A resource for fighting COVID-19, a catalyst for Arizona’s economic future

Throughout the past year, during a time of high stress and unique demands, leaders throughout the state have called upon Arizona State University to be of service. ASU students, faculty and staff have relied on innovation, ingenuity, hard work and determination to take on assignments that have helped the state advance through unprecedented challenges. As Arizona leaders plan for a revitalized state economy in 2021, ASU is prepared for its next assignment.

$46M

An investment in ASU’s assignment to drive Arizona’s economy through engineering and technology education and advancement, critical components of responding to COVID-19 and key catalysts for future economic growth and resiliency.

Student support, academic programs and faculty

To meet the the workforce demands of the new economy and to the a resource for disruption and displacement caused by the pandemic, ASU seeks investment to expand its experiential learning programs and additional student support, such as career services, placement, and coaching. New programs will be developed within emerging New Economy fields in the natural sciences, neuroscience, digital culture and design, media arts, computer science, data science, and allied health professions and will promote knowledge acquisition and skill development for individuals at all stages of life.

Science and Technology Centers

State investment will establish five Science and Technology Centers (STCs) – attracting private capital investment and pairing new companies with FSE students who will perform research and technology development via capstone projects, entrepreneurial fellowships, and other curricular and extra-curricular pathways. This unique set of collaborations and engagements will enable companies to accelerate the transition of discoveries from laboratory to market, in turn attracting new startups and technology-oriented businesses to Arizona over the long-term. STCs will foster the growth of New Economy industries, thereby directly leading to job creation, workforce training, startups, and STEM education advances.

Return on Investment

Creation of high-value jobs

• Technology startups with AZ founders and innovators
• Applied learning opportunities for students, internships and a pathway to high wage jobs
• Partnerships with established AZ technology companies

Workforce training

• Hands-on research experience produces thought leaders
• Entrepreneurial training paves way from lab to captured value
• Reskilling and upskilling opportunities to enhance and adapt current workforce to cutting edge technologies and innovations

Attraction and retention of leading corporations

• People, facilities, intellectual leadership
• Partnerships and acquisition opportunities for established companies
• Access to the largest diverse technical talent pool in the nation
• Multiplier opportunities for joint projects and next stage technological development

For more information, visit impactarizona.asu.edu/new-economy-initiative
Learning, discovery, entrepreneurism
While classroom and online instruction is an important part of educating the next generation of engineers, students say that real world applied learning opportunities is where they learn the most. Science and Technology Centers are one way we bring students, faculty researchers, and private sector partners together to innovate, create and produce, serving both learning and the objectives of business.

How an STC works

- **State investment**
  - Private investment
  - University faculty and students
  \[ \text{Private investment} + \text{University faculty and students} = \text{Science and Technology Center Incubator} \]

- **Science and Technology Center Incubator**
  - Innovative technology
  - New companies
  - Talent
  - State ROI
  - Research
  - High-wage jobs

Future centers

**Future communications technologies**
Focus on driving Arizona to the forefront of physical information systems for sensing and communications.

**Extreme environments**
Focus on engineering resiliency into transportation, energy, water and materials systems of future cities.

**Human performance**
Focus on enhancing physical and cognitive performance, as well as medical prevention and intervention.

**Energy and materials**
Focus on advancing new energy materials and device technologies to market, growing industry engagement.

**Advanced manufacturing**
Focus on new technologies that strengthen links to private industry support in aerospace and defense.

These five STCs will add to Arizona's existing two applied research centers focused on industry-led research – WearTech and Blockchain.