

ASU Wrigley Institute Town Hall Meeting

Arizona State University
Downtown Campus
Monday April 9th, 2018

 **Julie Ann Wrigley**
Global Institute of Sustainability
Arizona State University

Welcome

Gary Dirks, Director

Rob Melnick, Executive Director

Christopher Boone, Dean

Agenda

- 1 Today's approach**
- 2 Food Systems Transformation Initiative**
- 3 Global Drylands Center**
- 4 Global Futures Initiative**
- 5 Q & A**

A vision for 2018-2019 and beyond

[Home](#)

Food Systems Transformation Initiative



What have we done? Where will we go?

- Research
- Outreach and education
- Thematic approach



RESEARCH

Publications

- 5 peer-reviewed publications
- 1 book
- 3 chapters



Grants, presentations, workshops

- A dozen cross-disciplinary proposals

Presentations

- 10 talks and posters, including students and post-docs, across local and national contexts

Workshops

- 7 across local, national, and international locations

OUTREACH & EDUCATION

Community Events

5 moderated film screenings
5 lectures
2 food festivals
1 artist performance
1 community charrette

Media

FSTI education page
Workshop video archive

News, Talks, and Interviews

NY Times, Slate, NPR (4 local and nat'l), KED, local news and Cronkite

Collaborations

Special issue CFP on indigenous food systems (JAFSCD + JAIE)
Steadfast Farms ASU farm course
ITA/SOS comparative farm course (at Maya's Farm and on study abroad in Italy)

Consultations

VA Hospital community garden
Downtown Urban Community Kids garden
Maricopa County Food Systems Coalition
Greenhouse CO₂ capture project
St. Petersburg Free Clinic for Florida model of FSTI

OUTREACH & EDUCATION

Community Events

Over 1800 community members engaged in public events where FSTI was sponsor or co-sponsor.

National webinar reaching hundreds of participants

Dinner 2040

Public Talks/Op-eds

(Wharton) "[Can We Insulate Ourselves from Food Shortage?](#)" January 17, 2018, *Slate: Future Tense*. | 7,000 views

(Wharton) ASU KED Talk: "Change everything, all at once," February 15, 2018, <https://youtu.be/3LeyrTllhjw> | 34,000 views

(Wharton) "New Years resolutions and health," January 16, 2018 | 250,000 person listenership

Food systems looking forward: 2018-2019



FOCUS: FY18/19

FSTI will focus on health and sustainability behavior change around the following food-related themes:

- **Food waste**
- **Plant-based diets: vegan, vegetarian, and flexitarian/reducitarian**
- **Indigenous food systems: food sovereignty and agency**
- **Humanities: context (how + why)**
- **Student opportunities: organize and manage an innovation network**
 - **HEALab and multi-campus entrepreneurial network**

Thank you



sustainability.asu.edu



GLOBAL DRYLANDS CENTER

ASU® Julie Ann Wrigley
Global Institute of Sustainability
Arizona State University

