## IDC PERSPECTIVE

# Inside Atos' AI Lab: Making AI Real for Businesses

Erica Spinoni          Philip Carnelley          Sabitha Majukumar          Gerry Brown

## EXECUTIVE SNAPSHOT

## FIGURE 1

**Executive Snapshot: Inside Atos AI Lab – Making AI Real for Business**

This IDC perspective reflects on IDC analysts' visits to Atos' first and recently opened AI Lab in London, U.K. Through the labs, Atos offers a co-creation approach to help its clients understand the potential of artificial intelligence (AI) for their businesses and envision suitable solutions. We also highlight the significance of Atos' acquisition of Syntel to its AI capability and the strategic partnership made with Google Cloud, both occurring during 2018.

**Key Takeaways**

- Atos is focusing on the potential of AI to transform its clients' operations for effectiveness and business growth. This has led to the creation of a number of AI labs — starting in London followed by Paris, Dallas, and Frankfurt — to support a consulting-led approach to drive AI in business.

- Atos' efforts to bring the power of AI/machine learning (ML) to its clients were boosted in 2018 with the acquisition of Syntel and the partnership with Google Cloud.

- The hybrid or public cloud can be powerful options for AI development and deployment, and Atos is supporting several such routes, with its default choice being Google Cloud.

**Recommended Actions**

- A use-case-oriented approach to adopting AI for business transformation is advocated by IDC.

- Co-creation with an experienced partner can be a good way to ideate a route map to leverage the possibilities of AI within the business.

- Open source is an increasingly important route to viable AI solutions.

- Consideration of potential barriers to change (such as skills shortages and privacy concerns) will be important to AI implementation success, and these should be factored into discussions.

Source: IDC, 2018

## SITUATION OVERVIEW

This IDC Perspective highlights the key takeaways from IDC analysts' visits to Atos's recently opened AI Lab in London in December 2018 and February 2019.

Atos's strapline for its AI Lab work is "Making AI real for business." Subsequent discussions revolved around three key themes: Atos's approach to envisioning and designing AI-based solutions to real business needs among its customers; its partnership with Google Cloud, announced in 2018; and the rationale behind the acquisition of Syntel.

On April 24, 2018, Atos named Google Cloud as its preferred platform partner for providing hybrid cloud platform embedded with AI and ML, stating that Google's AI initiatives were an important reason behind the partnership agreement. As such, Google Cloud is playing an important role in the Atos AI lab initiative. On October 9, 2018, Atos closed its acquisition of Syntel, integrating its 23,000 staff into the Atos fold. Syntel brings experience in creating AI-based solutions for its clients, particularly in conversational interface implementation for superior customer experience.

Although AI usage is growing fast, European organizations are facing several issues in implementing in-house AI solutions, especially if relying on their own efforts and capabilities. Thus, external support is helpful, and in some cases even essential. In line with this, three key findings of IDC's recent Europe AI user survey with direct relevance to the Atos initiative were:

- **A customer-centric approach is driving AI adoption.** Increasing the quality of products and services as well as improving customer support are the top two business goals when addressing AI, according to the survey. As business digitization proceeds apace, customer experience is now a top business mandate and indeed a critical success factor for most organizations. Bringing in external advice, experience, and ideas makes sense for any organization.

- **Lack of internal skills.** AI solutions are not simply buzzword compliance or fashionable ideas – they are becoming business-changing reality. However, as European organizations move from strategy to implementation, we find they are experiencing difficulties in finding the sufficient resources and skills internally. 54% of European organizations are experiencing skill shortages in data scientists and modelers and 45% in getting software engineers with knowledge of AI systems development. Atos, as an external IT services company, is able to offer its customers skills and experience to develop and implement projects and to facilitate skills transfer into its customers.

- **Privacy compliance and data protection.** When investigating the main hindrances to the deployment of AI systems and solutions, IDC finds that a primary barrier is executives' worries about data compliance, data privacy, and data protection (e.g., GDPR). Expert external help and guidance from a consultancy, plus its endorsement of the security provided by and embedded in Google Cloud's portfolio, could be seen as helpful and accelerating in organizations' AI implementation strategies.

### Atos AI Labs: Making AI Real for Business

In 2018, Atos opened two AI Labs, in London and Paris. In early 2019, it opened a third, in Dallas, Texas, and the fourth will be opened in Frankfurt, Germany, in 2Q19. The London AI Lab is centered on a dedicated brainstorming room, in which experts from Atos meet with customers from across industries to listen to their needs and over a short workshop (typically, around two days) to ideate effective AI/ML solutions to address their business needs. The two-day workshop is designed like a real "customer innovation journey," during which three "flows" work in parallel to deliver the final and effective solution. The Executive Leadership Flow looks at strategic choices and positioning of the project, the Business Operations Flow deals with more technical issues of project requirements, and the Delivery Team Flow looks at how to deliver the specific solution required in a practical and timely manner.

