2010 SCoPM Performance Excellence Award Application Cover Sheet

Team Name	**Traffic Safety Electronic Grants Management System (eGrants)**
Date Team Operating from	**2004 to 2010**
Organization Name	**Texas Department of Transportation**
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The following information is an overview of the project and, if selected for recognition, will be used for publicity. This part of the application is note scored; however, the narrative is used as background information for the application. By submitting this application, the organization agrees to publication of award winning applications.

Team Purpose:

One of TxDOT's primary goals is: Safety. Success in traffic safety focuses on the Texas Traffic Safety Program's (TTSP) Mission: "To identify traffic safety problem areas and implement safety programs to reduce the number and severity of vehicular crashes on Texas highways." Each year, 300-400 grants totaling $50-$70 million are awarded to non-profit state, local, and educational entities to fund projects ranging from police traffic services to pedestrian, child, and bicycle safety. Prior to FY 2007, the proposal process was more costly and time-consuming, which discouraged many entities from applying. This tedious paper process also generated a heavy workload for TxDOT. By spring 2004, the pressing need to streamline made possible the creation of a project team tasked to develop a web-based grants-management solution for automated processing of the traffic safety program. This project also considered requirements of SB 1458--77th Texas Legislative Session and SB 1002--79th Session.

Impact of Team's Improvement(s):

eGrants rolled out January 12, 2007. It allows users electronic access to the traffic safety grants program, via TxDOT website, 24 hours a day/ 7 days a week/ 365 days a year. Users can create and submit grant proposals, manage projects, submit performance reports, or create requests for reimbursement. The system effectively streamlined all process phases of the grants program. It ended the annual ritual of photocopying thousands of pages for assembly of proposal packets, which often required hiring temporary help. Less paper means elimination of 10 filing cabinets and savings of countless hours of manpower. It eliminated the need and high cost of requiring scoring teams from around the state to travel to Austin for several days. It strengthened the integrity of the program by greatly reducing the chance for missed deadlines or lost documents. eGrants provides increased security, system date/time stamping, accurate monetary tracking, streamlined connectivity to the TxDOT financial system, and improved retrieval or reconstruction of historical data. All efficiencies considered not only reduced processing errors, cost, time, resources, and our environmental impact/carbon imprint, but **increased** the number and quality of proposals 22% in FY 08 over FY 07, and an additional 15 % in FY 09 over FY 08 and was ranked as successful in an internal audit report that recommends eGrants be used by other TxDOT grant programs.

Category 1 - Customer Focus (275 points)

1.1. List the key customers of the team (50 points)

1.1.a. Traffic safety program sub-grantees (non-profit entities)

1.1.b. TxDOT traffic safety program and project managers

1.1.c. Other traffic safety stakeholders: TxDOT divisions, Texas Department of Information Resources (DIR), Office of the Governor, National Highway Traffic Safety Administration (NHTSA)

1.2. Explain why you determined that these were key customers (50 points)

1.2.a. Traffic safety program sub-grantees are non-profit state, local, educational entities that apply for, compete, and when awarded, receive grants through the Texas Traffic Safety Program.

1.2.b. TxDOT traffic safety program and project managers are agency managers, located in the Traffic Safety Section and in 25 statewide districts, who work directly with sub-grantees guiding them through stages of the grants management process. Prior to eGrants, these managers manually processed paperwork associated with annual scoring, awards, reports, monitoring, and processing of project reimbursement payments.

1.2.c. Other traffic safety stakeholders/SMEs participated due to their technical, financial, or legislative association, or were involved in the grants-management process. NHTSA is TxDOT's federal funding source.

1.3. Explain how the team listened to and collected information from key customers (50 points)

1.3.a – 1.3.c. The team listened to key stakeholders, collected project information, developed a project management plan, and established a strong project infrastructure that included specialized teams, project board, TxDOT divisions, the DIR, and the Governor's Office—they listened and collected information by conducting interviews with more than 70 of the stakeholders and SMEs and by reviewing and considering legislative requirements of SB 1458--77th Texas Legislative Session and SB 1002--79th Session. This input, together with traffic safety business requirements, assisted in determining eGrants system requirements.

