

SLIDE 1 – TITLE SLIDE

- Good afternoon. Thank you for joining the Knowledge Enterprise Fall Town Hall. Welcome to those of you in person and those watching on Zoom. We are meeting today in the Beus Center for Law and Society on the Downtown Phoenix Campus, and I'll say more later about the significance of our location.
- Before we begin, I'd like to thank [insert names] for their hard work making this event happen. Pulling off an event of this scale in a hybrid format is a major achievement that allows our large group to convene together. Thank you.
- We come together as a unit twice a year to share an update on your accomplishments and to learn more about the wide range of work across Knowledge Enterprise. Thank you to each of you for the important part you play in fulfilling the ASU charter: advancing research of public value, accountable to the communities we serve.
- To begin, I'd like to welcome any new employees who have joined Knowledge Enterprise since the last Town Hall. If you're

here in the room, please stand, and if you're on Zoom, please give us a wave.

- Our task at ASU is a big one - the challenges we face as a society are complex, and they are urgent. It is up to us to find new ways to solve them. I can't think of a more qualified, dedicated, passionate group of individuals to carry out such important work, and I'm glad you have joined us. Welcome.

SLIDE 2 - AGENDA

- We've put together an interesting agenda for today. I'll begin by sharing some of our collective achievements from the past year's work. I will also describe a strategic research theme encompassing human decision-making being realized in downtown Phoenix.
- You'll then hear from two speakers who are doing very important work on campus. The two topics are quite different from one another, showing the wide scope of what matters at ASU.

- Before we dive into specifics, I want to step back a bit and look at the big picture. Knowledge Enterprise tackles a wide range of challenges. Innovation is what enables us to do so.

SLIDE 3 – STATE OF THE ENTERPRISE

- ASU was again ranked number 1 in the country for innovation by U.S. News and World Report. It's recognition we can be proud of. Anytime someone from the outside looks at what we're doing and tells us we're doing it well, that validation inspires us. But innovation isn't about a ranking. It's a necessity. Universities must change how they do things to remain relevant and successful.
- Our research at ASU has three main focal points. We concentrate on ensuring thriving people, a thriving planet, and a thriving society.
- Thriving people includes solutions for human health and well-being, everything from innovative diagnostics and treatments to changes in health care delivery and our own behaviors.

- Ensuring a thriving planet requires a transdisciplinary approach combining engineering and the natural sciences with the humanities and social sciences to design a sustainable future.
- A thriving 21st century society relies on advancements in discovery and technology. It encompasses our work in space as well as leadership in areas like microelectronics and quantum information science.
- This dedication to our communities comes directly from our charter and is our responsibility as a public university.
- With those aspirations as our backdrop, let's highlight several Knowledge Enterprise accomplishments that are paving the way.

SLIDE 4 – Recent Successes 1

- I just mentioned microelectronics, so I'll start there. One example of the state's leadership in this area is the Taiwan Semiconductor Manufacturing Company locating its new plant in Phoenix. TSMC is also investing \$1M in ASU to fund microelectronics research projects, and create additional lab

programs and a symposium for students and faculty to showcase their work and network with TSMC's employees. This promises to be mutually beneficial – TSMC will be more visible to students, and our research will be more visible to TSMC.

- Our MacroTechnology Works facility plays a key role in how ASU will help the state lead in this industry. This world-class lab and fabrication space is a central hub for semiconductor related research at ASU. It is home to startups and corporate partnerships and an asset to the local microelectronics industry. I commend the Core Facilities and Project Management teams for the work they are doing with this venue.
- Less than two weeks ago, MacroTechnology Works received a visit from Heidi Shyu, under secretary of defense for research and engineering at the U.S. Department of Defense. In addition to preparing for the 21st century economy, boosting semiconductor production is a national security issue. Military equipment uses these chips, and we need the capability to design and manufacture them here in the U.S.

- The other technology area I mentioned is quantum information science. The Knowledge Enterprise Research Technology Team recently launched the Quantum Collaborative, a national partnership of academia and industry – IBM, Google, Dell and others – of which ASU is a hub. Quantum information science will accelerate solutions for global challenges. It will enable the development of new technologies in areas such as computing, communications, medical technology and more.
- In October, the J. Orin Edson Entrepreneurship + Innovation Institute hosted AOL Co-Founder Steve Case as part of his Rise of the Rest book tour. Case spent years traveling the country supporting entrepreneurs, including a previous visit to ASU in 2016. The book chronicles that first tour. The visit served as a reminder of the growth and development in entrepreneurship locally since 2016.
- Also in the E&I space, at the beginning of this school year, the Media and Immersive eXperience or MIX Center and a new innovation space opened, expanding our downtown Mesa footprint. The MIX Center provides students with the

technology and opportunity to create films, digital media, virtual worlds and games, and immersive digital experiences.