ASU® College of Liberal
Arts and Sciences
Arizona State University

Oswaldo Sala

Founding Director

Global Drylands

41%

of global
terrestrial
area

30%

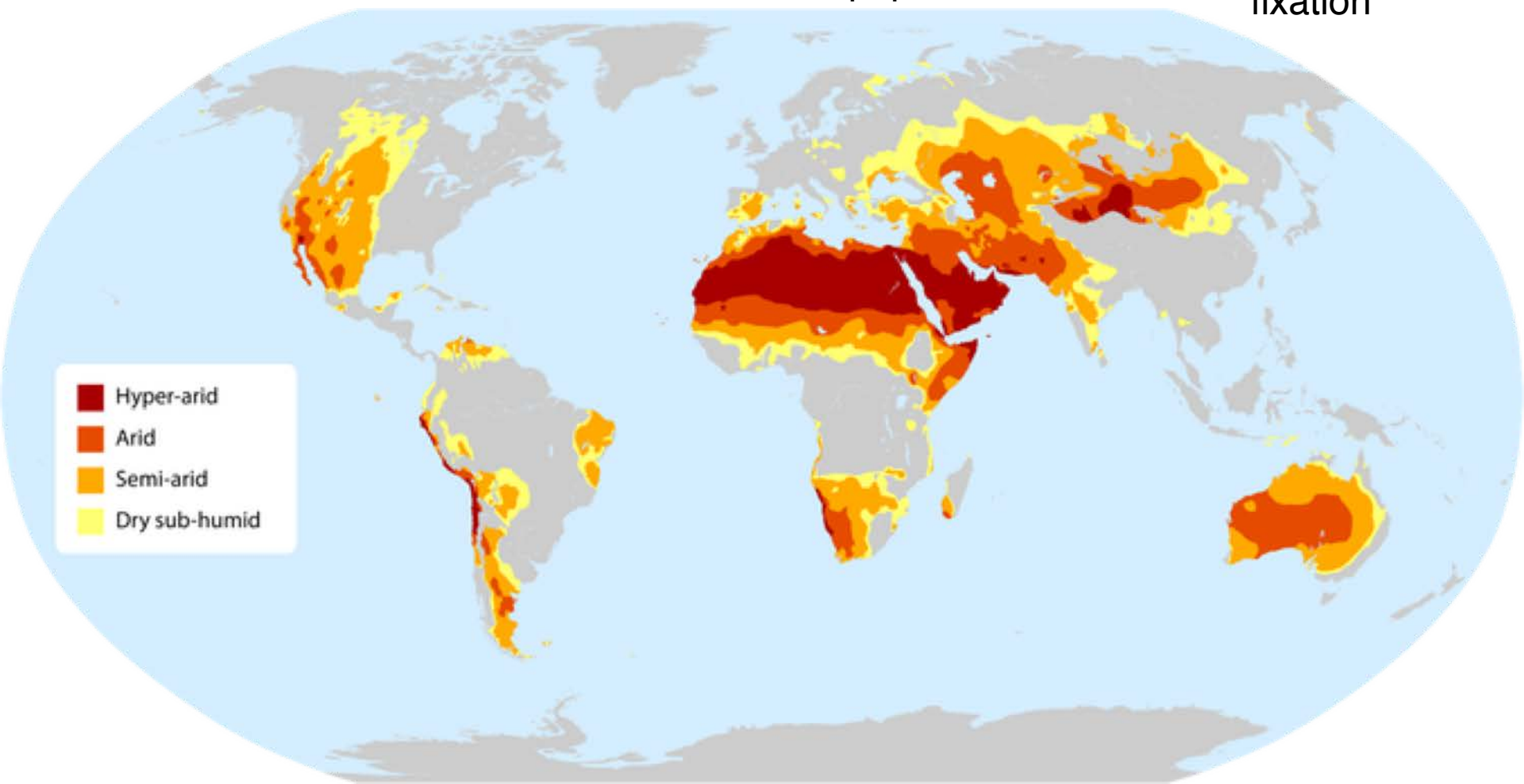
of world's
human
population

50%

of world's
livestock

35%

of terrestrial
carbon
fixation



STRUCTURE

Executive Board →

Affiliates (no.) ↘

CLAS + GIOS: 35,
across 5 departments

New College: 3

Integrative Arts
& Sciences: 2

Herberger: 9

External: 27 across
15 institutions, 5 are
international

Staff: 3 →

76



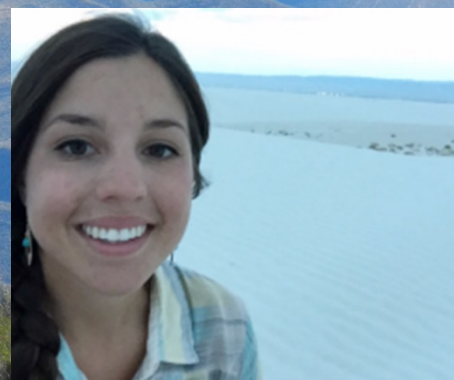
Osvaldo Sala



Heather Throop



Laureano Gherardi



Courtney Currier



Enrique



Kelly O'Meara



on Hall

DISCOVERY

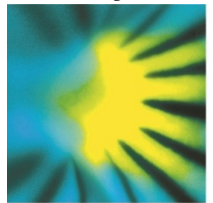


Looking for a pulse in dryland ecosystems:

