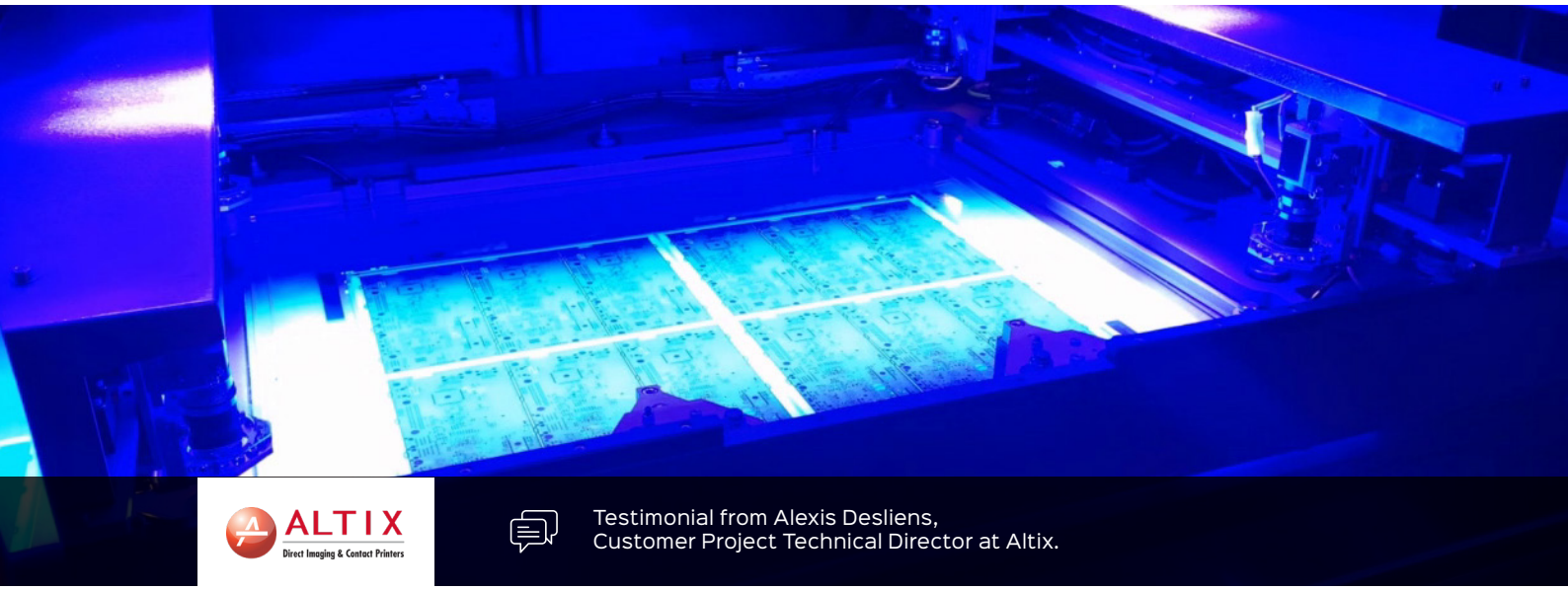
BUSINESS CASE

Altix

• ELECTRONICS • PHOTOLITHOGRAPHY • INDUSTRY 4.0



Testimonial from Alexis Desliens,
Customer Project Technical Director at Altix.

"Key methodological and operational support to integrate our machines into smart factories"

Implementation of an industrial **connectivity standard** required by factories

Industry expertise and an **ability to grasp the issues quickly**

Development times shortened by using **field-proven tools**

The company: Altix

Altix is a French company specialising in high-quality photolithography and direct imaging equipment for the electronics sector. It is the **world leader in semi-automatic and automatic contact imaging systems** on several markets such as printed circuit boards and photovoltaics.

To meet the request from one of its customers who was looking to integrate Altix photolithography machines into an automated production line, the company decided to call on the expertise of Agileo. What for? To develop "**Industry 4.0" functionality based on the SECS/GEM protocol** in order to interface the machines with the factory's Manufacturing Execution System, or MES.

Alexis Desliens, Customer Project Technical Director at Altix, shares his experience on this project.

Increasing automation in electronics

To make its equipment communicate with its customer's MES, **Altix needed to adapt the SECS/GEM protocol on its machines**. This API, which is used extensively in the semiconductor industry, is increasingly being adopted in the electronics sector, where these same manufacturing execution systems are used.

*"Our customer wanted to integrate six of our machines into its production lines, making maximum use of automation. The technical challenge was to **interface the PLC used in our equipment with the SECS/GEM protocol which handles communication with the MES**. Another challenge was related to the organisation of production: certain operations, such as artwork loading, require the intervention of an operator on the machines. We had to organise and establish these manual stages within an optimised process.*

*More broadly speaking, our customer set a **real "Industry 4.0" project** in motion. One thing it wanted to do was collect machine data to automate reporting. The SECS/GEM protocol proved to be an effective solution for this type of need. But we didn't know enough about it to handle the integration process ourselves".*

Advice, method, tools

So the Altix teams set about looking for a technology partner capable of tailoring the protocol to their machines. After a few initial contacts the company turned to Agileo, a French service provider it had found during its online research.

*"We met the Agileo teams and found them very convincing: **we were speaking the same language, and they have a strong track record**. They quickly understood how our machines work, without us needing to meet repeatedly.*

Agileo's input was invaluable in the early project stages, to steer our customer towards the best scenarios and define the part specifically related to the manual phases. Once the specifications had been drawn up, development and interfacing with our PLC 'went like clockwork'".

Agileo thus integrated its Agil'GEM library into Altix's machines so that they could communicate in SECS/GEM format. The service provider then performed tests with its Speech Scenario tool, which **simulates operation of the MES**.

"The remote simulations and debugging took two weeks, whereas on some projects we spend up to three months on-site. **Deployment with Agileo** *was fast and efficient: their method clearly marks out the project stages, while leaving room for agility".*

On the road to Industry 4.0

The machines were hence successfully deployed in the factory of Altix's customer. After a few months in use, the results are living up to expectations.

*"Beyond the production aspect alone, the operators no longer need to **re-enter information for reporting purposes**. The machine data, which are fed back via the MES, can be used directly and deliver more reliable KPIs, which will make it easy to integrate the industrial process even further.*

*This request has prompted us to **take a fresh look at all our offerings**. We want to offer a range of machines that are ready to be deployed in increasingly smart factories. This is something that really sets us apart, and is necessary as Industry 4.0 becomes a reality. The input of a partner like Agileo is invaluable in this regard".*

Benefits

- A **fast, reliable response** to an Industry 4.0-related issue
- **Assistance and tools** that have been amply tested and approved in the semiconductors sector
- **Time savings and productivity** and quality gains for the end customer.

About Agileo Automation

A long-standing specialist in the semiconductors sector, Agileo Automation enables connectivity between the operating parts and IT systems of production plants. Its Industry 4.0-focused A²ECF framework coordinates between the products to be manufactured, the work orders from the MES and the operating parts of the machines. Agileo works with OEMs supplying production machinery for sectors including semiconductors, electronics and photovoltaics.