Strengthening our customers' trust

Customer Support works around the globe at our customers fab to make sure our systems are running smoothly.

Since 2019 we have continued to strengthen our worldwide Customer Support (CS) by making our teams in all regions more self-sufficient and by improving the value we deliver to our customers.

There are more than 6,000 extremely complex ASML machines in customer fabs (fabrication plants) around the globe – machines whose downtime can cost our customers thousands of euros per minute. CS works hard to keep them running 24 hours a day, 365 days a year. To prevent 'unscheduled downs', ASML Customer Support uses deterministic diagnostics and other predictive methods to optimize maintenance and upgrades in sync with our customers' production schedules.

A large part of the global CS organization works in customer fabs, adjusting and enabling their systems, whilst other groups are located in Veldhoven to ensure strong cross-sector collaboration and coordination, especially with D&E and Manufacturing.

Coming from a centrally managed approach, responsibility has been decentralized to a more independent local working method known as 'Field Self-Sufficiency". This switch, known as 'Shape & Drive', has led to good insights, improvements, and efficiency. This is reflected in improved system performance with better configuration; we've also improved the up time of the machines and boosted value. Shape & Drive has also improved service and reduced costs.

The CS Shape & Drive strategy has eight key elements based on three fundamentals: improving system capabilities, improving process capabilities and reducing costs. Our strong focus on these fundamentals greatly improved our 2021 results: 38% Service revenue growth and 7% Installed Base (IB) margin growth. Service to our customers, and the key role CS plays here, is recognized as a key revenue driver.

The covid pandemic reinforced the urgent need and necessity for efficient and effective teams in the field. There was, after all, no possibility to go to sites or to fly in expert support. This reinforced the need to work locally. We learned a lot during this period!

First of all, this has unmistakably strengthened our customers' trust in us.

- Local presence has created much closer collaboration with customers on their specific configuration needs and wishes.
- Collaboration between the regional teams and D&E has greatly improved, and we are now able to respond locally and effect a knowledge transfer between the field and Veldhoven. Thanks to this interactive way of working, we can immediately develop all of the learnings for our customers, which is a win-win for them.

The value we provide to our customers depends on three fundamentals:

- High availability and minimal long-term downs
- Lowest possible service cost per wafer
- Maximum number of good wafers per day

That's why providing upgrades is so essential: it's an efficient means of improving system output and extending tool life for future productivity, imaging, overlay and lifetime extension tools.

"We can be very proud of our achievements in the last year. We clearly still have many challenges on our plate; however, it's good to recognize our successes and where we have been able to move the needle", says Wayne Allan, Head of Customer Support. These successes include:

- ✓ **Improvements**
  - Upgraded all NXT-based contracts to provide higher value for customers.
  - First LEPs (Lifetime Extension Packages) defined and executed, resulting in consistent revenue stream.
  - Enhancing reactive and proactive diagnostics.
  - Cross-sector collaboration between Business Lines, Sales, Sourcing & Supply Chain and CS – e.g., with the full service NeXT (FSN).

    Earlier this year, we agreed, together with TSMC, to put maximum effort toward boosting wafers per day, through FSN, at TSMC's critical F15B fab. The FSN team first investigated the cause of excessive downtime and found that more than 300 hours each month were spent cleaning the immersion hood to remove small wafer fibers that could cause defects. They proposed a novel solution – a cleaning wafer – that could be run during production. After proving this wafer could solve 80% of contamination issues, the team worked closely with TSMC to embed the new procedure. This FSN solution boosts TSMC's output by an additional 1,700 wafers per day, proving our ability to deliver valuable productivity improvements to customers while also alleviating pressure on TWINSCAN Factory. FSN will reach more customers in 2022.

- ✓ **Cost reduction**
  - Reduction of emergency shipments by 20%.
  - Reducing parts repair costs by establishing Local Repair Centers, including the LESS (Legal Entity Structure Simplification) solution for contracted machines.
  - Managing Excess and Obsolete inventory by setting up governance to resolve root causes and manage daily influx and outflux.
  - Implementing ONE/LMOS processes and tooling.

"Since our customers' challenges are our challenges, we will continue to implement Shape & Drive. The voice of our customers and their needs mean we will go beyond our current service value – we are preparing new service models to provide customers with true next-level service," Wayne Allen concluded. "Along with my management team, I would like to thank all CS employees and our colleagues from the Business Lines for their contribution to this success by pushing their work to the limit, by taking action, by preparing structural solutions and by participating in our outstanding cooperation".