This is what innovation looks like – a world-class facility to give our students what they need to succeed in a new digital economy. Many thanks to the Knowledge Enterprise E+I team for their work in Mesa and across ASU, Arizona and beyond.

- Now let's move to the Biodesign Institute for a timely and relevant project studying the effectiveness of flu vaccines and Covid vaccines, what factors contribute to differences in effectiveness, what causes aversion to vaccination, and what are the long-term effects.
- Biodesign has partnered with Phoenix Children's, Valleywise Health, and ASU Health Services on a five-year, \$12.5 million Centers for Disease Control and Prevention (CDC) project. This is but one example of the exemplary work done by members of Biodesign.

SLIDE 5 – Recent Successes 2

- Next is the Interplanetary Initiative, and this year we welcomed **Sian Proctor** as an artist- and explorer-in-residence. Dr. Proctor has made 47 trips around the Earth, and is the first Black woman to pilot a spacecraft.
- Dr. Proctor will work with the Interplanetary Initiative on the JEDI Space project. JEDI stands for just, equitable, diverse, and inclusive, and the project will focus on equity in space exploration. She earned both her MS in geology and PhD in science education here. Welcome back to ASU, Dr. Proctor.
- These projects, and the ones still to be highlighted, show the contributions every member of Knowledge Enterprise makes in supporting our communities; increasing diversity and inclusion in research; and creating economic opportunities.
- Here is another example of an impactful project – ASU researchers have received \$25 million from the U.S. Department of Energy to lead the Southwest Urban Corridor Integrated Field Laboratory.
- The Lab’s goal is to understand urban environments and the impact of climate change – extreme heat, atmospheric

pollutants, and limited water supply – and how to create solutions to protect our most heat-vulnerable communities.

- Continuing with climate change, and focusing now on the Global Security Initiative, ASU had two members appointed to the national Climate Security Roundtable. Experts will study climate change as a national security issue, not just an environmental one. Nadya Bliss, executive director of the Global Security Initiative and Vernon Morris, director of the School of Mathematical and Natural Sciences were appointed. Congratulations to you both.

SLIDE 6 – Recent Successes 3

- Another faculty recognition, this time for a member of the Global Futures Laboratory. **Lekelia** Jenkins, a senior Global Futures scientist and Associate Professor in the School for the Future of Innovation in Society, is a recipient of a Fulbright Scholar Award. Her Australia-based project combines art, science, science and the study of sustainability. She'll use photography to improve safety and implement sustainable

practices in Australia's commercial fishing industry.

Congratulations, Dr. Jenkins.

- We are very fortunate to have an excellent Knowledge Enterprise operations team that enables our research to be timely, efficient and effective. The Operations Project Management office, in partnership with ASU's Office of the General Counsel, is expanding the Enterprise Research Administration (ERA) conflict of interest module to include multiple types of conflict beyond just research, thereby streamlining our processes.
- We've recently launched the International Development Initiative. An impactful international USAID project has just been funded at \$35M to apply and adapt cutting-edge interventions to combat gender-based violence in El Salvador. ASU faculty from the Watts College will help design and establish the Institute for the Elimination of Violence in San Salvador.

SLIDE 7 – Recent Successes 4

- And we're thrilled that Evelyn Farkas has joined us as Executive Director of the McCain Institute. A former Department of Defense official, Dr. Farkas brings decades of American foreign policymaking experience to McCain, an Institute focused on securing democracy and defending human rights.
- One final faculty recognition - Stephanie Forrest, director of the Biodesign Center for Biocomputing, Security and Society, has been selected as the 2023 recipient of the IEEE Computational Intelligence Society Evolutionary Computation Pioneer Award. Dr. Forrest was recognized for her work on artificial immune systems and fitness landscapes. Many congratulations.
- To conclude this list, here's a happy ending. **Karie Behm** came to the School of Molecular Sciences and the Biodesign Institute suffering from Lyme Disease. She had a goal – to study the disease that was affecting her. Working closely with her adviser at the Biodesign Center for Applied Structural Discovery, Debra Hansen, and the center's director, Petra Fromme, she did just that.

