



**Enterprise Risk Management Plan
FY 2019**

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Enterprise Risk Management Plan, FY 2019

Introduction

Enterprise Risk Management (ERM) at the Texas A&M Transportation Institute (TTI) identifies, monitors and mitigates risks that threaten the achievement of TTI's Strategic Plan and/or the continuing operation of the Institute's research program. TTI is committed to the management of risk in order to protect:

- the safety and well-being of our employees;
- our research sponsors and other key stakeholders;
- the quality of research and service provided by the Institute;
- our assets, including intellectual property;
- our contractual and statutory obligations;
- our image and reputation; and
- our commitment to The Texas A&M University System, state government and the people of Texas.

For each risk the Institute faces, TTI has assessed the likelihood and potential consequences of an adverse event and has prioritized each category of risk according to the level of threat facing the Institute. TTI leadership has determined strategies for managing risks, devoting the greatest resources to the risks considered to present a high-high, high-medium or medium-medium threat. TTI's *Risk Register* lists these primary risks that impact the Institute. TTI's *Risk Matrix* lists risk management strategies to mitigate and monitor these primary risks.

In addition, the TTI Executive Team monitors several low-low risks on an on-going basis:

- failure to meet workforce diversity and/or HUB goals;
- failure to establish a safe workplace;
- failure to make effective, strategic use of flexible funding sources; and
- problems or security issues with information technology systems.

The Institute's objective is to adopt best business practices in managing risks. TTI's Enterprise Risk Management program is a continuous process, requiring awareness and proactive measures by all agency employees to identify and reduce the occurrence and impact of risks.

FY 2019 Risk Register

Likelihood of Occurrence	Consequence of Occurrence	
	High	Medium
High	<ul style="list-style-type: none"> • Decline in research funding. • Decline in royalty revenue and increased costs due to the impact of the lawsuit against Trinity Industries involving the ET Plus guardrail system. • Adverse changes in content, direction and requirements for the Texas Department of Transportation (TxDOT) research program. • Failure to adequately address organizational change management issues. 	
Medium	<ul style="list-style-type: none"> • Deterioration in relationships with members of the legislature and their staffs (state and federal). • Inability to sustain quality support services. • Failure to develop human and physical capital to remain relevant and position TTI as thought leaders, given rapid transformational change in transportation services. • Damage to TTI's professional reputation due to the impact of the lawsuit against Trinity Industries involving the ET Plus guardrail system. • Failure to educate TTI employees on the culture of compliance and to consistently execute an effective compliance program across TTI. 	<ul style="list-style-type: none"> • Failure to proactively prepare for and effectively respond to strategic marketing opportunities and requests for proposals (RFPs). • Failure to sustain and broaden relationships with academic departments.

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FY 2019 Risk Matrix**

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<p>Decline in research funding.</p>	<p>HIGH</p>	<p>HIGH</p>	<p>Maintain diversification initiative for TTI's research portfolio so not more than 40% of total sponsored contract expenditures come from a single sponsor.</p> <p>Continue research growth strategies for non-TxDOT transportation, and non-traditional funding sources.</p> <p>Maintain the financial incentive program to encourage TTI staff to pursue non-TxDOT and non-traditional research funding.</p> <p>Provide agency resources and support to pursue strategic partnership opportunities with non-traditional partners and internal cross-program and center collaborations.</p> <p>Conduct research seminars and promote funding opportunities to increase awareness of available research projects.</p> <p>Maintain TTI strategic marketing strategies to support the research diversification initiative.</p> <p>Pursue strategic hires to help move TTI research programs into emerging growth areas.</p>	<p>Produce monthly report of contract research expenditures by funding category.</p> <p>Division Heads encourage research diversification in their divisions.</p> <p>Reward and recognize annually the TTI staff who reach the financial incentive goals in pursuing non-traditional funding.</p> <p>Conduct ongoing programmatic reviews of TTI research programs.</p> <p>Leadership Innovation and Transformation Council (LITC) evaluates the sustainability of existing research programs and initiates the creation of new programs as necessary.</p>	<p>LITC review research expenditure reports and make necessary adjustments in research priorities.</p> <p>Supervisors conduct performance reviews of research staff annually to discuss research goals and achievements.</p>

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Decline in royalty revenue and increased costs due to the impact of the lawsuit against Trinity Industries involving the ET Plus guardrail system.	HIGH	HIGH	<p>Assistant Agency Director and CFO provides ongoing financial reports of TTI's royalty revenues.</p> <p>TTI's new SoftStop guardrail terminal is being marketed by Trinity Industries.</p> <p>Roadside Safety researchers are assertively seeking new research and testing opportunities, as well as developing new intellectual property.</p>	<p>Assistant Agency Director and CFO is monitoring TTI's royalty revenues on a regular basis.</p> <p>Assistant Agency Director and CFO is monitoring related expenses.</p>	<p>LITC receives regular updates.</p> <p>Roadside Safety researchers provide information and communicate with TTI leadership on a regular basis.</p>