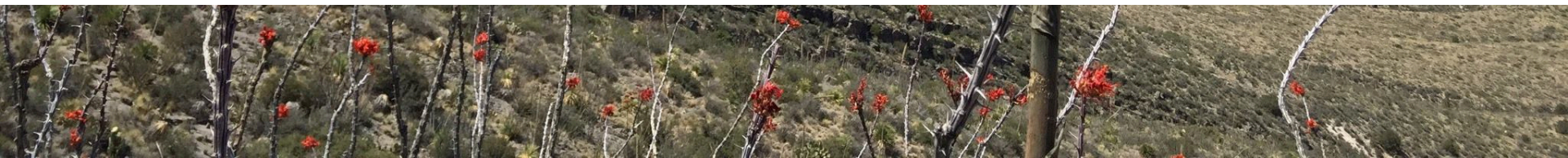
***Evaluating the pulse dynamics paradigm forty years after
its creation***

April 10-14, 2018

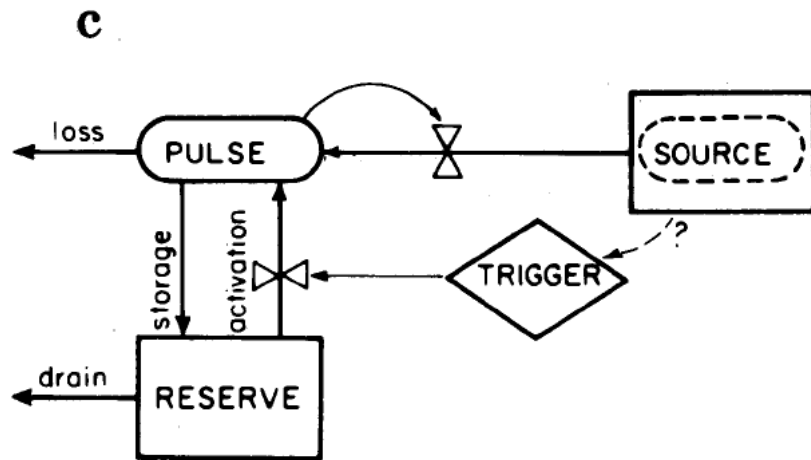
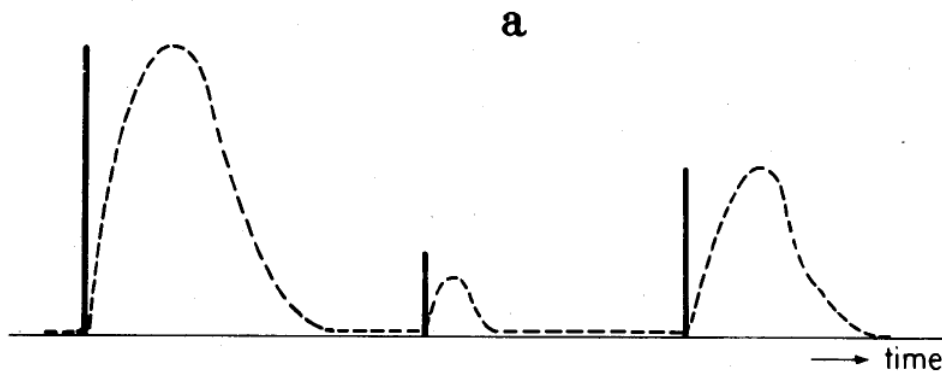
20 dryland national-international experts



New
Phytologist



Pulse-Reserve Paradigm



Noy-Meir 1973

Questions

- Does the Pulse-Reserve Paradigm validity change in climatic space? Is it equally valid in summer than in winter precipitation systems?
- Does the validity of the Pulse-Reserve Paradigm change with body size of organisms from microbes to plants?
- How does spatial scale of interest affect the validity of the Pulse-Reserve Paradigm from a patch to the landscape?