1.4. Explain how team turned information collected from customers into requirements (75 points)

1.4.a. – 1.4.c. The team turned customer information into requirements by conducting work sessions, analyzing collected information, and using this information to produce Business Requirements Definition (BRD), which defines and captures high-level business processes and data requirements pertaining to the grants application and management. This documentation includes a conceptual data model used to develop the Request for Offer (RFO), design documents, and testing documents. A Project Delivery Framework Plan established eight objectives to provide for: 1) a web-based solution for management of all aspects of the grants program, 2) the ability to support multiple sub-grantees and multiple program types, 3) a secure environment for protecting sensitive data, 4) the ability to generate required reports, 5) an efficient and consistent format that simplifies the grant process, 6) a user-friendly system, 7) a framework to manage and collect information in a centralized relational database, and 8) the reduction or elimination of the need for mailing, distributing, and storing mass quantities of paper documents.

1.5. Explain how the team determined both customer satisfaction and dissatisfaction (50 points)

1.5.a. – 1.5.c. The team determined both customer satisfaction and dissatisfaction through extensive outreach involving overviews, presentations, and demonstrations given at traffic safety conferences and through routine communication with stakeholders. The team also provided eGrants training, which generated additional feedback regarding users' system

likes and dislikes. An online eGrants user survey was conducted and results are in the project document titled, "Transition Phase Lessons Learned – TxDOT eGrants Solution," November 24, 2008. Concerns were addressed and the system was modified to maintain a high level of customer satisfaction. This is evident in the increasing number and quality of grant proposals being submitted. System quality improvement continues on an ongoing basis.

Category 2 - Process Management (275Points)

2.1. List the process identified as applicable to purpose of team and performance expectations (50 points)

Based on project requirements, the following process was identified: Create a web-based grants-management solution for the grants program that incorporates flexibility and modularization, has role-based security, integrated reporting, a consistent user interface, a framework for information, allows for a wide user base, and satisfies the needs of stakeholders by reducing paperwork and saving time and resources, as related to the safety grants program. Specific processes relating to performance included building the ability for users to electronically create and submit grant proposals, manage and monitor grant projects, and submit performance reports and requests for reimbursement. Business goals and objectives were established in the project business case and refined in the performance management plan (see Section 1.4. above). Full implementation of the project was initially estimated at approximately $4 million, however due to efficient team performance, the final project cost was $2,066,172.

2.2. Describe the steps taken to achieve the purpose of the team (50 points)

2.2.a. Developed a project management plan and secured IRC approval.

2.2.b. Executed an RFO, reviewed responses, and determined that a commercial-off-the-shelf software solution would best meet TRF-Traffic Safety needs.

2.2.c. Contracted with vendor Agate Software and consultant Rhyan Technology Services to customize the Agate IntelliGrants product to create eGrants.

2.2.d. Documented business processes to accurately define requirements.

2.2.e. Categorized, analyzed, streamlined, and prioritized business processes to execute development in the most efficient manner.

2.2.f. Tested the system to ensure that performance is optimal and used customer input to fine-tune for a more intuitive, user-friendly experience.

2.3. Explain how the steps taken to achieve the purpose of the team affected efficiency, effectiveness, quality, and/or customer satisfaction attributes (75 points)

2.3.a. Following the project management plan kept the team focused on scope and ensured project completion was on time, on budget.

2.3.b. Executing an RFO assisted in determining best method for obtaining the solution.

2.3.c. Contracting Agate and Rhyan provided high-quality developers to customize the COTS solution.

2.3.d. Documenting business processes defined and corrected processes that contributed to the efficiency and effectiveness of the product.

2.3.e. Categorizing, analyzing, streamlining, and prioritizing business processes to execute development ensured effectiveness and maximized return on investment.

2.3.f. System was thoroughly tested for effectiveness and quality to ensure quick development, a stable environment that can handle daily workload demands, and a user-friendly interface that meets system performance demands while not overloading the help desk.

2.4. Explain how the team gathered data, analyzed it, and the tools used to make decisions (100 points)

2.4.a. Explain how you gathered the data and how you analyzed it.

The team gathered and analyzed data using practical project management tools. Primarily, interviews, surveys, and work group sessions. The project management plan, scope, and schedule kept the teams focused on data that was critical to fulfilling customer requirements. The project management team served dual role as members of the "Change Control Board," making decisions based on detailed analysis, as outcome of design discussions and industry-standard modeling techniques.

2.4.b. Identify the tools you used, as appropriate, from this list: Pareto Chart, Flowchart, Cause and Effect Analysis, Check Sheet, Control Chart, Histogram, and/or Scatter Diagram, etc.

