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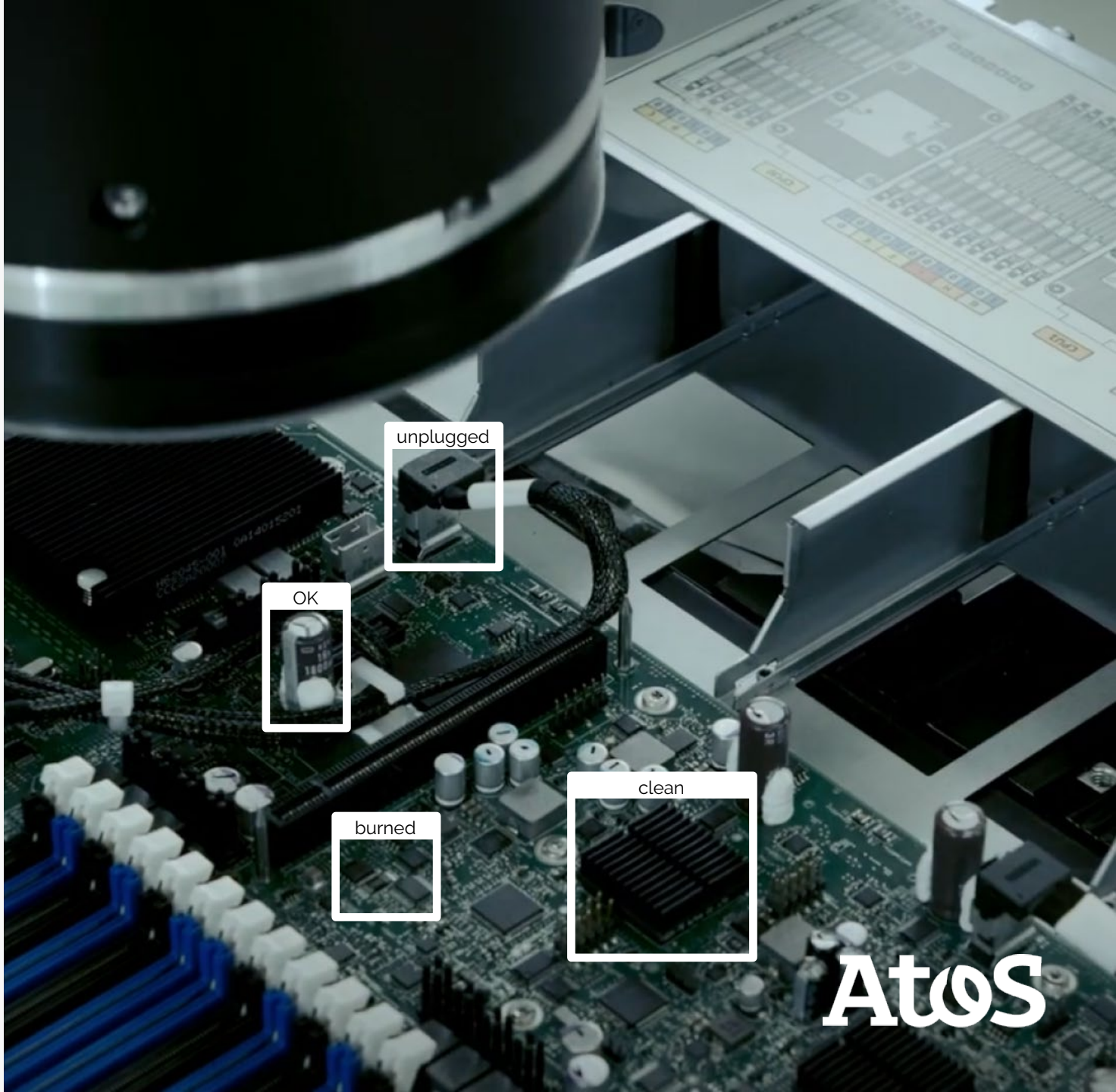
Quality Inspector



