

APPLICATION BRIEF

Picarro helps customers plan and execute the transformation to a digital workflow environment and helps facilitate successful change in gas asset management processes to deliver improved business performance and achieve business benefits.

In order to fully realize the benefits of the Picarro solution, the transformation from traditional leak survey and asset management methods to advanced mobile technologies must be accompanied by a complimentary commitment to effective organizational transformation and staff training. Picarro assists customers in implementing advanced asset management technology and easing this transition in the following ways:

- Clearly defines roadmaps and timelines for the transition to digital workflows.
- Implements effective field protocols to optimize mobile performance.
- Manages connections between departments and systems to drive alignment and collaboration.
- Develops analytical tools to monitor and guide effective process change initiatives.

Digital Workflow Implementation

Picarro has helped several gas utilities implement advanced gas asset management and a digital compliance leak survey framework at scale. In each case, Picarro worked with the utility to design a fully digital workflow environment: leak forecasting, scheduling, survey, repair handoff, and compliance reporting. In this digital environment, surveys and leak investigations are triggered and managed using digital tools and mobile technology. Picarro also streamlines the creation of work orders reports through its cloud-based platform. Picarro also has experience assisting utilities in the critically important exercise of transitioning traditional survey staff, resources and processes to a new digital process based on Picarro's advanced asset management. The result is a seamless end-to-end experience that:

- Is fully data-enabled.
- Captures efficiencies at each step.
- Enhances reporting and dashboard capabilities for management.
- Provides a continuous feedback loop for improvement.

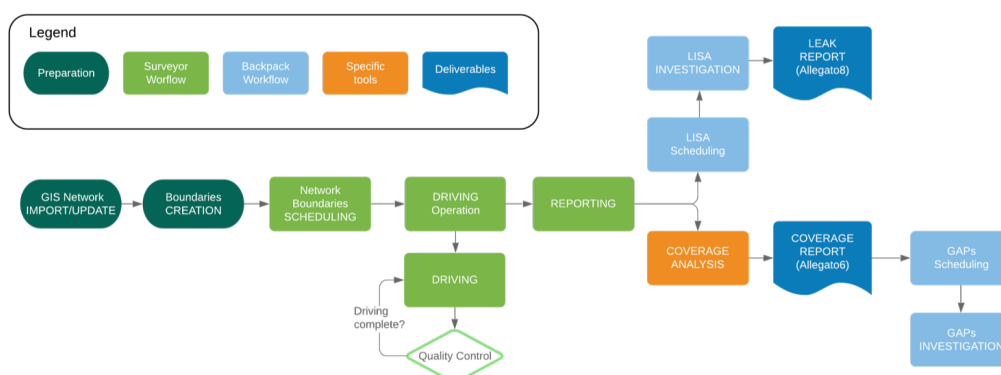


Figure 1. An example of how Picarro worked collaboratively with a utility to design a digital leak survey workflow implementation.

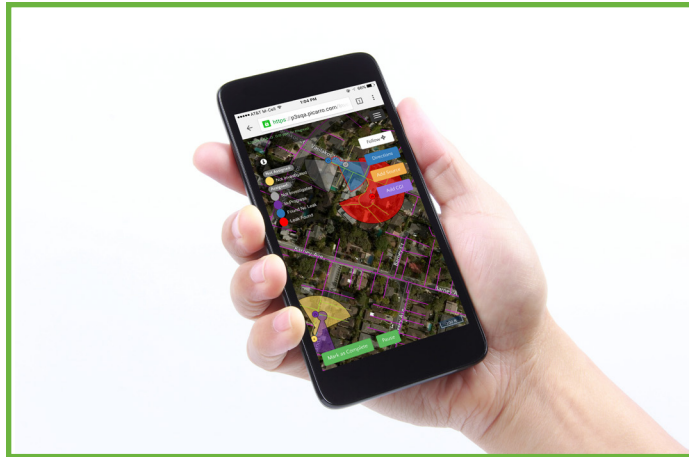


Figure 2. Picarro's field deployable digital tools optimized for mobile devices. Picarro has also worked with utilities who wish to use their existing mobile devices and integrate them with data from the Picarro system.

Business Process Integration

The Picarro solution includes business dashboards and analytical tools aimed at facilitating the transition to digital workflows and identifying points of change and interconnection with traditional leak survey processes. For example, utilities use Picarro's project management tools and dashboards to set productivity targets and tackle effective capacity planning. Picarro helps utilities design and map the workflow transition from traditional leak survey processes to digital/mobile and identify survey data input and output flows. Picarro's project management tools and dashboards help set productivity targets and enable capacity planning.