- The three researchers studied the membrane proteins of the Lyme-causing parasite. After three years of work, they've made a major discovery that could lead to more effective treatment. Dr Behm is now a fellow continuing her research at the CDC.
- It was difficult, indeed impossible, to choose which achievements to highlight today. Whatever your role is in Knowledge Enterprise, please be proud of what you are achieving and also appreciative of the contributions of your fellow Knowledge Enterprise members. Thank you for all you are doing.

SLIDE 8 – Proposal Submissions

- Any talk I give would not be complete without some statistics. Proposal growth is one indicator of our success and this slide shows last fiscal year's (FY22) numbers and how we are doing so far this fiscal year. Numbers are important, but they are just one indicator of ASU's success. Impact is the most important metric we must keep in mind. What we do and create together is much more important than numbers can reflect.

SLIDE 9 – Sponsored Expenditures

- This slide shows our sponsored expenditures, which derive from the proposal growth shown on the previous slide. Knowledge Enterprise supports and recognizes research across a host of disciplines including engineering, science, technology, as well as the social sciences, humanities and arts. Some areas may not garner as large dollar values in funding, but their inclusion is the strength of ASU’s transdisciplinary work and our ability to contribute.
- I have every confidence that the \$1B goal in NSF HERD expenditures is achievable due to your capabilities and expertise. But far more important is that impact we will have on people’s lives, and I am completely confident in that outcome as well. Thank you for all you do.

SLIDE 10 - TRANSFORMING

- In my introduction I talked about the significance of meeting today at the downtown Phoenix campus. We support the “one campus, many places” ASU design – we have Knowledge

Enterprise colleagues across all of ASU in Arizona and beyond. In addition, we are launching a research theme here in downtown Phoenix – I anticipate this will be the first of several strategic research themes we will be advancing over the coming months.

- This research theme is focused on transforming human behavioral decisions and aimed at addressing one of our three focus areas – thriving people. Many leading causes of human mortality – such as diabetes, cardiovascular disease, some types of cancer, and substance abuse, to name a few – can be prevented by changing human behavior, decisions and actions at individual, familial, community and societal levels. Things like what you eat, whether you take drugs, even if you wear a seat belt – these have a huge impact on physical well-being and are ultimately the result of decisions we make.
- We look forward to seeing the results of this research theme as it starts to pick up speed. Speaking of results...

SLIDE 11 - Lynch

- Our first speaker today is the recipient of not one but two Lifetime Achievement Awards in 2022. Michael Lynch is the director of the Biodesign Center for Mechanisms of Evolution and a professor in the School of Life Sciences. He is this year's winner of the Arizona Bioscience Pioneer Award for Lifetime Achievement and the Genetics Society of America Thomas Hunt Morgan Medal. Dr. Lynch's research focuses on mechanisms of evolution at the gene, genomic, cellular, and phenotypic levels, paying special attention to how mutation, random genetic drift and recombination affect evolution. His work allows us to understand many phenomena that impact our daily lives, like mutation rates, antibiotic resistance, response to climate change, and new methods of biomass production. Please join me in welcoming Professor Michael Lynch.

[Michael Speaks]

- Thank you, Dr. Lynch. That is exciting and important work you and your colleagues are doing, fulfilling one of the

commitments of Knowledge Enterprise to innovate for improved health and lifelong well-being.

- Our next speaker is the Associate Director for Student Success and Academic Innovation at the Pat Tillman Veterans Center. He is also an author, teacher, mentor, and Retired Army National Guard Platoon Sergeant. **Shawn Banzhaf** also is president of the ASU Staff Council, which serves as a collective voice to ensure the development and support for an essential part of our university community – our staff. Just as we at Knowledge Enterprise dedicate ourselves to addressing challenges, the Staff Council does the same for the issues that affect our staff. It's my pleasure to welcome Mr. Banzhaf to tell you more about the ASU Staff Council.

[Shawn speaks]

- Thank you, Mr. Banzhaf. I'd like to reiterate the important and unique role the Staff Council plays. I encourage anyone who is interested to get involved.
- If you're looking for other ways to get involved, there are plenty of opportunities available. Tia Parker will cover those in her Employee Engagement Update. Welcome Tia.

SLIDE 13: EMPLOYEE ENGAGEMENT

[Tia speaks]

SLIDE 14: THANK YOU

- Thank you, Tia. Thank you to everyone in Knowledge Enterprise. You make it easy for me to get up here twice a year and proudly relay a list of accomplishments. Your accomplishments.
- As I mentioned earlier, the challenges we are facing are significant and urgent, and our response in Knowledge Enterprise is to change the way the world solves those

problems – to solve them at scale and more quickly. Keep up the good work. And thank you.

- Please stay for refreshments and conversation on the patio.
- Have a wonderful rest of the day.