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Playing Europe's hand: Competitiveness, place and the high stakes of territorial myopia

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ABSTRACT

The European Union (EU) confronts a widening productivity gap with the United States (US) and China. Informed by the *Draghi Report* (2024), the emerging response is a bold but narrow one, dominated by massive investment in the technologies and sectors where Europe most conspicuously lags. This article argues that pursuing parity in areas where Europe shows considerable weakness is the wrong race. The surer path runs through Europe's existing strengths —its pharmaceutical hubs, aerospace clusters, machine-tool districts and chemical bases, among others— used not as a pretext for standing still but as a springboard for reinvention. This implies mobilising the potential of every European territory by climbing the complexity ladder, absorbing new technologies into living industrial ecosystems, and diversifying into related activities that grow organically out of existing capabilities. A differentiated, place-sensitive strategy built on path dependence, brownfield digitalisation and the deliberate strengthening of European chokepoints in strategic sectors offers a more durable route to competitiveness than chasing after American or Chinese shadows. Europe is not short of talent or invention: the problem lies in institutional barriers to integration, the weakness of its knowledge-to-innovation pipeline, and its chronic inability to help promising start-ups graduate into globally significant firms. Fix those, and the case for territorial myopia collapses. For if Europe is bound to struggle at imitation, it might as well succeed at being itself and, on its own terms, lead.

1. Europe at a crossroads

Europe stands at a crucial juncture. Long viewed as a titan of global trade and industrial prowess, it now grapples with a seismic shift in economic and political power towards the United States (US) and China. It is being told, not for the first time, that it must run faster. The *Draghi Report* (2024) sets out the diagnosis: flagging productivity, eye-watering energy costs, a shrinking share of frontier technologies, and a creeping sense of geopolitical irrelevance sharpened by the return of a Trump administration in Washington. Its prescription is to pour resources into the sectors and technologies in which Europe trails most conspicuously. These are the very domains where Silicon Valley dominates and Shenzhen sets the pace. The premise is that Europe cannot afford to lose this race.

Yet the premise itself may be the problem. Asking a place, let alone a whole continent, to become what it is not has rarely ended well. The pertinent question is whether Europe's future lies in imitating its competitors in fields where they enjoy deep structural advantages —advantages accrued over decades of context-specific accumulation and support— or in building on what it already excels and has the potential to lead.

This paper is not a call to stand still. Nor is it an invitation to resign Europe to its current industrial footprint. Quite the opposite. Building on what Europe already has does not mean keeping on doing exactly the same. It means using the continent's distinctive strengths as a base to reinvent itself into something new. It means climbing the complexity ladder of activities in which Europe has a genuine chance of becoming more competitive —even, in several cases, a world leader— and diversifying into related activities that grow naturally out of existing capabilities. Related diversification is not preservation. It is transformation, but transformation anchored in the tacit knowledge, skilled labour, supplier networks and institutional scaffolding that cannot be conjured from nothing (Frenken and Boschma, 2007; Balland et al., 2022). Germany's *Mittelstand*, Denmark's wind-energy pioneers, France's aerospace clusters, Italy's industrial districts, Belgium's chemical base, Switzerland's precision engineering: these are not museum pieces. They are

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living ecosystems, each the product of decades of path-dependent accumulation (Stam, 2015). A smarter strategy would double down on them, using artificial intelligence (AI), digitalisation and automation as catalysts for renewal rather than as vehicles for catch-up.

This paper argues that place-sensitive strategies (Iammarino et al., 2019) offer a more robust path for Europe's economic future than the headline-chasing bets the current debate prefers. It is worth being honest about the risk of the alternative. Pursuing the priorities of the moment — i.e., bigger European tech champions, frontier AI, semiconductor dominance— is itself a high-risk strategy, because in several of these domains Europe starts so far behind that the probability of catching up is low and the opportunity cost is high. But this is emphatically not the same as saying that Europe lacks potential. Europe is not devoid of talent or innovation. Since the turn of the century, it has produced some of the defining scientific and technological breakthroughs of the age and a growing roster of globally significant firms. The problem is less a shortage of raw ingredients and talent than a set of institutional barriers that prevent those ingredients from cooking together: a single market still fragmented across capital, services and digital; underpowered linkages between knowledge generation and innovation; a venture capital system that is thin on late-stage finance; and, perhaps most damningly, a chronic inability to help promising start-ups graduate from SMEs into the large, dynamic firms capable of defining global markets (European Investment Bank, 2024; Capello and Rodríguez-Pose, 2025; European Commission, 2025; McCann et al., 2026).

