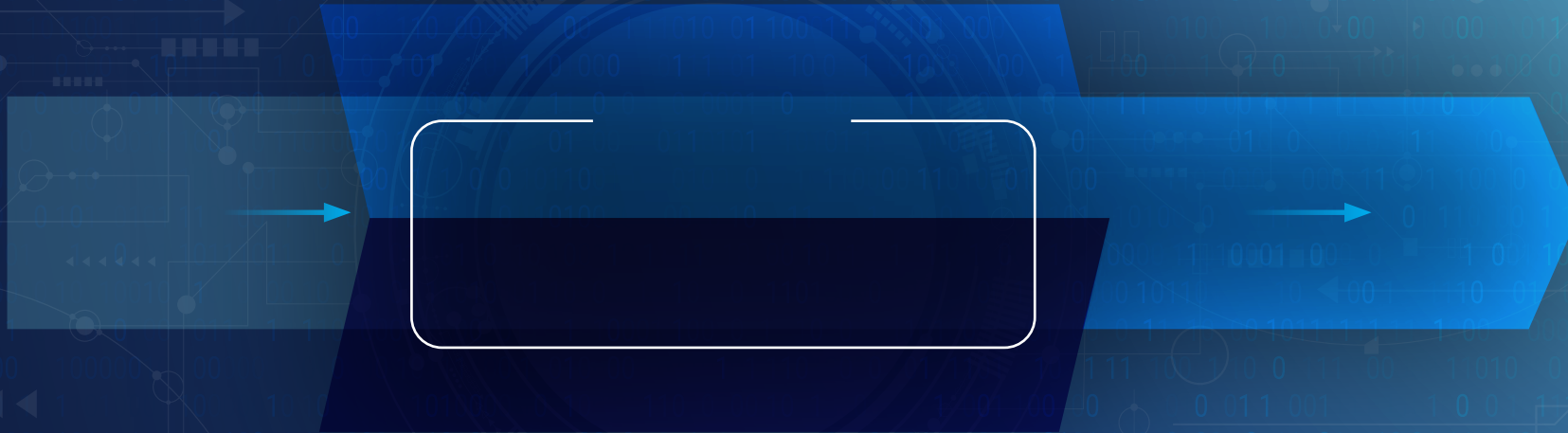


What is the TxDOT Digital Delivery Program?



Click on each step to learn more about the components of the Digital Delivery Program

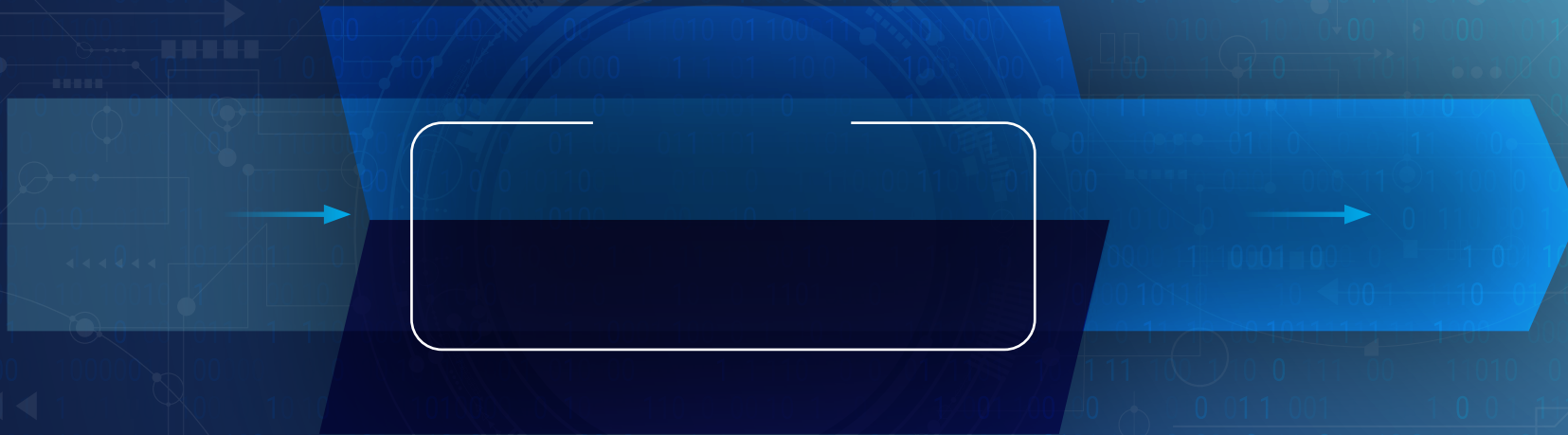


Mission:

