



# TEST DATA AUTOMATION FRAMEWORK FOR GLOBAL DEPLOYMENT

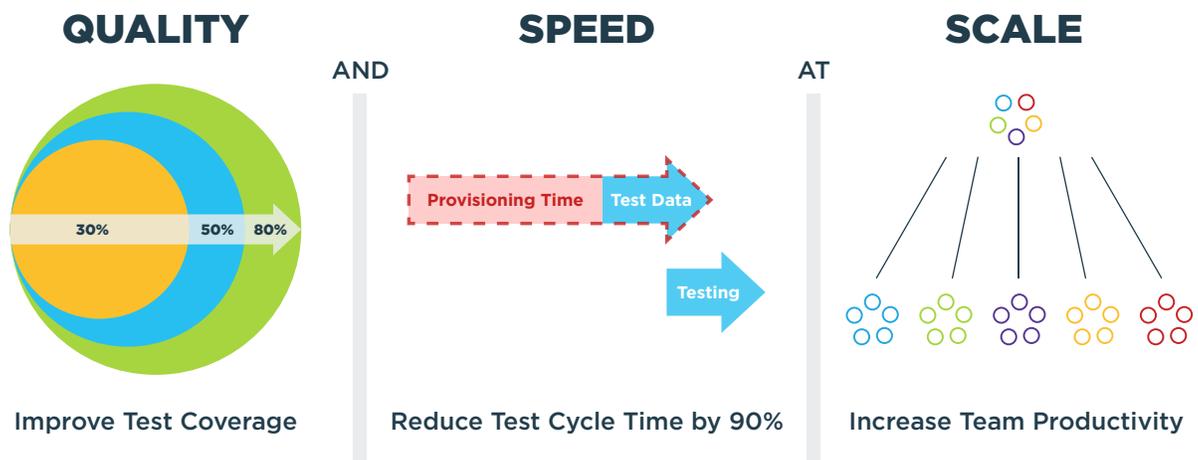
# Introduction: The Value of Test Data Automation

Welcome to the GenRocket Test Data Automation Framework guidebook. This overview document is intended for who are executives new to GenRocket and looking to establish a framework of success for the deployment of GenRocket throughout their organization.

Before we get started with the framework, a simple question: What motivated you to try GenRocket? Are you looking to...

- Increase test coverage with a greater volume and variety of secure test data?
- Accelerate the pace of test data provisioning to reduce test cycle time?
- Improve the productivity of your people and processes with greater automation?

**With Test Data Automation, your organization can truly realize the goal of quality at speed and scale.** In other words, as you deploy the GenRocket platform, you will find it easy to dramatically improve test coverage, reduce test cycle time, and increase team productivity as you deploy the technology at scale.



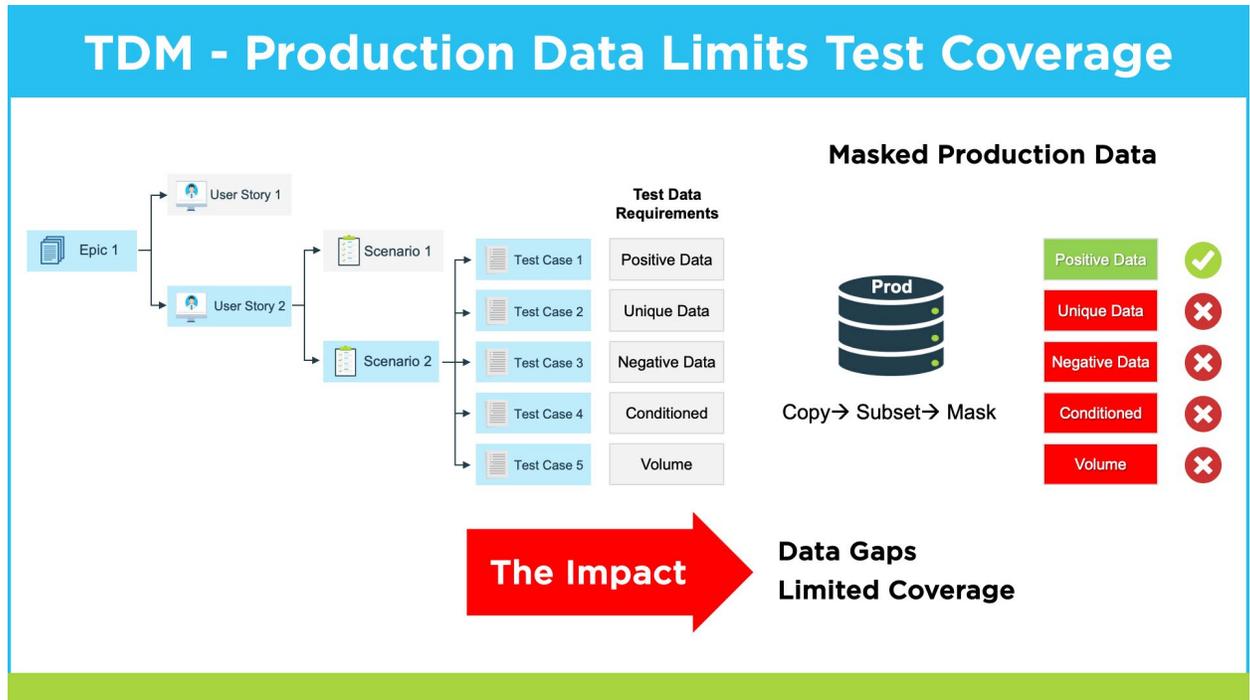
In this Test Data Automation deployment framework guidebook, we'll show you how to deploy the GenRocket platform across your organization and create a positive cycle of continuous improvement for all three of these goals.

## A New Paradigm for Test Data

Before we present the deployment framework, it's important to understand the differences between GenRocket's Test Data Automation (TDA) paradigm and traditional Test Data Management (TDM).