Tellingly, the very diversity that policymakers sometimes treat as Europe's Achilles' heel may be its most underrated asset. Harnessing it demands a shift in how competitiveness is conceptualised. One informed by evolutionary economics, path dependence and the logic of place-sensitive intervention. It also demands clarity about where European leverage in an increasingly coercive world economy actually lies. As Farrell and Newman (2019), (2023) have shown, power today flows through the 'chokepoints' of global networks: the nodes where a single jurisdiction, firm or supplier can cut adversaries off or exploit information flows. A Europe that plays catch-up in American and Chinese strengths will struggle to create such chokepoints of its own. A Europe that doubles down where it already holds genuine comparative advantages (e.g., chip lithography, aerospace, pharmaceuticals, clean technology, advanced chemistry, industrial automation) has a realistic prospect of building them. The alternative, which we call territorial myopia, risks more than economic underperformance. By territorial myopia we mean the failure of policy to see, and to build upon, the specific geography of European capabilities. Territorial myopia depicts the habit of treating the continent as an undifferentiated economic space and of measuring success by proximity to an external frontier rather than by the deepening of what each place already does well. The concept is related to, but distinct from, the more familiar notion of regional lock-in. Lock-in is a condition of a place, the tendency of a regional economy to become trapped in ageing technologies, rigid networks and self-reinforcing routines (Martin and Sunley, 2006). Territorial myopia is a condition of the policymaker, a short-sightedness in Brussels and in national capitals that overlooks territorial variety and, in doing so, risks manufacturing lock-in where none need arise. It threatens to inflame the geography of discontent that is already reshaping European politics (Rodríguez-Pose, 2018; Rodríguez-Pose et al., 2024b; McCann, 2025).

2. The mirage of catch-up

2.1. The Draghi Report and its territorial blind spot

The *Draghi Report* (2024) paints Europe's future in sombre tones. Stagnant productivity, a widening technological gap and the spectre of 'slow agony' loom large if Europe fails to act. Its remedies —a Marshall-plan-scale investment push into digitalisation, decarbonisation and defence— up are serious, far-reaching and, on their own terms, sensible. Its companion piece, the Letta Report (2024), arrives at a diagnosis that is no less stark but subtly different in emphasis: Europe's underperformance is inseparable from the unfinished state of its single market, and particularly from the capital-markets fragmentation, scale-up barriers and regulatory patchwork that prevent promising European firms from reaching continental, let alone global, scale. Together the two reports have framed the EU's competitiveness debate for the next legislative term. The EU's first formal response, the Competitiveness Compass of January 2025, largely echoed these priorities in lower-cost form (Zettelmeyer, 2025), and the Startup and Scaleup Strategy adopted in May 2025 begins, long overdue, to address the bottlenecks choking the graduation of European firms into global scale (European Commission, 2025). Implementation, however, has been uneven. Much of the agenda still exists on paper. Independent assessments a year into the process found that only a minority of the report's proposals had been translated into concrete measures (Zettelmeyer, 2025). This is not to say that the report has been without effect. Far from it. It has reshaped the terms of the competitiveness debate and its imprint is visible in tangible initiatives, not least the move towards a far larger European Competitiveness Fund in the next budget proposal. The point is the more modest one that ambition, in Brussels as elsewhere, often outruns delivery.

Even if implementation accelerates, an awkward question refuses to go away. What if the diagnosis is broadly right but the geography is wrong? The *Draghi Report* is, at bottom, an aspatial document. It treats Europe as a single, homogeneous economic unit in which investment will flow to its most productive uses and productivity gains will diffuse from there. This elegant simplification was challenged two decades ago by evolutionary economic geography and has since been buried under evidence that regions thrive by building on their historical, path-dependent strengths (Boschma and Frenken, 2018; McCann et al., 2026). Mainz did not will BioNTech into existence, nor did Toulouse stumble upon Airbus. These outcomes evolved incrementally within specific local frameworks of institutions, expertise and tacit knowledge (Grillitsch and Hansen, 2019).

By conflating strategic diversification with wholesale adoption of sectors where Europe is a laggard, the *Draghi* agenda risks draining resources from the places and industries that offer the most realistic route to renewed competitiveness (Capello and Rodríguez-Pose, 2025). It is one thing to back AI, automation and green technology as general-purpose levers. It is quite another to assume that Europe's salvation lies in trying to manufacture its own Google, Nvidia or BYD from scratch.

