

Five steps to organizational transformation in equipment finance using AI



Overview

Change in business is hard. Creating real and lasting change in business is even harder. But every business knows that change is also inevitable. The current dynamics will change — it's going to happen. So, during such times, like now, when market forces converge to make change necessary and urgent, leaders need to be prepared and ready to adapt to new economic conditions.

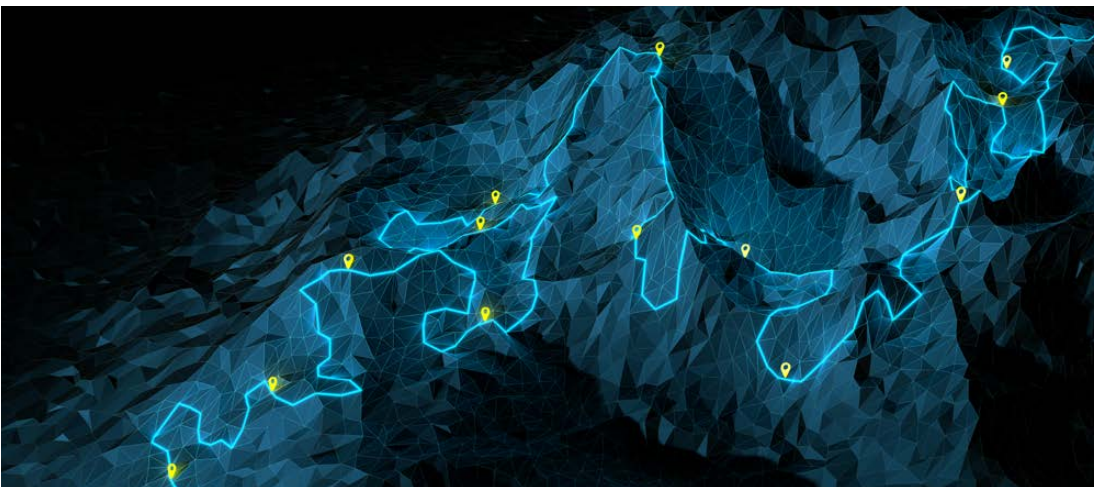
Over the past decade, modular cloud architectures and the associated ubiquitous connectivity that they demand have created a digital fabric that is now fully operational at the socioeconomic level. People – customers, employees, regulators, investors – all operate in a connected mesh of networks and applications that are available anytime, anywhere via the cloud.

The 2023 collapse of Silicon Valley Bank, wherein a majority of depositors moved or attempted to move over \$42 billion in less than one day, showed us the new reality in customer management in our connected ecosystem. Never again will a business consider a customer negotiation as a one-on-one, what-you-see-is-what-you-get relationship event. The need to deal with customer urgency in real time is now mandatory.

1. Start collecting data — today!
2. Get all your data in one place
3. Build-Measure-Learn
4. Identify the outcomes that matter
5. Effective and efficient: Becoming more productive



The speed with which customers and markets move in this digital ecosystem has created a new urgency. The technological response to this urgency is artificial intelligence or AI. AI is not new and is already used by many companies in many industries in response to the need for more automation and more competitive agility. But recent AI instances, e.g., OpenAI's ChatGPT and Google's BARD, have let the AI genie out of the bottle for businesses and consumers alike. Everyone is now moving faster with a multitude of new AI tools – ChatGPT crushed previous adoption records, reaching 100 million users in less than eight weeks. Their answers may not always be correct or even appropriate, but in the hands of the curious and innovative, these AI tools are game changers. Industries and companies that ignore this new emergence of AI will be washed over by those who stop to consider not only how to use AI tools but how to design and build their own, purpose-built AI solutions that learn faster and help companies win more often.



The good news is that the same AI technologies that have created the urgency are also facilitating much easier adoption and organizational transformation. In the past, data migrations, workflow translations, and employee training requirements entailed months or even years of implementation in the minds of CIOs and CEOs. Many of them have wounds from previously failed attempts to “deploy better systems” and from facing the severe challenges of such large-scale change initiatives. But today, the availability of data, modular cloud software architectures, and network interconnectivity make engaging with digital technology more accessible than ever before.

Even though we may never fully understand AI because it is constantly evolving, the speed at which deployment now moves is outpacing both the economic and social understanding of it. The equipment finance industry has an urgent need to act. The industry must strive to better understand, manage, and learn how AI can impact the financing business as new, more AI-capable players are already adapting and entering the space.