Advancing TxDOT's transportation program through digital innovation

What is the TxDOT Digital Delivery Program?

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Planning and Impact Assessments



BENEFITS:

- Defining program goals, priorities, and structure creates wider consensus and support towards a **unified mission**.
- **Identifying impacts** to existing policy and procedures early and provide a plan for addressing the impacts avoids disruptions to business.

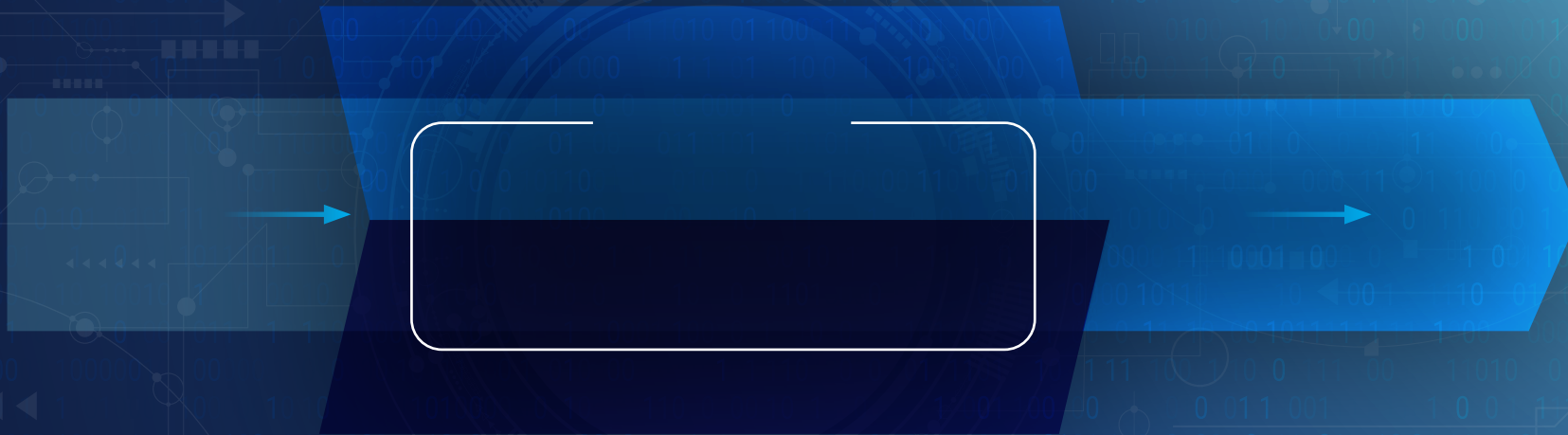


INITIATIVES:

- Strategic Plan
- Communication Plan
- Implementation Plan
- Training Plan
- Digital Twin Plan
- Impact Assessment Plan
- Program Dashboard Tracking

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



Change Management

BENEFITS:

- **Communicate the goals** and initiatives of the program.
- Collect **feedback** from stakeholders.
- Answer questions about digital delivery and its impacts.
- Create **transparency** between the program and employees on resources and initiatives.
- Showcase success stories and **lessons learned** on Pilot Projects.