2.2. Why imitation fails: a lesson tested by experience

If the temptation to copy Silicon Valley looks irresistible, it is worth remembering that it has looked irresistible almost everywhere for almost half a century. And almost everywhere the results have been disappointing (Rodríguez-Pose, 2026). A substantial literature documents the repeated failure of regions and countries to replicate the American innovation model by fiat. Lerner (2009) surveyed an array of government programmes designed to seed venture capital–style entrepreneurship and found that the majority had squandered public money without producing the intended dynamism. Saxenian (1994), in what remains the most influential comparative study of regional tech success, showed that Silicon Valley's rise owed less to its ingredients —which Route 128, outside Boston, possessed in greater abundance— than to an institutional culture of horizontal collaboration, labour mobility and acceptance of failure, features notoriously hard to transplant. Breznitz (2021) provides the most forceful recent statement of the argument: trillions of dollars have been spent around the world trying to build "Silicon Somewheres," with most efforts generating feeder economies that haemorrhage their best talent to the original hubs while compounding inequality at home.

The reason these attempts fail has nothing to do with the intelligence or capacity of the policymakers involved. It has to do with the nature of the object being copied. Innovation ecosystems are not menus. They are

evolved organisms. The specific configurations of venture capital, university culture, regulation, labour market, supplier base and consumer preferences that allow Silicon Valley to function cannot be assembled *à la carte*. Each element is path-dependent and co-evolved with the others. Transplanting parts of the assemblage without the rest tends to produce dead tissue rather than living systems. Europe has already run this experiment, from attempts to legislate rivals to Amazon into existence to a long list of aspiring European "Silicon Valleys" —from Silicon Glen to Silicon Fen— that have not become anything of the sort (Hospers et al., 2009). The results have been underwhelming.

The constructive implication is not defeatism. It is to choose a more realistic target. As Breznitz (2021) and McCann (2025) both argue, the most successful regional strategies are those that identify where a place has a genuine, specific advantage in the global division of innovative labour, and then invest to deepen and extend it. Shenzhen did not try to be Silicon Valley; it became the world's hardware prototyping capital. Taiwan did not try to become an internet software hub; it built TSMC. Europe's analogues are easy to name. The Netherlands has ASML and a dense photonics ecosystem. Germany has precision engineering, chemicals and mRNA. France has aerospace, nuclear power and, lately, a small but serious frontier AI capability. Denmark has wind and biologics. Italy has machine tools and luxury goods, increasingly suffused with digital technology. Sweden has gaming, fintech and furniture, among others. The question is not whether Europe can compete. It is where, and how, Europe chooses to compete.

2.3. *The illusion of uniform convergence*

Beneath pan-European industrial strategies lies a more tenacious assumption: that every region, given sufficient funding, can be nudged up the same development ladder. This notion has animated decades of Cohesion Policy (Rodríguez-Pose, 2025a), and it is not merely optimistic. It is often self-defeating. Many European regions are locked into specific development paths shaped by their institutional legacies, industrial heritage and socio-economic structures (Iammarino et al., 2019). Attempts to impose an external blueprint —AI here, semiconductors there, green hydrogen everywhere— routinely ignore the local context on which industrial renewal depends.

A more fruitful approach would emphasise, not minimise, Europe's differences. Rather than chasing parity across the board, policy can cultivate pockets of excellence and allow them to flourish (Capello and Lenzi, 2013), with the right kind of investment and institutional support. The paradox is that the continent's internal disparities, long treated as a liability, can become a source of strength when policy recognises and invests in region-specific competences. From Emilia-Romagna's automotive SMEs to Wallonia's century-old chemical base and Catalonia's pharmaceutical cluster, such "modes of innovation" ecosystems have a proven capacity to adapt incrementally and remain competitive (Boschma, 2023; Hellinga et al., 2025). Treating them as assets rather than anomalies is the first step in escaping the fantasy of reproducing Silicon Valley on every European street corner.

2.4. *A false binary: the place for frontier bets*

None of this amounts to a blanket case against ambition at the frontier. To argue that Europe should build on its strengths is not to argue that it should invest only where it already leads. The choice is better cast as one of balance than of either/or. There are at least three circumstances in which backing frontier science and technology is warranted even where Europe currently trails. The first concerns general-purpose and enabling technologies, from artificial intelligence to advanced semiconductors and quantum systems, whose spillovers are so pervasive that no continent can afford to be a pure taker of them. Here a measure of domestic capability is a precondition for absorbing the technology everywhere else in the economy. The second concerns security, sovereignty and strategic autonomy. In defence, critical communications, energy and the technologies that underpin them, dependence on a single foreign supplier is a strategic vulnerability. Here, the logic of building European chokepoints, developed below, applies with particular force. The third is the simple fact that Europe's weakness across several frontier domains is itself the product of decades of underinvestment in basic scientific research and technological development. Reversing that neglect is a long-term condition of competitiveness rather than a distraction from it.