In order to compete and be ready for this urgent change, there are the five steps to engage AI and transform an equipment finance organization to better meet customer expectations and outpace the competition.



1. Start collecting data — today!

Many business leaders don't have the ability to start gathering and engaging with their own data. They are often concerned about not having enough data to solve their problems. However, the reality is that leveraging the data they do have will provide enough insights for them to get started and, more importantly, will immediately guide the organization in how to generate more and better data for improving operations going forward.

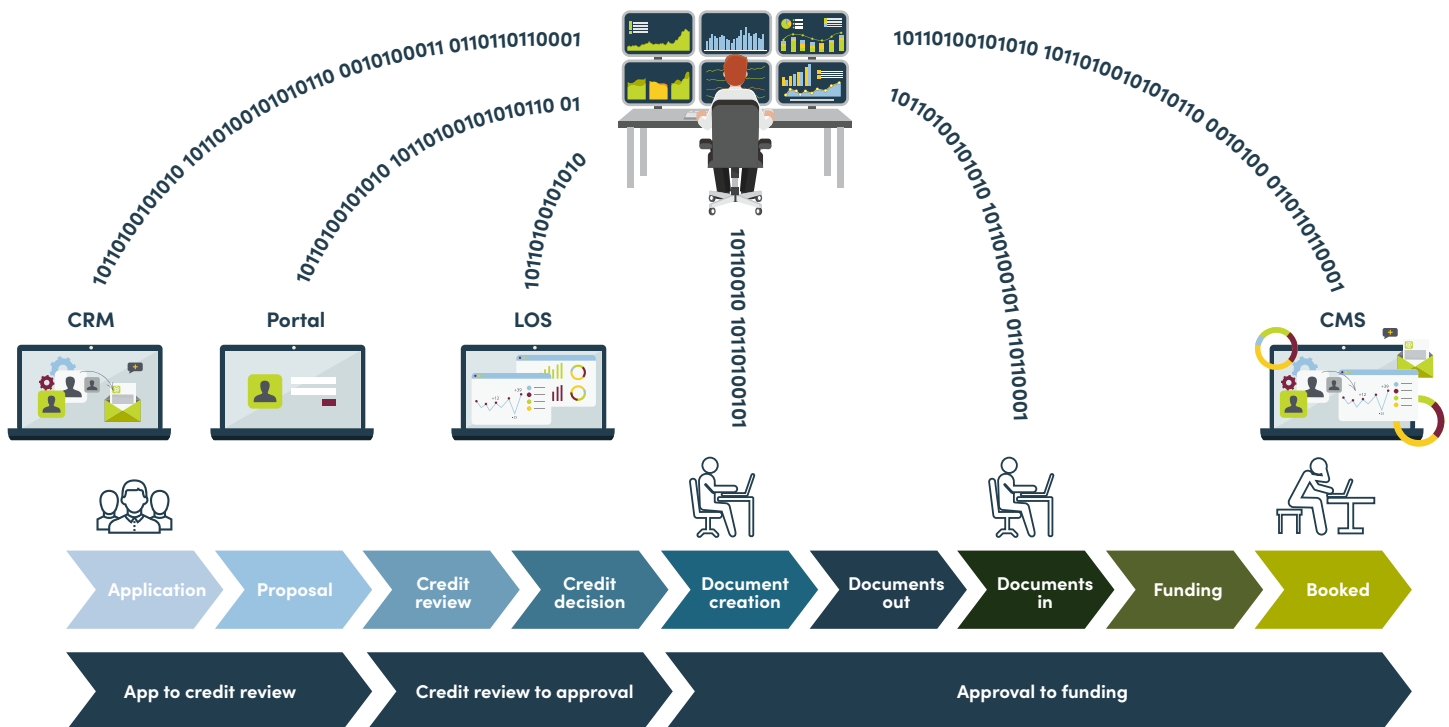


Figure 1 Data is generated from every step of the workflow, but it must be collected and structured for analysis and action.

Every company that starts capturing and using data will experience a cultural change in regard to how it uses and thinks about its data. This is because teams will see the organizations' investments in measuring and monitoring performance but also how data can reveal insights into challenges that previously may have been felt, but not verified or understood. Salespeople, for example, are naturally competitive and are results or "scoreboard" driven. Once sales teams understand what is happening at their level because of the data, without exception they will ask for access to additional business intelligence dashboards to help improve their performance. Sales teams are often the heaviest users of business intelligence dashboards and are always the group looking for ways to do their jobs better. Data-based business intelligence is naturally addictive and can help teams evaluate and improve their performance. Your data is good enough. So, get started.



