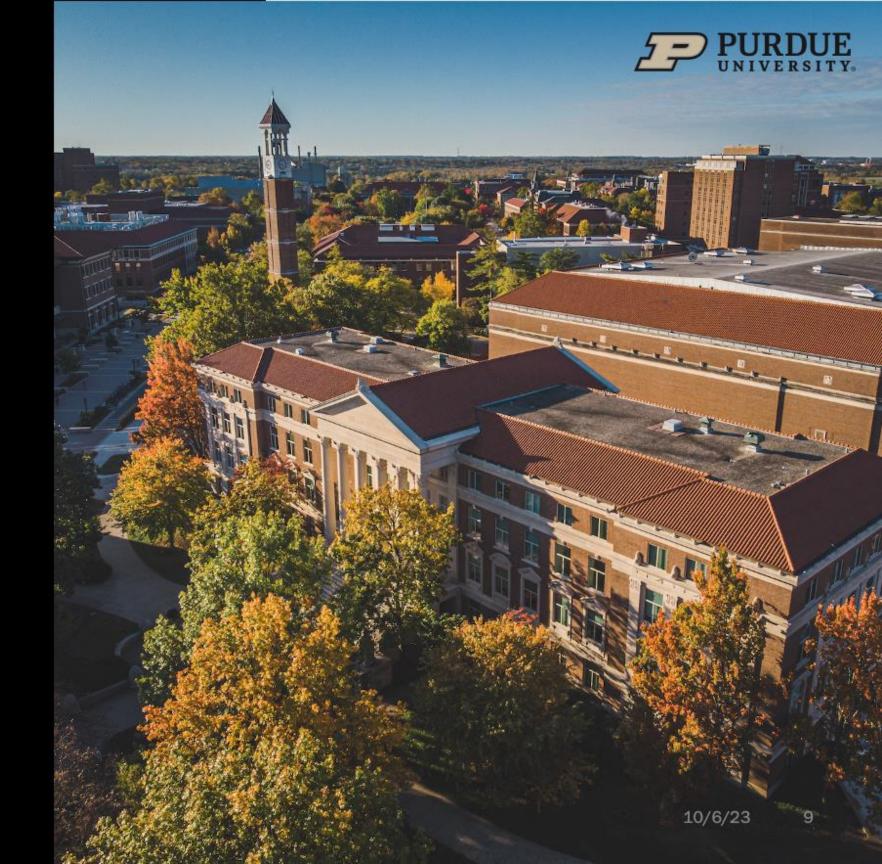
# Board of Trustees Meeting

October 6, 2023



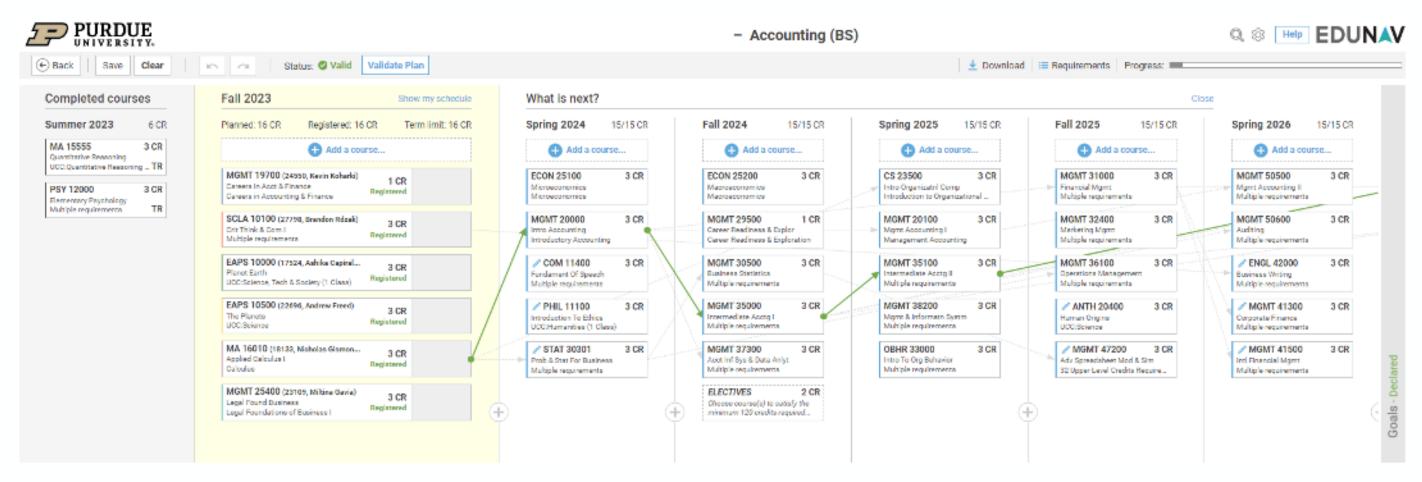
# Purdue's 5 Next Moves

- 1) Transformative Education 2.0
- 2) Equity Task Force
- 3) Plant Sciences 2.0
- 4) Purdue Applied Research Institute
- 5) National Security and Technology Initiative



# Enhancing Degree-Planning Experience

## EduNav



"I like that I can see the overall balance of my classes, by semester instead of a big, long list of everything I have left [to graduate]. It is less stressful to me."



## Fall 2023 Pilot // First Week

- 410 students and 47 advisors have logged in 1,200 times
- Students have created a total of 577 academic plans
- Advisors have changed 191 student plans
- Advisors have made 3,600+ total changes to plans

# Transforming the Academic Process

## Institutional Workflow Enhancements

## Fewer Forms

 Reduced 29 distinct course and curricula proposals down to 10 (65% reduction)

## Faster, More Efficient Reviews

- Reduced all curricular workflows between 7 and 13 steps (50% reduction)
- New curricular workflows eliminated 78 total steps.
- Consistent, predictable approval timelines for undergraduate and graduate proposals

# **Faculty Time Saved**

- 1500+ hours saved in faculty reviewing proposals each academic year
- 1-2 hours saved in faculty initiating and getting each academic proposal approved

# Institutional Process Decisions

# Academic Catalog Deadline (April 1)

 Submissions after deadline will be postponed until next academic year.