The point, then, is not that moonshots are always wrong, but that they should be the exception rather than the rule and that their success is highly conditional. Frontier bets pay off most reliably where they are planted in regions that already possess the scientific base, the skilled labour and the institutional depth to absorb them, and where they extend rather than bypass existing capabilities. France's frontier work in artificial intelligence grew out of a deep mathematical and engineering tradition. Europe's quantum research clusters around long-established centres of physics. A moonshot launched from bare ground, in a place without the absorptive capacity to sustain it, is precisely the unrelated diversification that the evidence counsels against. Ambition at the frontier and place-sensitive development are therefore complements rather than substitutes. The former tends to succeed only when it is disciplined by the latter.

3. Building on what Europe already has: reinvention, not stasis

A strategy rooted in Europe's existing strengths is sometimes dismissed as a euphemism for standing still. The charge misreads the argument. Building on what Europe has does not mean freezing its industrial structure in amber. It means using that structure as a springboard for moving up the value chain, by increasing the technological sophistication of what Europe already does, adding new activities that relate meaningfully to the old ones, and allowing new industries to emerge from the recombination of existing capabilities rather than being willed into existence from above. A region that masters advanced chemistry today is far better placed to develop battery chemistry tomorrow than one that has to build the chemistry from scratch. A region with a strong automotive supply chain is better placed to supply the electric vehicle revolution than one starting cold. A region with decades of experience in precision manufacturing can more plausibly become a hub for advanced robotics than one without. Reinvention, in short, is almost always faster, cheaper and more durable when it starts from somewhere.

The approach demands a diagnosis specific enough to recognise each region's distinctive economic DNA —its industrial heritage, institutional thickness and accumulated know-how— and the discipline to design interventions that reinforce or redirect those strengths rather than paper over them. In strong regions, this means investing in R&D consortia, promoting cross-sector collaboration in AI, digitalisation and green technologies, and safeguarding the skilled workforce on which global competitiveness depends. In more vulnerable places, it means dismantling structural barriers, upgrading human capital, nurturing innovation intermediaries that bridge local capability gaps, and attracting talent and investment in ways aligned with each territory's specific assets (Rodríguez-Pose et al., 2024a; OECD, 2025).

3.1. *Path dependence and the logic of related diversification*

At the heart of successful economic transformations sits the unfashionable concept of path dependence: the observation that regions evolve on the basis of historically entrenched capabilities, networks and routines (Martin and Sunley, 2006). Over time, these coalesce into what might be called a regional DNA that guides, and constrains, economic adaptation. When diversification does occur, it usually unfolds into related sectors, where competencies transfer without severing the ties binding skilled labour, institutional scaffolding and local knowledge flows (Frenken and Boschma, 2007; Neffke et al., 2011; Boschma, 2023).

The practical implication is simple, if deflating for those who prefer moonshots. A Bavarian machine-tool firm is far more likely to succeed in AI-driven predictive maintenance than in quantum computing. A northern Italian textile cluster can integrate digital supply-chain platforms far more plausibly than it can host a biotech frontier. The more a new industry deviates from established local expertise, the higher the risk of resource misallocation and the weaker the prospects for sustainable growth (Capello and Cerisola, 2024). Recent evidence pushes the logic further: even related diversification can reproduce inequalities, because only the most advanced regions can plausibly move into the most complex activities (Pinheiro et al., 2025). This finding strengthens, rather than weakens, the case for policies calibrated to local potential. It also underscores the need to help peripheral regions escape the low-complexity trap into which path dependence can lock them (Bathelt et al., 2024).

3.2. Place-sensitive innovation

Smart specialisation (Foray, 2014) builds on these evolutionary insights, offering a middle path between top-down directive and laissez-faire regionalism. By identifying areas of regional comparative advantage, policymakers can channel investment where it is most likely to take root. Denmark's biotech success, for instance, emerged from the confluence of public R&D, patient capital and a dense network of universities and research institutes (Balland et al., 2020). The synergy between local conditions and targeted investment built a breeding ground for world-class innovation, not a programme imported from, say, Cambridge, Massachusetts.