Face-to-face interviews, online survey, e-mail, fax, flowcharts, spreadsheets, graphs, stats/reports, cause & effect analysis, process models, data models, and telephone contact.

Category 3 – Results (450 points)

3.1. Provide current levels and trends for customer satisfaction and dissatisfaction (150 points)

Satisfaction with eGrants is evident in sub-grantees willingness to submit proposals online rather than using the old paper forms. Online proposal submissions have increased 22% in FY 08 over FY 07 and an additional 15 % in FY 09 over FY 08.

3.2. Provide current levels and trends in key measures or indicators for the process listed in Category 2 above (150 points)

3.2.a. Processes listed in Category 2 resulted in a quality product that was delivered on-time and under budget, that meets project requirements, and that users successfully access to process traffic safety grant projects on an on-going annual basis. Prior to eGrants, Traffic Safety staff manually processed an average of 300 grant proposals annually. Today the number of proposals submitted has increased, yet the time dedicated to scoring proposals has decreased from an average of three weeks to currently ten days for some proposals and zero days for others that the system is able to instantly score. Use of the processes also resulted in business requirements that are more efficient.

3.2.b. An internal audit in August 2009, reported that eGrants meets its operational objectives and can be adopted for use in managing other TxDOT grant functions. Interviews, observations, and review of project documentation during this audit confirmed that all eight of the eGrants objectives were met, with exception of one "electronic signature" function--one of six sub-objectives associated with Objective #1, due to legislatively-related inability to implement at this time.

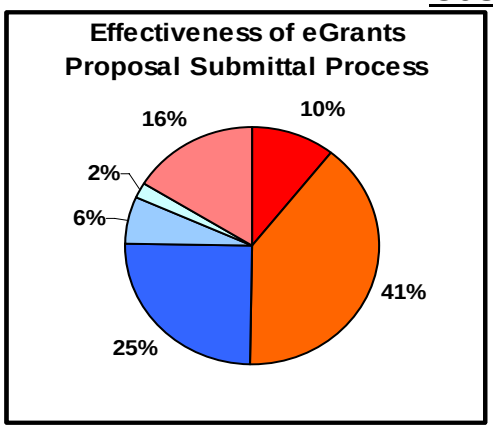
3.3. Provide current levels and trends in key measures or indicators of effectiveness, efficiency, and/or quality (150 points)

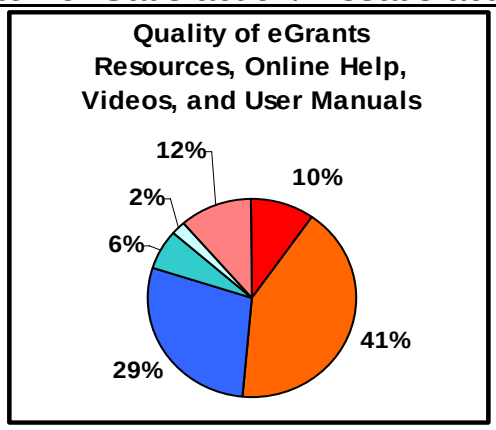
3.3.a. As discussed throughout this document, the increased volume of online proposal submissions and decreased cost (for more efficient use of the grant funding), resource allocations, and process turnaround times are top three key indicators of effectiveness, efficiency, and quality. Time savings realized through increased use of eGrants allows TxDOT to utilize staff allocations (FTEs) more efficiently by transitioning personnel to other business areas that are understaffed. eGrants greatly exceeds expectations and is paving the way for future system enhancement opportunities. Overall, eGrants has proven to be a "win-win" solution for sub-grantees, TxDOT staff, the traveling public, and Texas as a whole.

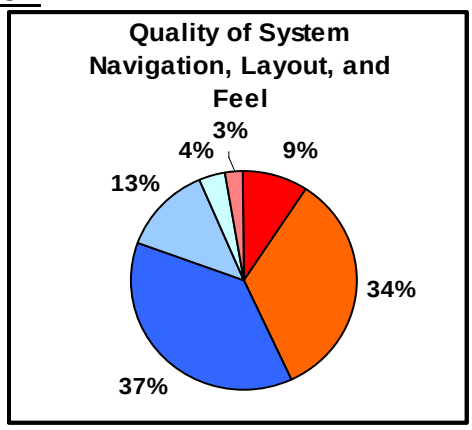
Survey Results for Effectiveness, Efficiency, and Quality