Atos Vertical AI Solutions

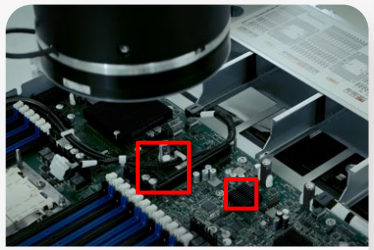
Powered by DataSentics, Atos's global AI center of excellence

Atos
112,000+ business technologists in 71 countries worldwide

Atos data
5,000+ global data experts within Atos

VAIS
150+ data scientists and data engineers in DataSentics CoE

Vertical AI Solutions (VAIS)



Manufacturing

Factory 360

QUALITY INSPECTOR

Energy optimization

Safe factory

FS&I

Persona360

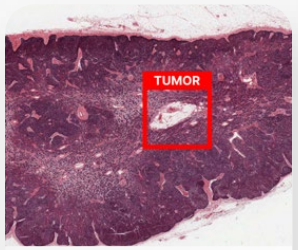
Personalization

DAISI
Document AI

Retail/CPG

SHEL INSPECTOR

Digital shopping experience 360



Health

Computer vision in health

Health 360

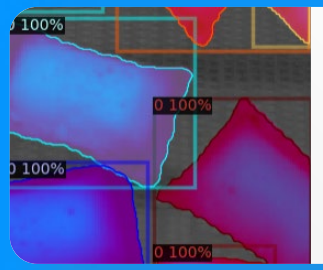
Technology partners

databricks · Apache Spark · python · Azure · aws · Google Cloud · NVIDIA

Horizontal data and AI

databricks

ODAP
Data Lakehouse and ML Ops using Databricks; *Leading Databricks partner in Europe*



Computer Vision labs
Deep learning/NLP

Data and AI product development

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As customer expectations rise, qualified personnel is hard to find

Quality inspection is a vital part of the production process. It's also manual labor intensive, time-consuming and prone to human error. It is challenging to find qualified controllers while keeping the costs of quality control manageable.

Automation and process adaptation are the answer

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Quality control solution challenges

Every quality control situation is different

- You often need to handle difficult conditions
- Black-box solutions are inflexible
- Most solutions are incompatible with advanced/special hardware (thermal cameras, etc.)

Growing quality requirements

- Pressure on costs
- Increasing customer expectations

Many providers are unable to scale-up the solution

- Qualified IT / AI employees are difficult to hire
- Solutions must run smoothly in production and be scalable

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Quality Inspector – Ready to handle almost any challenge you give it

Product overview

- Quality Inspector includes **out-of-the-box** models for **visual quality inspection** use cases – which we **tailor** to your specific needs.
- Provides **stable** quality control that is **easy to scale** and improve over time.
- Enables us to tailor models for you **very quickly** with **high performance and high precision**.
- Quality Inspector is an **end-to-end solution** that can also be easily **integrated** with an existing solution .

Benefits measured by our clients:

-95%
Exported non-conformities

90%
Quality inspection time reduction

More than 99%
Detection accuracy

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Quality inspection use cases for industries

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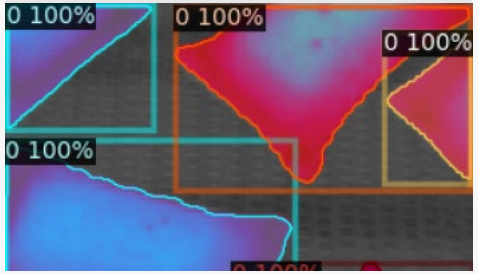
Our solution enables the digitalization of the following inspection cases

Aerospace manufacturing

Fastener, floating bolt and screws control; Step & Gap; Sealant control; Impacts and dirt detection; Assembly inspection

Construction material

Surface defects detection; Incoming inspection; Thermal inspection; Cosmetic controls



Defense

Welding controls; Assembly compliance; Navigation support by AR; Surface defects detection

Auto manufacturing

Assembly controls; Parts conformity; Dimensional and structural analysis; Cosmetic controls; Welding controls