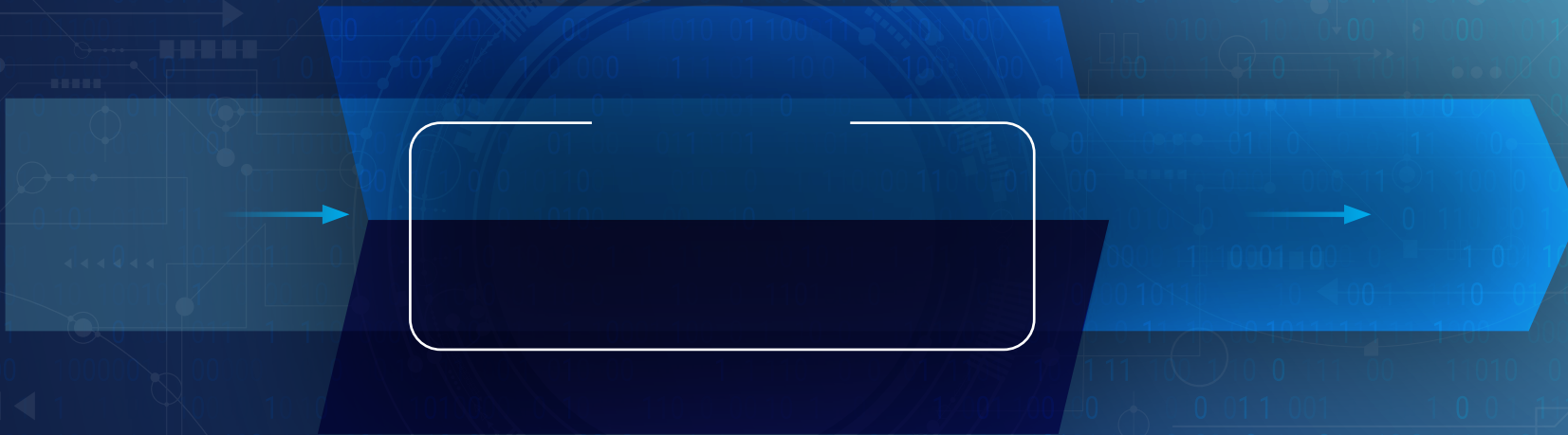
INITIATIVES:

- District Roadshows
- Program Quarterly Newsletter
- Digital Delivery website
- Webinar and Training Material
- Conference
- Champions Program

What is the TxDOT Digital Delivery Program?



Click on each step to learn more about the components of the Digital Delivery Program



Technology Exploration & Development



BENEFITS:

- **Streamline workflows** by automating repetitive and monotonous tasks, freeing up time for more complex work.
- Decrease the likelihood of project risks by employing **automated processes** within workflows.
- **Improve collaboration** and the adaptability of the workforce by establishing and utilizing consistent, proven workflows and processes.



INITIATIVES:

- Develop a comprehensive system for **software management**, including assessment and implementation of the onboarding process.
- **Create and refine workspaces** and workflows for optimal performance.
- Pilot the implementation of **electronic signing and sealing** for digital delivery.
- **Organize focus groups** dedicated to exploring and providing insights on technological advancements.
- Conduct thorough **testing of software** and workspaces to ensure efficiency and effectiveness.

What is the TxDOT Digital Delivery Program?

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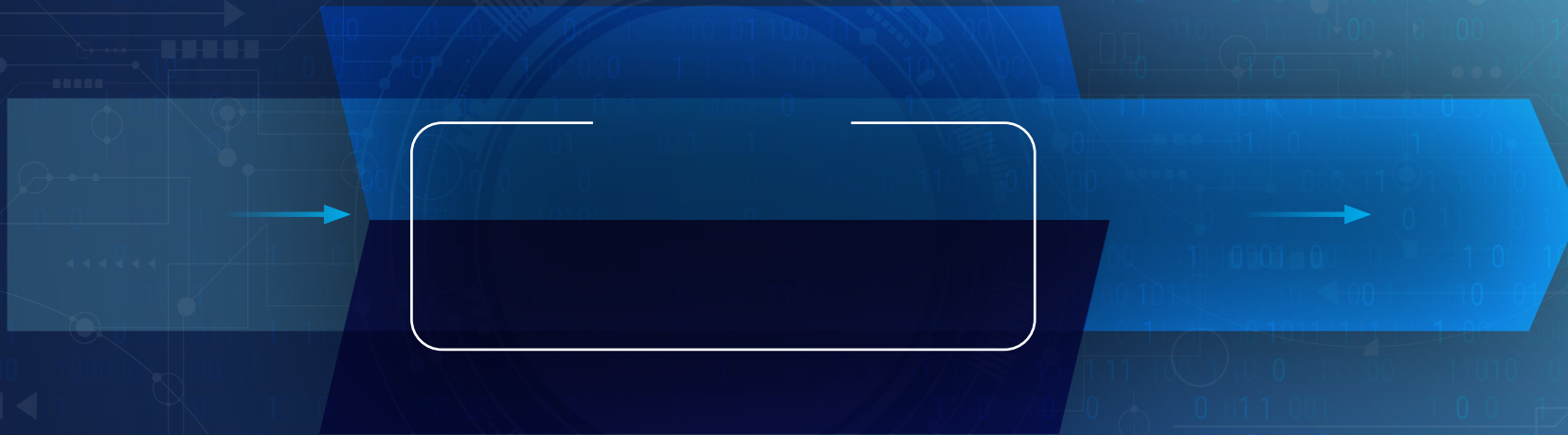
Piloting Program

