



AI Test Drive clears the way for business case validation

Direct access for data scientists to leading IT infrastructure simplifies testing of AI theories and models at zero costs

FUJITSU | **intel**[®]



Reliably investing in the data center of the future

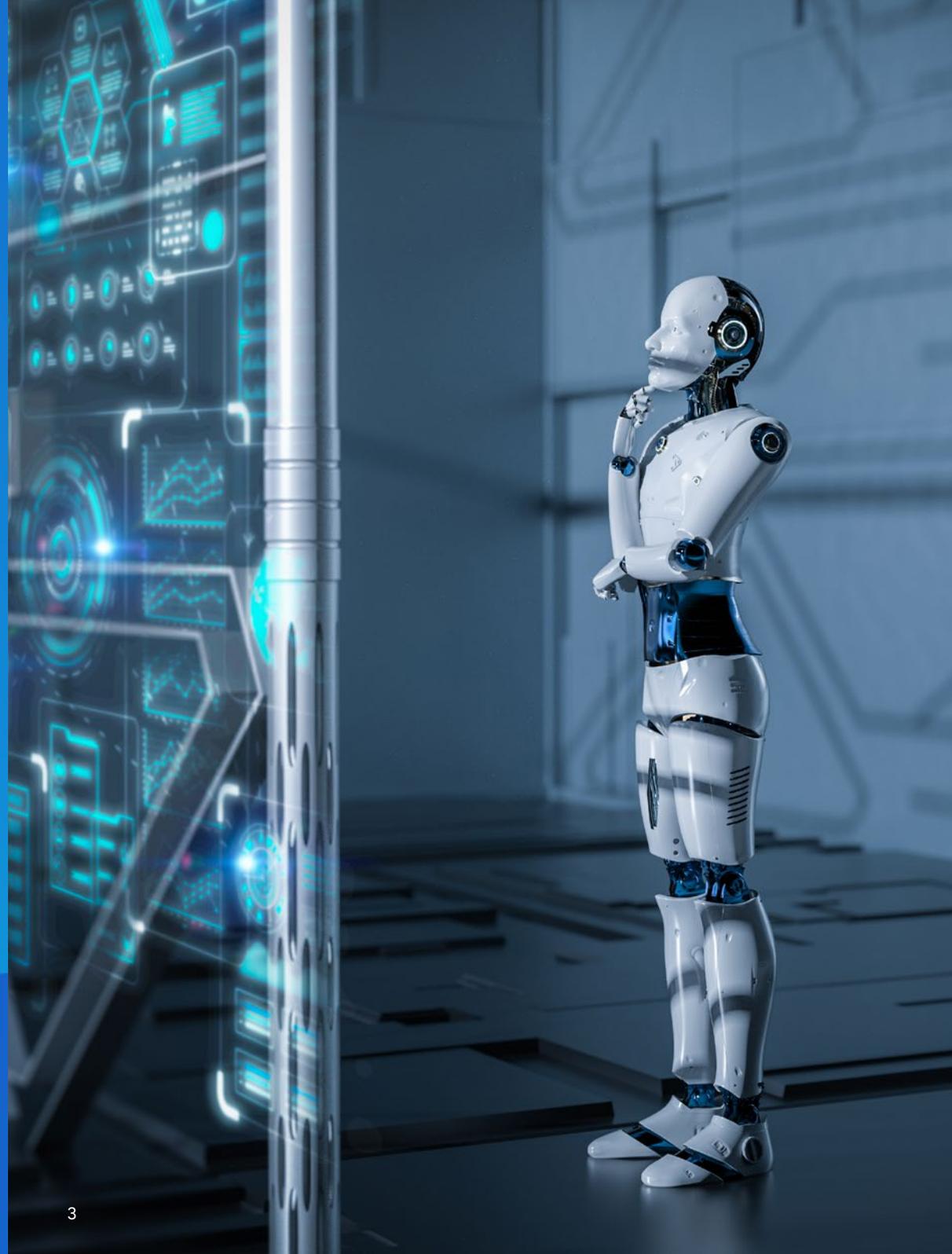
Evolving data centers into intelligent hubs for digitized business processes poses numerous challenges for IT managers. Many organizations are already adopting hybrid IT concepts to make their data center operations more flexible. However, they also have to keep an eye on new requirements such as IoT, AI, blockchain, container technology as well as data security, legal regulations and climate change. How can all this be seamlessly integrated and managed? And, what will matter next for the data center of the future?