Traditional TDM begins by making a copy of production data that's usually subsetting and masked in preparation for use by developers and testers. The time it takes to requisition and provision test data from a production database can be lengthy and is often the longest time component of total test cycle time. Compounding this problem, the data isn't typically ready for immediate use by dev and test teams as it must be conditioned to meet various test case requirements.

Inevitably, there will be data gaps with the use of production data. The data subset often lacks the patterns, permutations, or edge case values needed for full test coverage. And, by its nature, production data doesn't contain invalid data for negative testing. These data gaps are usually filled with manually created test data from spreadsheets, or generated by a script, or manually input into the application front-end.



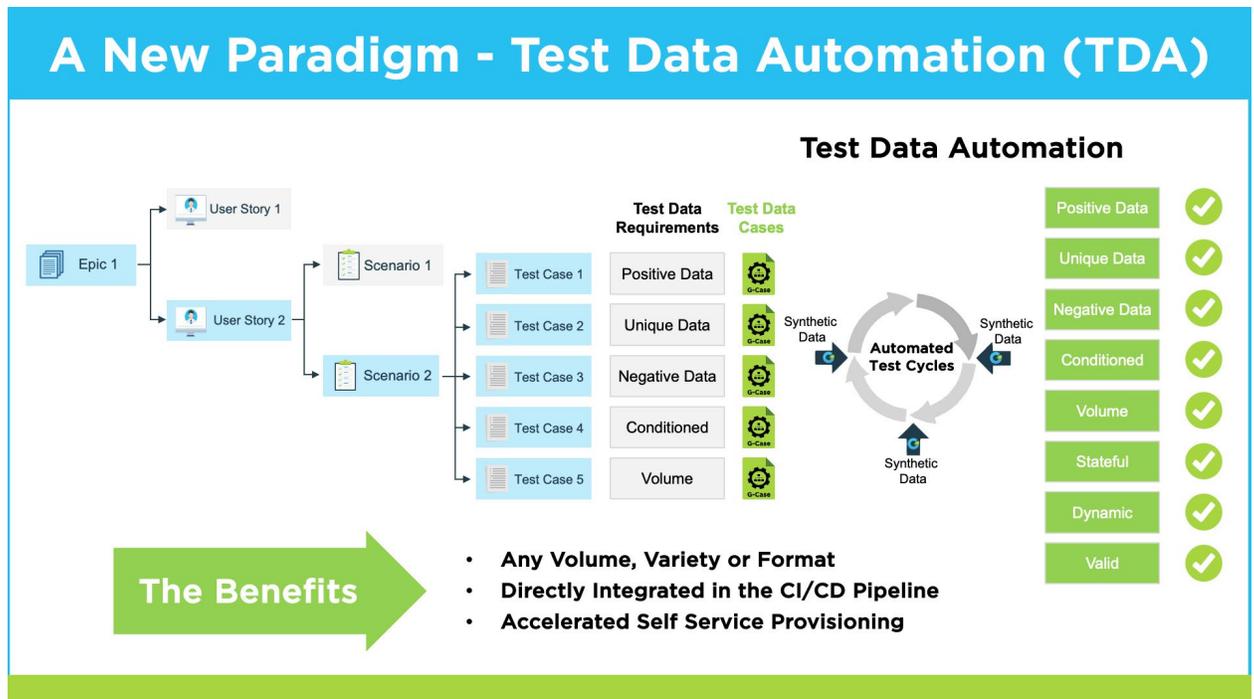
These limitations point to a fundamental problem with traditional TDM: **While the data provisioned from a production environment is accurate and realistic, the data values are not mapped to the requirements of the test case.** To conduct an effective test, a developer or tester must validate the appropriateness of the data for their test case and augment or alter the data as needed. And to ensure test data validity is not impacted by other tests, it must be reserved and refreshed after it's been modified by an application under test. **TDM limitations prevent the full automation of the build/test/release lifecycle within a CI/CD pipeline.**

## The Future of Test Data Management

With GenRocket's Test Data Automation (TDA) paradigm, the production database serves only as a blueprint for synthetically generated data. GenRocket simply imports the data model (e.g., its schema or metadata) for the target data environment and uses it to build a *Test Data Case*, a lightweight executable instruction set containing a precise definition of the data profile needed for testing. **Using Test Data Cases, any volume, variety, or format of data required for a any test can be generated by GenRocket with lightning speed.** The TDA paradigm enables all test data required by developers and testers to be provisioned on-demand and generated in real-time.

## A New Paradigm for Test Data

GenRocket's TDA eliminates the data gaps inherent in a production data subset. That's because with TDA, test data is pre-defined and mapped to the needs of each test case with a corresponding Test Data Case. Once created, it can be executed whenever it's needed and reused or repurposed for accelerated data provisioning.



Whenever test data is required, synthetic data is dynamically generated and injected into an application during test execution. Each time a Test Data Case is executed, it generates a fresh copy of synthetic data according to its pre-configured rules and conditions.

As a result, there is no need to reserve or refresh test data. And there is no requirement for expensive data storage to house the data between test runs. This is one of the many ways the TDA paradigm represents a dramatic change from traditional TDM. It's more flexible, agile, and adaptable to the needs of each test requirement. **TDA enables the fully automated and orchestrated delivery of data into any test automation environment.**

## Simulate Any Kind of Data for Any Kind of Test

How is GenRocket able to simulate any volume, variety, or format of data for any kind of test? Currently, the platform provides 700+ data generators and 100+ output data formats. In more than 10 years of supporting enterprise customer requirements, we've never encountered a synthetic data generation challenge that can't be solved by this extensive library, which grows with each new customer request for new data types.

The chart below illustrates some of the many and diverse intelligent data generators and output data formats supported by GenRocket. If you don't see one that matches your data requirements, we'll build it for you in less than 30 days.

