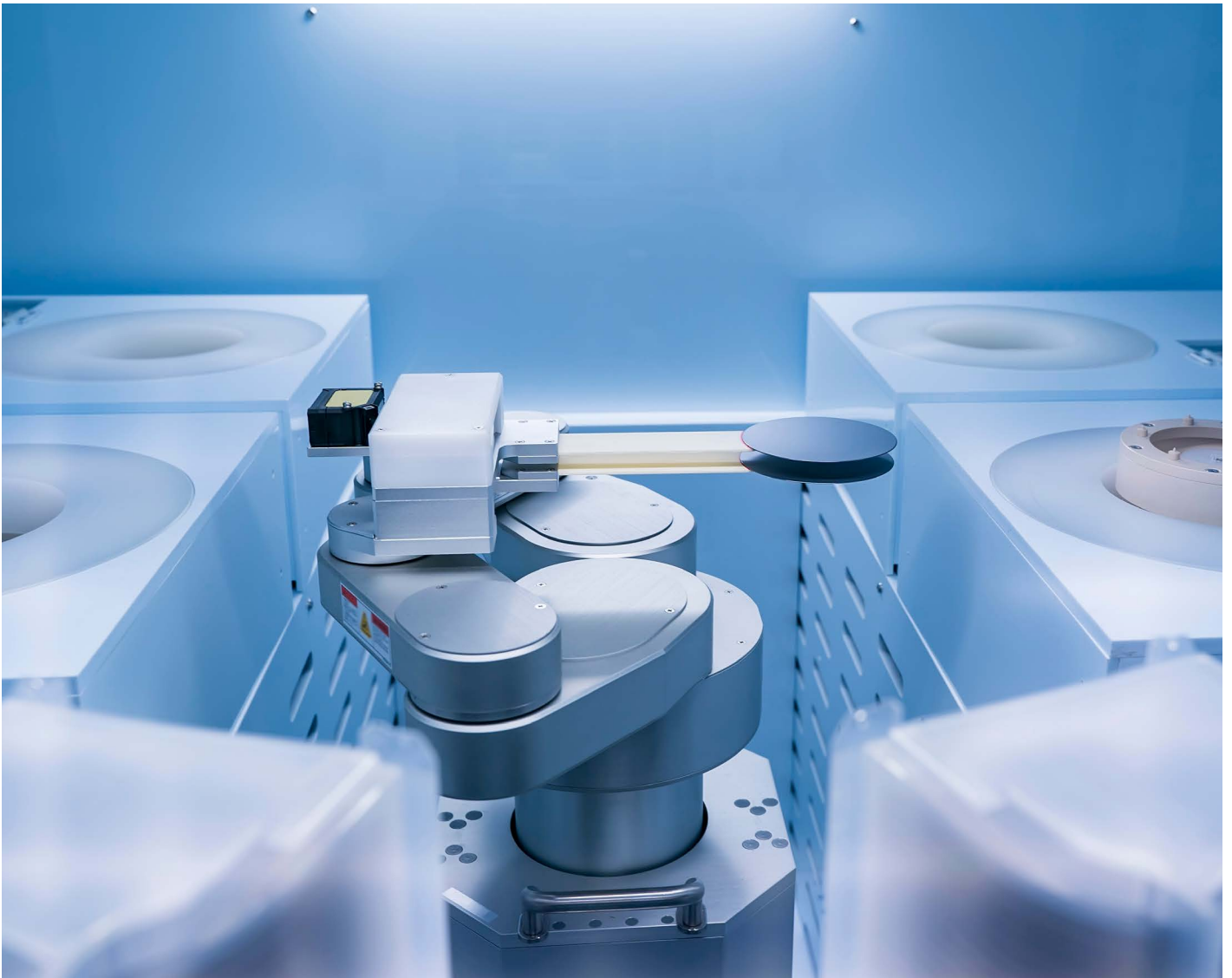


INTRODUCTION

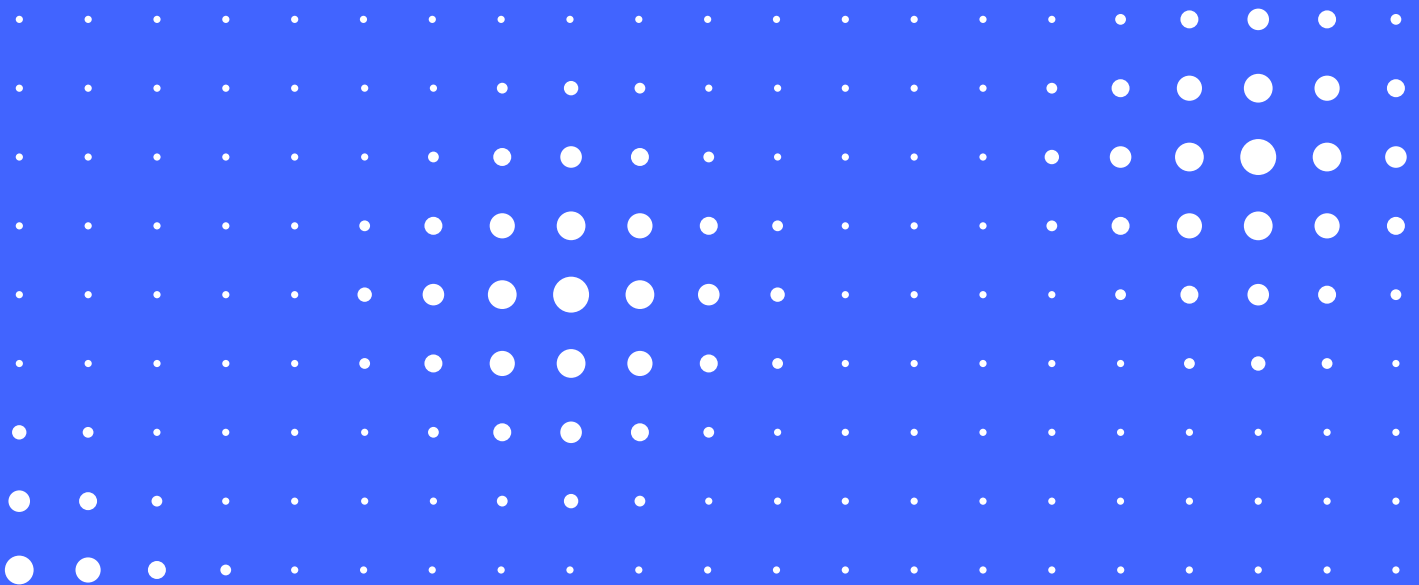
# More Moves in Less Time: An Introduction to Flexciton

[flexciton.com](https://flexciton.com)