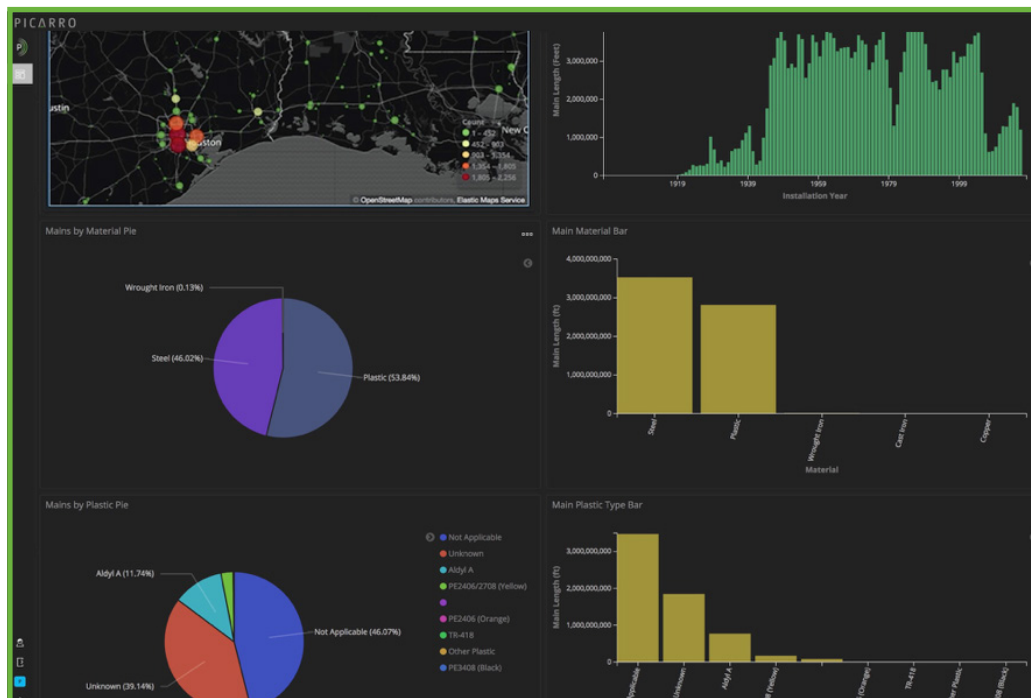


Figure 3. Example of a productivity dashboard to monitor the performance and quality of the Picarro advanced leak survey process.

Field Training and Support

Picarro provides comprehensive and on-going field training and support to help customers achieve optimum performance and efficiency. Picarro's unparalleled support is delivered every step of the way, over the entire life of the contract. It includes:

- Comprehensive installation support and hands-on training for field crews in new leak survey protocols.
- Remote, immediate 24/7/365 engineering support by phone and on-site maintenance and support for the life of the contract.
- Remote system diagnostics and health monitoring to maximize system uptime and utilization metrics.
- Continual analysis of survey data and training of field crews to drive continual improvement in leak find rate performance.
- Transforming and supporting how people interact with each other and the new digital workflow.



Figure 4. Picarro Field Application Engineer performing routine, advanced training at customer site.

Custom Compliance Reporting

Picarro helps natural gas operators leverage digital tools in order to deliver digital, accurate and auditable compliance reporting. Picarro has partnered with utilities worldwide to create customized reports to satisfy evolving regulator requirements. For example, Picarro's Risk Based Survey dashboards and analytics enable utilities to take a risk-based operational approach to their leak survey scheduling, resulting in multiple benefits – predictive forecasting of required resources, labor and O&M efficiencies, accelerated risk removal, and related data to support regulatory dialogue.



Figure 5. An example of auditable, digital reporting for compliance leak survey from the Picarro solution.

In another example, Picarro has collaborated with a utility to develop a survey and reporting methodology to efficiently identify and remediate high-emitting leaks that contribute disproportionately to overall methane emissions. These “Super Emitter Surveys” help substantially reduce methane emissions and report quantified results in an auditable format to the regulator. Enabled by Picarro’s Emissions Quantification Analytics, this dashboard used for super emitter leak identification and analysis, allows the utility to quickly look at repair scenarios, calculating aggregate emissions reduction benefits of different types, sizes and locations of leaks.



Figure 6. Customized emissions dashboard to enable scenario modeling and reporting for emissions reduction compliance.