## Any Volume, Variety and Format

- **700+ data generators**
- **100+ data formats**
- **Full referential integrity**

**700+ Data Generators**



**100+ Data Formats**



<p><b>Names</b> City State Postal Code Emails Dates Lists ID's</p> <p>Percentages Calculations Permutations String Edge Cases</p> <p>Math Credit Card Currencies Logic Concatenate Null</p> <p>Compare Boolean Queries Encryption UUID SSN</p>	<p><b>SQL/NoSQL Databases</b> Oracle, DB2, MySQL, PostgreSQL, SQL Server, MongoDB</p> <p><b>Web Services</b> XML &amp; JSON (Flat/Nested) REST API, SOAP</p> <p><b>Fixed File Formats</b> CSV, VSAM, EBCDIC NACHA, BAI2</p> <p><b>Big Data</b> Parquet, Avro</p>	<p><b>Messages/Event Data</b> Kafka, MQ, SWIFT</p> <p><b>COTS Applications</b> Guidewire, Duck Creek, Salesforce, SAP</p> <p><b>Complex Data Feeds</b> X12 EDI, FHIR</p> <p><b>Documents &amp; Images</b> JPG, PNG, TIFF, PDF</p> <p><b>Cloud Environments</b> AWS, Azure, GCP</p>
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## Easily Integrate into Your DevOps Ecosystem

GenRocket's Test Data Automation solution easily integrates into any DevOps ecosystem. Its on-demand delivery of synthetic test data works with all popular testing frameworks, developer tools, CI/CD pipelines, and virtual test environments.

## Integrate Into Your DevOps Ecosystem

**Test Data Case Integration**

- Developer Tools
- Testing Tools
- CI/CD Pipelines
- Virtual Test Environments

**Test Automation Tools**

 Selenium
  Tricentis
  cypress

 Katalon
  cucumber

 JUnit
  LAMBDATEST
  APACHE JMeter

**Orchestration & CI/CD Tools**

 Jenkins
  git

 amazon web services
  Google Cloud Platform
  Azure DevOps

Or put another way, GenRocket's TDA platform enables full orchestration of the right data, delivered to the right place, at exactly the right time.

# Summarizing the Difference Between TDM and TDA

In a traditional TDM solution, there are multiple limitations, including:

1. **Limited data variety and volume:** Data variety and volume is limited to what currently exists in the production data file.
2. **Data must be reserved and refreshed:** Data required for tests must be reserved for use. And it must be refreshed periodically.
3. **Lengthy data provisioning time:** Days, even weeks, may elapse from the time data is requested until it has been copied, subsetted and masked for use in a lower environment.
4. **Data not mapped to test cases:** The data in a subset is not mapped to test case requirements - it must be conditioned prior to its use.
5. **Not integrated into CI/CD pipeline:** Traditional TDM systems do not integrate directly into a CI/CD pipeline. This limits the degree of automation that can be achieved.
6. **High cost of ownership:** Typical TDM platforms cost hundreds of thousands of dollars to fully deploy. The cost of ownership is even higher when costs for data storage, software maintenance, staffing and professional services are included.

As you will see in this guide, most of these costs are eliminated with the deployment of a GenRocket's TDA solution. With GenRocket's TDA platform, you'll experience:

1. **Unlimited data variety and volume:** Easily generate any volume, variety, or format of synthetic test data required for your testing needs without manual data creation.
2. **No need to reserve or refresh data:** Enable dev and test teams to generate fresh synthetic test data for each run. There's no need to "dip into the well" of data a second time. Simply re-run a Test Data Case to generate fresh data every time.
3. **Rapid data provisioning time:** Data provisioning time is cut from days and weeks to minutes and hours.
4. **Data mapped to test cases:** Each Test Data Case is specifically designed to meet the needs of each test case with data based on pre-defined rules and conditions
5. **Fully integrated into the CI/CD pipeline:** GenRocket integrates seamlessly into the CI/CD pipeline to enable a fully automated build, test, and release process.
6. **Low Cost of Ownership:** GenRocket offer the lowest cost of ownership and the highest return on your technology investment of any comparable TDM or synthetic data generation solution.

**GenRocket's tiered pricing model offers lower software licensing fees than competing solutions and provides unmatched value for money.** With GenRocket, each pricing tier provides unlimited users, unlimited data, free onboarding, 5x24 online support, full software maintenance and updates, and there's no additional cost for data storage. You'll require less staff to operate the system than a traditional TDM system. **Payback the cost of the platform in just a few months and realize an ROI of 1,000% or more.**

# One Platform for All Test Data Needs

GenRocket provides one robust enterprise-wide platform for all your test data needs using either production or synthetic data. In the early days of deployment, you may prefer to use GenRocket to provision masked and subsetting production data to meet the ongoing test data needs of your distributed teams with a familiar solution.

