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ASML Holding NV (ASML.AS)

Deja EUV all over again; High NA technology to only really impact ASML's 2028+ sales

CITI'S TAKE

TSMC executive Kevin Zhang has again publicly dismissed ASML's High NA EUV tools, primarily due to price, and we expect news to hit shares. Mr Zhang has previous form in this regard, speaking cautiously of High NA adoption at TSMC's Technology Symposiums in 2024, 2025 and now at the first of the events in 2026, held today in Santa Clara. He said that TSMC's R&D team has been able to scale "without using High NA" and that it was unnecessary through 2029 for A14/13/12 nodes. Other ASML customers, Intel and Samsung, have been speaking more positively of High NA capabilities and adoption. We have not expected significant volume of High NA tools to ship until 2028, with high volume production targeted from 2029 onwards, contrary to the [Bloomberg article](#) claiming ASML was expecting such in 2027/28. We do not see a material impact on ASML's financial expectations as a result.

Buy

Price (22 Apr 26 16:30)	€1,249.80
Target price	€1,675.00
Expected share price return	34.0%
Expected dividend yield	0.5%
Expected total return	34.6%
Market Cap	€485,107M
	US\$569,661M

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What is the message from TSMC and to whom? Mr. Zhang has been the main representative of TSMC to speak out clearly on the topic of EUV High NA and, in particular, it's high price. He has spoken negatively on the prospect of TSMC's adoption of the technology on multiple occasions over the past few years, all at TSMC's Technology Symposiums for customers. We do not think this message is directed at ASML, but rather TSMC's customers. The focus on new technology introduction, cost and TSMC's ability to maximise its usage of existing tools and know-how is, in our opinion, a message to customers that they shouldn't worry, neither about product delivery nor wafer price. Low NA EUV introduction was challenging and customers have long memories and could be nervous about the introduction of the next generation.

Does High NA technology work? Is it expensive? We do not think this is a question of whether you can scale without EUV High NA, whether High NA works or whether it is expensive; you can, it does and it is. The question is about the whole picture and is a more complicated one than the first three: is the entire high volume manufacturing process more economic by using High NA or Low NA? We started to see evidence of this debate at SPIE Advanced Lithography in 2025 with Intel's presentation, but the discussion broadened at this year's show. We attended presentations not only from ASML, but also Imec, Samsung and Applied Materials, all of whom outlined the progress being made with High NA. The tools are working and at volume, now >500k total wafers exposed, increasing by >10x over the past year. The key for a chip maker is that High NA enables a reduction in process steps, as by using a High NA tool instead of two Low NA tools, the manufacturer can save on other steps (deposition, etch, etc.), space in the fab and on time. Even after only using the first R&D tools for a few months, Intel said that for a certain layer, it had reduced the number of exposures from 3 to 1 and process steps from c40 to <10. For DRAM, Samsung described this year a >80% reduction in steps for the storage node layer and >60% reduction for the storage node pad layer. Intel and Samsung are already starting to look at using High NA on product wafers, to test the tool on actual customer products.

See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations

What does it mean for ASML? We have only expected ASML to ship material volumes of High NA tools from 2028. In 2026/27, we forecast 5/6, still targeting R&D work. In 2028/29/30, we expect volumes to increase to 13/17/22. If a customer we expected to use High NA doesn't, then the above process math suggests they will require a greater number of Low NA tools. Thankfully for customers, those Low NA tools are becoming more productive (230wph today, increasing to 330wph by 2030); thankfully for ASML, those high productivity tools will also have higher prices.

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Valuation

We value ASML using a 39x 2027 or 1.7x PEG based on FY27 earnings, in line with other strong growth stocks in our coverage, which leads to our target price of EUR1675. We continue to have conviction in ASML's long-term growth outlook, as evident in our forecast of a high-teen CAGR in EPS through 2030E. Given our strong multi-year growth forecast for ASML, we look further out than 2026 to capture the growth potential. We think this approach better captures its long-term exposure to artificial intelligence, semiconductor capex and other structural growth areas.

Risks

We highlight the following risk factors for ASML. If the impact of these risk factors is more or less negative than we anticipate, the share price could deviate significantly from our target price:

Technological: Challenges in development of EUV technology could result in delays and lower margins.

Competition: A gain/loss in lithography and/or process control market share would result in upside/downside risk to our estimates.

Customer Risk: ASML derives significant share of its revenues from a few large customers, and an increase/cut in their capex could result in risk to our estimates.

Macroeconomic: A weak macroeconomic environment and/or escalation in geopolitical tensions resulting in subdued semiconductor growth/increase in cadence could cause downside to our estimates.