Ceramics

Surface defects; Scratch and impacts detection; Color changes; Glazing analysis

PCB/Hardware

Assembly compliance; Foreign object and damage detection during hardware manufacturing

Die casting

Surface defects; Cosmetic controls; X-ray testing of castings; Digital twin comparison; Damage detection

Transport

Bearing quality control; Scratch and impacts detection; Color changes; Identification of electrical current area; Engraving reading

Food & beverage

Cleanliness of production means; Raw material controls; Cosmetic controls; Packaging compliance

Pharmaceuticals

Material integrity; Packaging compliance; Mixed medicine sorting; Cosmetic controls

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Our product solves quality inspection end-to-end...

Hardware

Cameras

Various capturing devices: mobile devices, industrial cameras, custom

TPSH SICK Baumer BASLER

Edge server / MEC

Various sizes of BullSequana Edge devices for fast, on-site inference

Atos ADVANTECH NOKIA

PLC / robotics connection

Connect to your production line and take actions based on quality control

Schneider Electric EATON B&R SIEMENS

Software

High performance

Utilize optimized, best-in-class models to achieve the highest performance possible

Accessibility everywhere

Access from the edge, cloud, mobile or custom devices; online, offline or in hybrid mode

Azure aws Google Cloud databricks NOKIA

Fully customizable

Pre-built product platform for quick and easy product customization to your needs

...ensuring that Quality Inspector will work for you

Available wired, or wireless connectivity, including

5G NOKIA verizon BT

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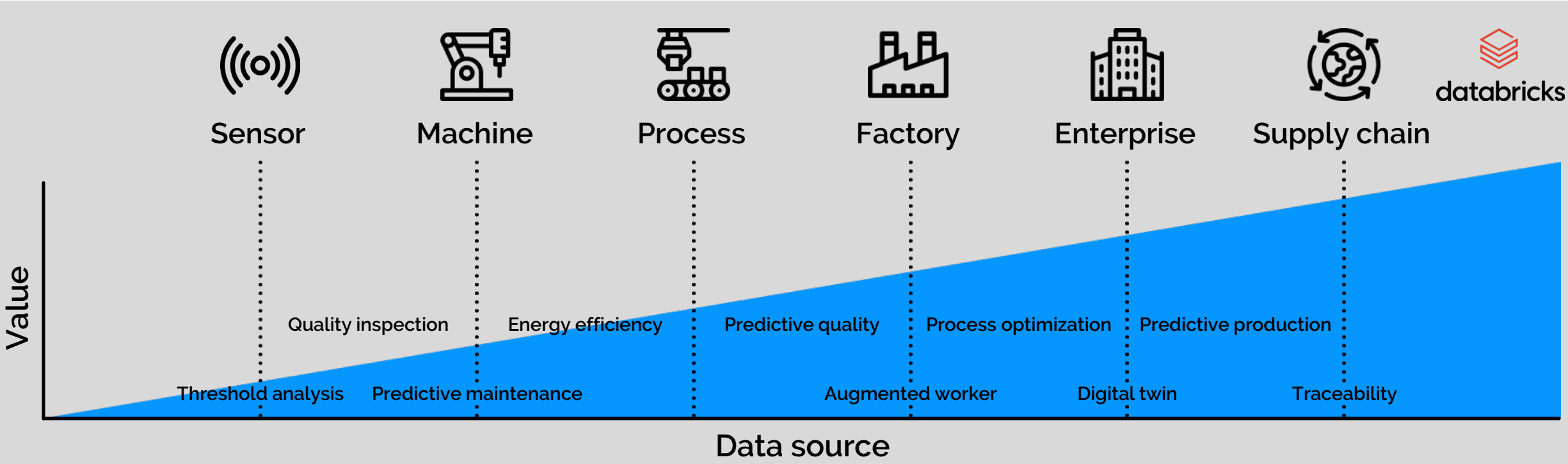
Quality Inspector is part of a larger ecosystem

Factory 360

Leverage all your data on a unified platform tailored for manufacturing data solutions

Our individual solutions are part of the **Factory360** ecosystem built on top of **Databricks**. By leveraging standardized, state-of-the-art data models for cloud and edge, we can quickly move your desired solution from PoC to a running production.



