COMPREHENSIVE STRATEGIC FRAMEWORK

2024

TEXAS A&M UNIVERSITY

IDRT.TAMUG.EDU

On May 14, 2020, the Texas A&M University System Board of Regents formally created the Institute for a Disaster Resilient Texas. This action implemented a 2018 recommendation of the Governor's Commission to Rebuild Texas (led by Chancellor John Sharp), which the 2019 Texas Legislature codified in the aftermath of Hurricane Harvey.

In the four years since the Institute's creation, we have made great strides to accomplish our mission - through building partnerships with key state agencies and others, expanding our research team, and launching our signature data analytics platform, the Texas Disaster Information System.

As we continue to mature as an organization, we have undertaken a strategic planning process to distill and communicate our mission internally and externally. For the last year, we have conducted an analysis of our strengths, weaknesses, opportunities, and threats; solicited input from our partners; and held internal planning retreats to solidify our approach to our work.

In the pages that follow, I am proud to present the Institute's first comprehensive Strategic Framework, which will guide our programs and outcomes for years to come. This framework is the foundation not only for organizing our work, but for regular reporting on our performance and remaining accountable to our funders and partners.

As a team, we are honored to serve the State of Texas and others working to improve disaster resilience around the world. We look forward to your feedback and continued collaboration as we expand our work into the future.

Sam Brody
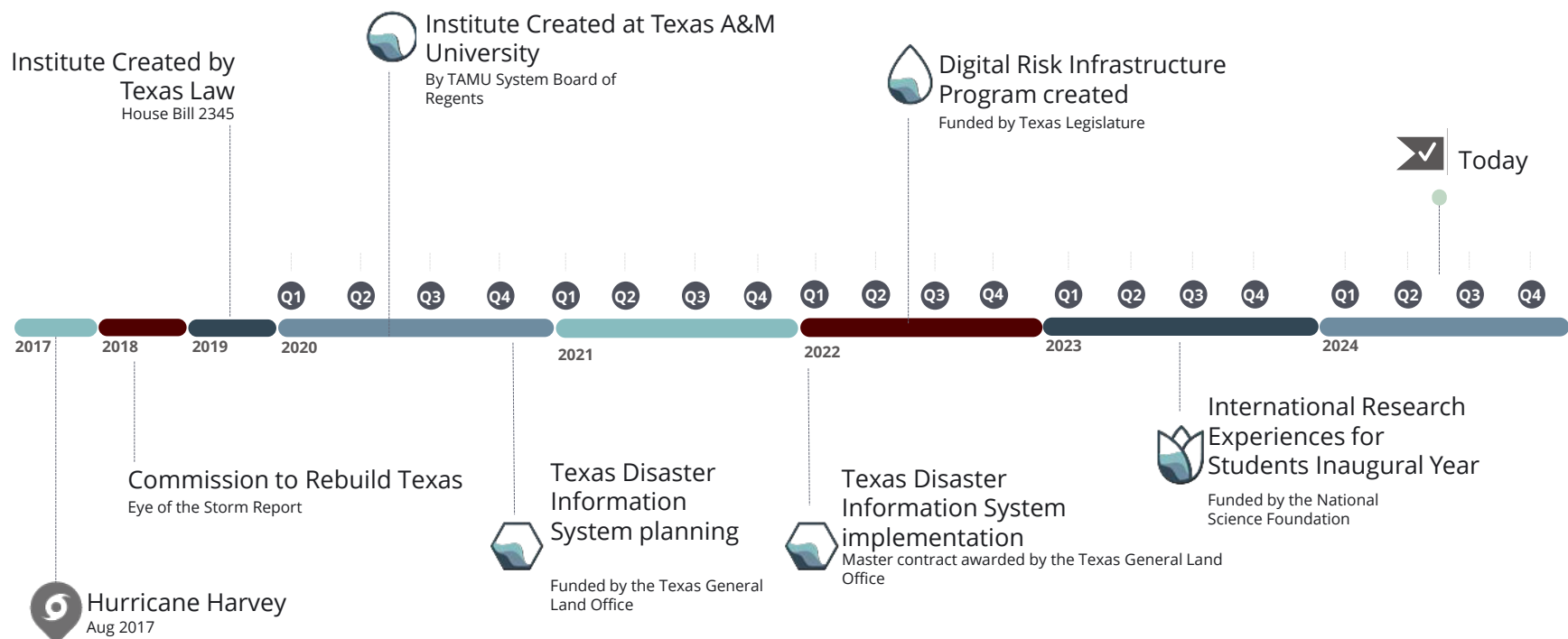Director, Institute for a Disaster Resilient Texas

VISION: A disaster resilient Texas.