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<p>Adverse changes in content, direction and requirements for the Texas Department of Transportation (TxDOT) research program.</p>	HIGH	HIGH	<p>Participate in monthly meetings with TxDOT leadership to discuss research program projects and priorities and requirements.</p> <p>Meet regularly with TxDOT district engineers, division directors and administration to assess their research needs and their assessment of TTI's performance and value.</p> <p>Develop innovative methods to illustrate and communicate the value of TTI research products to TxDOT.</p> <p>Actively participate in TxDOT research and technical meetings.</p> <p>Develop and submit research project statements in response to TxDOT research needs.</p> <p>Agency Director and LITC continue to discuss strategies to address any indications of loss of TxDOT research projects.</p> <p>Monitor process to ensure that TTI's TxDOT Interagency Contract (IAC) activities remain focused on the TTI mission and role.</p>	<p>Produce monthly reports to monitor the amount and percentage of TxDOT-sponsored research at TTI.</p> <p>Implement recommendations resulting from regular contacts and meetings with TxDOT leadership and key staff.</p> <p>Monitor the success of TTI research staff in securing new TxDOT research projects.</p> <p>Assign a LITC member with the oversight responsibility for each TxDOT-sponsored project.</p> <p>LITC conducts an annual review of the scope of TTI's IACs.</p> <p>All TxDOT IACs are reviewed by an Executive Associate Director to ensure accuracy.</p>	<p>Assistant Agency Director and CFO regularly reports the status of TxDOT research expenditures to LITC.</p> <p>Agency Director and LITC routinely discuss TxDOT research program priorities and changes and take necessary actions to help maintain and enhance TTI's involvement in the program.</p>

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<p>Failure to adequately address organizational change management issues.</p>	<p>HIGH</p>	<p>HIGH</p>	<p>Key TTI employees are serving on The Texas A&M University System’s RELLIS Campus Planning Committee.</p> <p>Maintain and implement a Capital Plan to guide Institute equipment and facilities investments.</p> <p>Participate in the opening and first year operational oversight of the new Center for Infrastructure Renewal (CIR) and TTI Headquarters Building, which will house TTI research facilities and staff.</p> <p>Business Office personnel will continue to perform outreach to educate TTI employees on the use of all new system required business software.</p> <p>Assistant Agency Director and CFO will work with system offices and committees to evaluate any RELLIS related cost modeling and its impact.</p> <p>Participate in the development and opening of the new TTI Headquarters building at RELLIS.</p>	<p>LITC monitors the success of TTI laboratories and testing facilities.</p> <p>LITC members lead the committees involved in defining space needs and developing new facilities.</p> <p>Business Operations personnel will conduct group training on new software for entire workforce. One on one training will also be made available as requested.</p>	<p>Assistant Agency Director and CFO annually provides an update to the LITC on the TTI Capital Plan.</p> <p>Assistant Agency Director and CFO provides updates to the LITC on the implementation timeframe for the business office software enhancements.</p> <p>Director of Facilities Safety and Support Services reports to TTI staff the status of continued construction and progress on the TTI Headquarters Building at RELLIS.</p> <p>HR Director provides updates to the LITC on the process requirements and training progress of the new Human Capital Management System.</p>

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<p>Deterioration in relationships with members of the legislature and their staffs (state and federal).</p>	<p>MEDIUM</p>	<p>HIGH</p>	<p>Use timely reports and other quality information products to increase awareness of TTI among legislators, the Legislative Budget Board and the Legislative Council.</p> <p>Respond promptly to information and testimony requests.</p> <p>Schedule interim meetings with key transportation legislators in their districts and quarterly meetings with key capitol staff.</p> <p>Involve legislators in TTI site visits and events as appropriate.</p> <p>Use well respected researchers to provide professional transportation expertise at the state and national levels.</p> <p>Engage the TTI Advisory Council and private industry contacts in legislative interactions.</p> <p>Seek support for TTI from the Governor’s Office staff.</p> <p>Agency Director makes timely efforts to contact key legislators and their staff to discuss transportation research needs as appropriate.</p>	<p>Review periodic performance metrics from the Policy Research Center and federal legislative activities.</p> <p>Urban offices and TTI centers provide updates to the Agency Director that can be used to provide Texas Legislators with specific news of TTI successes in particular legislative districts.</p> <p>Agency Director provides updates to members of the TTI Advisory Council on TTI’s legislative activities.</p> <p>Assistant Agency Director and CFO provides an assessment of TTI’s success in biennial funding from the legislature.</p>	<p>Agency Director coordinates with the LITC on a regular basis about legislative issues that affect transportation research.</p> <p>Agency Director receives periodic updates on legislative activities from the Texas A&M System leadership, federal legislative representative and the Engineering Program state legislative representative.</p>

