ASML Berlin
Working in Photonics

Sarah Fest
Projekt Lead D&E EUV

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Berlin

What is ASML?

The most important tech company that you've never heard of

"A relatively obscure Dutch company"
(BBC News)

Headquarters in Veldhoven, NL

ASML

… is a global innovation leader in semiconductor industry

… provides hardware, software and services to chipmakers

… builds the most advanced photo lithography machines for producing patterns on silicon

… works at the edge of physics

About ASML (Berlin)
Hard facts

1984
Founded by Philips & ASMI
(Advanced Semiconductor Materials International)

32,016
Total employees

122
Nationalities

>60
Locations

ASML Berlin

1952 Year founded as Berliner Glas

- Started with production of technical glasses for TVs or copiers
- Later high tech products and precision optics for applications in space, medical or semicon

2020 Year of acquisition by ASML

1300+ Employees in Berlin

Berlin location of ASML

Working at ASML Berlin

My way to ASML

Sarah Fest

2007	Study Chemistry @ Technical University Dresden
2008 – 2013	Study Chemical Engineering @ University of Applied Sciences Dresden
2013 – 2014	10 months of job search ☹
Oct – Dec 2014	Internship @ Berliner Glas
2015 – 2016	Engineer in Optical Manufacturing Technologies Department Specialist for glass material and chemistry
Apr – Jun 2016	Engineer in Product Development Semicon Development of EUV products
Jul 2016 – 2018	System Engineer in Product Development Semicon Lead engineer for process chain development for EUV products
2018 – now	Project Lead in Development & Engineering EUV Projects for next gen EUV products

Acquisition of BG by ASML

http://www.linkedin.com/in/sfest

What am I working for at ASML?

Improving the world's most advanced photo lithography machines even further

Developed since the 1980s, 35 years later the EUV lithography machine became reality

"Likely the most complicated machine humans have ever build" (Rob Kelton @ Intel Newsroom)

→ Consists of 100,000 parts, weights 200 tons

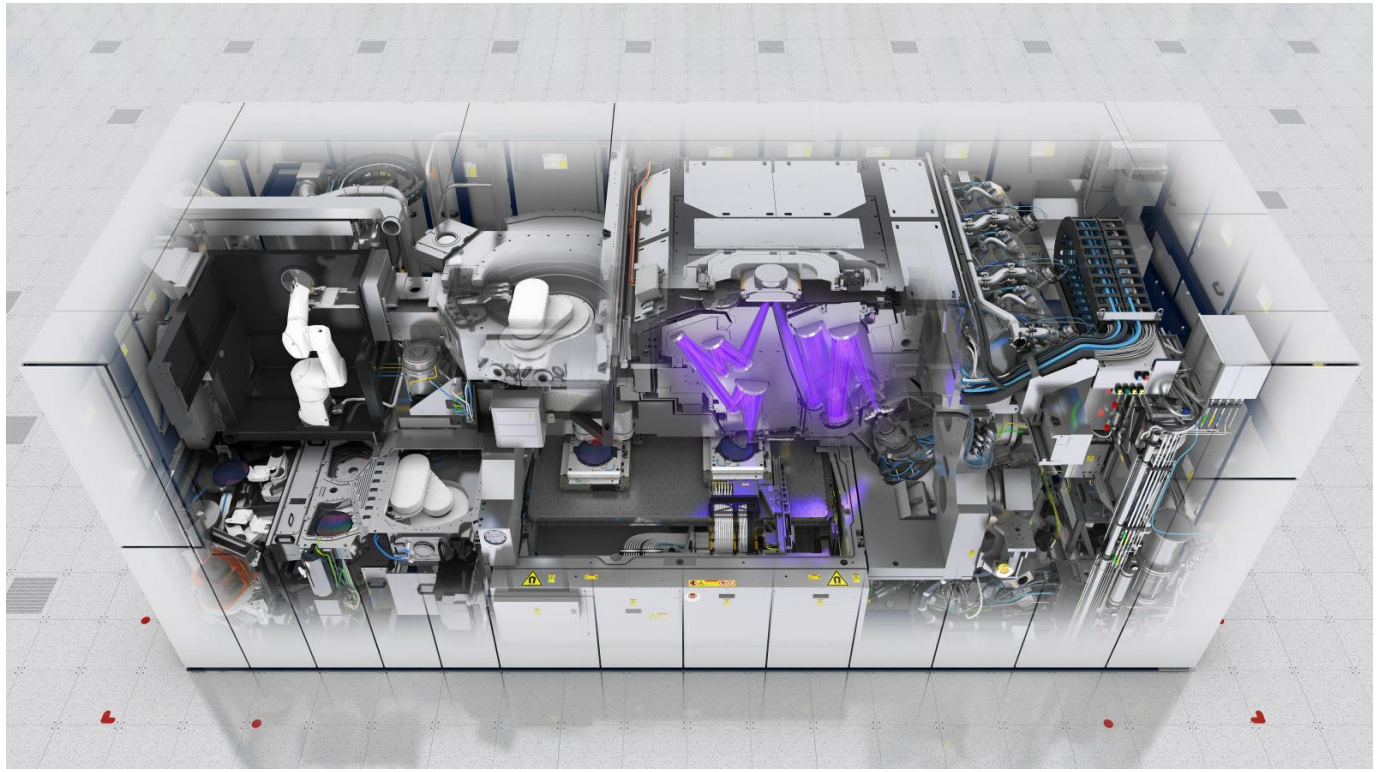
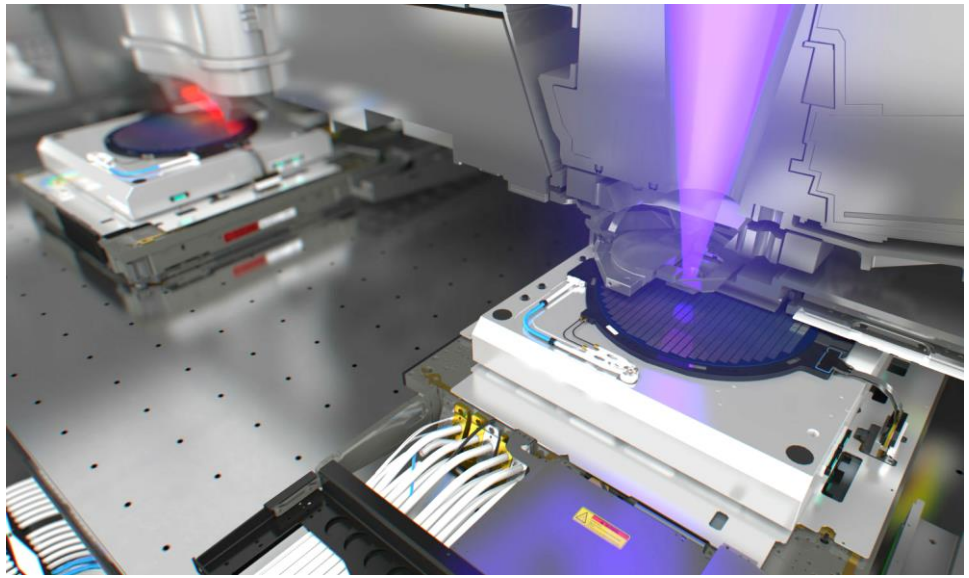