MISSION: To enhance disaster resilience by bridging the gap between research and decision making.

GOAL 1	GOAL 2
Deliver innovative research and educational initiatives to enhance understanding of natural disasters.	Directly support decision makers with data analytics, training and technical assistance, and policy tools that foster resilient communities in disaster-prone landscapes.

Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Conduct research on disaster risk reduction in partnership with other leaders in the field.	Create a collaborative venue for learning and information sharing about disaster resilience.	Establish a technology platform to enable the analysis and visualization of natural hazard data in Texas.	Provide state agencies and other decision makers with decision-support tools, data analytics, and evidence-based policy solutions.	Promote evidence-based solutions for disaster resilience through outreach, training, and technical assistance.

INITIATIVES

All traditional research projects **Coastal Spine / Ike Dike Program**	**PhD Program** **DPP** *Distinguished Partners Program* **IRES** *International Research Experiences for Students*	**TDIS** *Texas Disaster Information System*	**SHMP** *State Hazard Mitigation Plan* **Buyers Aware**	**DRIP** *Digital Risk Infrastructure Program*

INSTITUTE FOR A DISASTER
RESILIENT TEXAS

Institute Created by Texas Law
House Bill 2345

Institute Created at Texas A&M University
By TAMU System Board of Regents

Digital Risk Infrastructure Program created
Funded by Texas Legislature

Today

| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |

2017 **2018** **2019** **2020** **2021** **2022** **2023** **2024**

Commission to Rebuild Texas
Eye of the Storm Report

Texas Disaster Information System planning
Funded by the Texas General Land Office

Texas Disaster Information System implementation
Master contract awarded by the Texas General Land Office

International Research Experiences for Students Inaugural Year
Funded by the National Science Foundation

Hurricane Harvey
Aug 2017

LEGISLATIVE DIRECTION
House Bill 2345, 86th Texas Legislature, 2019

Decision Support

Develop data analytics tools to support disaster planning, mitigation, response, and recovery.

Communication

Create and maintain online tools to communicate disaster risks.

Resilience

Provide information and solutions to aid in the formation of state and local partnerships to promote disaster resilience.

Flood Focus

Collect, display, and communicate flood-related information.

Collaboration

Collaborate with institutions of higher education, state agencies, local governments, and other political subdivisions.

Worsening Hazards

Increasing losses from natural hazards.

Changing Conditions

Rapidly changing built & natural environments.

Fragmented Data

Growing volumes of information without actionable insights.

Our vision is for
A disaster resilient Texas.

Our mission is **to enhance disaster resilience by bridging the gap between research and decision making.**

Every aspect of our work is about connecting people and ideas and bridging gaps between knowledge and action. Each of our activities – from authoring scholarly research to launching web-based data visualizations – feeds into and supports every other activity. Our teams are cross-functional and multi-disciplinary, which allows our technical products and services for decision-makers to be deeply research-informed.

This document is meant to help our team and our partners understand and communicate our varied work. By the nature of the planning process, the goals and strategies shown on the following pages present an oversimplification of the dynamic and interconnected way the Institute's programs really operate in practice. Nevertheless, we believe they present a helpful depiction of how our activities contribute to our broad vision and mission statements.

INSTITUTE FOR A DISASTER
RESILIENT TEXAS

GOAL 1:
Deliver innovative research and educational initiatives to enhance understanding of natural disasters.

This goal captures the Institute's role to spark innovative research and collaborative learning among the brightest scientific minds in the field of disaster resilience. Through this goal, the Institute positions Texas A&M University as a leader in the field, builds the next generation of scholars and practitioners, and ensures all the Institute's products are based foremost on evidence.

Strategy 1: Conduct research on disaster risk reduction in partnership with other leaders in the field.
This strategy includes the growing body of peer-reviewed and published work from the Institute's faculty and academic partners around the world. It also includes the Institute's founders' long-time contributions to coastal storm surge reduction on the Texas coast through the "Ike Dike" (coastal barrier) project.

Strategy 2: Create a collaborative venue for learning and information sharing about disaster resilience.
This strategy highlights the Institute's commitment to education, including through a PhD program and a National Science Foundation-funded international exchange program for students. Through the Institute's Distinguished Partners Program, we formalize our commitment to collaborating with multidisciplinary experts at other institutions and further deepen research connections through joint proposals and funding.

