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**SUSSEX
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How devolution could accelerate a Deep Tech economy in Sussex

Maybe after reading that title, you already have a few questions. What is “deep tech”? What does it have to do with Sussex? Why would devolution impact it? And most importantly of all, why should you care?

Let’s get the awkward bit out of the way first.

When most people hear the words “deep tech hotspot,” they might picture a stretch of California stuffed with hoodies and ping pong tables, or perhaps a cluster of glass towers near King’s Cross where the coffee costs more than your commute.

When thinking about Sussex, they might picture the South Downs, cream teas, maybe a Fatboy Slim concert in Brighton. Which is precisely why this article exists: because the most interesting economic transformations happen in places that nobody saw coming and Sussex has been dealt a great hand of cards that it hasn’t played yet.

This is the story of that hand and how a single political mechanism, devolution, could be the moment for Sussex to play it.

What the hell is Deep Tech anyway?

Good question. It's one of those terms that gets thrown around at conferences between the canapés and the "synergy/ecosystem" slide, so let's strip it back to basics.

"Deep tech isn't an app. It's the thing the app is made with."

Deep tech is technology rooted in genuine scientific or engineering breakthroughs. Not another food delivery app with a different colour scheme, not a browser extension that summarises your emails, not a notetaker or calendar organiser. We're talking about innovations that take years (sometimes decades) to develop, require serious R&D and when they effectively land, reshape entire industries. Think of it as the difference between building a house and inventing concrete. One is useful and the other changes civilisation.

Here's a brief summary of the key technologies that we predict will shape how we live and work in the next decade:

Quantum Computing and Sensing	Computers that exploit quantum mechanics to solve problems that would take classical machines longer than the age of the universe.
AI and Machine Learning	Not the chatbot that writes your LinkedIn posts. The deep end of artificial intelligence includes neuromorphic chips, machine learning models uncovering new materials and drug compounds, and autonomous systems overseeing everything from agriculture to aerospace.
Advanced Manufacturing	The factory floor reimaged. Additive manufacturing, advanced composites, robotics, and digital twins.
Photonics and Sensors	Light-based technologies underpinning 5G, medical diagnostics and autonomous vehicles. The UK is a global leader in photonics with a sector worth an estimated £14.5 billion.

But why Sussex? Seriously.

Fair challenge. Let's answer it with evidence, facts and figures.

For each of the groundbreaking innovations detailed above, Sussex has a story to tell. Our region is home to one of the world's leading quantum engineering groups at the University of Sussex. Since February 2017, when the Sussex IQT Group published "the first industrial blueprint on how to build a large-scale quantum computer," researchers have been on the path to making these technologies a commercial reality.

Universal Quantum, a University of Sussex spin-out based in Haywards Heath, is among the UK's most prominent quantum computing companies, having secured major government and international contracts.

Sussex's engineering corridor from Brighton to Hastings, Worthing and Gatwick already has the bones of an advanced manufacturing ecosystem.

Manufacturing is a significant part of the Sussex economy, accounting for 37% of total turnover. Unlike other areas of the UK, much of our industry centres on advanced manufacturing, including computers, electronics and more specialised products.

The area is home to large life sciences and drug development companies, a growing agri-tech sector across the South Downs, and prominent aerospace engineers clustered around Gatwick and Crawley.

How devolution could change everything

Here's where it gets strategic. Sussex has the ingredients.

What it lacks is the coordinating power to bring them together at speed. That's what devolution offers, not just a new logo on the council website, but genuine, centralised authority over the three things that actually determine whether a deep tech ecosystem lives or dies.

power #1: skills and education

Instead of training people for jobs that don't exist here, we can train them for jobs that are being actively created.

THE PROBLEM

Deep tech companies can't hire locally because the skills pipeline doesn't match the jobs.

National curricula and funding formulas don't flex for local needs, but a quantum computing firm in Falmer won't wait five years for Whitehall to update the Further Education syllabus.

THE DEVOLUTION FIX

Control over adult education budgets, apprenticeship frameworks, and skills bootcamp commissioning.

Devolution lets you match supply to demand in real time; imagine a technical qualification in quantum engineering, developed with the University of Sussex and delivered through local FE colleges, or AI apprenticeships co-designed with Brighton's digital firms.

power #2: planning & land use

Scientific and engineering facilities are a fundamentally different proposition to building a Tesco Extra, so the planning process needs to recognise this.

