



**TNECD Key Performance Indicator (KPI) Platform**

Category: Data Management, Analytics and Visualization

State of Tennessee

Project Initiation Date: February 2016

Completion Date: May 2017

## EXECUTIVE SUMMARY

The Tennessee Department of Economic and Community Development's mission is to develop strategies which help make Tennessee the No. 1 location in the Southeast for high quality jobs. To grow and strengthen Team Tennessee, the department seeks to attract new corporate investment in Tennessee and works with Tennessee companies to facilitate expansion and economic growth.

TNECD is passionate about developing dynamic, diverse economies and thriving communities for generations of Tennesseans. This mission lives in the strategic plan created by TNECD's executive leadership team. The strategic plan aligns the department's mission to the programmatic goal and the individual performance goals of each employee. These goals, named Key Performance Indicators, allow the department to track our progress toward the completion of our mission.

TNECD has developed a platform to provide current information measuring TNECD's strategic objectives. The platform features interactive dashboards, tracking economic data and initiatives to TNECD's long-term strategic plan. The Key Performance Indicators (KPI) platform reports on goals and activities occurring through TNECD's programs.

Overall, the department has over 50 key performance indicators that are tracked on the KPI platform. The highest priority key performance indicators are the long-term objectives. The five long-term objectives include:

1. Tennessee will have the lowest unemployment rate in the Southeast.
2. Tennessee will rank #1 or #2 highest personal income per capita in the Southeast.
3. Tennessee will rank #1 highest in capital investment per capita in the Southeast.
4. Tennessee will have 0 distressed counties (based on the Appalachian Regional Commission's economic status index).
5. 55 percent of TNECD's job commitments will be high-quality.

The Key Performance Indicator (KPI) platform can be viewed here:

<https://www.tn.gov/transparenttn/jobs-economic-development/openecd/tnecd-performance-metrics.html>

## PROJECT NARRATIVE

TNECD's Executive Leadership Team (ELT) constructed a strategic plan in 2015. This strategic plan includes the department's initiatives and specific goals for each area of the department. After the implementation of the strategic plan, it became a priority to track the progress we made towards our departmental and programmatic goals. Initially, the department used a tool that everyone in our department had—Microsoft Excel. Data management efforts at this stage were cumbersome and time-consuming in order to collect, compile and report this information across TNECD's over 100 employees.

One of the most important pieces to state government and all departments in the state is to make sure each department is efficient and diligent in its use of taxpayer money. With that it is also important for each department to be as open to the general public as possible especially when it comes to economic development. A primary focus of TNECD is to ensure that stakeholders have easy accessible information on how TNECD's programs are performing.

Thus, the Center for Economic Research in Tennessee (CERT), the research arm of the department, began comparing data visualization tools in February 2016 that would bring our department's strategic plan to life. This effort aligned with our goal to be the most transparent department in state government.

CERT's vision to bring the strategic plan to life through real-time, interactive dashboard served many functions. The platform would support informed data-driven decision-making in support of the strategic plan. The platform would work as a management and accountability tool for TNECD leadership—the dashboards provide a summary of goals, progress toward goal achievement and accomplishments, while also improving our ability to measure individual and team performance. The platform would serve as an informational tool for community partners, TNECD team members and other stakeholders to learn activity and projects in Tennessee communities. The platform would serve as a transparency tool for stakeholders and the public. The platform would serve as an analytical tool to discover trends, analyze economic indicators over time and across communities, and identify challenges and opportunities.

ECD's team needed an internal, interactive and transparent summary of economic output, accomplishments to date, and future outcomes that will allow opportunities to make better decisions in support of the Agency's strategic plan.

TNECD partnered with the State of Tennessee's IT department, Strategic Technology Solutions (STS), for project management. This partnership supported the acquisition of the tools we needed, developed a workflow process, supported our IT needs, and allowed the ECD & STS team to begin building out our platform which publicly launched in May of 2017.

The KPI platform delivers interactive dashboards for ECD leadership and community partners to view in a quick and intuitive manner. This allows a user to view and analyze Tennessee's economic metrics from past, current and future timeframes. This ability to consume the information assists the ECD team members in making more accurate decisions, measure Individual Performance Plans (IPPs), focus on the most critical Key Performance Indicators (KPIs), and analyze trends to discover predictive indicators that will identify urgencies, achievement and challenges.

This project also resulted in the expansion of our CRM system, which provided numerous benefits to having all of our department's data in one centralized location. It allowed for CERT team members to grow in their professional development by attending tableau training courses and learning new skills such as SQL.