Results from eGrants User Survey

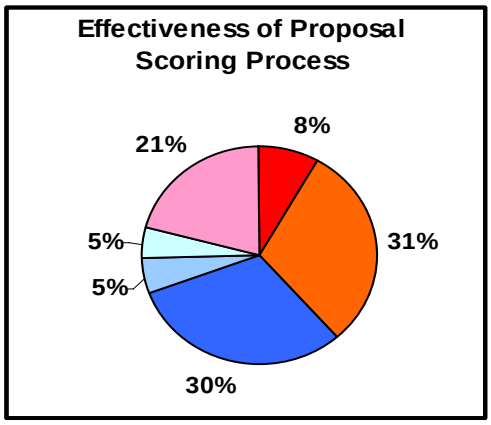
Customer Satisfaction/Dissatisfaction

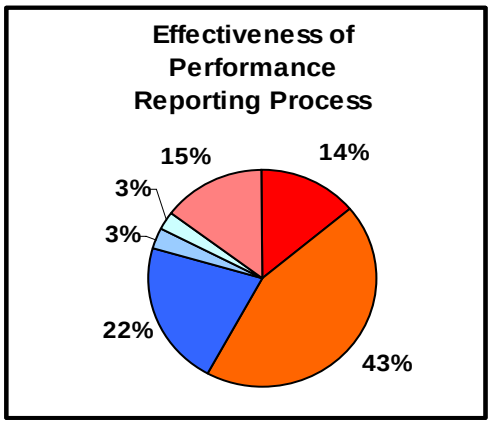


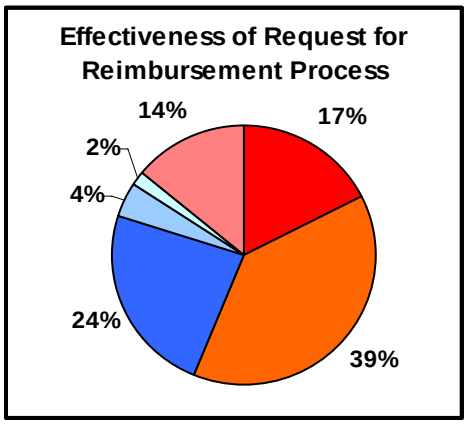




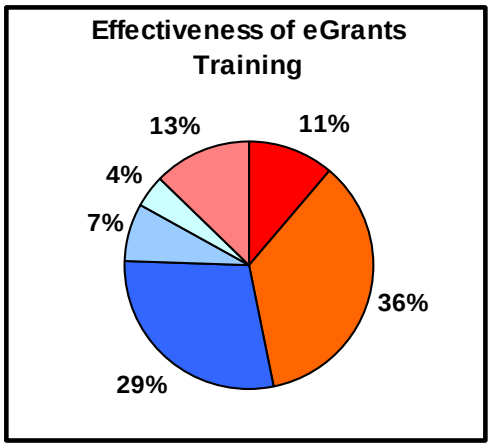
Business Processes

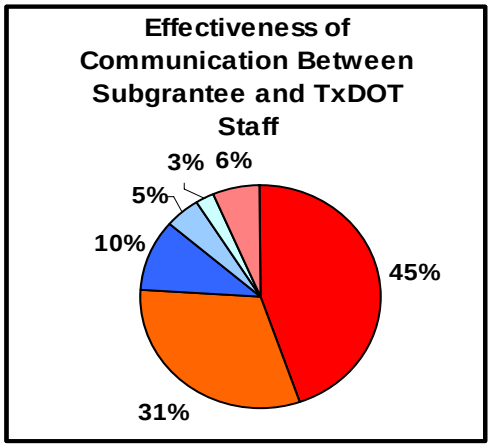


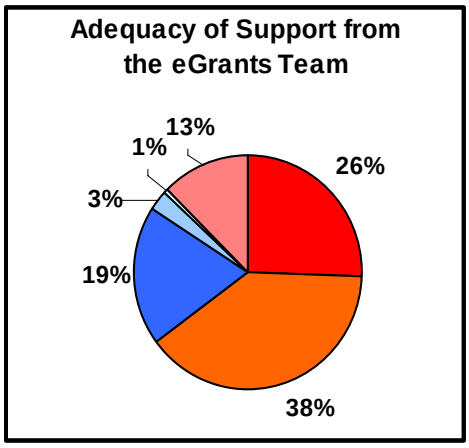




Effectiveness, Efficiency, and Quality







LEGEND: Very High | High | Medium | Low | Very Low | N/A