# Key Takeaways

# IRISE Strategic Planning Session

# Held September 20, 2022

## Participants

* Rich Barcaskey, CAWP
* John Brigham, University of Pittsburgh
* Robb Dean, PennDOT District 12
* Gary Euler University of Pittsburgh
* Alessandro Fascetti, University of Pittsburgh
* Alice Hammond, PennDOT District 10
* Keith Jack, Pennsylvania Turnpike
* Chuck Niederriter, Golden Triangle Construction
* Mark Magalotti, University of Pittsburgh
* Tom McClelland, PennDOT District 1
* Jessic Saleh, CDR Maguire
* Kevin Scheurich, Pennsylvania Turnpike
* Michael Schultz, Pennsylvania Turnpike
* Stephen Shadle, CDR Maguire
* Steve Shanley, Allegheny County
* Ed Skorpinski, Pennsylvania Turnpike
* Joe Szczur, University of Pittsburgh
* Vincent Valdes, SPC
* Julie Vandenbossche, University of Pittsburgh
* Brian Wall, PennDOT HQ
* Yathi Yatheepan, FHWA
* Jason Zang, PennDOT District 11

## Review of 2019 Strategic Planning Session

* Current mix of partner input and faculty connections seems to work well.
* Would like to see more student involvement, e.g., posters at meetings.
* Broad participation in brainstorming helps promote better understanding of IRISE and acceptance of its research products.
* Updating the mission statement is more relevant than long range goals

## Implementing IRISE Research

* Continuing emphasis on producing implementable results but concern that there is reluctance in implementing agencies to use new ideas/methods resulting from research because of risk.
* IRISE should do more to help agencies overcome this reluctance.
  + Presentations at conferences
  + Partnering with local professional organizations, e.g., short summaries of research projects in newsletters
  + Seminars
  + Webinars (recording)
  + Videos
  + “TED”-type talks
  + Separate sessions on IRISE projects (insufficient time at Annual Meeting), also involving members who participated in the research
  + Providing information so that members can incorporate/discuss IRISE research in their presentations
  + Competitions (CAWP Shark Tank idea)
  + National or international conference
* Work with AASHTO subcommittees and the AASHTO Innovative Initiative: <https://aii.transportation.org/Pages/default.aspx>
* Work with PennDOT’s State Transportation Innovative Council (STIC) and Local Technical Assistance Program (LTAP)
* There needs to be an understanding of who the implementers are when deciding on how to promote/sell research products.
  + E.g., are there any utility reps involved on the technical panel monitoring the utility location project?
  + Local governments, townships, etc.
* Pilot projects
  + Perhaps with the County or Turnpike to avoid strict adherence to PennDOT specifications
  + Use of design/build best value as a method of incorporating innovations
* Use of design catalogs
* Discussion of implementation risk/reward and policy should be part of each research project.
* Investigate resources available for developing specifications from research project results (Brian Wall – PennDOT)

## Higher Risk/Reward Investment Level

* Early successes should lead to greater acceptance of investments in higher risk/reward projects.
* Targeting of 30% investment in higher risk/reward projects

## Research Priorities

* IRISE is currently successfully addressing its mission
* Potential new areas
  + Tie with vision for the region and impacts on infrastructure, e.g.
    - Multimodal planning
    - Regional transit
    - Micromobility
    - Freight
  + Energy – e.g., interest in the region being a hydrogen hub
  + High speed rail
* Electrification and impact on roadway design
* Carbon capture
* Sustainability – green solutions
* Data management
  + Longer term analysis of data from management systems (bridge, pavement)
  + Generating data from new surveillance technologies such as drones and LIDAR
* Technologies in work zones
* Workforce development (project management and technical training)
* Immersive training (e.g., bridge inspection) and use of digital twin technology
* 3D as builts
* Materials

## Growing Membership

* Interest in targeting utility groups, including railroads
* Additional contractors
* Consider partnering with professional organizations instead of individual companies
* Grow strategically – additional administrative costs need to be outweighed by new member perspective/contribution
* Conducting projects in cooperation with other States
* Private participation will be stalled if research results are not adopted by implementing agencies

## IRISE Procedures

1. Central file location for recurring information should be created
2. Panel participation could be more interactive, and information posted on a central file location