

Why is AI important for companies?

April 2022

Nowadays, we are surrounded by technology. In the last decade, the Internet of Things (IoT) has delivered interconnected devices that have become a central part of our daily lives. This has increased interest in Artificial Intelligence (AI), heralding the beginning of a new era.

But AI isn't new, it started in the 1960s. So why is there so much interest in it at the moment?

What's Behind Recent AI Hype?

Since the internet really began to grow in the 1990s computers have become more and more interconnected, and at a greater scale. The [exponential increase in semiconductor chip density](#) has allowed giant leaps forward in computing power and enabling the creation of an IoT. Today, almost everything can be connected through embedded chips and sensors – cellphones, consumer goods, cars, factories, etc.

A by-product of this technological shift is the ability to collect massive amounts of data, something that was previously impossible. It is [forecast](#) that by 2030 there will be around 50 billion interconnected devices in the world. Combine this with increased computing power and you create an environment where AI is, for the first time, both practical and interesting for a broad range of use cases.



Technology is no longer just a tool to make our daily lives easier and more convenient, we are now at a stage where it can increasingly carry out complex thinking and decisions (semi-)autonomously. Data-driven companies are the future. It will not be long before all businesses, no matter what market they operate in, are competing on the way they use technologies such as AI. Data utilization will help them deliver operational efficiencies and develop new business models. For example, predictive maintenance. This can predict system failures before they happen by collecting sensor data and processing it using trained AI modeling

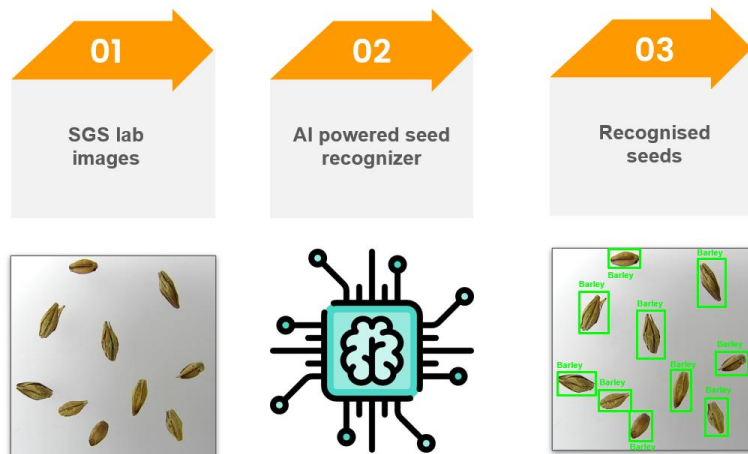
Smart Simplicity

As the world leader in testing, inspection and certification (TIC), becoming data-driven is mission-critical for SGS. We are focused on using technology to create better ways to operate – e.g., simplifying the way we work and the services that we provide by augmenting physical operations with artificial intelligence and machine learning (see, [SGS Investor Days 2021](#)).

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Our dedicated expert teams are focusing on AI and Intelligent Automation. Operating in the form of squads and using agile methodologies, they are enabling digital transformation in a variety of industry sectors (e.g. food, consumer electronics, automotive, industrial) and types of work (e.g. laboratory testing, field inspections, reviews of audit reports).



Example: AI applied in the context of seed testing

These teams form part of our global Emerging Technology Competence Center. Its mission is to explore in how far emerging technologies such as AI, Intelligent Automation, Digital Twins and Blockchain can be used to optimize existing operations while at the same time enabling new business models and TIC services.

AI Trust worthiness

AI technology can be very powerful, but there remains the risk that it can make unethical decisions or decisions with a high safety impact. This may result from a lack of proper expertise in the application of AI in a trustworthy way, or it may be a consequence of not properly protecting the data and AI from cyberattacks. In response, new regulations such as the [EU AI Act](#) are being developed, driving the need for more trustworthy AI solutions with proper conformity assessment.

Our Emerging Technology Competence Center is currently exploring ways to conduct assessments of emerging technologies, such as AI, used by our clients. There are a number of challenges, not least the fact that, for example, AI is not a static 'product', as is usually the case with traditional conformity assessments.

Partnering with Microsoft to Explore AI Use Cases

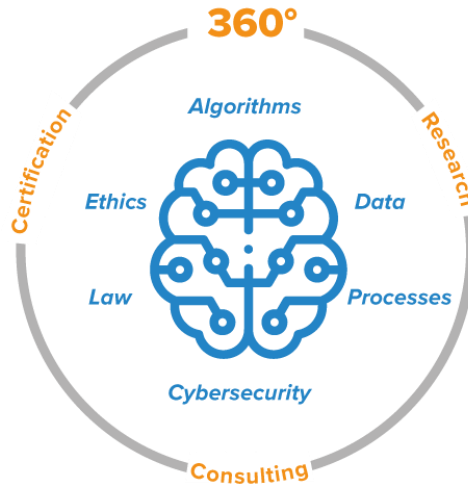
Our vision is to become the TIC industry's digital leader. We believe in strong partnerships with top tech leaders and so we have recently announced a partnership with Microsoft to explore use cases around data and AI. It will also look beyond, for example, to Digital Twins and the IoT.

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Partnering with Academia

New models need to be developed, driving the need for research. On this topic, we are collaborating with the [know-center](#), [TU Graz](#) and other partners in the 'Trust Your AI' initiative, and on the joint venture '[Lamarr Security Research](#)' project with [TU Graz Cybersecurity Team](#).



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Source [Trust Your AI](#) – 360° Certification for your Artificial Intelligence

Ambitions

Our target is >30% of all services enhanced by AI and 100% compliance for AI services with ethical standards by 2023. By 2025, we intend to be a fully data-driven company.

An Invitation to You

To start creating value through emerging technology together at SGS, I would very much like to hear your insights and ideas on this topic.

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