Welcome

Gary Dirks
Director

Chris Boone
Dean, School of Sustainability

Rob Melnick
Chief Operating Officer/Executive Director
Agenda

Update on GIOS® activities

- School of Sustainability
- Program Areas
- Board of Directors Engagement
- Sustainability Highlights

Open Discussion
Education
Central Arizona Phoenix Long-Term Ecological Research Project

1997

2002
Michael M. Crow as 16th President

2004
Temazon retreat/Global Institute of Sustainability

2006
School of Sustainability

2007
PhD, Master’s students enroll

2008
BA & BS in Sustainability students enroll
BA in Business w/ Sustainability concentration

2010
University-wide Minor in Sustainability
Law & Sustainability program

2011
BA in Public Service and Public Policy
Sustainability concentration
BS in Engineering with Sustainability concentration
PhD Sustainability concentration in Complex Adaptive Systems

2012
Master of Sustainable Solutions
Walton Sustainability Solutions Service
Concurrent Master’s degrees with Master of Urban & Environmental Planning, Master of Public Policy, Master of Public Administration

2013
BA in Business and Sustainability online
Concurrent Master’s degree with the Master of Legal Studies

2014
Executive Master of Sustainability Leadership
Energy & Sustainability certificate
Food systems sustainability certificate

2015
BA in Sustainability online
Concurrent Master’s degree with ASU-Thunderbird Master of Global Affairs & Management

2015
Walton Sustainability Solutions Service

SOS Trajectory
New initiatives

- Program Level Learning Outcomes
- E-Portfolios
- Solutions-Based Learning
- Informal Education
Future of Sustainability Education

- Solutions feedback to education
- Informal education blends with formal
- University-Wide Solutions Service
- Global Outreach through Online Learning
- Global partnerships
- Master’s degrees
- Alumni Dividends
Alumni Employment

- Undergraduate: Employment Rate: 90%, Sustainability Related Careers: 70%
- Master's: Employment Rate: 100%, Sustainability Related Careers: 90%
- PhD: Employment Rate: 100%, Sustainability Related Careers: 100%
New Faculty

- Tyler DesRoches
- Datu Agusdinata
- Ted Pavlic
- Joshua MacFayden
Initiatives by Category

Established
- LightWorks

Evolving
- Walton Sustainability

Early stage
- Sustainability Training and Education
- Food Systems
- Biodiversity Outcomes
- Biomimicry

Emerging
- Cities
- Water Security
- PlanetWorks
Established: LightWorks

- Investment of $11.6M has generated $89M in grant funded energy projects

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<tr>
<th>Bio-energy and energy storage</th>
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<tr>
<td>SABC - $6m. Biochemical conversion of algae to fuels; QA/QC protocols &amp; characterization; enzymatic pretreatment for fuels, new ATP³</td>
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<td>Arpa-e $5m. Cyanobacteria secrete fatty acids for fuel production</td>
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<td>Arpa-e $5m. High-energy batteries; metal-air batteries using ionic liquids</td>
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<td>Arpa-e Electrochemical capture and release of CO₂</td>
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<th>Photovoltaics research center</th>
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<td>QESST ERC – $38m. More than 50 PV companies; TW manufacturing; Moore’s Law and PV; advanced enablers; test beds</td>
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<td>AzCATI - $23m. CO₂ mitigation from flue gas into algae based fuels; Reactor development; Strain selection; Processes for products; Waste water; Test bed, ATP³ $15M (DOE)</td>
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<th>Culture Change</th>
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<td>USAID - $10m. USAID Leaders with Associates Award; vocational and policy training for distributed renewables; wind, solar, microhydro, microgrid</td>
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Evolving: Walton Sustainability Solutions Initiatives

SOLVE
- Completed 36 sustainability projects in 12 countries ranging from Green Schools in Albania to Sustainability School in Lagos, Nigeria
- Established the Resource Innovation and Solutions Network (RISN) in partnership with the city of Phoenix to:
  - Identify technologies to optimize resources, divert waste and minimize emissions
  - Leverage initial commitment of $2M, which has attracted additional investment of over $3M from 11 private partners and national non-profits

EDUCATE
- Graduated the first cohort of Executive Master’s for Sustainability Leadership
- Enrolled 256 School of Sustainability students in Global Studies courses
- Expanded audience for sustainability events by hosting Margaret Atwood to discuss climate fiction

ENGAGE
- Engaged more than 15,000 participants including 1,200 sustainability professionals at the first two Sustainability Solutions Festivals
- Launched the National Sustainability Teachers’ Academy and Sustainability in Science Museums to engage youth in sustainability projects
Board Engagement
Board of Directors for Sustainability @ ASU

What we asked:

Advance the work of the institute

Serve as an advocate for GIOS®

Influence and/or invest philanthropic support to achieve our vision
Board of Directors for Sustainability @ ASU

What they shared:

We have the potential to create a “synaptic connection.” The uniqueness is in the nexus of initiatives and ASU’s power to convene.

What can ASU be the absolute best at? Work backwards from our research/teaching talent in sustainability rather than forward from “wicked problems.”

“I support it, I honor it, I cheer for it.”
Outcomes:

New Board members
- Brian Collins
- John De Fries
- Bennett Dorrance Jr.
- Jeanne Ng

New Project Areas & Passions
- Hawaii – Food Systems, Education, Energy

New Investment
- Wells Fargo $500,000
The Global Institute of Sustainability renamed the Julie Ann Wrigley Global Institute of Sustainability in honor of its founding benefactor.

Corporate sustainability expert Sheila Bonini joins The Sustainability Consortium®.

Gary Dirks appointed to State Energy Advisory Board.

Sustainability Scientists and Scholars top 300 members representing $87M in expenditures in 2014.

Mark Henderson awarded for humanitarian efforts.
Sustainability Highlights

ASU and National Geospatial-intelligence Agency to address Security Risks of Climate Change

WSSI-Nigeria partnership to generate waste-related solutions

UGEC to advance urban sustainability with Future Earth award

USAID’s fellowship program to address global development

Morrison Institute launches new center for water policy

WSSI awards budding innovators at international Intel fair
Discussion