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<p>Inability to sustain quality support services.</p>	<p>MEDIUM</p>	<p>HIGH</p>	<p>Benchmark the quality and effectiveness of TTI support services through a biennial support services internal survey.</p> <p>Provide timely and comprehensive information about the quality of TTI support services in response to A&M System requests for information.</p> <p>Host research and support staff development seminars to increase awareness of TTI staff about available support services.</p> <p>Maintain up-to-date support services information and contacts on the TTI intranet, through TTI-wide announcements, at new employee orientation and at Agency-wide meetings.</p> <p>Provide opportunities for support services staff to participate in professional development and leadership programs.</p> <p>Encourage nomination of support staff for TTI awards and recognitions.</p> <p>Pursue opportunities to enhance productivity and cost-effectiveness in business processes.</p>	<p>Evaluate the results of the support services survey and implement survey recommendations in a timely manner.</p> <p>Monitor the effectiveness and efficiency of the support units within TTI on an ongoing basis and implement changes as needed.</p> <p>Director of Human Resources evaluates participation in TTI's Professional Development Programs.</p> <p>LITC review support services benchmarks, survey results and discuss opportunities for improvement.</p> <p>Support services are evaluated and budgeted annually to ensure that TTI's support services meet or exceed expectations.</p>	<p>Q&As are held by the Agency Director and other Division Heads to give updates on changes at TTI, research opportunities, and support service enhancements.</p> <p>Support Services Division Heads meet biweekly to discuss opportunities for performance improvement, program growth and initiatives. Implementation ideas are shared with the LITC as needed.</p> <p>Conduct annual employee meeting to provide state of the agency address and priority initiatives.</p>

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<p>Failure to develop human and physical capital to remain relevant and position TTI as thought leaders, given rapid transformational change in transportation services.</p>	MEDIUM	HIGH	<p>Review flexible funding sources through TTI centers and other areas to ensure they are used strategically.</p> <p>Identify and implement flexible funding to pursue strategic partnership opportunities with non-traditional research partners.</p> <p>Pursue workforce development and strategic hires to help move TTI research programs into emerging growth areas.</p> <p>Researchers use some of their diversification funding for pursuing strategic research partnerships and projects.</p> <p>Reinforce support for key research leaders to envision changes in their fields, refine their research agenda as warranted, and develop new non-traditional research partners.</p> <p>Increase marketing efforts to position TTI in transportation research innovations and leadership.</p>	<p>Monitor project awards from TTI centers that fund research projects to assess effective use of funds.</p> <p>Monitor success with strategic partners.</p> <p>Monitor success of strategic hires.</p> <p>Monitor success of new research initiatives and strategy teams.</p>	<p>LITC review monthly reports of research expenditures and make necessary adjustments in research priorities.</p> <p>LITC discusses the status of strategic partnership efforts and makes recommendations as needed.</p> <p>Strategic hires are evaluated annually by their supervisor.</p> <p>Assistant Agency Director and CFO produces reports as needed on the use and status of research diversification funds.</p>

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<p>Damage to TTI's professional reputation due to the impact of the lawsuit against Trinity Industries involving the ET Plus guardrail system.</p>	MEDIUM	HIGH	<p>TTI is working in collaboration with TAMUS Communications, the Office of General Counsel and Trinity Industries staff to implement media and public relations strategies to mitigate professional reputation issues as needed.</p> <p>TTI staff regularly participates in statewide, national and international professional organizations and events to enhance TTI's reputation.</p> <p>TTI researchers compete for and are regularly awarded significant state and national research projects and initiatives.</p> <p>TTI Communications prepares two or more articles per week on recent TTI successes for the TTI website and social media channels and publishes a quarterly magazine of accomplishments.</p> <p>TTI maintains an active TTI Advisory Council of about 40 members who help as needed with TTI public relations.</p>	<p>Agency Director continually monitors the status of the lawsuit.</p> <p>TTI Communications monitors TTI media coverage weekly.</p> <p>TTI maintains a web page which promotes recent staff awards, recognitions and professional organization and committee appointments.</p> <p>LITC monitors TTI research awards and expenditures on a monthly basis.</p>	<p>LITC receives regular updates regarding the status of the lawsuit and resulting requirements and activities.</p> <p>Division Head for Marketing, Communications and Agency Relations as needed communicates with TAMUS Communications on potential public relations issues related to the lawsuit.</p> <p>Roadside Safety research staff meets as needed to discuss the status of the issue and mitigation and monitoring activities.</p>