To help you find answers to the questions you are facing in the digital transformation early on, Fujitsu has created the **DX Innovation Platform** together with leading technology partners such as Intel®, Juniper, NetApp, SUSE and many others. It enables organizations to design their own data center of the future - whether data, artificial intelligence (AI), new operating systems containers, or other technologies are at the top of the agenda.

The AI Test Drive is part of the DX Innovation Platform. As a data scientist, you get direct access to technology and expertise to validate theories and models around AI and build a compelling business case for investments.

What's holding you back from unlocking the full potential of AI?

Initiating AI projects and ultimately bringing them to a successful conclusion means overcoming numerous hurdles. This already starts with the fact that the business problem must be precisely understood and often segmented into subproblems so that the targeted AI solution also delivers clear added value in the end. It is wise to focus on this added business value because the challenges of data sources, data quality, and data preparation, for example, are far too abstract for decision-makers. Rather, decision-makers demand a convincing business case that clearly outlines the costs and benefits of the project.



Building a business case for AI projects can be challenging if you don't have the computing power and IT resources available in your company, to accurately determine the specific requirements of the project. However, only when you have the right infrastructure for your AI project you will be able to carry out specific cost-benefit calculations.

This is important simply because AI projects typically require a specialized infrastructure. Whether you are better operating this on-premise or in the cloud depends on very different factors. For example, the cost of running AI workloads in the public cloud is high, and the physical distance between the data sets used and the analytics platform can prevent projects from being operated efficiently.

On the other hand, an on-site AI infrastructure is relatively complex, but comparatively cost-effective and secure. Depending on how this infrastructure is set up, you also have to consider the power and cooling requirements, as well as any additional investments in the data center. Depending on the AI solution, this cost-benefit consideration may reveal that working with a third-party data center is advantageous to achieve the ideal balance of cost efficiency, performance, reliability and skilled resources. However, again, it is important to note that not every data center provider can offer the type of compute power and infrastructure that your AI project may require. For this reason, it is vital to choose a provider that is AI-ready.

This all sounds challenging, doesn't it!? That's exactly why it makes sense to benefit from the Fujitsu AI Test Drive at an early stage. The Fujitsu AI Test Drive provides you with field-tested, competent answers to questions that you are facing in your AI project.

And last but not least, bringing additional AI expertise on board at an early stage also saves detours. For example, we see that in some 50% of the project inquiries our experts receive, no AI solution is required at all, but rather an automation solution. And in more than 70% of the cases where an AI solution is actually required, solution modules already exist. Adapting these to the specific requirements of a project is easier, faster and more cost-effective than reinventing the wheel.



Partner with us to find the optimal infrastructure for your AI project

The global AI race is in full swing. No matter what industry you're in, the goal is always the same: work smarter and more efficiently, not necessarily harder.

The success of AI projects depends on numerous factors. Ultimately, decisive is probably whether the infrastructure is the right one for the respective application. Consequently, aspects such as the required compute power or the storage and network demands should be addressed at an early stage. This is not a trivial task, as AI scenarios differ greatly and solutions should always be tailored to the specific requirements in order to achieve an optimal balance between user experience and cost-effectiveness.

Together with you, we define how the optimal infrastructure for your AI application should look like. For this purpose, we provide you with access to the latest hardware and software innovations with the AI Test Drive.



As the technical development continues at a rapid pace, new opportunities are opening up for the flexible and economical deployment of AI applications.

Just one example: For many data scientists, AI has so far been synonymous with the utilization of GPUs (Graphic Processing Units). These processors, designed for parallel processing, are traditionally responsible for rendering 2D and 3D images, videos and animations, but are now also used for AI.

Over time, CPUs (Central Processing Unit) and the software libraries running on them have also evolved and become much more powerful for deep learning tasks. Thanks to extensive software optimizations and the addition of dedicated AI hardware, such as Intel® Deep Learning Boost (Intel® DL Boost) in the latest Intel® Xeon® Scalable processors, CPU-based systems have massively improved their deep learning performance. Also important in this context is that Intel has shared the optimizations of AI frameworks and libraries such as Spark, TensorFlow, Pytorch, Scikit-learn, NumPy, and XGBoost with the global developer community, which ensures the continuous development of the software.