Business pain: Manufacturing companies already generate huge volumes of data, but little is captured and used at scale to create value for the company.

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Success stories

Major aerospace manufacturer

Automated quality inspection previously done manually by trained technicians with special measuring tools. Inspection time reduced by more than 90% — from several hours to just a few minutes. Outstanding AI solution accuracy of 99.97%.

One of the largest naval defense manufacturers

Quality control on welds during sea vessel construction by installed Quality Inspector app on ruggedized industrial tablets in a 100% offline environment. This common quality assurance process solution is deployable to any other industry.

Atos factory in France for building the BullSequana Edge

Utilizing Quality Inspector in real production for visual inspection in assembly compliance.

Yann Simoné
Quality Manager
Atos Factory, France

Outcomes

"With Quality Inspector we are looking for full automation and drastic speed up of the quality inspection process in our assembly production line with phenomenal accuracy."

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How to start

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Customizing Quality Inspector for your business

Implementation phase

Implementation is charged by a man-day rate

Quick capacity demo

Quickly discover if computer vision is applicable to your products and your use case.
Learn about the types of controls that can be automated and get insight into the industrial feasibility of automated controls.

Pilot

Customize Quality Inspector to your specific needs, tools, robots or industrial systems. For the first time, the product is fully implemented at your site to validate all operational requirements and deliver business value.

Roll-out

Once the pilot case is successfully deployed with field return on experience, the final step is to scale the solution within the different production sites to implement automatic quality controls.

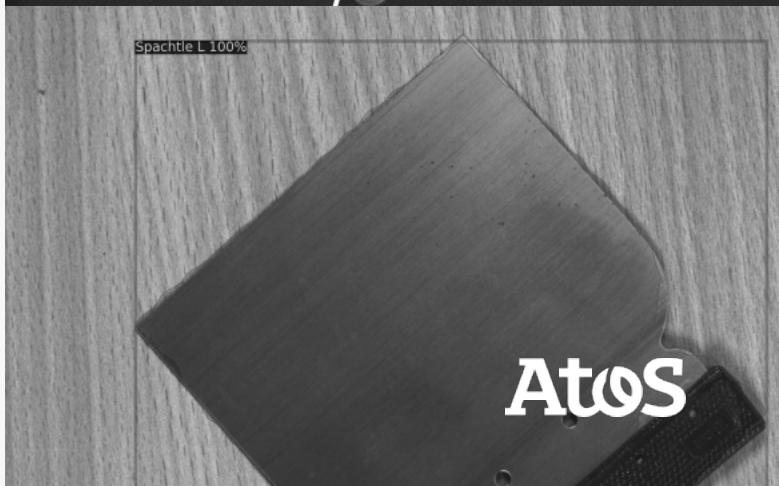
Run phase

Product usage is charged by a fixed license fee

Ensure the operation of the solution and its overall basic service.

Continuous improvement

- Additional development, scaling-up, and modifications of the solution
- Consultations and knowledge sharing for your internal team
- Helps you meet your data and AI goals with professional services and support from our experienced team



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Quick capacity demo

Find out if you can automate your quality control

Every quality control situation has its own challenges - we want to ensure we can solve yours.

Data

Your data

Provide us with ~50 pictures for each type of defect (pictures can even be taken by your phone)

Labelled data

Teach us which defects are which

Results

Feasibility

In 2 weeks, we get back to you with the first results, feasibility study and next steps

Future roadmap

"You see the potential of our solution and we validate that we can solve it."

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YOUR KEY CONTACTS

Let's discuss how we can help your business

Every conversation, business interaction and success story begins with people.

Feel free to reach out to me for a 30-minute introductory meeting to discuss your business requirements and challenges around AI-related topics.

Contact us

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Use Case Lead

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Lukas Tryner

Computer Vision Architect &
Quality Inspector Technical Leader

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