The *Draghi* agenda, by contrast, leans on centralised, pan-European R&D programmes that risk overlooking these nuanced ecosystems. Place-blind policies can inadvertently weaken local competitiveness by diverting funds to ill-fitting sectors (Hellinga et al., 2025; McCann, 2025). Ignoring territorial diversity does more than muddle the economics. It inflames societal dissatisfaction and feeds the very Euroscepticism policymakers claim to want to quell (Rodríguez-Pose et al., 2024b). A cohesive Europe cannot afford to be one-dimensional. It must recognise, and invest in, the heterogeneity that is, in the end, its signature.

3.3. A continent not short of talent: potential in search of scale

It is a peculiar feature of the current European debate that the continent's achievements of the past quarter-century have almost disappeared from view. Read Brussels press releases or Silicon Valley commentary, and one might conclude that Europe had produced nothing of consequence this century. The record is rather better than that. Since the turn of the millennium, Europe has delivered several of the defining scientific and technological breakthroughs of the age, and a growing roster of globally significant firms (Tables 1 and 2).

These lists are not exhaustive. But they are enough to dispose of the suggestion that Europe is short of talent, imagination or ambition. Europe produced the mRNA platform that ended the acute phase of a global pandemic. It hosts the single most important firm in semiconductor manufacturing equipment (ASML), without whose machines advanced chips cannot be made anywhere on the planet. It has built the global standard for GLP-1 therapeutics, which Novo Nordisk has at times exported at a scale sufficient to make it Europe's most valuable listed company. It runs Airbus, the most successful firm building wide-body commercial aircraft. Its firms have redefined payments (Adyen, Klarna, Revolut, Wise), music consumption (Spotify), AI research (DeepMind) and, more recently, open-weights frontier AI (Mistral). Europe also generates genuine regulatory innovation (GDPR, the AI Act) that is now emulated from California and Rio to Beijing and Seoul. These cases are not offered merely as a roll of honour. Read against the argument of this paper, they illustrate three things at once. Each is the product of a specific place and its accumulated capabilities rather than of a generic national push: graphene from Manchester, lithography from Veldhoven, mRNA from Mainz, wind and biologics from Denmark. Several are instances of related diversification in action, existing strengths recombined into new activities rather than sectors conjured from nothing. And a subset, most obviously ASML but also elements of European aerospace, pharmaceutical chemistry and industrial automation, already function as, or stand close to becoming, the strategic chokepoints. The tables, in other words, are less a celebration of the past than a map of the assets on which a place-sensitive strategy for the future would build.

So if the raw material is plainly there, what goes wrong? Three

Table 1
Selected European scientific and technological breakthroughs, 2000–2025.

Year	Breakthrough	Origin
2003	Skype mass-market VoIP	Tallin, Estonia
2004	Isolation of graphene (Nobel Prize in Physics, 2010)	University of Manchester, UK
2008	Entry into service of the Airbus A380 (world's largest passenger aircraft)	European aerospace consortium
2008	Spotify streaming platform	Stockholm, Sweden
2012	Discovery of the Higgs boson at the Large Hadron Collider	CERN (European particle physics consortium)
2012	Philips Hue smart-LED lighting	Eindhoven, Netherlands
2012	Description of the CRISPR-Cas9 mechanism (Nobel Prize in Chemistry, 2020)	Umeå University, Sweden (E. Charpentier), with US collaboration
2014	Rosetta mission lands Philae on comet 67P/Churyumov–Gerasimenko	European Space Agency
2015	Entry into service of the Airbus A350 XWB	Toulouse, France
2016	AlphaGo & deep-reinforcement learning – DeepMind	London, UK
2017	Commercial deployment of ASML extreme ultraviolet (EUV) lithography, enabling chip production below 10 nm	Veldhoven, Netherlands
2020	Approval of the BioNTech-Pfizer mRNA COVID-19 vaccine, the first mRNA vaccine authorised at scale	Mainz, Germany
2021	Wegovy approval marks the transformation of obesity treatment via GLP-1 therapeutics	Novo Nordisk, Denmark
2023	Arm IP licensing model (IPO 2023)	Cambridge, UK
2023	Launch of Mistral AI and the first European open-weights frontier large language models	Paris, France
2024	Maiden flight of the Ariane 6 heavy-lift launcher	European Space Agency

Source: Authors' elaboration.

Table 2
Selected European firms founded since 2000.

