



# The future of AI and testing for financial services.





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The rise of the digital consumer, advanced cyber attacks and increased fintech competition are causing widespread digital disruption for traditional financial institutions and the legacy banking systems they rely on.

In this highly competitive sector, every single online or mobile interaction is a make-it or break-it experience. In a highly competitive environment where customer experience is a key differentiator, CX must be seamless across web and mobile, on a wide range of platforms and browsers. In this landscape, more sophisticated testing is imperative to success.

## The rise of the digital consumer.

Digital transformation has impacted all facets of banking and the financial services sector, from back-office workflows through to customer facing applications. Digital banking has seen huge growth in the last two years, with the global pandemic accelerating the switch to digital channels. BBVA, for example, saw their digital customer base double to 35.6 million between 2016 and 2020. Their number of mobile customers tripled in the same period.

Increasingly, customers have a digital first mind-set and their expectations are based around seamless, real-time, integrated, and personalized experiences. Customers have little patience with slow performing or error-prone apps or websites and won't hesitate to shift their money and loyalty to your competitors as that process too becomes easier. They expect flexibility and resilience built in,

as well as a reassuring level of security. As well as improving customer experience, testing plays a huge role in ensuring your applications comply with international standards and regulations, and in protecting against cyber criminals.

Adding to all the above is the relentless pace of continuous delivery in our DevOps world. With new releases rolling out every month or more, the challenge of keeping up can be significantly alleviated with intelligent, automated, continuous testing.

You can now expand automation to the entire test process, from test-case creation, through test execution to automated results analytics to help keep up with continuous delivery. Benefit from faster release cycles with greater test coverage by investing in continuous and intelligent testing using artificial intelligence (AI).

## AI and digital twins are the future of testing.

According to predictions from AutonomousNext, banks around the world could cut costs by 22% by 2030 using AI technologies, reaching potential savings of \$1 trillion. Semi-autonomous banking is set to be the future, but for a sector where quarterly financial results drive investment decisions, advanced analytics and artificial intelligence require a long-term perspective.

One area where long-term vision is beginning to pay off is digital twins. Digital twin capabilities have been helping to improve products and processes for years now, including a key role in smoothing the transition

from legacy mainframe systems. But advances in AI and machine learning, combined with larger and more complex data sets, mean that digital twins are now becoming a cornerstone of a strong testing strategy.

*"We will also be able to change the design and run tests on a digital twin of the system or software based on real time rather than predicted digital experiences based on what can be learned from the real world and associated predicted outcomes through cognitive learning capabilities made possible by machine learning and AI"* explains Daniel Wainwright, CDO of Digital Assured.

## Never too soon to start.

Leading firms including JPMorgan Chase, Barclays, and Citi have all used Keysight's Eggplant test automation software to boost test capacity and overall productivity across their organizations.

These are just a few of the ways financial services providers have used Eggplant:

- Citi tested its mobile app and used AI-powered exploratory testing to complement regression tests.
- Nationwide Building Society, one of the largest savings and mortgage providers in the UK, conducted testing on more than 250 device and browser combinations.
- Atom Bank's, a UK-based digital bank, implemented a case management tool, identified scenarios for multiple mobile functions, and reduced test cycle time by reusing test cases and test plans across all environments.
- With end-to-end testing capabilities, one of the largest banks in Canada has been able to use Eggplant to accelerate their automation efforts from zero to over 50% in less than 6 months. With over 40% of their transactions taking place at the ATM, this has greatly improved the efficiency and impact of their team.

All things considered, it's the speed and scale of change that really necessitates end-to-end automated testing, as Keysight CIO Dan Krantz explains:

*"If you're like us, you're trying to move at a much faster pace than what the consumers of your products need. If you go from changing your IT systems from once a year to every other week, there's no way to scale that other than through automation. You've got to automate your testing."*

AI and automation are more than trends – they will influence the future of the entire financial industry. Through automated and intelligent testing, you ensure consistently great digital experiences for your customers and a competitive future for your organization.

## Get in touch.

For more information about automated end-to-end testing, contact us on:  
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