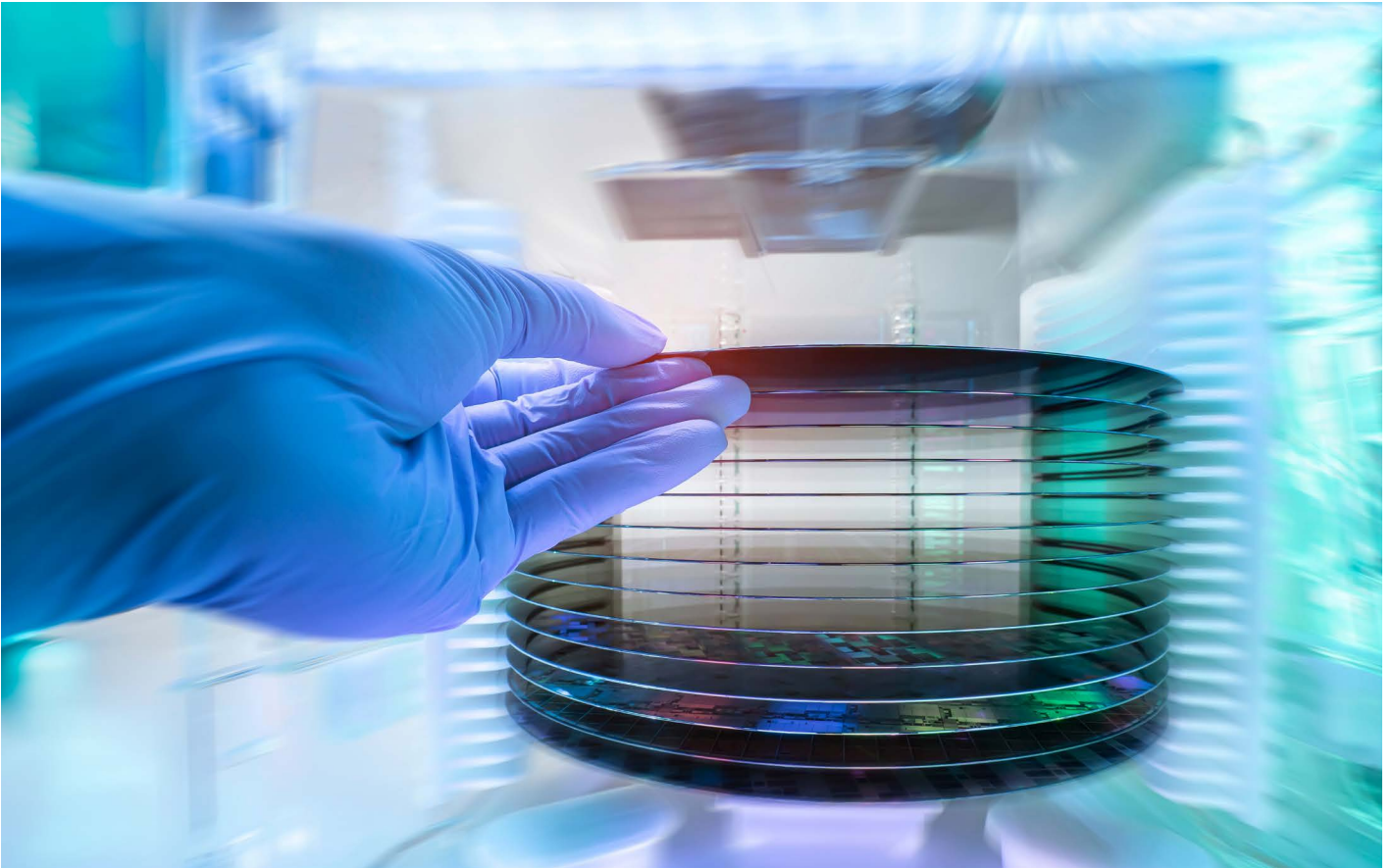


# Who are we?

Flexciton is a deep tech company based in London, United Kingdom that focuses on bringing a new level of efficiency to semiconductor wafer fabs through advanced scheduling. Founded in 2016 by Jamie Potter (CEO) and Dennis Xenos (CTO) with the aim of optimizing the world's most complex manufacturing process, our solution is capable of delivering near-optimal schedules in a matter of minutes. We have been voted as one of the world's most disruptive companies, featuring in the Disrupt50 index in 2018 and then again in 2019. Moreover, Flexciton is a long-standing member of established industry organisations SEMI and FOA, sponsoring numerous conferences and exhibitions in recent years. The company has raised nearly \$30m in investment funding to date.



# What we do and why we're different



The exceptional complexity of semiconductor wafer fabrication, marked by re-entrant flows, mixed processing methods and multiple constraints makes production scheduling extremely difficult. Many fabs adopt conventional methods based on heuristics to help with production scheduling. However, because scheduling decisions are made locally and are based on predefined rules, heuristics fail to account for broader factory behaviour. Moreover, they demand frequent redevelopment to align with fab objectives and fail to take into account all options which results in suboptimal solutions. To unlock the next level of production efficiency, fabs need to make the step up to advanced optimization.

To meet the needs of a modern wafer fab, we developed a hybrid optimization model based on mixed-integer linear programming (MILP). At the core of our approach is a unique combination of mathematical optimization, heuristic search and smart decomposition methods. Our advanced scheduling technology – delivered in a robust and user-friendly interface – is the ultimate solution to help wafer fabs improve their core business KPIs such as throughput, cycle time, OTD and reducing the cost per wafer.

# Proven results to meet your business objectives

From live implementation into Seagate's Springtown facility, our technology has been able to achieve impressive increases in throughput and decreases in cycle time across different areas of the fab. Our intelligent scheduler can be configured to prioritise gains for any specific business objectives in any area of a fab, as well as globally.

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# 10%

## Reduction in cycle time

Average cycle time reduction across 11 toolsets.

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# 9.3%

## Increase in wafer moves

Increased number of wafer moves achieved in parallel with a 10% reduction in reticle moves at the photolithography area.

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# 48%

## Increase in batch size

Significant batching improvement at the deposition tool with a 10% increase in wafer moves.

### Objective driven

The scheduler can be configured to directly optimize your fab's specific KPIs – such as cost reduction, throughput and OTD – to get the results you need.

### Effortless and Consistent

Schedules are delivered without the need for constant re-tuning when the objectives of the fab change and don't require the input of a myriad of rules. Our optimization engine does the hard work for you.

### Unrivalled Expertise

We are a team of over 40 dedicated engineers, scientists and developers – larger than any other company of our kind trying to solve this complex scheduling problem – and we continue to grow and invest in our product.

Interested in maximising the productivity of your fab?

[Click here to book a demo.](#)

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