Firm	Founded	Country	Sector / activity
Klarna	2005	Sweden	Fintech / consumer credit
UiPath	2005	Romania	Robotic process automation
Spotify	2006	Sweden	Audio streaming
Adyen	2006	Netherlands	Payments infrastructure
BioNTech	2008	Germany	Biotech / mRNA therapeutics
Zalando	2008	Germany	Fashion e-commerce
Rimac Automobili	2009	Croatia	Electric hypercars and EV components
DeepMind	2010	United Kingdom	Artificial intelligence research
Celonis	2011	Germany	Process mining / enterprise software
Wise	2011	UK / Estonia	Cross-border payments
HelloFresh	2011	Germany	Food technology
N26	2013	Germany	Digital banking
Revolut	2015	United Kingdom	Digital banking
Personio	2015	Germany	Human-resources software
Mistral AI	2023	France	Generative artificial intelligence

Source: Authors' elaboration based on company disclosures and Dealroom data.

barriers stand out. The first is institutional (or, more bluntly, integrative). The European single market remains a market of adjective before noun: genuinely single for goods, less so for services, patchy for capital, and still too fragmented for digital services to scale painlessly from one jurisdiction to the next. Tax systems differ across Member States. Insolvency regimes differ. Pension regulations differ. Start-ups that would be single-market creatures in the US must be twenty-seven-market creatures in Europe. And the cost of that mosaic is measurable in deals that do not close and scale-ups that choose to list across the Atlantic (Draghi, 2024; European Commission, 2025).

The second barrier is the thin link between knowledge generation and innovation. Europe's universities produce first-rate science and Europe's patent offices process a considerable share of the world's filings. Yet only about a third of patents held by universities are ever commercially exploited (European Commission, 2025). This is a pipeline problem, not a research problem. It reflects under-resourced technology-transfer infrastructure in many Member States, limited experience in venture formation within academic institutions, and regulatory environments that have not adapted to the cadence of early-stage ventures. The Commission's Lab to Unicorn initiative, adopted in 2025, is an acknowledgement that something has been badly broken for a long time.

The third, and most consequential, barrier is the scale-up gap. Europe is not bad at founding start-ups: formation rates are respectable, and ecosystems in Stockholm, Berlin, Paris, Munich, Amsterdam, Madrid, Barcelona and Tallinn are vibrant. What Europe is bad at is helping those start-ups graduate: from SMEs into mid-cap firms; from mid-caps into globally significant firms; from nationally-focused scale-ups into platform-scale companies. Between 2008 and 2021, roughly thirty per cent of European unicorns relocated outside the EU and only about eight per cent of global scale-ups are European-based (European Investment Bank, 2024; European Commission, 2025). The pattern is not random. It reflects the thinness of late-stage venture capital in Europe, the preference of institutional investors for safer asset classes (in part a consequence of pension-system design), and the relative shallowness of European capital markets at the IPO stage. The most promising European firms routinely find that to raise the capital they need, they must look to American investors. And those investors often prefer to see the company headquartered where they are. Europe thus reaches the point of maximum capital requirement just as the centre of gravity of its best firms begins to drift westward. This, more than any shortage of invention, is what prevents Europe from producing the platform-scale champions it is so often accused of lacking.

Fixing these three barriers —integrative, translational and scale-up— would do more for European competitiveness than any moonshot. The EU Startup and Scaleup Strategy, the associated Scaleup Europe Fund, the proposed "28th regime" for start-ups, and the deepening of the Savings and Investments Union are all attempts to move in that direction (European Commission, 2025). Whether they deliver will depend on execution and, crucially, on whether Member States allow them to. But it is here, not in the chase after American or Chinese shadows, that the rate-limiting step on European competitiveness is actually located.

4. Technology: brownfield before greenfield

The *Draghi Report* is right that AI, digitalisation and automation are the levers of future productivity growth. The question it glosses over is how Europe best pulls them. The report leans heavily towards disruption, new firms, new sectors, new champions. There is another route, perhaps more pedestrian but, in the end, more promising: brownfield digitalisation. The term borrows from urban planning, where a brownfield site is redeveloped land rather than virgin ground. Applied to industry, it denotes the modernisation of established firms and sectors through the incremental absorption of digital technologies, artificial intelligence and automation into existing production systems, as opposed to the greenfield creation of entirely new digital sectors on empty economic land. The distinction matters, because the two routes carry very different risks, costs and distributional consequences.

