Driving Digital Innovation

**Linking efforts and resources across the University with the goal of making powerful strides in the use of digital technologies to meet large-scale, impactful goals in teaching, research, and outreach.**

# **Strategy 1: Infrastructure**

Develop a more robust infrastructure and culture.

| Goals | Implementation | Leads and Working Groups |
| --- | --- | --- |
| Create a digital knowledge-sharing hub | Not Available | Not Available |
| Utilize digital infrastructures to connect and network Penn State and private/public entities; ensure modernization of equipment and policies to support digital innovation | Not Available | Not Available |

# Strategy 2: Education

Make technology-supported education and personalized learning central to our 21st century land grant mission and increase offerings in innovation.

| Goals | Implementation | Leads and Working Groups |
| --- | --- | --- |
| Make current learning tools more accessible, and explore the use of new technologies such as AI and immersive realities that could extend learning accessibility | Proposal funded through Strategic Plan RFP process: Digital Innovation through Immersive Technologies: Establishing New Paradigms for Environmental Decision Support; University investment in Adobe CC makes immersive technologies available to all students. | Lead: Alexander Klippel |
| Build, coordinate, and strengthen our capacities in data science, analytics, interconnectivity, and artificial intelligence | BS in Data Sciences | Leads: IST, CSE, Statistics |
| Coordinate and strengthen programs related to developing optimal, secure, interconnected, and legal cyber environments | 1) Center for Security Research and Education, and 2) BS in Cybersecurity Analytics and Operations | Leads: James Houck, IST |

# Strategy 3: Research

Expand our ability to produce interdisciplinary research with impact.

| Goals | Implementation | Leads and Working Groups |
| --- | --- | --- |
| Grow Penn State’s research network integration and interconnectivity and facilitate its use to solve 21st-Century problems, including smart-and-connected communities that use secure and legal cyber environments | Not Available | Not Available |
| Build capacity for health informatics research and precision health, and expand capacity for research using biomedical and health sciences for big data | Proposal funded through Strategic Plan RFP process: Digital Collaborator for Precision Health Research | Lead: Vasant Honavar |
| Leverage big data for decision-making in novel fields, and translate this work for widespread dissemination by educators and reporters | 2018 ICS Co-hires focused on integration and interrogation of complex data streams and methods | Lead: Jenni Evans |

# Strategy 4: Economy

Employ digital solutions that cross academic borders and drive economic development.

| Goals | Implementation | Leads and Working Groups |
| --- | --- | --- |
| Use Penn State expertise – along with its digital infrastructure – to assist and promote the growth and success of small- and large-scale enterprises, with an emphasis on rural entities across the Commonwealth | Invent Penn State, Launchboxes, Penn State Startup Week; Broadband access prototyping | Leads: OVPR, IST, Sascha Meinrath (broadband prototyping) |
| Understand and navigate the opportunities and risks of digital solutions, including privacy, security, and intellectual property considerations | Not Available | Not Available |