## An Evolutionary Path to Full Scale Synthetic Test Data Automation



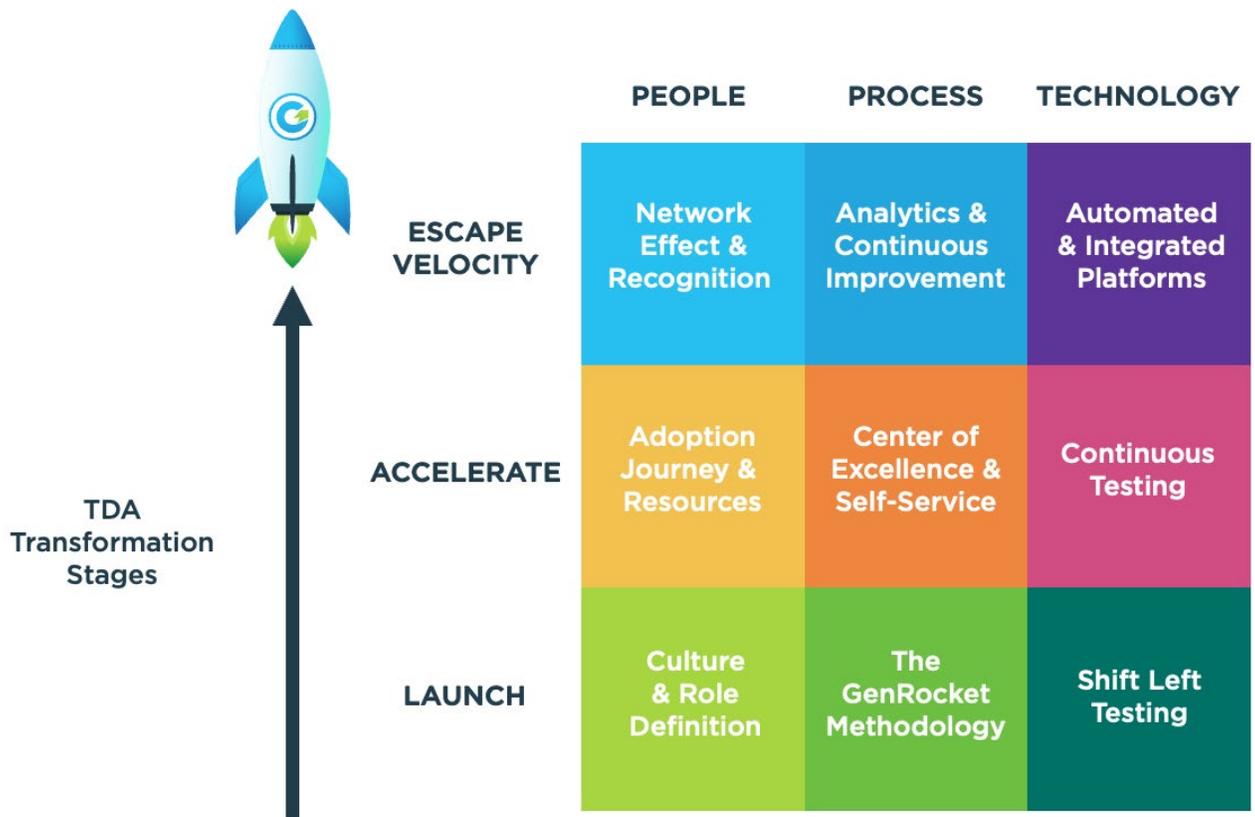
Then gradually introduce the use of synthetic data to increase test data variety and volume. Ultimately, you can use synthetic data across all value streams, and all categories of testing, with Test Data Automation fully integrated into your CI/CD pipelines. **As you progress along this evolutionary path, your organization will realize increasing benefits, in acceleration, quality and productivity.**

### Making the TDA Transformation

To manage your transformation to TDA, we'll show you how to tap into three critical dimensions of any successful transformation program: People, Process, and Technology.

We'll incorporate these dimensions into three progressive stages of deployment. As you might expect, we've named them after the stages of a rocket ship launching into orbit - from its initial takeoff through its escape from the pull of gravity. **The three deployment stages are LAUNCH, ACCELERATE, and ESCAPE VELOCITY.** Together, they comprise a 9-step framework for scaling GenRocket's Test Data Automation platform across any globally distributed quality engineering organization.

Once you have worked through each step in this deployment framework, you will have established an integrated ecosystem to build, test, and release software projects that are big and small, complex and simple, throughout the organization.



## Introducing the GenRocket TDA Deployment Framework

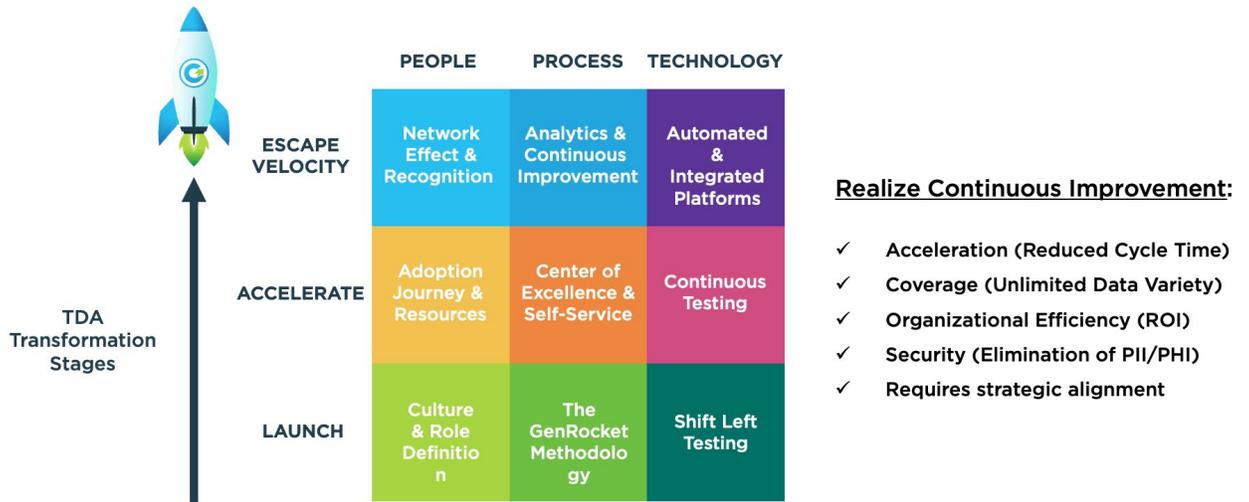
The TDA Deployment Framework provides scaffolding around your enterprise-wide initiatives to ensure you establish a strong foundation for technology adoption and expansion. The framework was developed over years of working with large enterprise companies around the world. We tested it with countless companies to ensure it was flexible and adaptable. You'll be following a proven formula for success that has been field tested with global enterprises and improved based upon their feedback. Here are the beneficial outcomes you will realize:

1. With GenRocket, you'll deploy test data automation throughout a global enterprise using a Center of Excellence model.
2. Using this approach, GenRocket serves as a single platform for any test data provisioning requirement from masked production data to generated synthetic data.
3. It can handle any test data challenge, any use case, and any level of testing.
4. Deploying GenRocket globally across the organization to hundreds of dev ops teams provides enormous time and cost savings.
5. The cost benefits increase exponentially the more you use GenRocket as use cases are created, saved, and reused.
6. All of this adds up to accelerated testing, with fewer defects to remedy, and improved organizational efficiency.