4.1. The low-hanging fruit of brownfield digitalisation

Consider Inditex in Arteixo, a Galician group that has become one of the largest (if not the largest) apparel companies in the world. It uses machine learning to run one of the most formidable logistics operations on the planet. Or Germany's *Mittelstand*, where AI-driven predictive maintenance slots seamlessly into pre-existing production lines (McKinsey Global Institute, 2023). These examples underscore how digital tools can help strong incumbent sectors evolve rather than start from scratch. They leverage robust industrial ecosystems while sparing firms the steep learning curves and investment risks of embarking in a new beginning. Brownfield digitalisation aligns neatly with evolutionary theory's emphasis on adaptive change, where each incremental step builds on prior strengths (Capello and Lenzi, 2013).

The payoffs are both economic and inclusive. Advanced technologies applied to existing SMEs —precisely the firms that employ most Europeans— can raise productivity without the churn that unsettles regional labour markets. A Europe that systematically rolls out such resources —finance, expertise, digital infrastructure— can ensure that the gains from AI and automation are not hoarded by a handful of already-thriving clusters, as unchecked market dynamics would otherwise dictate.

4.2. The perils of disruptive overreach

When policymakers romanticise "the next big thing," they tend to downplay the structural complexities that hamper large-scale industrial transformation. Hoping that Wallonia's chemical industry will overnight become a hotspot for quantum computing is a sure way to undermine existing supplier relationships, erode tacit knowledge networks and leave firms scrambling for skills they cannot find. Evolutionary scholars call this unrelated diversification: high-risk, high-cost and prone to disappoint (Boschma et al., 2023).

Silicon Valley thrives on radical disruption. Europe's comparative edge has historically lain elsewhere: in cumulative innovation and in clusters that incrementally absorb new technologies into legacy systems. Policies favouring related diversification over leaps into unrelated frontiers stand a better chance of sustained success. Technology diffusion works best when it builds on existing industrial capabilities, not when it tries to conjure new ecosystems *ex nihilo* (Vannuccini, 2025).

5. Building European chokepoints

An industrial strategy for an era of weaponised interdependence must think seriously about where a continent's structural leverage actually lies. The vocabulary has shifted accordingly. Where a decade ago policy documents spoke of "comparative advantage" and "global value chains," they now speak of "chokeholds" and "chokepoints," or the nodes in global networks where a single jurisdiction, firm or supplier can exercise coercive power by denying access or exploiting information flows (Farrell and Newman, 2019, 2023). The shift is not rhetorical. It reflects a change in how the international economy works. Sanctions, export controls, data restrictions, investment screening and supply-chain weaponisation are now central instruments of statecraft, and no major jurisdiction —least of all the EU, which has faced coercive pressure from Washington, Beijing and Moscow in short order— can afford to be indifferent to its position on the network topology.

Here, once again, the case against imitation is stronger than the case for it. Europe is unlikely to build chokepoints by competing head-on with the US in hyperscaler cloud computing, frontier AI foundation models or leading-edge semiconductor fabrication, because the US already occupies those nodes and the underlying economies of scale favour incumbents. Europe is equally unlikely to build chokepoints by

competing head-on with China in mass manufacturing, solar-panel assembly, robot development or rare-earth processing. In both directions, the marginal euro spent on catching up buys less strategic leverage than the marginal euro spent on deepening strengths where Europe is already, or nearly, indispensable.

Those positions exist, and some of them are formidable. ASML is the textbook chokepoint: without its extreme ultraviolet lithography machines, advanced chips cannot be manufactured anywhere on the planet. Airbus and Safran lead in what has become a near-duopoly with Boeing and GE in commercial aviation; Rolls-Royce supplies the wide-body engines that China's own aviation programme has yet to replicate at scale. European firms dominate or share leadership in several slices of pharmaceutical manufacturing, including the upstream chemistry that underpins global generic production, and in specialised biologics capacity. The continent retains strong positions in industrial automation (Siemens, ABB, KUKA), in wind turbine technology (Vestas, Siemens Gamesa), and in specific segments of advanced chemistry, catalysis and precision optics. Not all of these are chokepoints in the strict sense. A genuine chokepoint is not simply an area of excellence or a strong position in a particular technology. It is a node whose control confers systemic leverage over an entire value chain, such that rivals cannot easily route around it. ASML approaches that ideal. Without its lithography machines, the most advanced chips cannot be made at all. Others on the list, from wind turbines to industrial automation, are areas of world-class capability that remain more contestable, occupying important but substitutable positions within broader production networks. They are candidates for chokepoint status rather than chokepoints already secured. These positions are not relics of the past. They are sites of structural leverage that could be deepened into a coherent strategic portfolio if European policy were organised around them, provided that policy grasps how a spatially embedded strength is turned into genuine indispensability.

