Advancing Entrepreneurship, Innovation and Technology Transfer

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Executive Vice President and Chief Research and Innovation Officer
ASU Knowledge Enterprise Development

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ASU Charter

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural, and overall health of the communities it serves.
We reimagined a number of existing structures to drive a culture of innovation and created a mindset of perpetual innovation on all fronts.
Research expenditures have doubled every six to eight years.

FY06 = $202.0M
FY10 = $329.3M
FY13 = $405.2M
FY16 = $518.2M
FY25 Metric = $815M (similar to MIT’s research activity)

Enhanced Research Competitiveness
2005-2015 Cumulative Percent Change in Total Research Expenditures for Institutions without a Medical School
National Rankings

Total Research Expenditures: 49 of 876 ahead of

The University of Chicago  Brown  Princeton University

Total Research Expenditures among Institutions without a Medical School:
10 of 724 ahead of

Caltech  Princeton University  Carnegie Mellon University

Non-Medical School Expenditures: 27 of 876 ahead of

Stanford University  University of North Carolina at Chapel Hill  Columbia University
National Rankings

Social Sciences: 5th ahead of Berkeley, Cornell University, UCLA, Penn

Humanities: 12th ahead of Harvard University, Berkeley, Princeton University, Cornell University

Earth Sciences: 3rd ahead of Stanford University, Berkeley, MIT, Penn State
National Rankings

HHS (including NIH) Funded Expenditures among Institutions without a Medical School: **10 of 409** ahead of

NSF Funded Expenditures: **25 of 586** ahead of

DOE Funded Expenditures: **24 of 366** ahead of
Evolution of Entrepreneurship @ ASU

- **2002**: university as entrepreneur
- **2006**: access: entrepreneurship for everyone
- **2011**: impact: entrepreneurship for solutions
- **2016**: excellence: entrepreneurship programs and student entrepreneurs who are nationally known for excellence
- **2021**:
Building a Culture of Entrepreneurship

- Ensure Broad Awareness of Entrepreneurship
- Explore Entrepreneurship
- Be Engaged in Entrepreneurship
- Start-Up Your Venture
- Grow Your Innovative Company

ASU Innovation Challenge

Edson Student Entrepreneur Initiative
Arizona State University
Student Entrepreneurial Pride

33 Buckets: How one life powered by ASU can change millions
Faculty Entrepreneurial Efforts

Cody Friesen: Fluidic Energy™, co-founder
- Sustainable energy storage solutions
- $150+ million in funding from strategic, venture and government sources
- Over $10M in ARPA-E grants
- IFC investment of $7M

Zero Mass Water / Zero Mass Labs
- Produce potable water using solar energy
- Water supplies could be produced locally & affordably
- Pilot projects in developing countries with scarce water resources
ASU’s Entrepreneurial Engine is Vibrant

SkySong
70+ companies, a majority of which are in IT, Ed Tech and Healthcare

Student Entrepreneurs
300+ startups
1,200+ students

Faculty Entrepreneurs
100 startups based on ASU faculty IP with over $600+ million in venture funding.

Technology Transfer in the last decade
2,500 invention disclosures
400+ U.S. patents
More than $35 million in license and options income

ASU Innovation Campuses:
Research Park
Polytechnic campus
Stadium District
West Campus
Thunderbird
AZ Health Solutions Corridor
Entrepreneurship Ecosystem Partners
Community Collaboration

- **ASU partners** with community-based local and regional organizations

- Partnerships include delivering programming, referring resources, and **promoting Phoenix-wide initiatives**

- Partners like Ashoka, include ASU in national networks of practice
Major Funders

- Ewing Marion Kauffman Foundation
- NSF
- Verizon Foundation
- EDA
- Cisco
- Silicon Valley Community Foundation
- JPMorgan Chase
“one of the most radical redesigns in higher learning...”

– Newsweek

#1 in the U.S. for innovation

#1 ASU  #2 Stanford  #3 MIT
– U.S. News & World Report, 2016 and 2017
ASU Hackathon
Luminosity: A Platform for Leading-edge Student Projects

AI driven glasses for the blind

Safety escort Drone prototype

Lab2Moon

Atlas
Tech Transfer Growth Model

From Inputs To ...

Impact

- Entrepreneurial Post-Docs Program
- Broader Intake, Across All Faculty
- MCIDA & PACE/T2
- Rapid, Flexible Deals
- Startup Development
- Startup Mill
- Global Partnerships
- Enhanced Marketing
- ASU CA Center

Process Efficiency Boosts Outcomes

Enhanced Marketing
**Inventor Touch Points**

**Patent Prosecution**

- 3 Weeks: Disclosure
- 60 Day Review: Technology Review Go/No-Go(1)
- 30 Days: Provisional Application
- 9 Months: Utility/PCT Review
- 60 Days: Go/No-Go (2)
- FILE

**Business Development**

- 3 Weeks: Disclosure
- 60 Day Review: Technology Review Go/No-Go(1)
- 30 Days: Provisional Application
- 9 Months: Value Chain Marketing
- 60 Days: Go/No-Go (2)
- FILE

**Inventor acknowledgment letter and process description**

- 3 Weeks: Initial filing for review
- 60 Day Review: 6-month letter inquiring if there is new filing information
- 30 Days: 9-month letter inquiring if there is new filing information

**Business Development**

- Face-to-face meeting with inventor
- Personal communication of decision to lead inventor
- Inventor non confidential summary and marketing review
- Marketing communication
- Decision communication
### Five Years of AUTM Rankings

- AzTE / ASU rankings per $10M in research expenditures among all institutions with more than $300M in expenditures (n=~70)

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Source: Association of University Technology Managers annual commercialization reports
Research universities are one of the strongest assets America can use to compete in the age of innovation.
Thank you