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Failure to proactively prepare for and effectively respond to strategic marketing opportunities and requests for proposals (RFPs).	MEDIUM	MEDIUM	<p>Implement research growth strategies for TxDOT, non-TxDOT transportation, and non-traditional funding sources.</p> <p>Reward and recognize annually TTI staff members who reach the financial incentive goals in pursuing non-traditional funding.</p> <p>Provide agency resources to pursue strategic partnership opportunities with non-traditional partners.</p> <p>Promote funding opportunities and conduct Research Development Seminars to increase awareness of available research projects.</p> <p>Provide proposal preparation assistance for strategic RFPs.</p> <p>Pursue strategic hires to help move TTI research programs into emerging growth areas.</p> <p>Ensure TTI investments in research facilities strategically aligns with market demands.</p>	<p>Produce monthly report of contract research expenditures by funding category.</p> <p>Research and Operations Division Heads meet periodically to collaborate on strategic marketing opportunities.</p> <p>Reward and recognize annually TTI staff members who reach the financial incentive goals in pursuing non-traditional funding.</p> <p>Set performance expectations for strategic hires.</p>	<p>LITC review monthly reports of research expenditures and make necessary adjustments in research priorities.</p> <p>LITC periodically review the research projects awarded.</p> <p>LITC discusses the status of strategic partnership efforts and makes recommendations as needed.</p> <p>Strategic hires are evaluated annually by their supervisors.</p> <p>Assistant Agency Director and CFO produces reports as needed on the use and status of research diversification funds.</p>

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<p>Failure to sustain and broaden relationships with academic departments.</p>	HIGH	HIGH	<p>Promote TTI as a resource for producing continued generations of transportation professionals.</p> <p>Engage in research initiatives with approximately 40 faculty members annually.</p> <p>Assist in recruiting and funding for faculty/research strategic hires.</p> <p>Provide graduate assistantships and employment to undergraduate students annually.</p> <p>Provide TTI researchers to teach classes and give guest lectures.</p> <p>Involve key academic leadership in TTI meetings and events to help build relationships.</p> <p>Share TTI research facilities with academic departments and seek opportunities to develop joint facilities and purchase joint equipment.</p>	<p>Monitor the number of graduate and undergraduate students hired annually.</p> <p>Monitor the number of faculty who are involved with TTI research projects.</p> <p>Monitor success in new faculty hiring and new TTI strategic hires.</p> <p>Monitor the number of TTI researchers teaching classes and giving guest lectures.</p>	<p>Agency Director meets regularly with the Vice Chancellor and Dean of Engineering.</p> <p>Agency Director and LITC interact regularly with other deans and department heads to foster TTI relationships.</p> <p>Assistant Agency Director and CFO provides data on TTI's involvement with academic departments as needed.</p> <p>LITC discusses and evaluates relationships with academic departments.</p> <p>Director of Human Resources provides reports and data to LITC on graduate, undergraduate and faculty hires as needed.</p>

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Failure to educate TTI employees on the culture of compliance and to consistently execute an effective compliance program across TTI.	MEDIUM	HIGH	<p>Develop and maintain TTI rules and procedures to comply with federal and state laws and System policies and regulations.</p> <p>Maintain an active and engaged TTI Compliance Committee with subject matter experts in all compliance risk areas.</p> <p>Participate in System compliance training opportunities and meetings.</p> <p>Maintain a prominent compliance section on the TTI intranet.</p> <p>Send a quarterly Compliance e-newsletter to TTI staff, providing updates and highlighting compliance risk areas.</p> <p>Conduct a compliance presentation for new employee orientation sessions.</p> <p>Maintain close contact with A&M System offices responsible for identification of new and existing state and federal laws, and System policies and regulations.</p>	<p>Review and monitor all federal and state laws, and A&M System policies and regulation updates as necessary.</p> <p>TTI Compliance Committee meets quarterly and reviews TTI's compliance risks and mitigation activities.</p> <p>TTI Compliance Committee ensures that System-led compliance initiatives and deadlines are met on behalf of the agency.</p> <p>Monitor System-mandated training requirements to ensure staff compliance.</p> <p>Monitor results and action items of agency audits.</p> <p>Compliance Officer participates in national higher education compliance training to monitor risks and trends.</p>	<p>LITC and Compliance Officer reports any deficiencies or reporting errors and recommendations for resolution as needed.</p> <p>TTI Compliance Officer provides updates to the LITC on committee activity and compliance mandates.</p> <p>TTI Compliance Committee meets with the Agency Director at least twice annually and reports on Committee activities.</p> <p>TTI Compliance Officer maintains close contact with the A&M System Ethics and Compliance Officer and provides committee updates for the Chancellor and Regents as requested.</p>