# Hide Rules | Plans of Study

 For transparency and equity to all students, hiding courses will no longer be standard practice.

# Variable Title Courses | Plans of Study

 For ease of degree planning and transparency, any specific variable title course number will fulfill the same degree requirements



# MOVES CURRENT STATE

# PURDUE EQUITY TASK FORCE



BLACK STUDENT CENSUS	Fall '22	Fall '23	# Change	% Change
Undergraduates	946	1,021	75	8%
% of total undergraduates	2.49% <sup>1</sup>	2.61%	_	_
Graduates	361	364	3	1%
% of total graduates	3%	3%	_	_
Professional <sup>2</sup>	43	36	-7	-16%
% of total professional	4.68%	3.98%	_	_
All Student Levels	1,350	1,421	71	5.25%
% of total enrollment	2.65%	2.72%	_	_

BLACK FACULTY & STAFF CENSUS	Fall '21	Fall '22 <sup>3</sup>	# Change	% Change
T/TT Faculty	60	66	6	10%
% of total T/TT faculty	3.13%	3.18%	_	_
Staff <sup>4</sup>	227	268	41	18.1%
% of total staff	2.94%	3.32%	_	_
ALL FACULTY & STAFF	349	390	41	11.7%
% of total faculty & staff	3.04%	3.25%	_	_

#### **Notes:**

- <sup>1</sup> Lowest % of total undergraduates in 30+ years
- <sup>2</sup> Professional students = DVM and PharmD only
- <sup>3</sup> Fall 2023 Staff and Faculty Census to be based on 10/31/2023 snapshot
- <sup>4</sup> Staff = Executive, Management, Professional, Extension, Service, Support and Temporary Categories

# **MOVES**

# GO FORWARD PLANS

# PURDUE EQUITY TASK FORCE



#### **MARKETING**

Direct marketing campaign (MarCom)