DISCOVERY

ASU – BGU seed grant

\$180K to fund ASU-BGU collaborative seed grant

9 proposals submitted, 4 funded



DISCOVERY



\$500K NSF - Research Coordination Network

\$2.4M Department of Defense

\$500K NSF - Long Term Research in Environmental Biology

SALA GRANTS 2018



Seminars

ASU student-driven series
(SOLS-SOS-SESE)

Distributed Drylands Seminar (CSU-UNM)

Distributed Sustainability Seminar
(UNAM-CSU-Harvard-UMN)

Research Experience

NSF International Research
Experiences for Students –
Namibia (\$300K submitted)

EDUCATION



global



local

DroughtNet

PLuS
alliance

IRES Namibia

Madrean
conference

49 internal
GDC affiliates:

Biodesert

27 external
GDC affiliates:
15 institutions,
5 international

Ben Gurion
University

CICESE

5 schools,
8 departments

Australian
Research
Council

CSU meeting C
sequestration

Desert EDGE

COLLABORATIONS



OUTREACH



Website



globaldrylands.asu.edu
people, partners, news, events,
opportunities, about, contact



@DrylandsASU
90 followers, following 143, 49 tweets

Upcoming events

- Pulse Reserve Symposium
April 10th-13th
- Scottsdale Community
College, April 25th

Global Futures Initiative

Peter Schlosser

Vice President and Vice Provost of Global Futures

University Global Futures Professor

School of Sustainability

School of Earth and Space Exploration

School of Sustainable Engineering and the Built Environment

April 8, 2018

Motivation

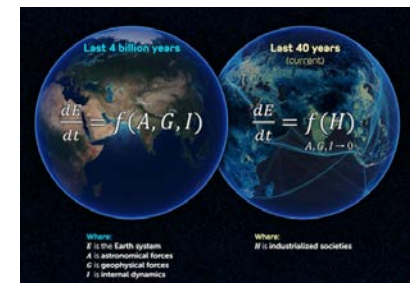


We have entered the Anthropocene and are shaping/engineering our planet at global scales.

As a consequence humankind has left the domain of a safe operating space

Academia has a societal mandate to chart a pathway towards a sustainable future of our planet

Motivation



- ❑ Assuming limitless resources of our planet humankind has embarked on rapidly accelerating development, most notably since the beginning of the Industrial Revolution
- ❑ We are now pushing hard against planetary boundaries, using more resources than the planet has to offer
- ❑ We are facing serious problems in many domains, threatening habitability of our planet
- ❑ Time to move on a safe trajectory is running out fast

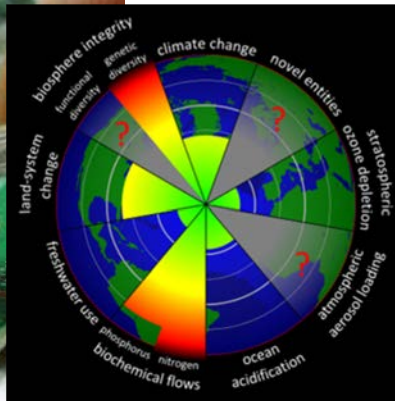
Global Futures Initiative

Keeping our planet habitable



Vision

Managing our Planet for a Sustainable Future



Mission

Harnessing the innovative capacity of academia, the Global Futures Initiative will develop options for proactive planetary management to achieve sustained habitability and improved human wellbeing.

Goal

Advance the role of academia in the debate about and decision making for the future of our planet and global society.

