US Government agencies today are awash in data – structured and unstructured data, clean and not-so-clean data – amassed over the past decade thru surveys and other data-gathering instruments. Despite this abundance of data, there is still paucity of actionable business intelligence (BI) that Government agencies can glean from that data to enable informed decision-making.

On recent and ongoing contracts, Synectics has been called on to improve Government agencies’ BI to inform decision-making and policy development. We accomplished these contractual requirements by creating a Visualization and Analytics Layering Information Device – conveniently known as VALID, which produced dashboards to display the relationships among various key aspects of the data on customer-defined and customer-modifiable dashboard displays.

Synectics provided an analytics and customized data platform that provided a new capability for immediate decisions based on reporting information that already existed in the agency’s essential data.

Through Synectics-developed BI dashboards, end users were, for the first time, enabled to use their data to populate preexisting reports, or to create custom ad hoc reports through simple drag and drop technology. These reports amalgamated the disparate data in new ways, showed trends and connections, and enabled decision-makers to use their pre-existing data to enable never-before-thought-of policy development and operational decision capabilities.

Synectics developed a predictive modeling and data mining tool, which provided dashboard displays, that gave end-users’ capabilities to classify categorical variables and to estimate continuous variables using advanced mathematical techniques. This data mining tool provided the ability to portray the data on dashboards, quickly and efficiently integrate data models into BI reports and other dashboards, and to informed business processes. Synectics took this a step further by accomplishing another customer requirement to apply the metrics displayed in dashboards to a strategy map that aligned performance indicators with agency strategic objectives. Our interactive visualization (dashboard approach) supported the government end-users’ ability to display numerous aspects of the data more efficiently by using interactive pictures and charts, instead of rows and columns.

Not satisfied with just providing the dashboards for BI, Synectics also provided the support and training needed to make the customer’s data more accessible to users. Training included development of user guides, job aids for reports and dashboards and BI training material for beginner and advanced users.

One customer requirement provides significant insight:
Synectics provided on-site BI support services to one of our customers which required deployment of several Project Management and Development teams for individual projects, including the Data Population Project (DPP), the Human Resource Mart (HRM), and the Operations and Maintenance and Enterprise Architecture project. The teams work in harmony to improve the customer’s ability to analyze and report on the information available in their data through an Enterprise Data Warehouse.
Job aids helped users to understand the purpose of a report/dashboard and also helped the users in using the reports/dashboards. Synectics collaborated with the customer’s HR team to conduct various classroom training sessions from beginner thru advanced courses. Synectics worked with the customer to develop online training material that users can take at their convenience. Synectics conducted office hours training session multiple times annually so that users could get one-on-one guidance and training on running the reports. During these sessions, Synectics’ report specialists and business analysts were available to assist by answering both technical and functional questions related to reports/dashboards.

This dashboard development improved BI and decision-making by increasing access to data. This, in turn, assisted our customer to implement enterprise applications services to raise intelligence product quality and expand information sharing.

These capabilities largely grew out of our previous support to the Substance Abuse and Mental Health Services Administration (SAMHSA), where we combined data analytics, dashboarding, and Geographic Information System (GIS) mapping capabilities to produce the Behavioral Health Treatment Services Locator, a searchable website that those in need of treatment can use anonymously to find a treatment facility that meets their needs by simply entering an address or zip code. A screenshot of the results of entering in 22030, the zip code for Fairfax, VA, for instance, immediately brings up the locator map shown (in-part) below. Each dot is color coded by type of provider, and hovering a dot displays the provider’s information.

No matter the agency, and no matter the challenge, Synectics has proven its ability to work with customer personnel to research and synthesize what data is available from the Agency’s lines of business, determine who collects the data, who uses the data, and most importantly, how they use the data, and to develop data visualization and dashboard tools that enable policy and decision making at the highest levels. Our customers regularly report our performance as “exceptional” which reflects our capability to work with our customers to make their data meaningful.