

# ADVANCED MANUFACTURING BIRMINGHAM, UK 2025



## ***“I went with a mix of anticipation and curiosity”***

I had the exciting opportunity to attend Advanced Engineering 2025 at the NEC in Birmingham on Wednesday 29th October. It marked both the first-time going to this specific event but also to an engineering event!

I went with a mix of anticipation and curiosity, not quite sure what to expect, and I came away with far more than I'd anticipated: new contacts, fresh ideas, and a clearer sense of what's happening across UK engineering and manufacturing.

Walking into Halls 3 & 3a of the NEC, the scale of the event struck me immediately. The show runs over two days (29-30 October), brings together more than 400 exhibitors in addition to thousands of industry professionals. There was a definite buzz in the air once I got to the NEC from the train station, people chatting over coffee, stands demoing composite materials, stands that were displaying aerospace parts and a few car displays that I'd have loved to test drive, top of the list would have been either the Red Bull F1 car or the NIO EP9; which was designed and engineered to be the World's fastest electric car!

It was all new to me but speaking with other visitors, who come from engineering backgrounds, they also commented that it was great to see engineering kits that they weren't used to seeing in their everyday workplaces.

My visitor pass also let me into an adjoining event called Lab Innovations, which was different to what was being shown in the Advanced Engineering hall.

## ***“The event is explicitly designed to bring the entire industrial ecosystem together:”***

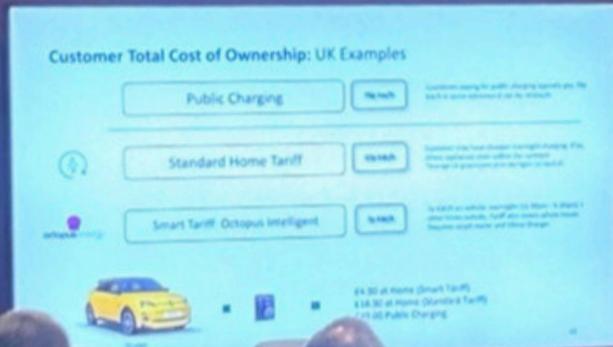
One of the highlights for me was simply being in the same space as so many engineers, suppliers, start-ups and OEMs. The event is explicitly designed to bring the entire industrial ecosystem together: design, manufacturing, supply-chain, automation, and materials. Because it was my first time, I made a point of talking to people from lesser-known companies as well as the bigger players. It was interesting to hear their challenges—skills shortages, sustainability rules, needing to adopt digital manufacturing faster and also what they are doing in response.



The Red Bull F1 race car, in partnership with Atlas Copco.

# THEMES & TRENDS EXPLORED

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### Stand-out Themes

Walking around the floor and listening to what was being discussed in the forums, a handful of themes really stood out:

**Sustainability & Net Zero** – From green manufacturing, circular design of composites, to energy-efficient processes. The show is clearly aligning with the UK's broader industrial strategy.

**Composites & Advanced Materials** – The dedicated composites pavilion, live demos (for instance a fibre-reinforced polymer curing process in just five minutes) grabbed my attention.

**Digitalisation & Smart Manufacturing** – Automation, additive manufacturing, electronics, sensors and connectivity were everywhere. The event really emphasised how “traditional engineering” is being accelerated by “Industry 4.0” and beyond.

**Skills Gap & Ecosystem Collaboration** – Not just machines, but people were front of mind. The forums addressed how the industry must bring in new talent, upskill engineers, and embrace cross-sector collaboration.



A panel discussion on the Future of Engineering Forum platform

### Manufacturing outlook

I spoke to various people and businesses about manufacturing this year and how it correlated with what is going on with the grinding industry. A lot of people commented that in 2025, it was a slow start of the year and continued in this way up until Q3. We (UK manufacturing) are seeing an increase in production and sales but it was slower than many people expected for this year. There doesn't seem to be any concern with this, as anyone working in the manufacturing industry knows that it's peaks and troughs. The increase in Q3, which is expected to carry onto Q4, will hopefully continue into the next year.



The EP9, developed by Chinese electric car manufacturer Nio.



## Learning Curve for Future Events

Since this was my first time, here's a few lessons I will bring going into future events:

Arrive early if you want quieter conversations and have a plan for which zones to focus on. I found that it was busiest around 11:30-14:00. I had interesting discussions about grinding and precision machines but most of the conversations I had were about other industries. It was insightful, speaking about their industries, what their challenges were and their expertise. This was valuable and gave me an oversight of UK manufacturing and UK engineering, in general.

Don't rush through the forums, some of the expert talks were packed with insight, especially around material innovation and future supply chains.

Take advantage of the "new zones" (SME Village, Composites etc) rather than just the "obvious" big exhibitors; some of the smaller booths were where the fresh thinking was happening.



Advanced Engineering, NEC Birmingham, UK 2025

***"It felt like stepping into a hub of possibility — where engineering, manufacturing, materials and innovation meet."***

I had interesting conversations with various exhibitors and in the networking event zones. What I liked about this exhibition is that it seemed free flowing, you never knew when and where the discussions would organically take place and a fine example of this was whilst having lunch.

Finding a quiet spot at lunch time, I was soon joined by someone who had a project manager and finance background. Speaking about the interesting stalls and people we had spoken to, we also spoke everything from project management and *Prince2*, compliance in the banking industry and despite the technology advances in lab work; the lack of innovation in lab work recording and the consequences of that. He came for the Lab Innovation show, I came for the Advanced Engineering show and with access being to both, we both agreed that the other was worthwhile and interesting.

Overall, my first trip to Advanced Engineering 2025 was a success. It felt like stepping into a hub of possibility—where engineering, manufacturing, materials and innovation meet. It was informative, inspiring and well worth the effort. If you're in the engineering sector (or even adjacent to it) I'd say this kind of event is a fantastic way to gain perspective: what's new, who's doing what, where the pain-points are, and where the opportunities lie.