Photo lithography machine working with Extreme Ultra Violet (EUV) light (13.5nm)



Products from ASML Berlin in an EUV machine

Working at ASML Berlin

What we stand for

Challenge

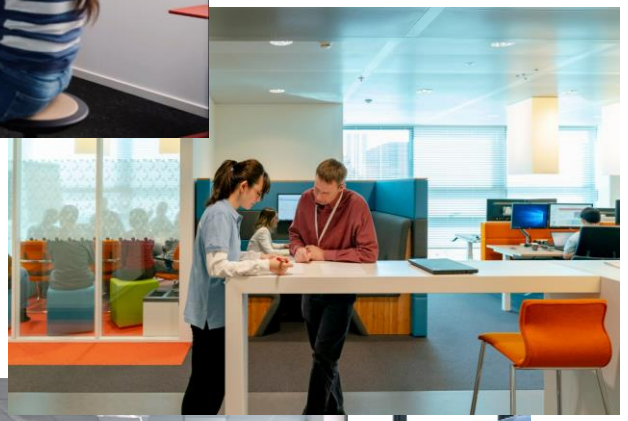
- … is a prerequisite for driving innovation and staying a industry leader
- Mindset: everything is possible until it is proven impossible
- ❤ Challenging projects at the edge of physics and technology

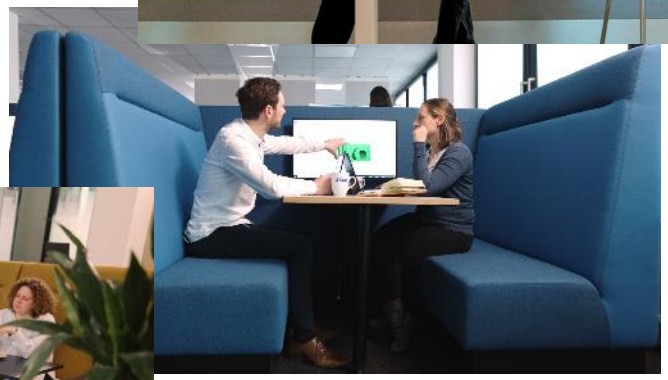
Collaborate

- X-sectional team work across different locations
- Working closely with external partners (suppliers and institutes and universities)
- ❤ Occasional business trips (Europe, esp. Veldhoven, even Wilton/CO near New York)

Care

- ❤ Flexible working hours
- ❤ Family-friendly company
- ❤ Modern working conditions: e.g., all new office spaces
- ❤ “Young environment”: frequent after work activities
- ❤ Celebrate successes





Join the team!
https://jobs.berlinerglas.de/

Development Engineer
- Product Development
- Precision Engineering (Flatness Specialist)
- Surface Modification and Micro Structuring
- Joining Technology

System Engineer

Process Engineer Metrology

Supplier Quality Engineer

Project Lead
- Manufacturing
- Product Engineering

Internships for Students in Precision Technologies

Development Engineer - Precision Engineering (m/f/d)

Your responsibilities

- Development of process chains for producing complex precision mechanical components made of glass, high-performance ceramics, and silicon for EUV semiconductor lithography, e.g. electrostatic wafer chucks
- Development of concepts for products with specifications at the limit of what is technically feasible with a tolerance range from µm to nm
- Understanding of the customer's individual application and translation into design ideas for the product
- Analysis of process risks for the manufacturability of the product (preparation of FMEAs)
- Analyzing the impact of the manufacturing process on product function
- Performing design and manufacturability testing on lab samples and prototypes
- Ensuring a smooth handover to series production
- Working in interdisciplinary, cross-departmental teams
- Technical communication with the customer in the course of new product development

Your profile

- Successful completion of an engineering or science degree in the field of physical technologies
- Knowledge of electrostatics
- In-depth understanding of the physical properties of glass, ceramics, and glass ceramics desired
- Ideally, knowledge of manufacturing technologies for processing brittle or hard materials as well as knowledge of thin-film technology
- Very good analytical and conceptual approach
- High degree of self-initiative and creativity
- Good communication skills, ability to work in a team
- Fluent business German and English

ASML