2. Get all your data in one place

Once the organization begins identifying and gathering data, the next step is to get all of it — including historical and present — in one place for analysis and to drive actionable insights. Equipment finance workflows involve a multitude of data sources generated in a variety of ways and at different rates. Every equipment finance company has and knows the importance of their Lease Origination System (LOS) and Contract Management System (CMS). The business receives customer applications, credit bureau reports, vendor pricing and availability, bank lending rates, etc. — and must have a way to get that data into a common structure that allows it to be used.

The critical third leg of a digital organization is a Business Intelligence and Workflow Automation System (BIWAS). The BIWAS aggregates and structures all of the organization's data for anytime-anywhere access from all parts of the organization. BI applications provide visibility and analysis of where the business has been and how it is performing against plan for both sales and customer service teams. Business outcomes and the parameters driving them enable operations teams to develop and deploy automation via modeling and AI predictions within the workflows.

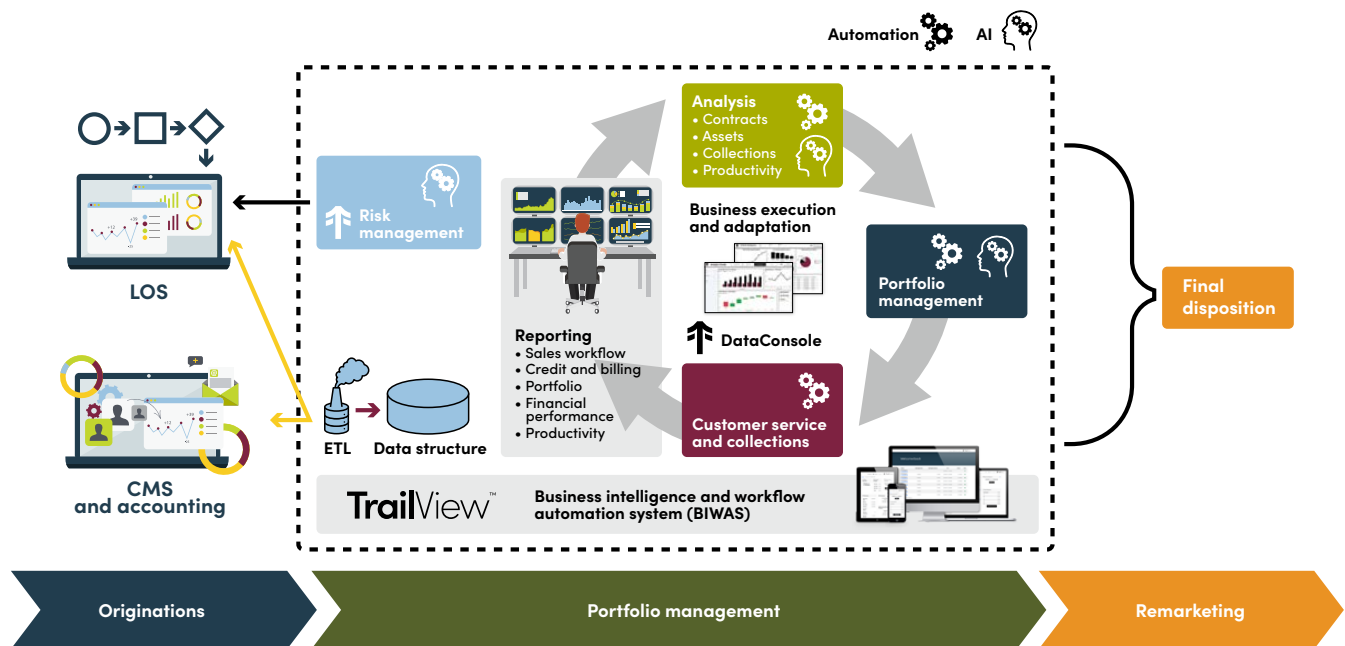


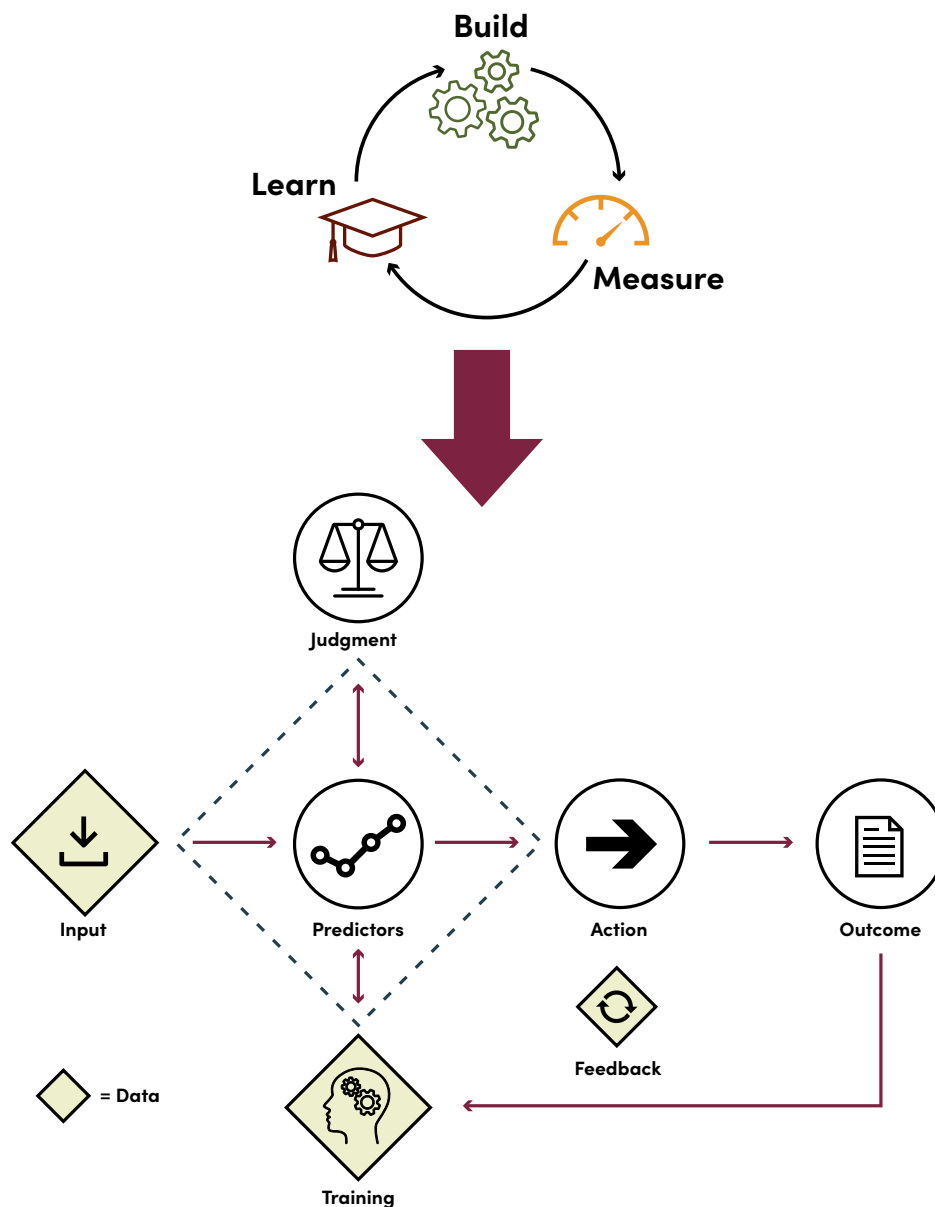
Figure 2 The new norm in equipment finance systems architecture is a central system for Business Intelligence and Workflow Automation.

Early data analysis validates performance against outcomes but also identifies additional data needed if there are gaps modeling or predicting desired outcomes. An IT team that works with modern data tools like Azure, Power BI, and Open ML or a partner organization can complete the data engineering for the platform. Once the data is organized and data streams connected for ongoing capture and use, the most important step of the digital transformation becomes learning.



3. Build-Measure-Learn

Renowned author on entrepreneurship, Eric Reis introduced build-measure-learn as an innovation and technology adoption methodology in his book "Lean Startup." This is a learning process and, as such, is also a methodology for continuous improvement in a digital enterprise. Machine learning models are built on the historical data of past performance in order to predict operational outcomes for future engagements. AI automates learnings from variations between the predictions and actual results while integrating those learnings along the way.



Building a predictor

1. Identify the target outcome
 - How to measure
 - Possible states
2. Identify input characteristics
3. Train, test, adjust and repeat

Figure 3a Eric Reis's build-measure-learn as a technology adoption and innovation methodology in his book *Lean Startup* becomes train-test-adjust-repeat as described by Agrawal, et. al., in *Prediction Machines, The Simple Economics of AI*.