# The GenRocket TDA Deployment Framework

The GenRocket Deployment Framework presents a phased approach to effectively scale Test Data Automaton within your quality engineering organization. It encompasses three transformation stages: LAUNCH, ACCELERATE, and ESCAPE VELOCITY, focusing on the dimensions of PEOPLE, PROCESS, and TECHNOLOGY.

## Test Data Automation Technology Deployment Framework



**Empowering PEOPLE:** Creating a culture of learning and collaboration is vital to support users on their adoption journey and recognize their accomplishments. It is crucial to establish an environment that encourages continuous improvement and embraces the benefits of Test Data Automation.

**Streamlining PROCESSES:** The GenRocket methodology lays the groundwork for implementing a **Center of Excellence** and a **distributed self-service** model. This model's efficiency is continuously enhanced through analytics and reporting, ensuring optimized processes and streamlined operations.

**Leveraging TECHNOLOGY:** Test Data Automation enables teams to conduct early, continuous, and high-quality testing with extensive coverage. By fully **automating and orchestrating the delivery of synthetic data** into development tools and testing frameworks, GenRocket facilitates efficient and effective testing practices.

GenRocket offers comprehensive analytics to measure and adapt to organizational needs by focusing on crucial areas such as test cycle time, test coverage, team efficiency, data privacy, and alignment with strategic goals and objectives. This enables organizations to build value and achieve success in meeting their testing challenges.

# The LAUNCH Stage

## PEOPLE: Establish a Culture of Learning

The goal of the TDA deployment framework is to achieve “Escape Velocity,” the highest level of maturity where automated processes deliver quality products and innovative solutions. **PEOPLE play a crucial role in the transformation from TDM to TDA and successfully managing change requires a *Culture of Learning*.**



The first step is to ensure that the right team is assembled to direct, manage, and implement the platform. This team should consist of:

1. An Executive Sponsor
2. A Project Champion
3. Scrum Master
4. DevOps and Testing Teams

Throughout the process, there may be cultural barriers to change. As those involved learn new skills and processes, allowances must be made for mistakes. Learning new skills can only take place when people experience psychological safety or when they feel supported through the learning curve.

**Right People in the Right Seats:** A successful GenRocket deployment team consists of Test Data Engineers, a Product Owner, and a Scrum Master. However, it is equally important to have an Executive Sponsor who believes in the vision and strategic alignment, as well as an internal Champion who can overcome obstacles to success.

**Establishing a Culture of Learning:** Emphasize that the GenRocket implementation is a learning environment focused on progress rather than perfection. Foster a safe space for learning and growth, acknowledging that it's natural to make mistakes when exploring something new. Strong leadership, collaboration, and a learning mindset are crucial to ensuring psychological safety for effective learning.

**Continuous Learning and Measurement:** Focus on building a scalable structure for future deployment stages. Establish teams, tribes, or guilds that share common objectives and will work together toward achieving them. It is the responsibility of leadership to promote a culture of learning and manage the process of behavior change across the organization.

## LAUNCH

Culture  
& Role  
Definition



## PROCESS: Embrace the GenRocket Deployment Model

During the LAUNCH phase, the PROCESS dimension focuses on learning and implementing GenRocket's 4-stage methodology: **Model, Design, Deploy, and Manage**. Understanding and applying this model is crucial for the success of the GenRocket deployment team. Let's delve into each stage:



**Model:** Data is modeled to create a blueprint for how synthetic test data will be structured. Database schemas or other forms of metadata defining the structure of the target data environment becomes the blueprint for synthetic data generation. This ensures referential integrity among all data elements.

**Design:** GenRocket builds on the data model by automatically identifying related data domains and building a set of Test Data Cases for popular testing categories. Test Data Cases can be extended with rules and queries to control and condition the way synthetic data is generated to maximize test coverage.

**Deploy:** Test Data Cases are published in a portal for use by distributed dev and test teams. Once downloaded, Test Data Cases can be integrated into, and executed by, dev tools or testing frameworks to conduct fully automated testing.

**Manage:** Manage is the ability to maximize value from the platform by measuring & tracking deployment with utilization and value metrics to guide continuous improvement.

By following this framework, organizations can effectively utilize the platform, deploy it successfully, and maximize its value. The Product Owner plays a crucial role in selecting appropriate projects that facilitate mastery of the GenRocket methodology. Choosing the right projects will help to ensure a smooth transition to the subsequent stages of deployment.