- **Shape debate by informing it with the best knowledge and innovation available**
- **Explore which critical interventions will steer us towards a sustainable, globally connected, future**
- **Effectively exchange with a broad stakeholder community to meet societal needs.**

Guiding Principles and Specific Objectives

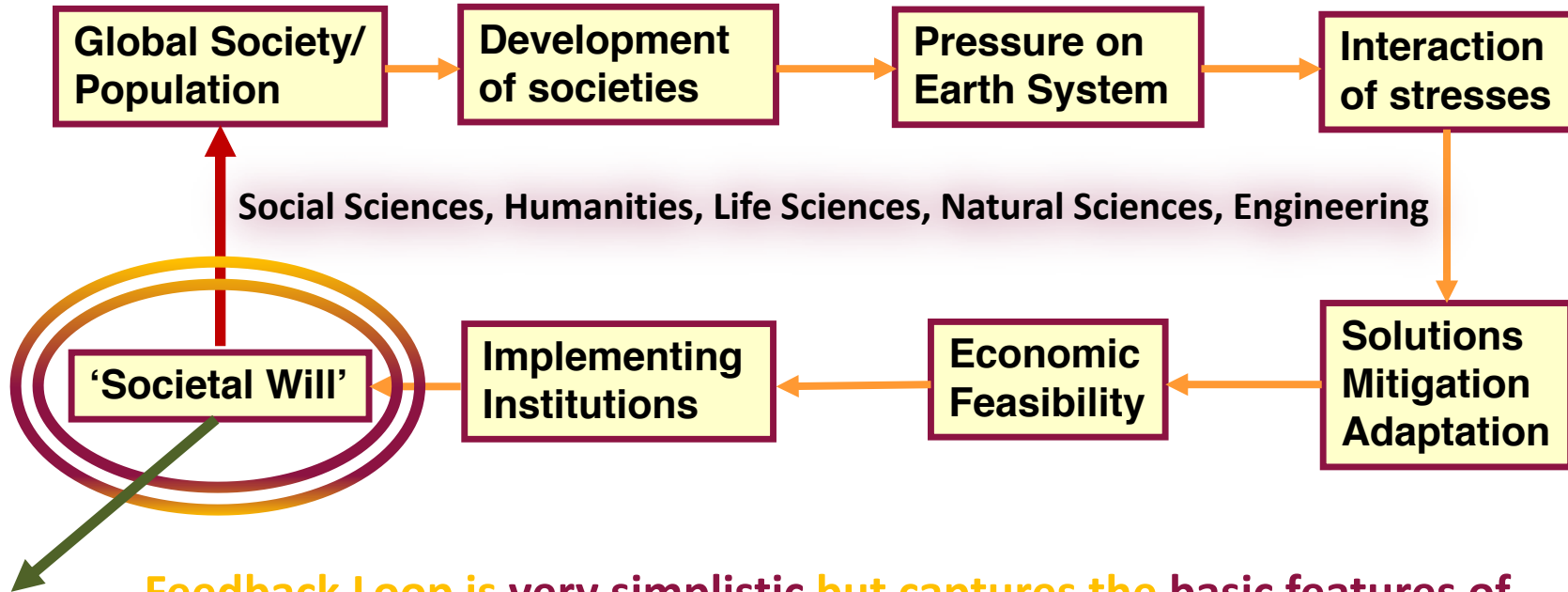


Inclusive Approach

Challenge is large and complex and needs a holistic approach with contributions from disciplines across the university and academia as a whole.

- ❑ The Initiative is only possible because ASU has already built many components of its envisioned structure
- ❑ ASU is pushing into the transdisciplinary space
- ❑ ASU is committed to institutional change
- ❑ Many schools, centers, programs, initiatives, and individual faculty are already working on problems related to the GFI.
- ❑ The GFI is open to input from all interested parties
- ❑ Open discussion will be held in a variety of fora to continually refine and adjust the goals, objectives, scope, and implementation of the GFI.