TxDOT's Digital Delivery program will implement and test new software, processes, and tools through a piloting program. Pilot projects are examining different aspects of Digital Delivery, including model development standards, data standards, digital deliverables, digital design review, and new technologies.

These pilots will help TxDOT to understand how to develop, review, and deliver new digital deliverables. Leverage findings and lessons learned from pilot projects to understand gaps and needs, and to identify strategies that lead to successful adoption of Digital Delivery agency wide.

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



Design



BENEFITS:

- **Increased accuracy** of design through advanced 3D modeling.
- **Reduced time and cost** for plan production and estimating.
- **Model-based quantities** through data-rich models and custom quantity reporting.
- Enhanced graphical representation of design for **communication with stakeholders**.
- Improved methods of **constructability analysis**, conflict identification, and cross discipline collaboration.

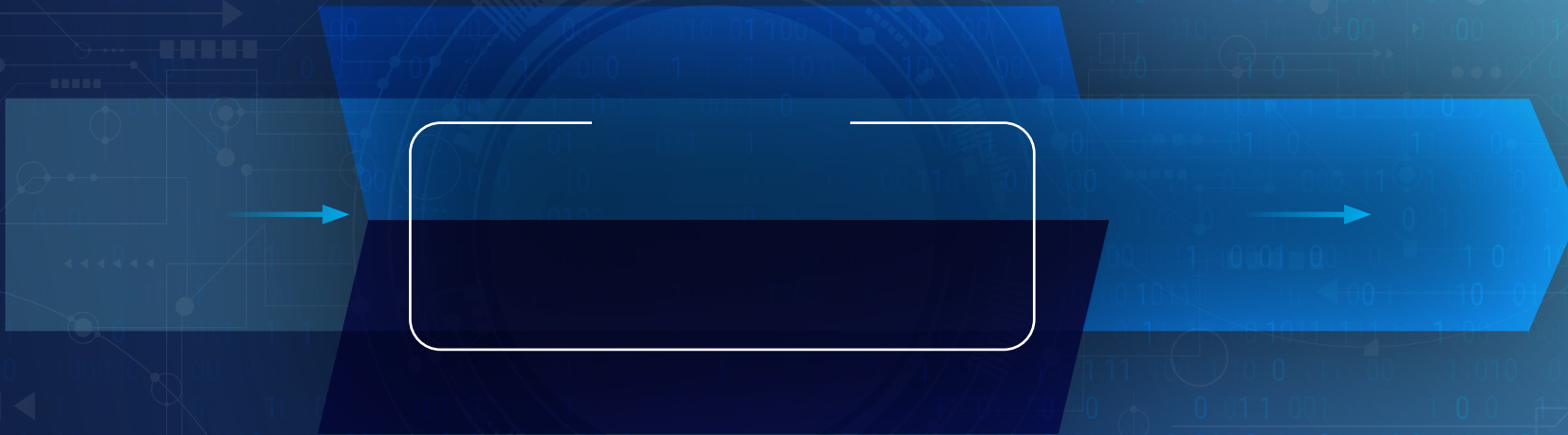


INITIATIVES:

- Develop **Model Development Standards** and Level of Development (LOD).
- Develop a **QC process and checklist** for model review.
- Implement **CAD workspace enhancements** including 3D features and item types.
- Build a **Digital Delivery toolbox** with design and deliverable guidance including:
 - » File naming convention
 - » Deliverables list
 - » 3D model breakline curation process
 - » Digital signing and sealing
 - » Item type requirements
 - » More..