## LAUNCH

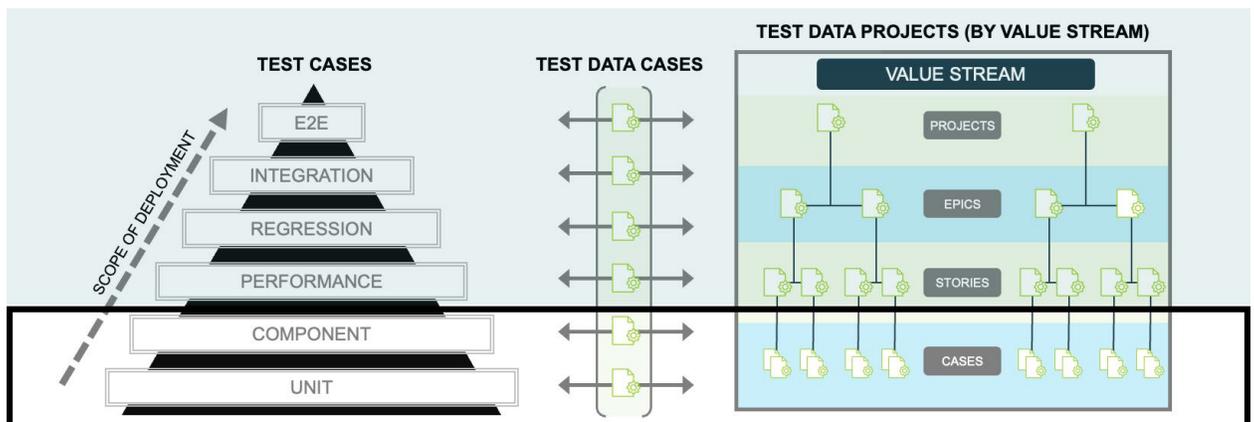
The  
GenRocket  
Methodology



## TECHNOLOGY: Start Small and Establish Quick Wins

During the LAUNCH stage, it's important to start small and focus on quick wins as you begin to deploy the TECHNOLOGY. Consider the following ideas for your starting project:

1. Follow the onboarding process guided by your GenRocket Customer Success Team.
2. Identify teams within your organization that are open to embracing new technology. Choose a project with clearly defined objectives and testing challenges.
3. Start with unit and component testing, gradually expanding to more comprehensive test cases as you progress up the software testing pyramid.



During the early stage of deployment, a common question arises: “Where do I begin with GenRocket? Here are some ideas for projects that can provide quick wins:

1. **Shift Left Testing:** GenRocket makes it easy to conduct testing earlier in the development cycle. Unit and component testing often have less challenging test data requirements and Test Data Cases can be quickly designed and deployed.
2. **Greenfield Projects:** Projects that involve starting from scratch without any existing historical data for testing are a great candidate for newly generated synthetic data.
3. **Projects with Sensitive Data:** Projects that deal with sensitive data and can benefit from replacing it with synthetic data, ensuring data privacy and security.
4. **Projects with Manually Created Test Data:** Filling data gaps with spreadsheets and other manually created data can be replaced with rapidly generated synthetic data.
5. **High-Volume Data Projects:** Projects involving a large volume of data, such as machine learning or load and performance testing are easy for GenRocket to handle.

Projects that align with these data requirements serve as excellent starting points to leverage the full potential of GenRocket.

## LAUNCH

Shift Left  
Testing



# The ACCELERATE Stage

## PEOPLE: How to Manage the Adoption Journey

Let's dive into the second stage of the TDA Deployment - the ACCELERATE stage - and focus on the dimension of PEOPLE. In the previous stage, we established roles and identified initial use cases. It's important to communicate those early successes by sharing use cases through articles, videos, and value metrics.

The goal is to expand the use of TDA so it's essential to manage the four stages of technology adoption. Users need to become aware of the platform, discover potential use cases, assess its value, apply it to their test cases, and eventually reach a level of maturity where they innovate new and creative ways to leverage the technology.

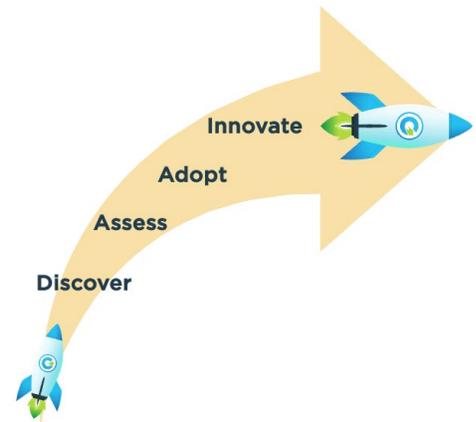
### Manage the Adoption Journey

- Establish a template for each journey stage

### Offer Resources That Enable Growth

- Persona-based training & education
- Internal communications & community
- Embed resources into the adoption journey with dojo's/bootcamps
- Establish a community of involvement
- Communicating successes from stage 1
- Use cases, videos, 1-pagers
- Tangible value metrics from stage 1
- Celebrate the journey

### Stages of Technology Adoption



To support the adoption journey, leverage GenRocket's Flight School and knowledge base while complementing them with internal resources. Enable each step of the adoption process by following these key actions:

1. Establish a structure that fosters discovery, assessment, adoption, and innovation.
2. Provide resources tailored to individuals at different stages of the framework
3. Create a structured curriculum for users to follow, based on the GenRocket four-step methodology and the TDA framework outlined in this guide.
4. Facilitate internal communication among stakeholders that is outcome-oriented, value-based, and highlights quick wins for teams.
5. Assess and promote the value gained and realized through TDA implementation.
6. Explore how further integration can accelerate the adoption journey.