- ✓ College fairs + high school administrator relationships
- ✓ Campus visits

## Precollege pathways

- ✓ K-12 pathway programs
- ✓ Purdue Polytechnic High Schools
- √ Strengthen K-12 partnerships

#### **Transfers**

- ✓ Purdue regional campuses, Ivy Tech, Vincennes University
- ✓ Leveraging Purdue University in Indianapolis

#### **Partnerships**

- ✓ HBCUs
- ✓ Funding partnerships (e.g., NSF, DOD)

#### RECRUITING

Critical need to increase applications from 2,600 to 5,200 over 2-3 years Identify target metropolitan areas

- ✓ Cultivate authentic relationships with high schools + communities
- ✓ Cover Indiana high schools with diverse populations
- ✓ Engage alumni + leverage PBAO relationships

## Create + increase on-campus activities

- ✓ Expose to college life
- ✓ Create hands-on activities (i.e., robotics, math, science)

# MOVES

# COLLEGE OF AGRICULTURE



# Plant Sciences and Digital Forestry



Measure every tree and crop on the planet

# **Plant Sciences**

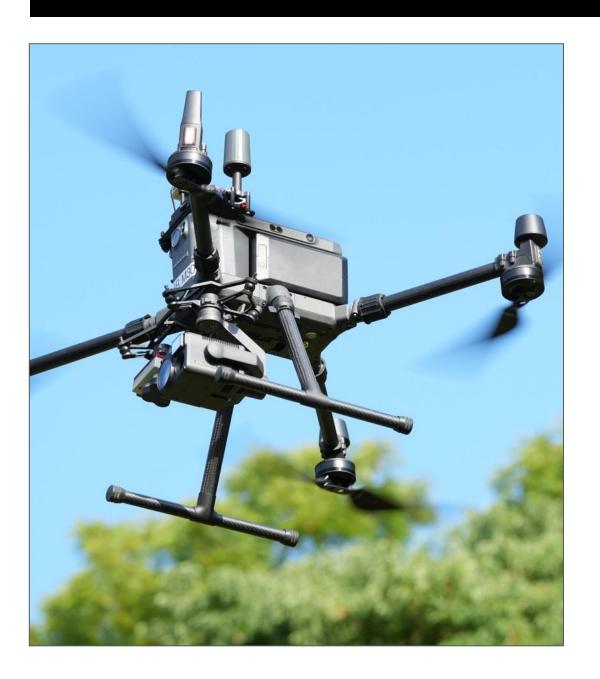
- Playing a key supporting role in College of Agriculture being #3 in North America and #5 in the world
- Groundbreaking for university's new phenotyping greenhouse, which will:
  - **support research and discoveries** related to plant health, nutrition, drought and disease stress, and root health
  - **enable integration** into existing controlled environment phenotyping facility

# MOVES

# COLLEGE OF AGRICULTURE



# Plant Sciences and Digital Forestry



Measure every tree and crop on the planet

#### INSTITUTE FOR

# **Digital Forestry**

- Mapped locations of 273,485,688 trees in 330+ cities nationwide
- Mapped locations of **3,341,088 trees** in over **137,970 acres** in Indianapolis
- Engaged with 15 departments or schools in Agriculture, Engineering, Libraries, Science and Polytechnic
- 2023 \$10M PERSEUS grant from USDA, Purdue lead
- 2023 \$9M EFFICACI grant from USDA, Purdue subcontract

# MOVES

# PURDUE APPLIED RESEARCH INSTITUTE



# Building PARI's Organizational Structure

## **Executive Leadership Team in Place**

- CEO, COO, Chief of Staff, Chief External Relations Officer, Senior Directors of Finance, Senior Director of Comms, Director of Contracts
- Division and Executive Leadership met to refine PARI business model, operating assumptions and future organizational structure; 7-9 September at Purdue, 21-22 September in D.C.