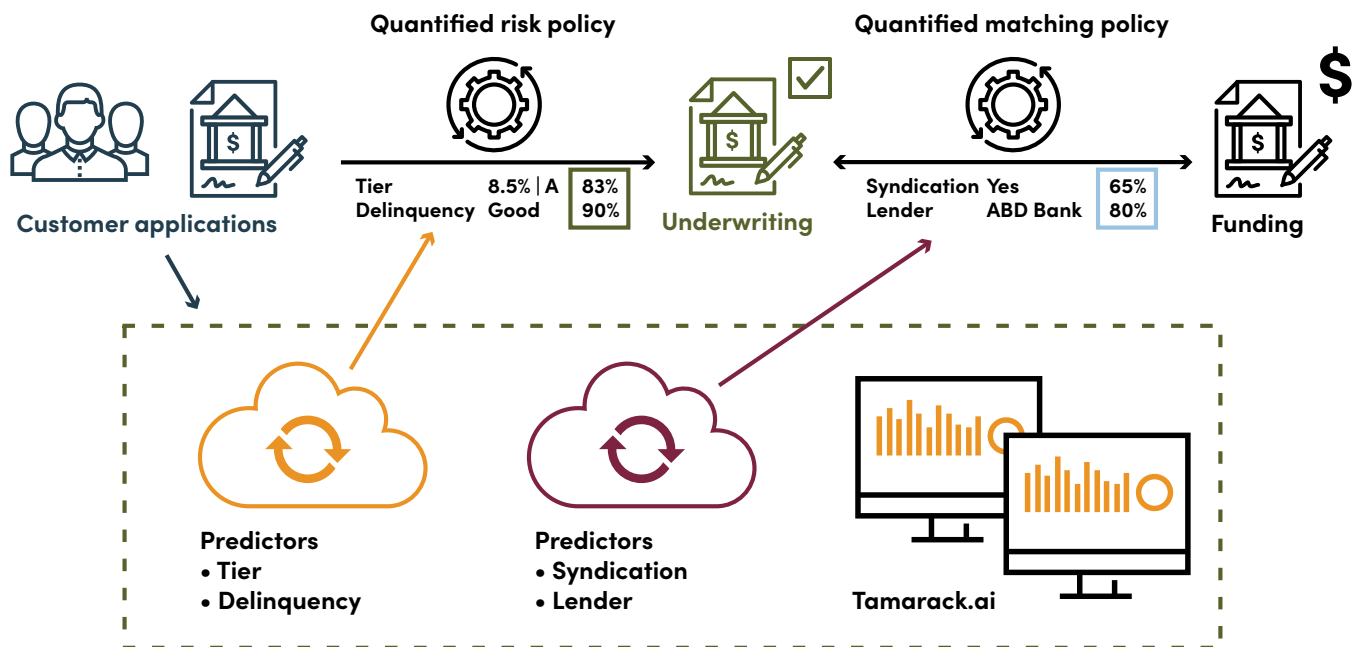


Figure 3b Quantified risk policies are used to deploy AI-based decision-making automation in equipment finance workflows.

Be on the lookout for new measures or new data that will answer hard questions or can guide action. Pay close attention to the rate at which data is captured and the precision with which it is measured. Do the workflows need to measure payment delinquency as “Yes or No?” or as “What are the max days of delinquency?” The latter allows for the use of many more customer engagements without needing additional losses to balance the data.

Pay particular attention to “outliers.” Outliers often identify inputs that are either unanticipated or outside normal policies, e.g., “Customer knows the president of the bank” or “I think restaurants are going to come storming back this summer when weather is nicer.” Sometimes outliers catch unexpected behavior, and other times they can identify new strategies.



4. Identify the outcomes that matter

After collecting and organizing data, and creating actionable strategies, focus on business performance and results. Any transformation of a business is motivated by the goal of improving business performance. AI can deliver predictions of outcomes and is driven by the data inputs that will eventually influence those outcomes. This step requires 1) sitting down with a team to discuss what matters most to the business and where the business needs to become more efficient and 2) identifying the outcomes that define success, both within each business function as well as at the mission level of the business.

Here are four areas where outcomes can be measured: origination, collections, syndication and funding, and portfolio management.