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RESILIENT TEXAS

GOAL 2:

Directly support decision makers with data analytics, training and technical assistance, and policy tools that foster resilient communities in disaster-prone landscapes.

Through this goal, the Institute interacts daily with local and state leaders grappling with the everyday trade-offs involved in implementing public policy addressing disasters. Through engagement, outreach, and innovative data analytics, the Institute puts its expertise directly into the hands of those making decisions about how to better manage natural disasters.

Strategy 3: *Establish a technology platform to enable the analysis and visualization of natural hazard data in Texas.*

This strategy highlights the Institute's signature program, the Texas Disaster Information System (TDIS). Through a flexible, stable, and professionally managed shared-services model, TDIS enables government agencies, researchers, and others to catalog, share, and use previously inaccessible information needed to improve disaster resilient decisions.

Strategy 4: *Provide state agencies and other decision makers with decision-support tools, data analytics, and evidence-based policy solutions.*
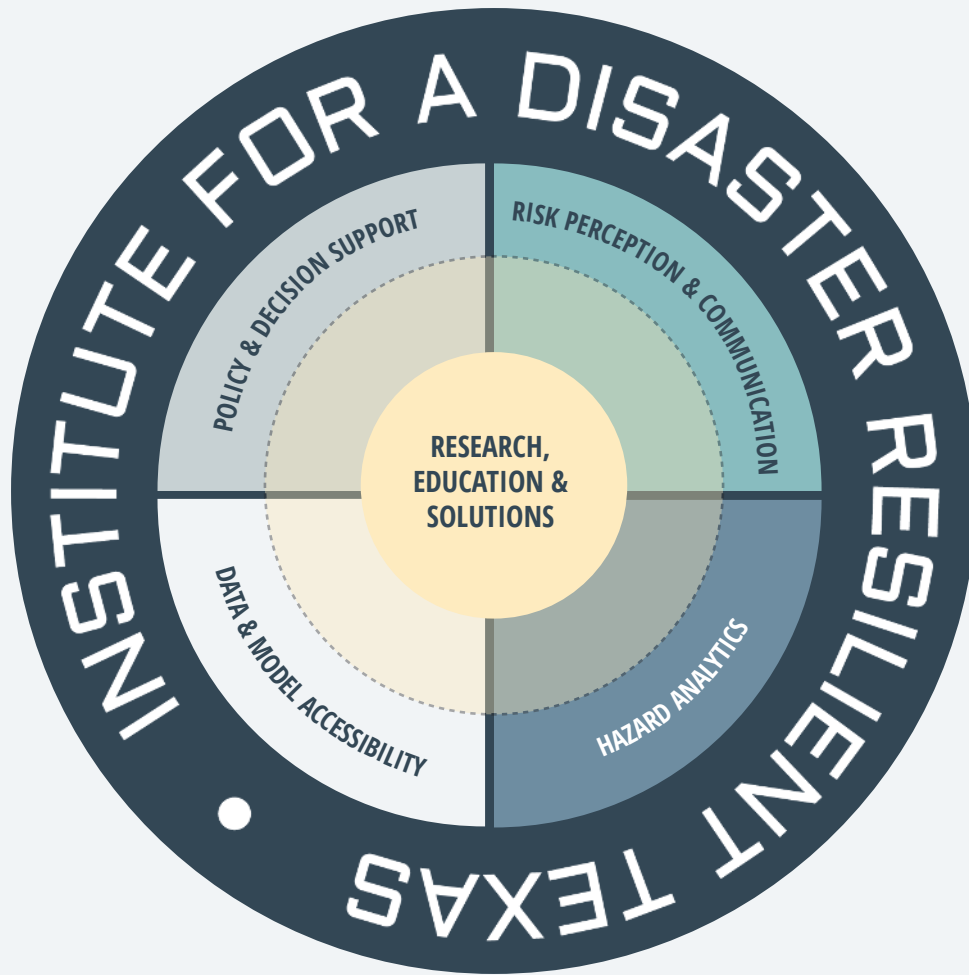
Leveraging the Institute's research and TDIS platform, this strategy focuses on spinning off decision-support applications, data visualizations, and other products that help people at every level solve problems and make better decisions around disaster resilience. It includes initiatives such as "Buyers Aware" - a tool to help homeowners understand their flood and fire risk, and the comprehensive data and risk analysis underpinning the State Hazard Mitigation Plan required by FEMA.