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



Construction



BENEFITS:

- **Automated machine guidance (AMG)** and fabricators can easily integrate design models.
- **Reduced time** for estimating and bid preparation.
- **Lower and more accurate bids** due to quantity take offs using model deliverables.
- **Reduction of errors** and omissions in construction documents.
- **Increased safety** in field due to faster construction and inspection methods.
- **Improved communication** and collaboration with contractors.
- **Visualized construction** scheduling, phasing and staging opportunities.

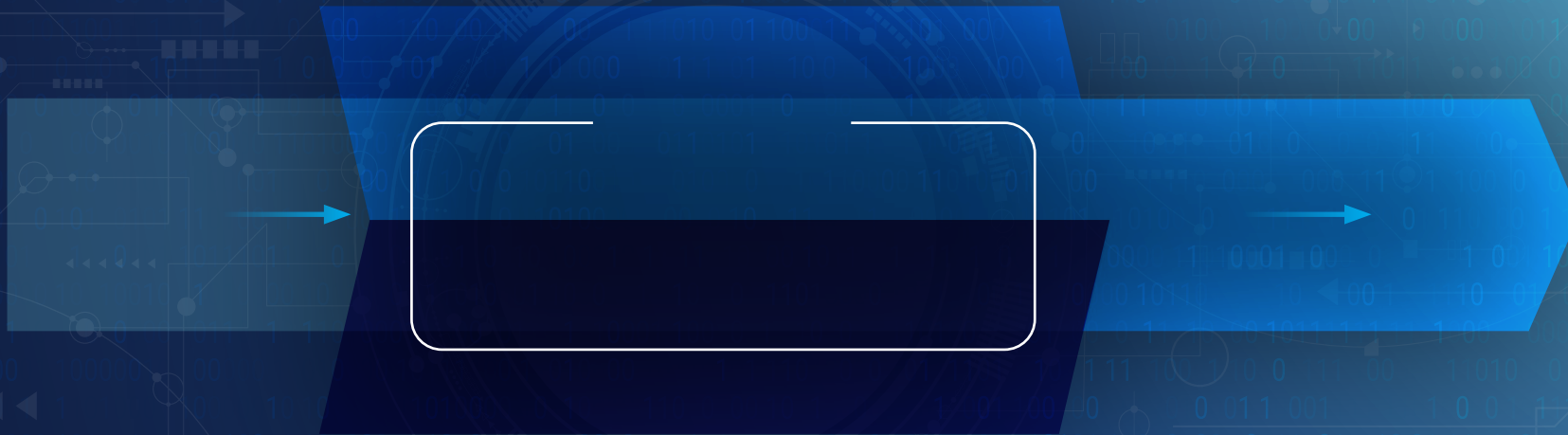


INITIATIVES:

- Develop **digital inspection process** and tools that allow for viewing and interacting with the model, and efficiently verifying, measuring, and tracking quantities for payment.
- Develop methods of **digital as-built** data collection.
- Develop **specification** for collection of digital as-built data.
- Improve **connected project data** management workflows.
- Develop project records **data standards**.
- **Integration** of payment forms and project documentation with design models.
- Develop best practices for **replacing plan sheets** with the design model in the field.

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



Asset Management



BENEFITS:

- Easier access to design and construction data.
- Improved **data quality** for priority assets.
- Better asset information for planning.
- Enhanced asset management with **condition forecasting** and lifecycle analysis.