#### **Research Team**

- 50+ PARI/Purdue employees charging >50% on PARI contracts (incl. 23 students)
- 2 new hires in HAMTC, 6 new GDI staff (Oct. 1) since last BOT meeting
- Moving toward a model of dedicated research staff

#### **Facilities**

- HARF occupied; sponsored research already underway in HAMTC
- Establishing physical presence at WestGate; negotiating 10-year lease

## **Advisory Board of Distinguished Leaders**

- Network of champions to raise PARI stature, advise on technical topics and direction, and drive new opportunities
- Chaired by Hon. Lisa Hershman, former chief management officer; includes Gen. Hawk Carlisle, USAF (Ret.); engaging future members

# MOVES

# PURDUE APPLIED RESEARCH INSTITUTE



# **PARI Divisions**

## **National Security and Technology**

- The Hypersonics Advanced Manufacturing Technology Center (HAMTC) enables the design, manufacturing, joining and testing of hypersonic components and subsystems in one location and the transition of these technologies to the defense industrial base.
- 9 PARI and 23 seconded employees
- \$19.5M OSD contract

# **Infrastructure Research and Innovative Solutions (IRIS)**

- Drives innovation, efficacy and efficiency in construction of the next generation of facilities infrastructure including hardened structures, nuclear power structures, high-rise building construction and renewable energy
- 6 PARI and 17 seconded employees
- 3 awards totaling \$9.5M

## **Global Development and Innovation (GDI)**

- PARI-GDI partners with faculty, students and staff to collaborate with primary stakeholders in lower- and middle-income countries to cocreate solutions to achieve sustainable, measurable and equitable impact.
- 10 PARI and 5 seconded employees
- 5 awards totaling \$4.35M

## **Technology Acceleration – DIAL Ventures**

- Drives digital innovation to benefit the agri-food industry by launching leading startups through a venture studio model
- 8 PARI and 4 seconded employees
- \$12M in investments committed from 4 investors
- \$2.25M gifts to support Fellows program

# **MOVES**

# PURDUE APPLIED RESEARCH INSTITUTE



# **Building the Pipeline**

#### 26 June NSWC Crane Visit

- CRADA signed 27 June
- DD254 initiated facility clearance process
- \$2.65M initial funding

#### 18 July NSWC Dahlgren Visit

- Draft IDIQ review 18 August
- Fall Purdue visit planned

#### 3 August imec Visit

- PARI likely with role on \$10.5M agreement
- Teaming to pursue CHIPS and other ME funding

17 August meeting with SAAB CTO and Executive Steering Group

#### 29-30 August Visit to Sandia National Lab

- Plan to turn partnership into sponsored work
- Mark Lewis to join board on Digitally Enhanced Manufacturing

#### 5 September signing ceremony at NSWC Crane

Established permanent Purdue presence at WestGate

#### DARPA

- 25 August meeting on Hypersonics
- 15 September meeting on Energetics

#### 18-19 September Lockheed Martin visit

Exploring offsets opportunity

19-21 September, Hypersonic Weapons Summit Chair

Exploring research collaboration opportunities with Peraton

Exploring partnership and funding opportunities in Energetics

Supporting the Indiana Research Consortium

Signed Industry Partnership Agreements:

- Stratolaunch
- Boeing
- GE

# **MOVES**

# Update: National Security and Technology Portfolio



# Breaking Records, Expanding Partnerships in National Security Research

FY23: DOD is largest source of sponsored research awards — FIRST TIME EVER at PURDUE!

#### Notable new wins:

- Purdue Computes: DOD ME Commons award Silicon
   Crossroads Microelectronics Commons (SCMC) Hub
  - Applied Research Institute (ARI): \$32.9M for Year 1

#### Partnerships:

- Office of Naval Research (ONR)-funded project partnership with SAAB NA Inc.
  - Over \$10M of direct-sponsored and federal-sponsored with SAAB over past 3 years
- AFRL Regional Research Hub
  - Greater than \$25M commitment to the industry/academic partnerships

## **Undergraduate Opportunities:**

- Defense Civilian Training Corps
  - Student scholarships to build career path with Department of Defense — \$4.2M







# Thank You