THE PROBLEM

Deep tech needs specialised space: clean rooms, vibration-isolated labs, high-power electrical infrastructure, low temperatures.

Standard commercial planning categories don't cover it. Trying to get a quantum computing facility through a planning process designed for retail parks is (to use a technical term) a nightmare.

THE DEVOLUTION FIX

Strategic planning powers to designate deep tech zones with pre-approved use classes, fast tracked permissions and coordinated infrastructure investment.

Think "Enterprise Zones 2.0" but designed for labs. Specific sites along the A23/A27 corridor, near Gatwick, and around the university could be designated for deep tech development with the planning friction removed.

power #3: transport & connectivity

Any ecosystem needs arteries to keep things moving, but right now, Sussex is clogged.

THE PROBLEM

Sussex's east-west transport links are atrocious (if you know, you know).

Getting from Hastings to Chichester by public transport requires a degree in creative timetable interpretation. If your quantum computing lab is in our Innovation Centre in Falmer and your manufacturing partner is near Gatwick, you need that connection to actually work.

THE DEVOLUTION FIX

Devolved transport budgets and planning powers to invest in the connections that matter for the economy you're building.

Not just roads but the digital infrastructure too.

Fibre, 5G testbeds, and eventually quantum-secure communication networks will be necessary to link research, manufacturing, and testing sites across the county.

What would I do as a mayor? My own magic wand

Ecosystems aren't built by committee, rather by a combination of deliberate infrastructure and happy accidents. But you can create the conditions where those accidents happen far more often. Here's what a devolved Sussex authority could do.

<p>YEAR 1 Foundations</p>	<ul style="list-style-type: none"> • Establish a Sussex Deep Tech Board: university, industry, and local government at the same table • Commission a spatial strategy identifying sites for deep tech zones • Launch the first cohort of Sussex-designed technical bootcamps in quantum, AI, and advanced manufacturing skills
<p>YEAR 2 Infrastructure</p>	<ul style="list-style-type: none"> • Break ground on the first designated deep tech zone likely near the University of Sussex or in the Gatwick corridor • Pre-approved planning, shared clean-room facilities, high-bandwidth connectivity • Begin east-west transport improvements targeting the research-to-manufacturing corridor
<p>YEAR 3 Attraction</p>	<ul style="list-style-type: none"> • Launch a global attraction programme • Use the cost advantage, lifestyle offer, and new infrastructure to recruit anchor tenants like one or two major deep tech firms or research labs • Where the anchors go, the supply chain follows • Expand Sussex Innovation's capacity for deep tech spin-outs
<p>YEAR 4 Connection</p>	<ul style="list-style-type: none"> • Build the network effects • Annual Sussex Deep Tech Summit • Shared equipment and facilities agreements • Cross-sector demonstrator projects: quantum sensors for agriculture, AI for coastal erosion modelling, advanced composites for offshore energy
<p>YEAR 5 Scale</p>	<ul style="list-style-type: none"> • The flywheel starts spinning. Top unicorns from Sussex • International recognition • Second-generation founders reinvesting locally • Talent pipelines produce graduates who stay because opportunities are here. The ecosystem becomes self-sustaining

Yeah but...won't this just fail?

You're right to ask. Most regional economic strategies end up as dust collecting PDFs. Here's why this one could be different and a frank look at the risks.

brain drain

"Won't the best people just leave for London?" Maybe. Unless you give them reasons to stay: competitive lab space, lower cost of living, genuine career paths, and proximity to both London and the coast. You don't compete with London. You complement it.

political cycles

"Devolution deals get reversed." They can. But deep tech infrastructure, once built, is sticky. Lab buildings don't disappear when administrations change. The key is making irreversible physical investments, not just policies.

scale

"Sussex is too small." Possibly. But deep tech clusters are inherently small: you need density, not sprawl. Cambridge's core tech cluster fits inside a couple of square miles. Sussex needs a node, not a nation.

This doesn't happen by itself

Ecosystems are built by people who turn up, people with appetite to learn, share and commit: researchers who share their work, founders who take the leap, policymakers who think in decades, not election cycles and investors who see what's coming.

Sussex Innovation has been the launchpad for hundreds of ventures since we first opened our doors in 1996, and it's our intention to be at the centre of this emerging opportunity for Sussex over the next 30 years.

If you'd like to join the conversation with us, you can register your interest in our new [Deep Tech Briefing here](#).

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