Origination		Collection	
Look-to-book	Is this deal worth our time? How do we help brokers help us?	Pay anyway	Do we need to call this a delinquent account?
Delinquency and tier (rate)	Does this deal fit our strategy? Automate underwriting.	Delinquency with updates	Is this deal weakening? Should we act now?
Delinquency	Is this deal worth the risk?	Cash generation	Is this business performing to make payments?
Syndication and funding		Portfolio management	
Syndication	Do we hold or sell this paper?	Term with end state	Is this deal likely to renew or return? Is this deal a buyout?
Lender	Which funding partners will want this deal?	Syndication with lender-match updates	Has this deal aged properly for sale?
Lender and tier (rate)	Can we add a premium to this deal, or must we discount?	Residual monitoring	Are residual values following projections?

Figure 4 Predicting outcomes helps solve operational problems faster.

Some outcomes are numeric like interest rates, and others are defined by a set of outcomes. For example, delinquency can be 30-60-90-Loss, syndication is Hold-the-Paper or Sell, and Lender Partner can be a list of fifteen banks. [Productivity for an organization](#) is defined by the measures of its outcomes, so identifying those measures is first. Then the next step is identifying every parameter that appears to be important to those outcomes. Think about the data in hand and the data that can help. Most data needed is available via either partnership or purchase.

Again, the team can help identify the sources for the input data relevant to the business outcomes, and the business must leverage the experience and knowledge of each function in the organization: origination, collections, portfolio management, and syndication and funding. Map the processes and identify the data needed to predict the outcomes that matter most to business productivity.



5. Effective and efficient: Becoming more productive

At this point, the technical work is in hand and the organization is naturally gathering, analyzing, and acting on data. The organization has its operating system for both business intelligence and automation built on the continuous analysis of data from enterprise workflow and results. The addition of machine learning and AI predictors enhances the productivity of the team by automating simple decisions, driving efficiency, as well as improving effectiveness by allowing more focus by the team on the hard but important tasks. The combination can thereby increase the pace of business without increasing the risk.



Figure 5 Organizations use data to become more effective and efficient.

An important part of improving productivity is having and using measures of it. The BIWAS provides this. Revenue and Gross Margin per head are obvious indicators. Look-to-Book rates can show how effective the sales and marketing teams are at getting the right customers into the business flow. Approval-to-Book rates are a strong measure of how effectively the business is competing. Of course, time is the enemy of productivity so precise measurements of every stage of the business workflow are critical to speeding the flow without reducing quality. These productivity measures are where the return on investment in a digital organization becomes obvious. Every circumstance has a digital history and every outcome a better explanation.

As we stated earlier, change in business is hard. But AI technology can help organizations adapt to change and be more effective – using technology to enhance business operations and identify better applications of human resources. AI can improve efficiency with technology automation, and organizations and teams will be more effective because of it. Over the long term and when faced with new challenges, organizations that adopt AI solutions will adapt faster, drive more productivity, and achieve increased growth. Deploying AI solutions and implementing the five steps is not just urgent, it's mandatory. And those who fail to respond to the new market dynamics because of AI will surely fall behind.

Guiding financial innovation™

As the equipment finance industry continues to evolve, Tamarack will be there at every turn to help lessors embrace change and explore risk in order to meet the changing business requirements needed for success.

Contact us today to get started.





About Tamarack Technology, Inc.

Tamarack Technology is the leading provider of AI-based automation and risk management software along with professional technology services specifically for the equipment finance industry. For more than 20 years, Tamarack has been helping lessors protect their investments, improve business performance, and provide customers with access to solutions that enhance operations and financial performance. Tamarack's suite of AI products connect and integrate key ecosystem applications using historical and real-time data to automate burdensome manual processes, drive operational efficiency with better, faster decision-making, and improve organizational productivity. The company provides professional services including integration, implementation, and data migration services for the leading industry portfolio management platforms.

In 2020, Tamarack identified the need to help customers improve their operational and financial performance through the integration of equipment finance software platforms with emerging digital technologies. To support its vision, Tamarack developed a suite of artificial intelligence (AI) products that leverage a lessor's historical and operational data to predict financial outcomes and improve operational performance. The benefit: automation of the burdensome and often manual processes that weigh down workflows and slow financial decision-making. Through AI, Tamarack is further helping lessors protect their investments, improve business performance, and provide customers with access to solutions that enhance operations and financial results.

For more information, please email us at discover@tamarack.ai or visit Tamarack.ai to learn more.



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