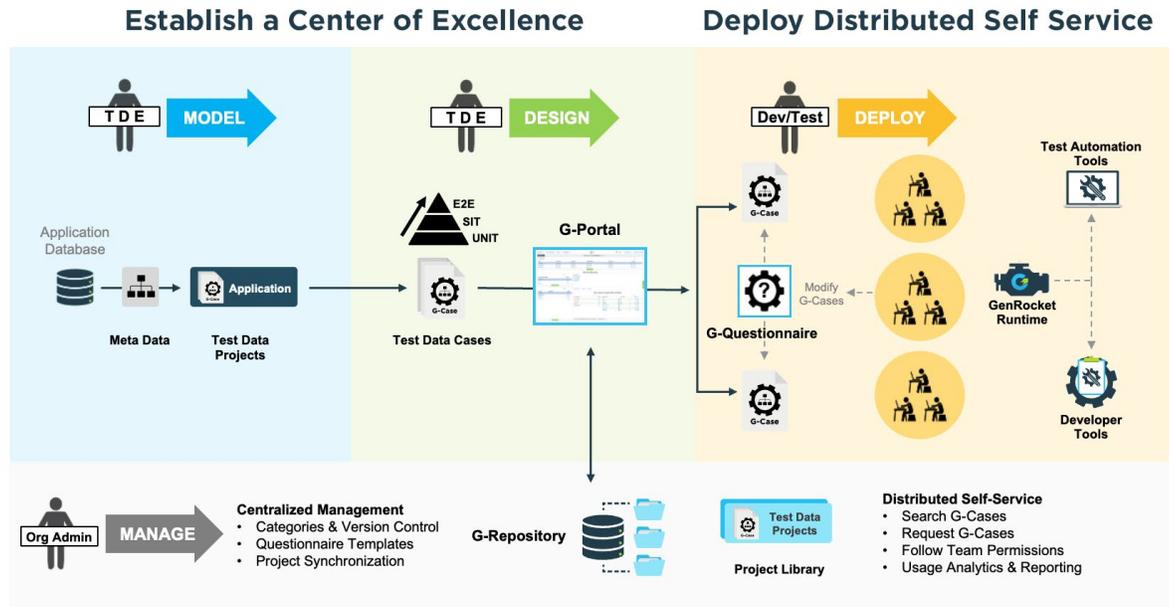
ACCELERATE

Adoption  
Journey &  
Resources



## PROCESS: Establish a Center of Excellence

The next step in the ACCELERATE stage is to implement an organization-wide PROCESS based on the *GenRocket Methodology*. This enables scaling GenRocket's Distributed Self-Service platform to geographically dispersed dev and test teams. By establishing a Community of Practice (COP) that spans different value streams and product teams, supported by the Center of Excellence (COE), the power of TDA and synthetic data generation becomes an integral component of your organizational workflow.



Here are the key aspects of this organization-wide process:

1. The COE, consisting of a small group of GenRocket Test Data Engineers (TDEs), supports a large global staff of development and test teams.
2. The COE model enables more comprehensive testing with higher efficiency and at a greater scale than ever before.
3. Developers and test teams can easily request the necessary data through the portal.
4. Leveraging G-Portal and the Center of Excellence model drastically reduces test data provisioning time.
5. Faster, easier, and more efficient fulfillment of data requests leads to quicker testing with greater coverage improving quality and speed.
6. Teams can seamlessly integrate synthetic test data into their test automation and developer tools.
7. G-Questionnaire serves as a valuable resource for empowering distributed teams to customize and reuse Test Data Cases for additional testing.

By implementing this organization-wide process, you can optimize the utilization of GenRocket's capabilities, enhance collaboration among teams, and achieve accelerated testing outcomes.

ACCELERATE

Center of  
Excellence &  
Self-Service

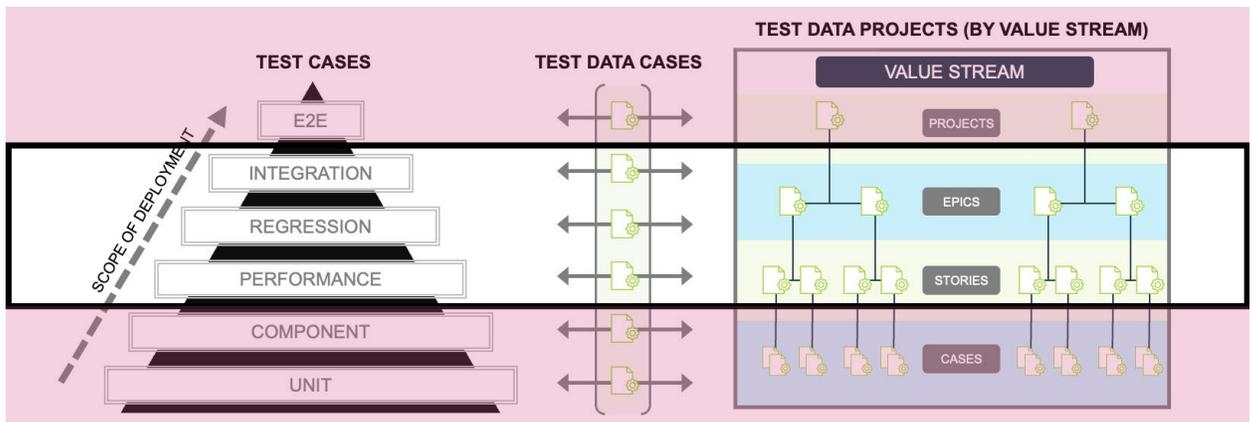


## TECHNOLOGY: Increase the Scope of Deployment

**GenRocket TECHNOLOGY empowers you to methodically and systematically advance to higher levels of the testing pyramid - at whatever pace you desire.** The best way to scale is to take a building block approach. Repurpose and combine basic Test Data Cases designed for unit and component testing into more advanced Test Data Cases for more complex forms of testing.

Following this building block approach paves the way for comprehensive integration testing, with performance and regression testing at every level. This enables faster feedback and enhances agility.

**GenRocket simplifies the process of packaging Test Data Cases into Stories and Epics, allowing you to leverage and build upon existing test data designs.** Overtime you will have developed a deep and reusable library of executable synthetic test data designs.



As you progress through this phase, you will continue to gain momentum. You are actively constructing an efficient and automated testing framework within your organization.

And with GenRocket's Team Management capabilities based on Role-Based Access Control (RBAC), you can confidently scale securely across globally distributed testing facilities, staffed by either internal or external team members.

Start utilizing the metrics you've identified for success and analyze projects through this lens to identify areas for improvement and success. Remember, success breeds success, so don't hesitate to share and communicate the positive outcomes you achieve.

ACCELERATE

Continuous Testing



# The ESCAPE VELOCITY Stage

## PEOPLE: Establish a Network Effect

ESCAPE VELOCITY represents the final stage of deployment. At this level, your team is maximizing efficiency by searching and re-deploying Test Data Cases, utilizing the centralized portal for requesting new Test Data Cases, and seamlessly integrating synthetic test data into the testing pipeline.