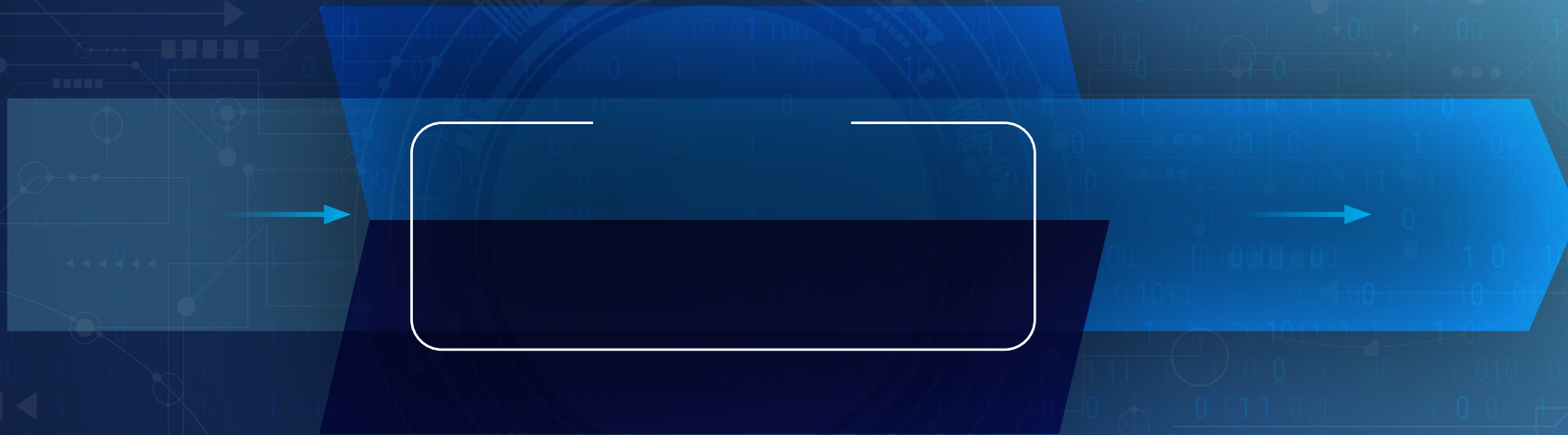


INITIATIVES:

- Capture design and construction **data**.
- **Centralize data storage** for asset information.
- **Data schema** to support asset lifecycle management.
- Establish **data workflows** with validation to ensure data quality.

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



New Process Standards Policy



BENEFITS:

- **Communicate** expectation.
- Ensure **consistent** and repeatable process.
- **Uniform** deliverables create efficiencies during design and construction

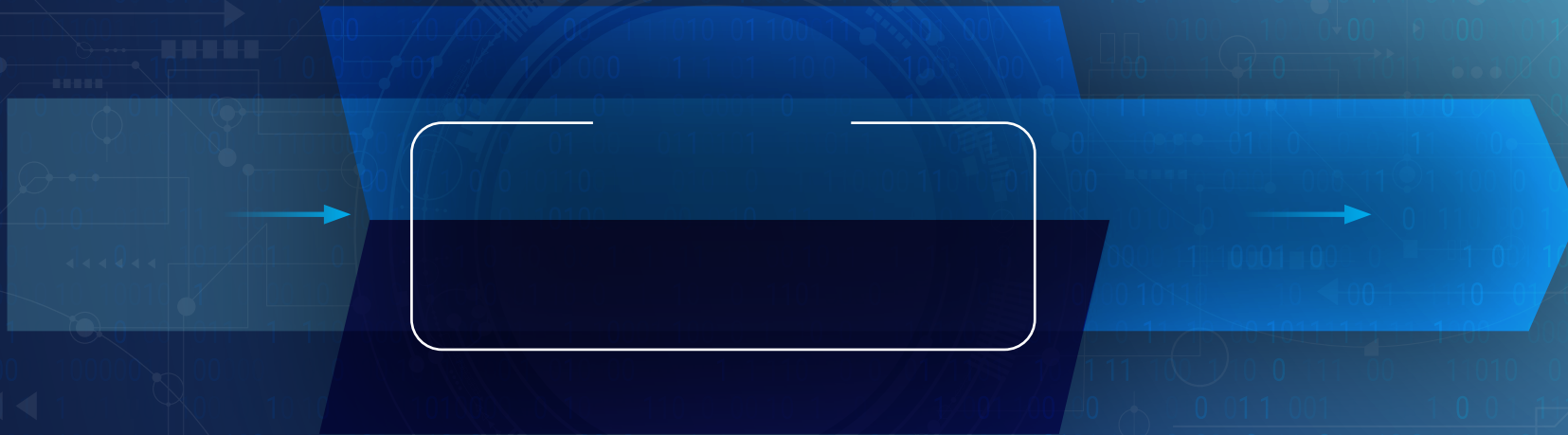


INITIATIVES:

- New and revised language for existing manuals, contracts and specifications.
- **Standard Operating Procedures** for new design, construction, and asset management processes.

What is the TxDOT Digital Delivery Program?

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Training



BENEFITS:

- Increase productivity and process **efficiencies**.
- Improve **knowledge** of policy and goals.
- Create a **feedback** loop for user input.

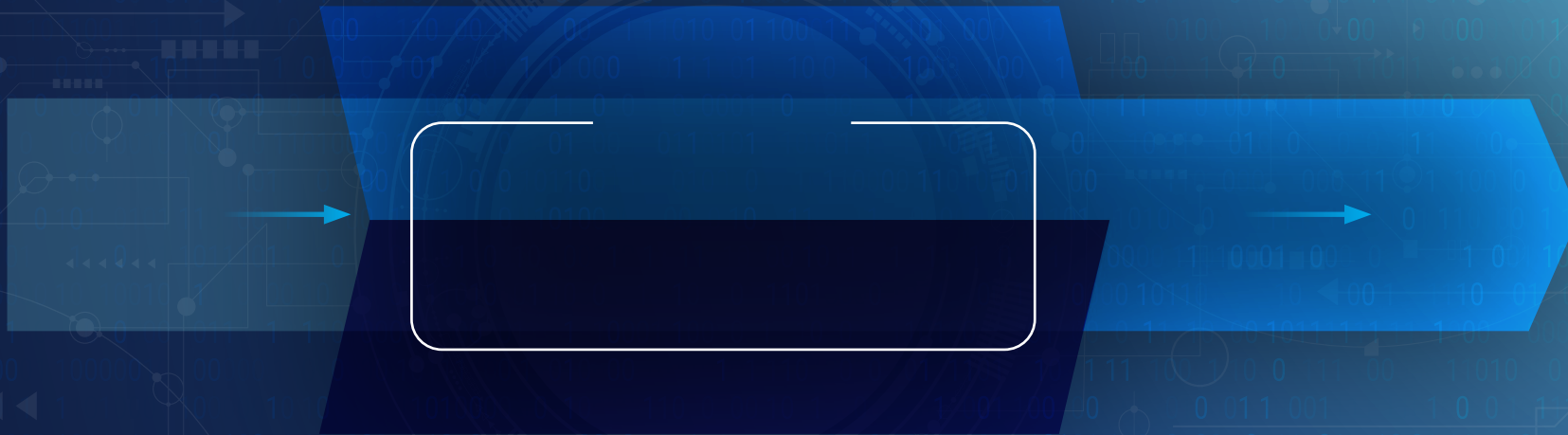


INITIATIVES:

- Develop a variety of training formats:
 - **Official course**
 - » Webinars
 - » Short "on-demand" videos
 - » "Quick start" guides (PDFs)
- Provide **in person training** for pilot project teams.
- Provide conference **presentations** and workshops.
- Develop tailored training for Alternative Delivery and other project types.

What is the TxDOT Digital Delivery Program?

 Click on each step to learn more about the components of the Digital Delivery Program



Program Adoption

ACHIEVE PROGRAM GOALS

- 1** Integrate Digital Delivery into TxDOT's business processes and operations.
- 2** Standardize processes and technology across the TxDOT organization.
- 3** Manage and leverage data throughout all stages of the infrastructure lifecycle.
- 4** Prepare TxDOT's existing and incoming workforce for a fully digital transportation agency.
- 5** Advance the state of the practice for Digital Delivery by partnering with peer states and industry.