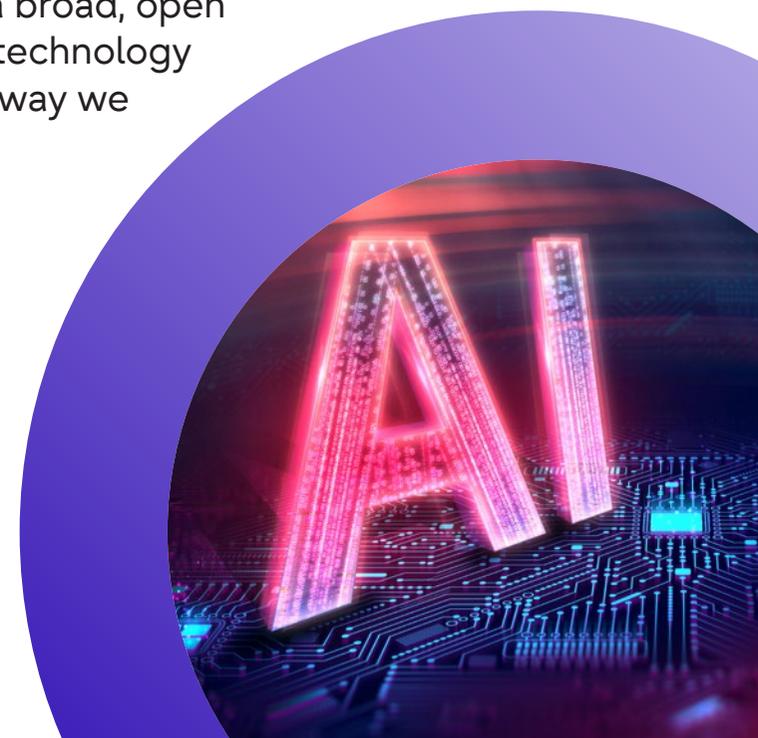
Nowadays, CPUs shine in many applications, such as high-resolution, 3D, and non-image-based deep learning with speech, text, and time series data. In addition, for complex modeling or deep learning applications (e.g., 2D image recognition), CPUs support much larger memory capacities than even the best GPUs do today.

In addition, CPUs are significantly more affordable than GPUs. This is true for both purchase and operation, as CPU-based systems also consume a great deal less power than systems equipped with GPUs. It's also easier for companies to achieve breakthrough results in AI with familiar, agile Intel-based hardware. And, an important factor in many deployment scenarios, CPU-based systems are generally simpler and more robust. Among other things, this pays off when implementing AI in edge environments.

Ideally, edge systems should be flexible and robust so that they work reliably even under harsh environmental conditions, for example in tunnels, on roads or in fields. This is difficult to achieve for systems with GPUs. Since they develop a significantly high thermal load, these systems may need additional cooling. This can require further investments. Depending on where they are used, edge systems also need to be secured against theft – this is more likely to be necessary for systems with expensive GPUs than for edge systems equipped with CPUs.

Furthermore, Intel tools such as OpenVINO™, an open source toolkit, simplify the optimization and deployment of AI inference. Hundreds of models trained with popular frameworks can be used for this purpose. The development of AI solutions on the AI Test Drive, such as the Fujitsu Sentiment Analyzer, demonstrates how maintaining a consistent workflow reduces time and cost to enable more experiments and improve accuracy.

Collaboration with a broad, open network of leading technology partners: That's the way we make sure you can profitably deploy AI everywhere.



Just as a buyer would prefer to test drive a car before buying it, test driving an IT platform before making a purchase can help make the right choice.

For your test drive, we provide you with a cutting-edge IT infrastructure in one of our data centers. The Fujitsu AI Test Drive was designed by experienced system architects and is based on a wide range of reference architectures.

Our AI Test Drive provides you the unique opportunity to trial the latest IT infrastructure with 100% control and use of your own data for curation, ingestion and cleaning. We assemble the components as you need them for your project and build the scenarios that are relevant for you.

As a data scientist, you can take advantage of the AI Test Drive for up to two weeks at zero cost to review your requirements, validate and evaluate your data, and determine which AI infrastructure is right for your business case.

You can bring your use case and benchmark against the latest AI technology or try out one of our pre-installed use cases.

You will also have the opportunity to test different hardware options with the AI Test Drive to determine which AI platform is right for you.

In addition, you can uncover dependencies and gain a deeper understanding of component interoperability.

We also provide you with additional AI expertise as needed through our AI experts and experts from our partner ecosystem to further develop your model into a watertight business case. To this end, for example, around 500 AI specialists are available for projects at short notice via our partner Brainpool AI.

