The overall objective of this research is to deliver a Web-based GIS-driven platform called PIPEiD. The platform is envisioned to be “a Living Database Platform for Advanced Asset Management”. PIPEiD will standardize and unite the nation’s water infrastructure data PIPEiD will provide secure access to the aggregated data and to models and tools which will enable the synthesis, analysis, query, and visualization of the data. This research operates on the aspects information technologies (IT) in the drinking water sector, with specific forces on the use of IT to better manage and optimize water systems. These efforts will result in a Web-based GIS-driven platform called PIPEiD. The platform is envisioned to be “a Living Database Platform for Advanced Asset Management”, addressing all three major water pipeline management levels including strategic, tactical, and operational performance. PIPEiD will:

1) Provide the required uniform national standards for pipeline infrastructure systems data;
2) Establish a centralized platform which utilizes a GIS-driven Web-based interface;
3) Develop and provide access to open-source applications, including models and tools, that leverage the standardized data and centralized platform to provide decision support for various asset management needs;
4) Provide dynamic aggregation and centralized storage of pipeline inventory and inspection data from utilities, including detailed structural and environmental conditions;
5) Leverage the centralized data set to calibrate, verify, benchmark, and visualize the models and tools for reliable use;
6) Provide registered users with secure access to analyze their own utility data, as well as the ability to securely analyze aggregated data that cannot be identified by source or location; and
7) Provide educational and professional outreach for a structured procedure to implement advanced pipeline asset management.

“Better DATA + Better PLATFORM + Better PROCESSES = Better WATER INFRASTRUCTURE ASSET MANAGEMENT”