Strategy 5: *Promote evidence-based solutions for disaster resilience through outreach, training, and technical assistance.*

This strategy emphasizes the importance of deep engagement with end-users, not just putting information on a website. Through this strategy, the Institute puts a priority on communicating its work externally and helping end-users effectively apply tools and techniques the Institute creates. Through the Digital Risk Infrastructure Program, the Institute pays special attention to assisting smaller communities with less resources with custom technical assistance and data projects.

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Key Performance Indicators by Strategy (Reported Annually)				
GOAL 1		**GOAL 2**		
Research & Education		Data Analytics, Decision-Support, & Outreach		
Strategy 1	**Strategy 2**	**Strategy 3**	**Strategy 4**	**Strategy 5**
Research	Education & Collaborative Learning	Data Platform	Decision-Support Applications & Tools	Outreach & Technical Assistance
KPIs				
• Peer-reviewed publications • Citations • Active awards • Research expenditures • Proposal award rate	• Student enrollment • Funding to students • Professional development opportunities • Publication co-authors (by various criteria) • Multi-disciplinary publications	• Applications onboarded compared to number requested • Total data stored • Number of partner agencies adding/ using data • Support issues resolved compared to number requested • Feature/ enhancements completed compared to number requested	• Website views (by app) • No of registered users (by app) • No of downloads (by app) • No of policy reports/ requests	• TA instances • Trainings • Awards/ recognitions • News media • Public events/ lectures • Service on external advisory groups

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- POLICY & DECISION SUPPORT
- RISK PERCEPTION & COMMUNICATION
- DATA & MODEL ACCESSIBILITY
- HAZARD ANALYTICS

RESEARCH, EDUCATION & SOLUTIONS

Our **FOCUS AREAS** all connect to our core goals.

INSTITUTE FOR A DISASTER
RESILIENT TEXAS

"We are ardent advocates of collaboration."

At IDRT, we firmly believe that great things can only be accomplished through collaboration across disciplines and institutions.

As ardent advocates of collaboration, we are dedicated to enabling others to effectively address natural hazards, enhance resilience, and drive positive change in Texas communities through a wide range of partnership opportunities.
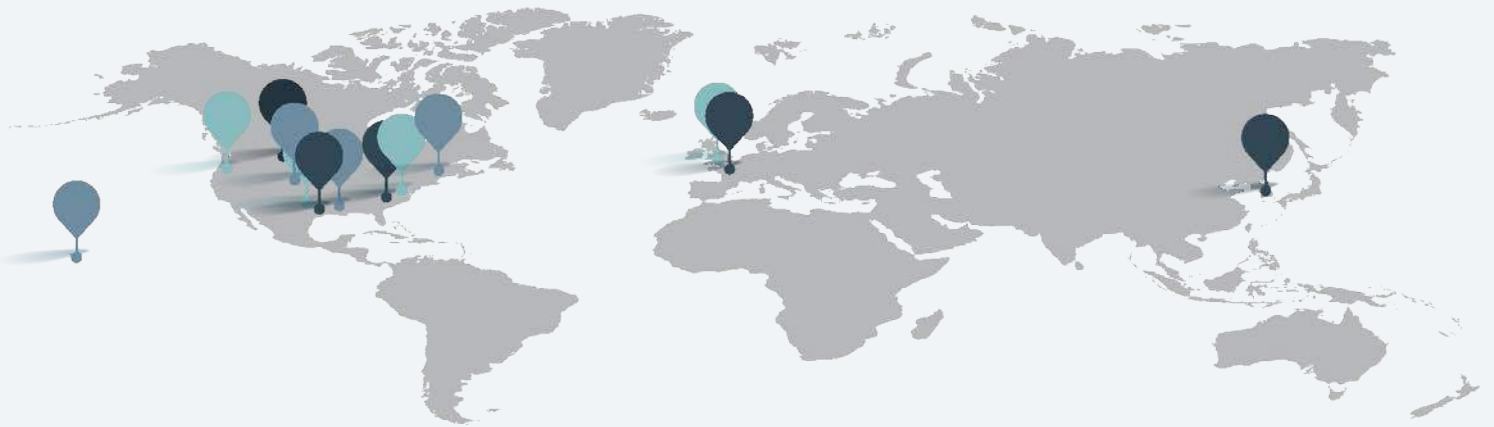
IDRT'S CORE VALUES