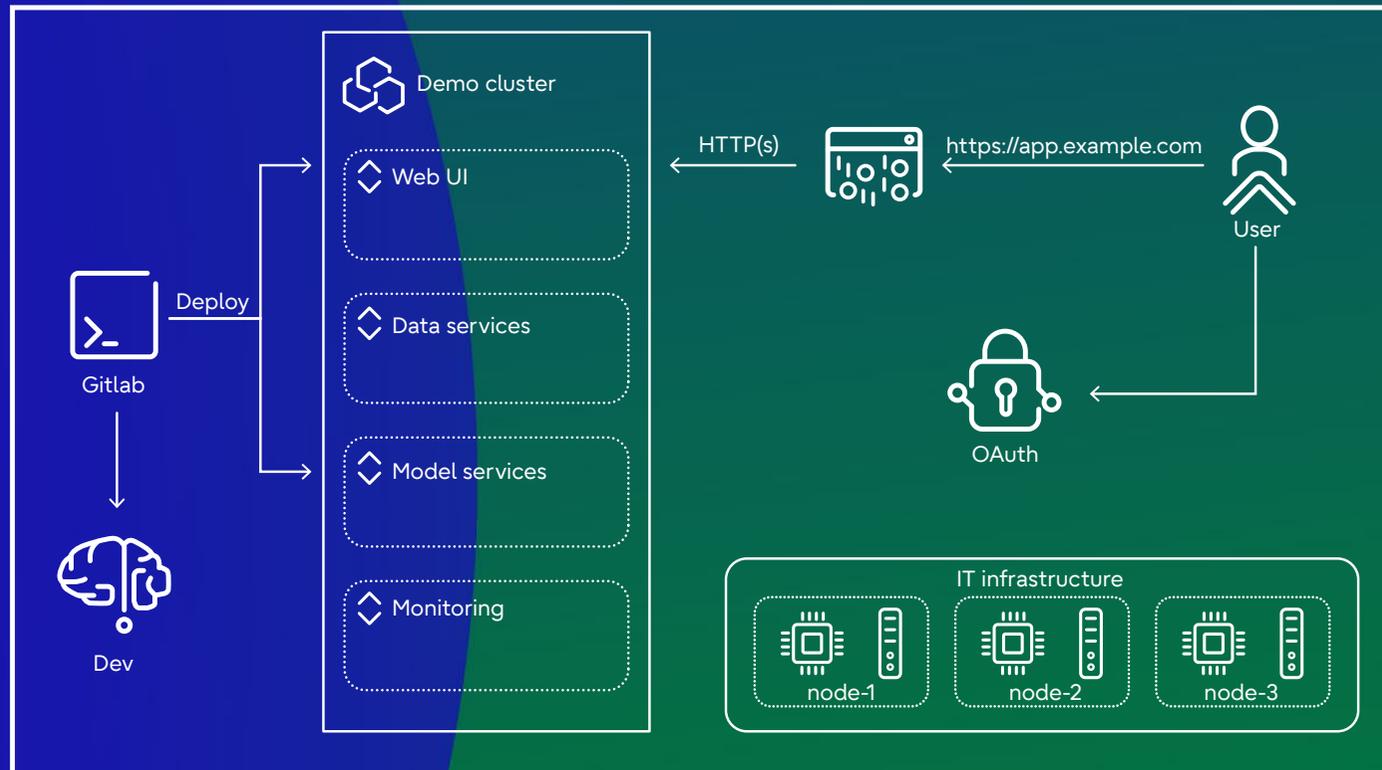


The AI Test Drive

The AI Test Drive provides you with a complete infrastructure comprising the following three main layers:

- Containerization
- Virtualization
- 3-tier hybrid infrastructure (Edge-Core-Cloud)

The basis is Kubernetes managed via SUSE Rancher, with Harvester implemented as the virtualization layer. The entire stack is an open source-based 3-tier hybrid infrastructure with multi-tenancy and RBAC (Role-Based Access Control).



- ✓ Multi-Cluster Management
- ✓ Kubernetes Distribution
- ✓ Hyper-converged Infrastructure
- ✓ Infrastructure

Accelerate AI adoption in your business



Free trial

Experience the latest in purpose-built AI infrastructure for up to 14 days at zero cost.



Customizable experience

Easily transfer your large data sets and receive control of the platform for curation, ingestion and cleaning.



Easy access

Locally available in certified data center facilities with a secure connection.



Fast connection

High speed interconnect.



