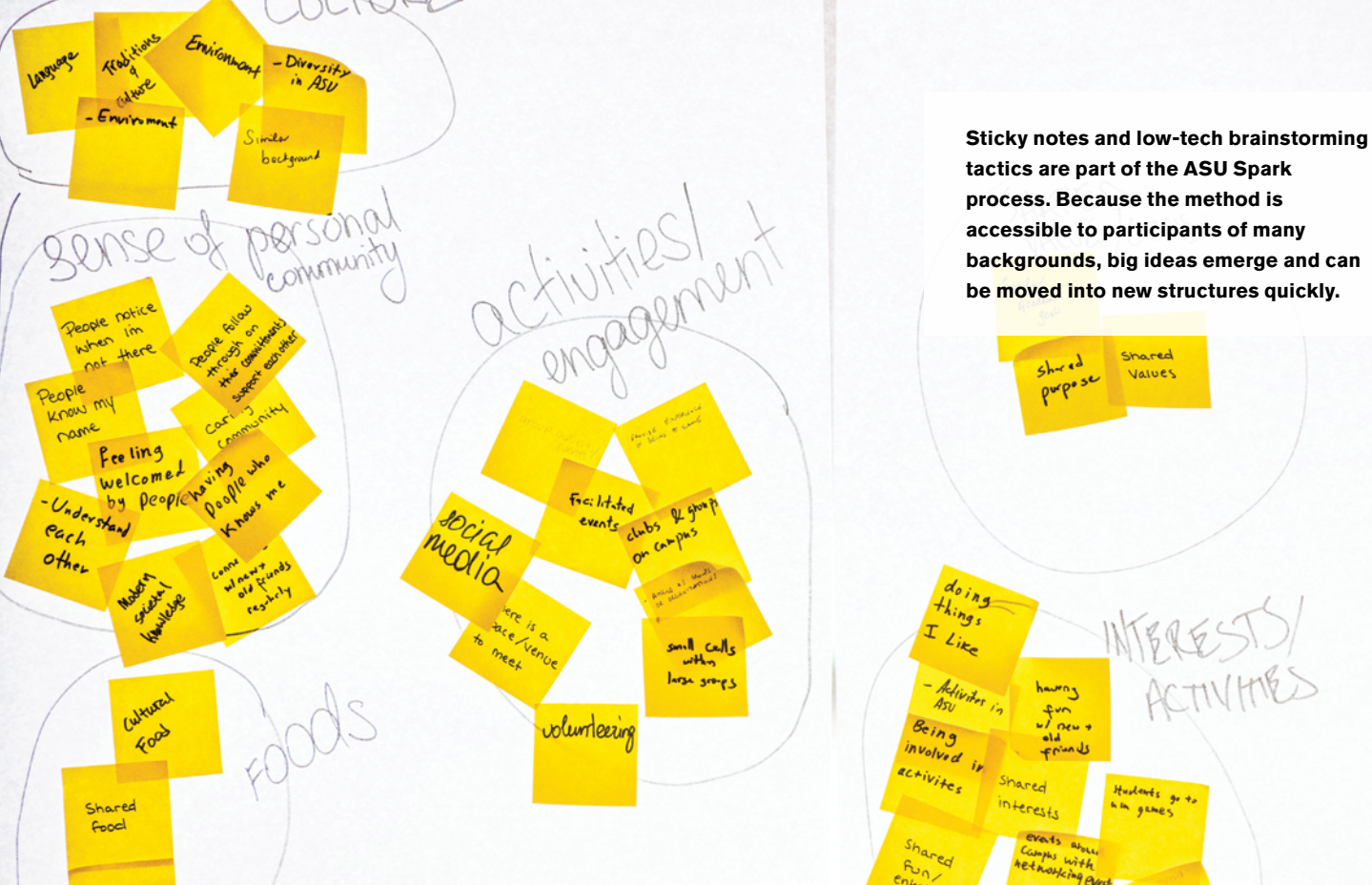
Almost 40% of ASU students are the first in their families to attend college, a rate that has tripled since 2002. Across ASU, several long-standing initiatives positively impact first-generation student outcomes. Among them are Access ASU, the First-Year Success Center's coaching initiative and TRIO, a set of federally funded college opportunity programs.

"When you bring in large volumes of students, and when we have a system that says we want to include people, what we are saying is we are including their ways of thinking, their ideas and their creative energies," Ipe says. "Then when institutionally we try to remove some of the barriers that get in the way of these collisions, you're really creating an environment that's absolutely fertile for new ideas to take root and grow."

This fall, 35 first-year students took a class called Innovation 101: Discover the Innovator in You. One



Collaborators from across ASU came together in small groups to actively work through challenges in a new format called ASU Spark. The method is intentionally low-tech and in-person to foster communication and solutions-oriented outcomes.



Sticky notes and low-tech brainstorming tactics are part of the ASU Spark process. Because the method is accessible to participants of many backgrounds, big ideas emerge and can be moved into new structures quickly.

“Here you can dream it, think it and act on it almost right away.”

— MICHAEL M. CROW, ASU PRESIDENT

of their tasks was to figure out how to nurture a stronger sense of belonging through ASU’s mobile app. The university’s technology department had been wrestling with this challenge, and who better to take it on than newbies struggling to fit in?

Another effort designed by ASU undergrads launched in November. The Phoenix CubeSat, a bread loaf-sized spacecraft, will orbit Earth to collect thermal infrared images to determine how different city designs impact the

urban heat island effect. In this NASA-supported mission, students studying engineering, urban planning, design, space exploration and journalism are banding together to help make cities more sustainable.

Meanwhile, the interdisciplinary Luminosity Lab empowers students. “I love it,” says senior Catharine Lewis, “because it has the smartest and the most interesting people who are willing to work with me and teach me things that we can collaborate about, whether they’re from engineering or business or design or whatever background source.”

Interdisciplinary collaborations like these are as common on campus as ASU sweatshirts. A new initiative at the Institute of Sustainability is harnessing the humanities to cultivate imaginative solutions to environmental

crises. The Biodesign Institute partners with dancers to choreograph performances that open the public’s eyes to the creative and human sides of science. SciHub, co-led by Nobel Prize-winning physicist Frank Wilczek, brings together students and professionals in science, tech, engineering, design and art to invent commercial products. They’re currently developing technology to correct colorblindness and allow people to see new colors, infrared and ultraviolet.

Innovation is a must at ASU, says Ipe. “We are in the process of designing a very different kind of institution — one that ultimately leads to social transformation and economic impact.

“We need new ways of thinking, because we are in uncharted terrain.” ■