Overview
PURVAC is dedicated to supporting the National Visualization and Analytics Center (NVAC) and the U.S. Department of Homeland Security in confronting the challenges of safeguarding our nation against natural and human-induced catastrophic events. To fulfill this responsibility, PURVAC has established broad objectives in three areas:

- **Discovery** – develop innovative visual analytics technology for DHS mission areas, science, medicine, business and logistics
- **Learning** – foster and produce the next generation talents
- **Engagement** – create usable tools to directly solve State of Indiana and national problems; support community training and education

Mission-Oriented Research Goals
In order to have a direct impact on the DHS missions in the near term, PURVAC is focused on mission-oriented research goals in two broad areas:

1. Integrated visual analytic and command and control environments for emergency planning, response and incident investigation:
   - Mobile analytics/sensor analytics
   - EOC/COP visual analytic and responder environment
   - Emergency response training
   - Video analytics
   - Network security analytics
2. Novel, effective visual analytic tools for situational monitoring, event detection, planning and response for improved health and safety
   - Healthcare monitoring
   - Pandemic & syndromic surveillance, management, and interdiction planning
   - Biological sensing
   - Animal health and food production

Partners
PURVAC’s effectiveness and success are based on forming strong partnerships with key government, business, and academic organizations:

- Indiana Department of Homeland Security (IDHS)
- Indiana State Department of Health (ISDH)
- Indiana Board of Animal Health (IBOAH)
- Indiana University School of Medicine
- Georgia Department of Health (GaDH)
- Regenstrief Institute
- Army Research Lab (CERDEC)
- Muscatatuck Urban Training Center (MUTC)
- Lawrence Livermore National Lab
- University of Stuttgart
- Simon Fraser University/UBC
- Ceratops UAC (Pittsburg, Utah)
- Discovery Middle School, Penn Harris Madison Schools, Granger, Indiana
- Motorola
- Harris Corporation
- Boeing
- Next Wave Systems

PURVAC research screen shots from left to right: Linked Animal-Human Health Monitoring, Mobile Visual Analytics for First Responders, Situational Response Mobile Analytics Tool on the OQO 02, Mobile Analytics for Network Analysis

For more information, contact:
Dr. David S. Ebert, ebertd@purdue.edu
http://www.purvac.org