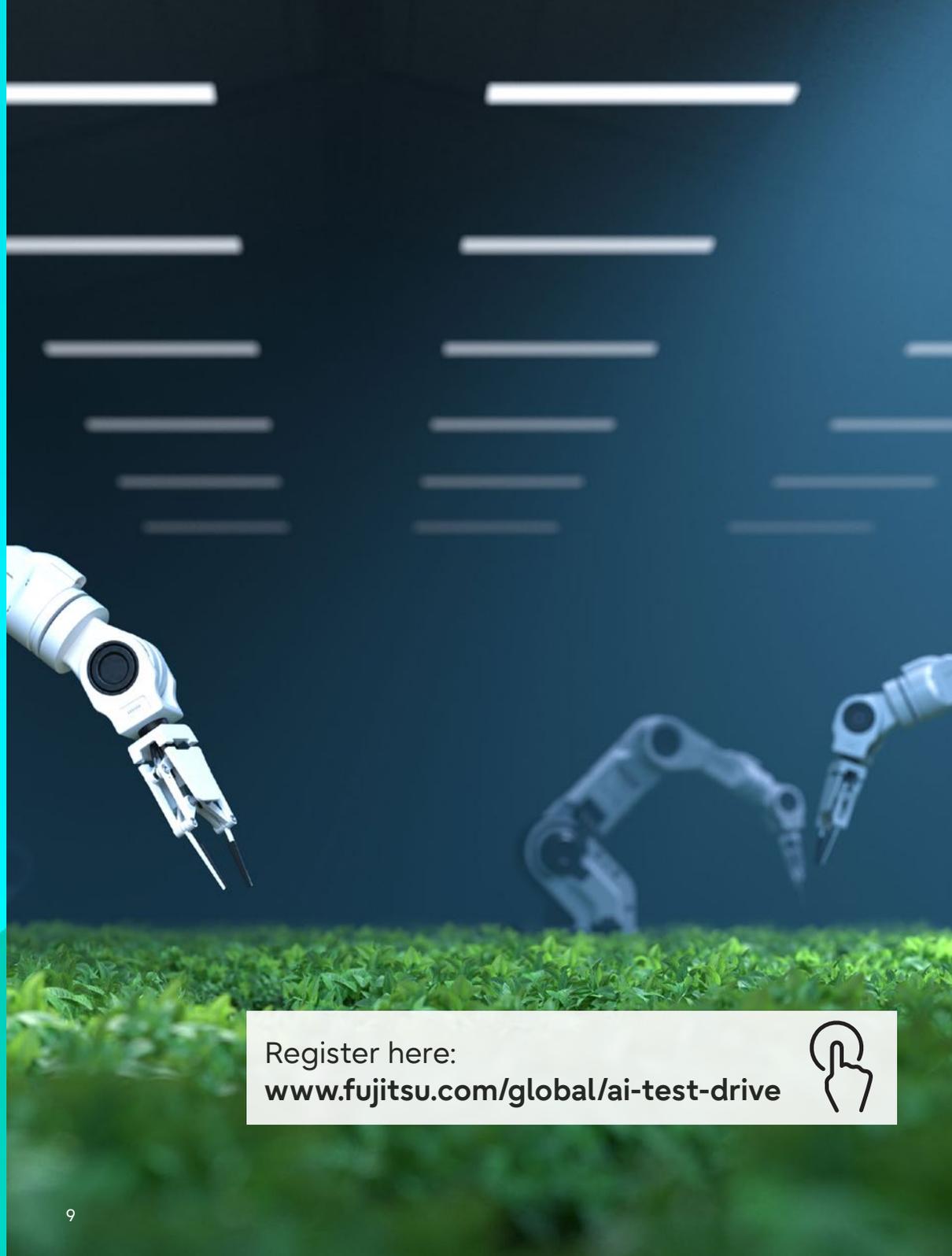
Data protection

All data will be irretrievably deleted after the trial period. Guaranteed.



You never walk alone

Fujitsu experts will support you whenever needed.



Register here:
www.fujitsu.com/global/ai-test-drive





Start your AI journey with Fujitsu today:

www.fujitsu.com/global/ai-test-drive

© Fujitsu 2022

Fujitsu, the Fujitsu logo, and Fujitsu brand names are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries. Intel, the Intel logo, the Intel Inside logo, and Xeon are trademarks of Intel Corporation or its subsidiaries. Other company, product and service names may be trademarks or registered trademarks of their respective owners, the use of which by third parties for their own purposes may infringe the rights of such owners. Technical data are subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual, or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner. All rights reserved. FUJITSU-PUBLIC