- **Do high-quality work**

- **Share success and credit**

- **Be adaptable and patient**

- **Enable others to succeed**
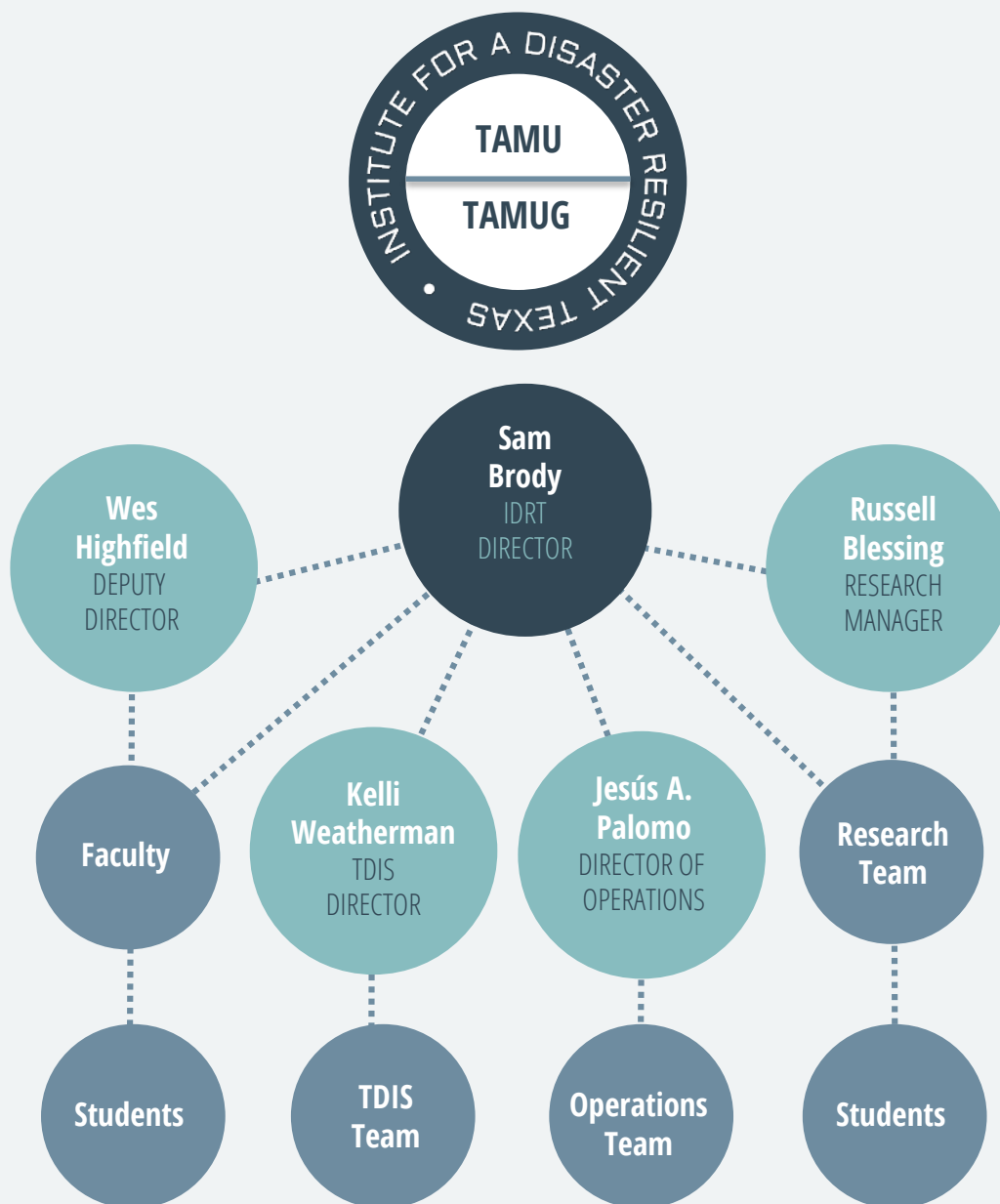
- **Build partnerships**

- **Be innovative**

We work primarily in Texas, and we foster collaboration with partner organizations nationally and internationally that ultimately benefit understanding of natural hazards everywhere.

We are administratively housed within the Division of Research at TAMU-College Station. Several key faculty and students are associated with TAMU-Galveston and TAMU-College Station.

In addition to our core faculty, operations, and research teams, IDRT subcontracts to other partners for technology development and user experience relating to the Texas Disaster Information System and for Institute-wide strategic planning, program coordination, and communications support.

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