

EXPERT OPINION: MARIA CAMILA BEDOYA-TORO



**SUSSEX
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Programmes & Consultancy Manager Sussex Innovation

Previous roles including Professional of Alliances and Partnerships at COMFAMA and strategy at Estrategik Ventures, technical coordination for international organisations at Cooperación · Desarrollo · Gestión, and other roles within education and business.

Maria holds an MA in Environment, Development and Policy from the University of Sussex and a BSc in Business Administration from Universidad EAFIT in Colombia, with a specialism in Marketing Management.

How would a Deep Tech cluster change Sussex?

In the [first article of this series](#), we laid out the strategic argument: Sussex has world-class quantum research, a manufacturing corridor that accounts for 37% of the county's total business turnover, and a devolution opportunity that could give local leaders the coordinating power to connect these assets.

That was the theory - this article is about what it means in practice, on the ground, for the people like you and me who actually live and work across Sussex.

If Deep Tech stays locked inside university labs and investor pitch decks, it's just an expensive hobby. But what happens when it reaches the real world: your commute, your GP surgery, your kids' school, your high street?

From life sciences lab to local healthcare

Sussex already has clusters of activity in life sciences and drug development, particularly around the Gatwick Diamond area and the University of Brighton's pharmaceutical research labs. What's missing is coordination.

The [NHS Long Term Workforce Plan](#) (June, 2023) included doubling medical school places to 15,000 by 2031, raising GP training places to 6,000, and almost doubling adult nurse training places, with about 24,000 more nurse and midwife training places a year by 2031, and one of the ways to meet demand is through technology that supports clinicians rather than replacing them. AI-assisted diagnostics, remote patient monitoring, and personalised treatment planning are already deployed across the country through integrated care system partnerships.

If Sussex’s life sciences companies were working alongside NHS Sussex with that level of coordination, the impact would be felt from Crawley to Hastings, particularly in coastal communities where GP shortages and health inequalities are most acute. According to the 2023 Sussex Health and Care Partnership data, Hastings and parts of Eastbourne rank among the most health-deprived areas in the Southeast.

Farms of the future

The South Downs is also home to a growing agri-tech sector experimenting with precision farming and sensor-based crop monitoring, but unlike the NHS, which operates through integrated care systems with clear accountability structures, Sussex's farming landscape is fragmented - a patchwork of family farms, market garden smallholdings, and larger estates with little shared infrastructure for adopting new technology.

Yet many of these businesses stand to benefit from emerging technologies. Precision irrigation systems can cut water usage significantly at a time when the chalk aquifers underlying much of the county face growing pressure.

Sensor-based soil monitoring, trialled through the South Downs National Park Authority's agroecology programmes, gives growers granular data on nutrient levels and moisture that previously required expensive laboratory analysis. For smaller holdings of the kind that characterise the Weald and the coastal plain between Chichester and Bexhill, drone-assisted crop surveillance is becoming accessible enough to deploy without specialist contractors.

The missing piece, again, is coordination: a shared platform or extension service that helps farmers identify which tools are relevant to their scale and soil type, rather than leaving adoption to chance and individual initiative.



The commute that pays for itself

The joke: east-west transport in Sussex is, to be diplomatic, suboptimal. But let’s be specific about what bad connectivity actually costs. Many consultations, surveys and reports have found that poor east-west transport links were the single most cited barrier to growth across the county, ahead of skills shortages and regulation.

Getting from Hastings to Chichester takes over two and a half hours by public transport. The A27 is a national punchline. When Universal Quantum in Haywards Heath needs to collaborate with the Ion Quantum Technology Group in Falmer, or when an advanced composites manufacturer near Gatwick needs to reach testing facilities in Worthing, those journeys aren’t minor inconveniences.

They are the difference between a cluster that functions and a set of disconnected firms that happen to share a postcode area.

Devolved transport budgets change the calculation. Instead of lobbying Westminster for a place on a national priority list, a Sussex authority could direct investment towards the specific routes that serve the economy it’s building. That benefits everyone who uses those routes, not only the deep tech firms.

When it comes to public transport and urban planning in our towns and cities, deep tech innovations may have a much more direct impact. AI tools have great potential to keep journey times to a minimum through a combination of dynamic scheduling and route optimisation, predictive maintenance and adaptive traffic signal management.

We may not be too far away from a world where fleets of autonomous vehicles are constantly on the move, reducing the competition for parking spaces in town centres.



A career path that doesn't require a one-way ticket to London

Plenty has been written about the role of AI technologies in the education sector. Live translation and adaptive content can help break down institutional barriers to accessibility and inclusion, personalising lesson plans for neurodiverse students or anyone who thrives with a different pace or style of learning.

But a Deep Tech cluster on our doorstep would have wider-reaching consequences for the talent pathway in Sussex. Right now, young people completing their education in our region face a familiar choice: stay and work in hospitality or leave for London where the “real” jobs are. This is where it gets personal.

Sussex loses a significant proportion of its graduates every year, many to London. The data from HESA's Graduate Outcomes survey consistently shows that regions without visible, high-value career pathways struggle to retain talent. A functioning deep tech ecosystem changes that equation by creating a local career ladder that runs from FE-level technical qualifications in Chichester or Hastings, through applied research at the universities, and into commercial roles at spinouts and scaleups across the county.

Manufacturing already employs roughly 27,000 people across East and West Sussex. Layering advanced manufacturing, quantum engineering, and AI skills onto that existing base creates progression routes for people who are already here, not just for people relocating from elsewhere.



The high street multiplier

Economist Enrico Moretti's research at UC Berkeley, widely cited in UK regional policy, found that each high-skilled job in an innovation sector generates approximately five additional jobs in local services: hospitality, retail, professional services, construction.

If a Sussex Deep Tech cluster generated even 500 direct jobs between Falmer, Haywards Heath, Crawley and Worthing, the downstream effect on local high streets, restaurants, and independent businesses across those towns is substantial. That spending power is year-round and resident, which is a fundamentally different economic proposition to seasonal tourism.

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My final thought:

The question for Sussex isn't whether these technologies will reshape our economy. It's whether we'll be a region that shapes them or one that simply imports the results. At Sussex Innovation, we're backing this with action.

This summer we launch a Deep Tech Accelerator, a dedicated programme to support early-stage Deep Tech ventures across Sussex, connecting them with university research groups, investors, and the commercial networks needed to scale.

You can find out more about these programmes and how to get involved by [contacting our team](#), or subscribing to our monthly [Deep Tech Briefing email](#).