The Atos AI Lab method is built on three main steps:

- **Discover**. Understand customer data to clarify how they can be exploited with ML. In this initial phase, Atos shows the customer how AI can leverage the possibilities opened by data analyses and insights.
- **Design**. Build up the business case providing the right AI solution alongside with the definition of the project's scope. The Atos team comprises three to four experts: the business architect (responsible to manage the whole journey, bridging the engineers from Atos with the customer), two data engineers trained by Google, and in the case of more complex problems, a Google engineer.
- **Define**. Follow through the customer along the project, providing guidance, assistance, and counselling to become an AI-enabled and data-driven organization.

## FIGURE 2

**Atos AI Labs**



Source: Atos "Helping our clients on the right AI journey for their business, February 26, 2019

Atos' AI Lab aims to provide versatile platform-oriented solutions to multiple use cases across different industries: contact center, predictive maintenance, personalized recommendations, text/document classification, precision marketing, scheduling optimization, asset use optimization, and risk modeling. Notable examples of the lab's work to date include the following:

- **Media/broadcasting company**. During a tour of the AI lab, Atos consultants discussed a recent customer case study in which they were successfully able to identify how AI and ML could solve a previously slow and tedious problem. The customer involved was a TV broadcasting company, whose need was to more quickly identify and solve broadcasting outages and other issues. The Atos team invited the customer's technicians and engineers to the London AI Lab to better understand the problem and try to design and build an effective and efficient solution to the broadcasting company issue.

TV broadcasting involves a chain of components that transmit the signal to the public/audience. In the case of an outage, the string of hardware components had to be checked and validated manually, through classic "if…then…" rules, to find the faulty part and replace/adjust it. Atos consultants worked with the customer team to ideate a validation model to better identify faulty parts. The new approach leverages historical data on failures (types of failure, components, rate of each component failure, etc.) to identify not only the faulty component, but also the type of intervention required. Not all data was labeled, so the Atos team had to process the data, labeling and validating error codes and training the platform to detect them. The project has now moved on to the next stage of design and implementation.

- **Logistics provider**. This company was been able to reduce the number of lost packages by 70%, thanks to advanced image recognition techniques. Previously, the pictures of the packages/items lost and found were manually checked, but the platform implemented by Atos is able to automatically match pictures of lost items with the picture of the found item. This improvement has reduced the time needed to locate and ship the lost item to the right owner/address.

- **Telecoms equipment manufacturing company**. The deployment of the AI platform enabled this global manufacturing company to increase sales opportunities by 10% through the identification of the best contracts and deals to be closed within the long tail of its sales opportunities. ML and AI techniques were used to analyze data from the customer's CRM system.

- **Entertainment/sport**. U.K. football (soccer) has always faced scheduling optimization issues regarding football matches across the four largest football leagues. The optimal match schedule has strict rules and constraints (e.g., teams cannot play more than three consecutive home or away games, clubs playing at home on Boxing Day have to have an away fixture on New Year's Day and vice versa, and clubs have to play the same number of home/away games). To automate the whole process, Atos applied genetic algorithms to optimize fixture sequences and check adherence to the many rules to be followed. The automation of the process reduced time from three weeks of one employee's manual work to hours of a computer's time.

## Google Cloud, Atos Partner to Deliver AI-Enabled, Data-Driven Solutions

An important plank of Atos' AI solution provision strategy is its partnership with Google Cloud – although it is willing and able to support other cloud providers at customers' request. Atos told IDC that its vision is to design, build, and run enterprise-scale AI platforms that deliver significant business ROI for customers, and that can be repeated many times to make better use of the available data and improve business processes. After six months of partnership, there is said to be over 150 business opportunities in the pipeline representing over €1 billion in revenues.

At the launch of the Google partnership, Atos CEO Thierry Breton commented:

> "By combining Atos' integration capabilities and technology expertise with Google Cloud technology, we enable organizations to thrive in the most innovative and trusted environment, in compliance with global regulations. With this partnership, Atos becomes the 'last mile' of the digital transformation chain."

According to Atos, a platform for AI has to be scalable, able to adapt and train itself, and continuously extended over time in line with customers' requests and changing needs. In addition, the platform should be "repeatable," implying standardization of services across customers in different industries. This will come through the learning process of the platform through several customer cases, and it will be the first stage of creation as subsequently, the platform will be able to adjust and train itself with less human intervention, thanks to the AI and ML deployment. This thinking is very much in line with IDC's view of the need for a **DX platform** (see the Related Research section for more on this).

The innovation journey offered by Atos and Google Cloud to their customers aims to provide a repeatable and scalable enterprise-scale AI and ML platform, enabling companies to operate a full data-driven environment. It is built on seven key propositions:

- Advanced security and regulatory compliance
- Industry know-how and customer co-innovation
- Google's cloud portfolio and Atos-engineered systems
- Intelligent collaboration within digital workplaces
- Application transformation factories
- AI-industry-centric use cases and AI customer labs
- Outcome-based business models

From the Google perspective, Atos is a good partner because of its strategic vision around digital transformation, AI efforts, and its strong business in large enterprises in key verticals and geographies. The objective for the short term is to fully deploy the best business use cases to build and train the platform. In addition, Atos R&D laboratories are constantly at work to deliver innovative solutions and options to customers, providing the right scale of innovation and security services within the Google Cloud hybrid solution.