Define the Challenge



Feedback Loop is very simplistic but captures the basic features of the challenge to move towards a sustainable future

The willingness of society to change and recognize planetary boundaries is the key to successfully embarking onto a trajectory towards a future state of our planet that is habitable and offers human wellbeing in a just way on a global scale.

Respond to the Challenge

Expand existing and create new intellectual spaces for understanding, quantifying and projecting/predicting the complex Earth system, and managing (engineering) it while minimizing negative effects.

- ❑ Create a platform for wide-ranging exchange about global futures across all knowledge domains offering the opportunity for innovation through both bottom-up activities and strategically planned initiatives to address critical questions.

Accept a new Commitment

Move engagement in real world questions and problem-solving to the center of academia.

- ❑ Move academia into the heart of society, committing to solving problems.
- ❑ Utilize the full breadth and depth of academia's innovative capacity and potential.
- ❑ Expand academia's role in bridging the spaces between idea generation, design of solutions, translation of knowledge and application/implementation to build a better and sustainable future.

Form New Alliances

Engage with a broadly defined group of stakeholders or actors who are key facilitators of knowledge transfer, and essential in defining the directions of research aimed at shaping our future.

- ❑ Enhance mechanisms to expand the discourse beyond the traditional confines of academic institutions.
- ❑ Design and implement new fora to include stakeholders in the dialogue about society's need for new knowledge in jointly owned space.

Transform Academic Structures

Form networks/leagues and connect the existing talent pool distributed across many institutions to enable rapid progress in addressing problems that need immediate answers.

- ❑ Establish hubs that offer a variety of ways to communicate, exchange ideas, and develop new intellectual spaces. These hubs should have scholars in residence, provide physical space for visitors, and be equipped with advanced technology to connect virtually.
- ❑ Pursue new appointment models in which scholars hold primary affiliations with one institution and secondary or multiple affiliations within or outside other academic entities

Train Problem Solvers and Innovators

Build capacity of a diverse and inclusive work force to apply knowledge to problem solving.

- ❑ Engage a wide range of learners through formal and informal education media and venues in understanding and responding to problems.
- ❑ Facilitate student exploration of solutions in environments that encourage innovation in problem solving in partnership with stakeholders.
- ❑ Apply data science and technology to access the rapidly growing information base and synthesize it into accessible packages with direct applicability.
- ❑ Develop innovative teaching and communication methods that utilize the opportunities of the digital age to acquire critical information in real time for students and decision-makers.

WHY ASU?

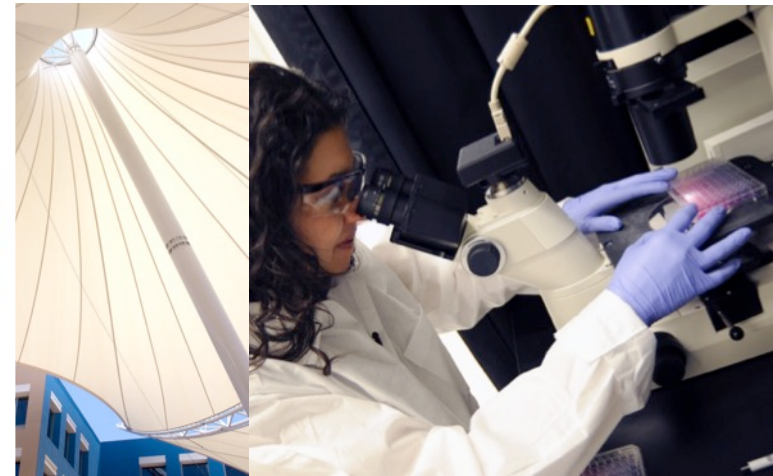
#1 in the U.S. for innovation

#1 ASU #2 Stanford #3 MIT

-U.S. News & World Report
2016, 2017 and 2018



Thank You



Peter Schlosser

Vice President and Vice Provost of Global Futures

University Global Futures Professor
School of Sustainability, School of Earth and Space Exploration, and School
of Sustainable Engineering and the Built Environment

Questions?