## CONCEPT

TNECD wanted to reflect the department's long-term objectives as well as the performance of business development, community and rural development, and workforce initiatives. The platform's structure allows a user to navigate from the landing page to summary pages for each focus area to detailed dashboards. The summary pages feature an at-a-glance view of high-level performance and are a page of 'quickstat tiles'. By clicking under a 'quickstat tile', the user can navigate to detailed dashboards that allow a user to dive deeper into the data. The website and tableau were both tools that we used to customize the platform to match TNECD's branding.

The crucial pieces of the puzzle for the project to come to fruition included the leadership teams from TNECD and STS, the CERT team, the vision for the project, CRM as a data management tool, SQL as a data connection tool, and Tableau as a data visualization tool.

The leadership team at TNECD was critical in providing the vision for the KPI platform through the development of the strategic plan.

The leadership team at STS was critical in the development of the KPI platform through their knowledge of IT infrastructure and best practices.

The CERT team was critical to the development of the SQL queries and the Tableau dashboards.

Our CRM system drives our department forward because it is a customizable, central location for the data across divisions within our department—it allows us to track activity. TNECD invested in Microsoft CRM to be the business solution for hosting and controlling its data, thereby becoming the source of KPI data for the Tableau dashboards. We use SQL queries to connect the data in our CRM system to Tableau. Tableau is software that helps people see and understand their data. Tableau products are transforming the way people use data to solve problems because analyzing data with tableau is fast, easy and beautiful. TNECD, with support from STS, built customized dashboards using Tableau with data from our CRM system to build our KPI platform.

## SIGNIFICANCE

The KPI platform allows the department to reduce time spent compiling and transforming data. Instead ECD's research analysts have more time to allocate towards analysis of economic trends and indicators over time and across communities, to evaluate the economic impacts of programmatic activity and forecast future trends. The increased time allocation CERT is able to dedicate towards analytics rather than data compilation contribute to the state's advancement in economic and community development.

The platform makes the department's objectives and results easily accessible and consumable to its stakeholders, both internal and external. Externally, the dashboards' accessibility and existence have enabled us to be a more transparent department. Internally, the dashboards' accessibility enables the department to understand and report on our individual and collective progress; and they hold us accountable to our objectives. Programs are able to easily consume progress against their own goals; but also to understand the relationship of their goals to other strategies and initiatives of the department. The dashboards connect our employees to our mission, visions, and long-term objectives.

## IMPACT

These new dashboards enable Tennesseans to get an exhaustive look at the key economic measures and goals that drive TNECD's long-term strategic plan. These dashboards tell a fuller story of our department and shed more light on the hard work that goes into a wide range of initiatives. The platform shares TNECD's strategy, goals and ongoing performance with the public in a user-friendly way, outlining our programs as transparently as possible. It is a valuable resource for citizens who want to engage with TNECD as our team works to promote thriving and growing communities across the State of Tennessee.

The KPI platform project improved our department. It expanded our use of our CRM system department-wide, which serves as a centralized location for the entire department's data. This has allowed for further data analysis that prior to the completion of the project would have been cumbersome, less efficient, and time-consuming. It has enabled TNECD to invest more time in forecasting and analytics, rather than producing reports. It serves as an accountability and management tool. It has improved accessibility to information for the department and for citizens. It has helped build TNECD's reputation as a leader in governmental transparency.

Before launching the platform, the department asked a number of external groups to view the tool to provide feedback. These groups included the TN Coalition for Open Government, the Beacon Center and U.S. Public Interest Research Group (PIRG). Michelle Surka, an advocate with U.S. Public Interest Research Group, said "Transparency in government is a vital part of our democracy, but often governments fail to provide data in a way that is accessible, user-friendly, and comprehensive. The new dashboards created by TNECD don't just dump more data online, but actually make the data useful to citizens. With this website, we can begin to see where Tennessee aims to be with regards to economic development, where it actually is, and how the state is working to bridge the distance between the two."

The dashboard platform has had a significant impact on the State of Tennessee. ECD developed a strategic plan, and through data management and construction of the dashboard platform brought the strategic plan to life through consumable and easily accessible visualizations. TNECD was the first department in Tennessee state government to embark on this initiative. Subsequently, we have been asked to present our dashboards to other state departments who are interested in developing a platform of their own. The Tennessee department responsible for customer service to citizens has also engaged in this initiative, and has been working with all state agencies to implement a few different metrics of their own into a statewide platform.

The dashboards also serve as a marketing tool for the State of Tennessee, encouraging business recruitment. This is demonstrated in an article by the New York Times, which referenced Tennessee has a center for foreign direct investment (FDI) and supported this claim with a dashboard we created on FDI in Tennessee.

This project is significant to the national landscape. It has provided a model for other state economic development organizations. This is evident by the numerous national conferences that TNECD has been asked to present at regarding the project. This project showcases Tennessee as a leader for analytics and as a place to do business. No other state in the county has done a project that has as wide a scope as TNECD's Key Performance Indicator (KPI) platform.