Google offers the following to the partnership: availability of the open source, hyperscale Google Cloud platform; data science tools and processes; digital workplace with the full G-suite package available to Atos customers, and a large range of Google services (APIs) enabled by ML and AI.

## Digital @ Scale: Syntel to Help Expand Delivery of Digital Solutions for the Whole World

As well as the partnership with Google, another key move for Atos last year with particular relevance to creating AI solutions was its acquisition of India-based Syntel. Atos positions Syntel as a trusted partner to accomplish and complement its customers' digital journeys. With this merger, Atos is now able to better serve organizations and institutions across 73 countries and cover more than 30 industries. The original 97,000 Atos headcount has been significantly augmented by some 23,000 from Syntel. In addition, this acquisition enabled Atos to increase its penetration in the U.S. – 90% of Syntel revenues came from North American markets.

The Atos-Syntel combination serves the AI market in digital enablement at scale to accelerate customers' digital journeys, increase agility and business performances, comply with digital-native standards and requirements of clients that are constantly changing and reshaping, and offer operational excellence flexibility and scalability.

A jewel in Syntel's portfolio was a conversational interface product called SyntBot. IDC research has repeatedly shown the potential and power of this fast-growing market. The features offered through SyntBot include its **vision service**: the ability to recognize, classify, and extract data and information from any type of document (audio, video, text) deriving from any type of interaction; a **natural language process** (NLP) service, intended to give the ability to interpret and respond in natural language with the user (speaker or writer); and the **ML service**, the ability of the bot to predict and recommend further actions to the interlocutor and associate/match people/objects/functions/needs.

The acquisition of Syntel strengthened Atos' position in delivering solutions to financial services providers in particular. Atos' AI competencies in conjunction with Syntel's SyntBot technology opens up new opportunities (for example, optical character recognition (OCR) software scan and process handwritten documents such as insurance claim forms). This can shorten processing time compared with semi-manual handling in offshore locations. With AI, these processes can be performed without delay, delivering real-time data and information extraction and reducing work time from hours to minutes.

## ADVICE FOR THE TECHNOLOGY BUYER

- Organizations that want to follow the wave of shifting from on-premise cloud solutions to public or hybrid solutions should consider cloud as a transformation platform, not just for its traditional virtues of agility and scalability, but also because of the ease of access to advanced analytics services, AI, and ML.

- Ideating the possibilities of cloud-driven AI and co-creating solutions in the manner epitomized by Atos AI Labs is an attractive proposition for all firms interested in the deeper understanding of how their processes and data can be transformed through the deployment of AI- and ML-driven solutions. IDC research repeatedly shows how much organizations are pressing on with their digitization journeys and the appetite for using Innovation Accelerators such as AI to drive them along the way.

- Offerings from major cloud providers increasingly offer the privacy and security at scale that organizations in Europe (and elsewhere) are demanding, alongside virtues of flexibility and resilience, and major consultancies are rapidly building the experience to guide their clients on their digital transformation journeys.

- Companies with a long-standing legacy, particularly those who want to use Google's Cloud or G-Suite products, should consider Atos as a potential strategic partner to tackle legacy issues and become more AI-driven.

- The AI journey is not an easy path to digital nirvana, however. Issues of data governance, skills acquisition and transfer, use-case identification, and change management to take the organization on the transformation journey will all be critical success factors. Many organizations tell us that they need assistance in these areas, and it makes sense to look externally for support and guidance on this critical journey.

## LEARN MORE

### Related Research

- *AI in Europe: Key Findings of IDC's 2018 AI User Survey* (IDC #EMEA44220518, August 2018)
- *Atos Expands Its Digital Activities Through Acquisition of Syntel* (IDC #EMEA44218118, August 2018)
- *Google Cloud Next '18: Key Takeaways from a Cloud Platform Perspective in Europe* (IDC #EMEA44208818, August 2018)
- *Atos Puts AI, IoT, Cloud, and Advanced Analytics Center Stage* (IDC #EMEA44021318, June 2018)
- *DX Platform: A Framework for the Intelligent Core* (IDC #US43384517, January 2018)

### Synopsis

This IDC Perspective provides a review of Atos AI Lab efforts based on IDC visits to the Atos office in London. This highlighted not only the significance of the lab-style approach to co-creation, but also the importance to this effort of the Atos-Google Cloud partnership based on open source technology and Atos' acquisition of Syntel.

"To help them on their critical digitization journeys, European companies need to develop and leverage effective AI processes and systems," said Erica Spinoni, IDC European Software research analyst. "Through external validation and project implementation, many organizations can more easily realize appropriate AI and ML deployments to proactively engage competition and deliver ever-increasing customer satisfaction and experience."

## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

**IDC U.K.**

IDC UK
5th Floor, Ealing Cross,
85 Uxbridge Road
London
W5 5TH, United Kingdom
44.208.987.7100
Twitter: @IDC
idc-community.com
www.idc.com