This is the moment when you've truly achieved Escape Velocity: when the success of your initial team inspires other teams to embrace the GenRocket Platform and seek its advantages.



Here's how to encourage and enable global adoption to continue to build upon this success:

1. Create an ecosystem that engages with value streams and leverages internal Champions. The GenRocket Center of Excellence (GCE) operates as a central hub, supporting value stream GCEs as spokes within a hub and spoke network.
2. Recognize and empower product teams, providing them with the opportunity to align themselves with the core concepts of the GenRocket framework.
3. Capitalize on existing work to increase velocity and ensure that new projects are aligned with the company's strategic initiatives.

This Network Effect will continue to spread awareness and attract other groups to adopt the technology. Rejoice in your successes, acknowledge and appreciate the efforts of individuals, and provide them with internal and external opportunities to share and showcase their expertise. By doing so, you will enhance employee experience, boost morale, improve retention, and attract highly talented individuals to your organization.

ESCAPE  
VELOCITY

Network  
Effect &  
Recognition



# PROCESS: Drive Continuous Improvement

During this final stage of deployment, a PROCESS of continuous improvement is enabled by using value metrics. These metrics allow you to measure, assess, and make informed choices based on qualitative and quantitative data.

The deployment of the GenRocket platform drives increasing value for your organization by maximizing test coverage, accelerating test cycle time, and improving team productivity. To gauge the progress and impact of these improvements, the following utilization metrics play a crucial role in measuring and building value.

## G-Analytics: Analysis & Reporting



	UTILIZATION METRICS	VALUE OUTCOMES
<b>TEST COVERAGE</b> [e.g., 30% → 80%]	<b># Test Data Cases</b> <ul style="list-style-type: none"> <li>G-Cases</li> <li>Stories &amp; Epics</li> <li>Rules</li> </ul>	<b>Increased Coverage</b> <ul style="list-style-type: none"> <li>Test categories</li> <li>Data domains</li> <li>Business rules</li> </ul>
<b>CYCLE TIME</b> [e.g., 4 days → 4 hrs.]	<b>G-Case Fulfillment Time</b>	<b>Accelerate Provisioning</b>
<b>PRODUCTIVITY</b> [e.g., 50 → 500 runs/hr.]	<b># G-Case Runs</b> <b>Data Generation Volume</b> <b># G-Questionnaires</b>	<b>Execution Frequency</b> <b>Testing Efficiency</b> <b>G-Case Reusability</b>

- 1. Test Coverage:** Measure the number of Test Data Cases designed and executed across different categories of testing, along with the increased coverage achieved through controlled and conditioned synthetic data generation.
- 2. Cycle Time:** Measure the reduction in test data provisioning time for your distributed teams by tracking the fulfillment time for test data requests. Faster provisioning leads to quicker test cycles.
- 3. Productivity:** Measure the increase in test execution frequency, the volume of data used for testing

The resulting cycle of continuous improvement positively influences all aspects, including test coverage, data quality, defect detection and correction, and more. In essence, it establishes a process in which the overall quality of everything impacted by GenRocket synthetic test data consistently improves.

ESCAPE VELOCITY

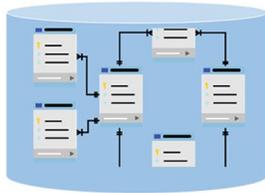
Analytics & Continuous Improvement



## TECHNOLOGY: Achieve Full Data Orchestration

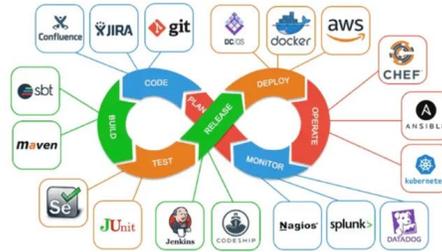
At ESCAPE VELOCITY, your GenRocket TECHNOLOGY is seamlessly integrated into your DevOps ecosystem. This integration enables your enterprise to achieve full test data orchestration, ensuring that the right data is available in the right place and at the right time. The GenRocket platform allows you to design and integrate the appropriate data into your frameworks and tools precisely when it is needed in your CI/CD pipeline.

### Right Data



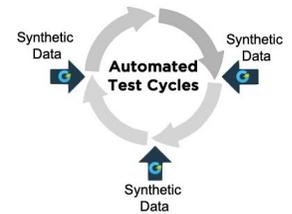
- Production Data Subset
- Synthetic Data Generation
- Any Volume, Variety, Format

### Right Place



- Any Tool or Framework
- Any Category of Testing
- Integrated in CI/CD Pipeline

### Right Time



- Self-Service Data Provisioning
- Delivered During Test Execution
- Fresh Dataset for Every Test

### Test Data Orchestration means:

- The availability of the right data, whether it is subsetted production data or generated synthetic data, in any desired volume, variety, or format.
- Seamless delivery of data to the right place integrated with your development tools and testing frameworks.
- And test data is made available at precisely the right time with Test Data Cases delivered on-demand to your teams and available to applications in real-time during test execution in your CI/CD pipelines.

With GenRocket's full integration, you can measure the improvements achieved and make incremental enhancements over time using data derived from the analytics and reporting tools in your GenRocket platform. This level of integration and orchestration ensures that your organization can effectively manage and optimize its test data processes, ultimately leading to improved testing efficiency and quality.

ESCAPE  
VELOCITY

Automated  
& Integrated  
Platforms



# Additional Resources

We've reached the end of our TDA Framework journey. If you need further training or resources, please don't hesitate to reach out to your GenRocket implementation team.

## Online Resources

[Flight School](#) - our newly revised online training center

[GenRocket Community](#) - where TDA friends gather

[Download Literature](#) - guides, brochures, and more

[Knowledge Base](#) - searchable online repository of information

[Support](#) - get help when you need it