Building more of them follows the logic of related diversification almost exactly. A chokepoint is almost never the product of a moonshot. It is the product of decades of incremental advantage-deepening in a specific activity, until the tacit knowledge, supplier networks, regulatory expertise and installed base make the position nearly unreplicable. Silicon Valley did not decide one morning to become the chokepoint in social networking; Amazon did not decide to become the chokepoint in cloud compute. Those positions emerged from long trajectories of specialisation. If Europe wants its own chokepoints in green technology, advanced pharmaceuticals, quantum communication, industrial software or defence electronics, it will build them the same way; by identifying where it is already close to indispensability and investing to cross the line.

What turns a localised advantage into a genuine chokepoint is therefore not scale alone but position. It requires a place to occupy a segment of a value chain that is at once indispensable, hard to substitute and difficult to replicate. In other words, a combination of technological singularity, control over a critical input or standard, and an installed base that raises the cost of switching elsewhere. This is why a network and value-chain perspective is key to any chokepoint strategy. The relevant question is not merely whether a European cluster is good at something, but where in the global production system that capability sits, how many alternatives exist, and how a targeted investment might move the cluster from a strong but substitutable position towards genuine indispensability. Policy that grasps this will invest not only in the node itself but in the linkages, standards and complementary assets that entrench it.

The strategic perspective reinforces the territorial one. A chokepoint is by definition concentrated somewhere. It requires a specific cluster, with specific skills, specific suppliers, specific capital and specific institutions. It cannot be distributed uniformly across twenty-seven Member States. A European industrial strategy that takes chokepoint thinking seriously will, of necessity, be a place-sensitive one.

This raises an obvious territorial objection. If chokepoints are, by definition, concentrated in a handful of leading places, how can their development serve the wider cause of territorial cohesion rather than deepen the divide? The answer does not lie in the futile attempt to reproduce each chokepoint in every region. It lies in connection. A chokepoint is the apex of a value chain that reaches far beyond its core cluster, drawing on suppliers, sub-contractors, service providers and skilled workers spread across many territories. The strategic task is to widen and strengthen those linkages so that lagging regions come to participate in the value chains that leading nodes anchor. Deliberate mechanisms of capability-building —from supplier-development programmes and cross-regional research consortia to the innovation intermediaries discussed below— can turn a concentrated chokepoint into a distributed source of demand and learning. Handled in this way, the strengthening of Europe's strategic nodes and the development of its weaker regions cease to be competing objectives and become two sides of a single industrial strategy.

6. The competitiveness divide and its political price

6.1. Territorial inequality and the risks of myopia

The *Draghi Report* is conspicuously silent on Europe's entrenched competitiveness divide and on the political fallout that its proposals could unleash. This silence may prove its Achilles' heel. Well-endowed regions —Bavaria, Île-de-France, Stockholm, Copenhagen— are poised to absorb advanced technologies swiftly, attracting investment and talent in the process. Peripheral regions such as Thessaly, Lubelskie or Sicily face the opposite prospect: further marginalisation or entrapment in regional development traps (Diemer et al., 2022). The result would be a two-tiered Europe in which resentment and disaffection corrode both political cohesion and the legitimacy of European integration itself (Rodríguez-Pose et al., 2024b; Le Petit-Guerin et al., 2025).

The warning is not speculative. As the Barca Report (2009) argued more than fifteen years ago, place-blind policies produce deserts where there could be gardens. Ignoring territorial disparities is not merely unjust; it is self-sabotaging. The cost of territorial myopia spills beyond the economic sphere. It erodes the social fabric and feeds the populist and Eurosceptic currents that any observer can now track across most EU Member States (Rodríguez-Pose, 2018; McCann, 2025). Uneven productivity gains exacerbate distrust in institutions, undermining the cohesion of the single market (Criscuolo et al., 2019). Recent evidence only thickens the case: interregional inequality, long treated as an outcome, is now also a driver of Europe's political turbulence (Bathelt et al., 2024). Even the *Letta Report* (2024), whose preoccupations are primarily with market integration rather than regional development, concedes the point with striking bluntness: roughly 135 million Europeans —nearly one third of the Union's population— live in places that have drifted behind over the past two decades. Letta's call for a "freedom to stay" alongside the freedom to move is a belated recognition that a single market unable to deliver opportunity where people actually live will not retain their consent for long.

6.2. Cohesion Policy: from compensation to empowerment

Where does that leave EU Cohesion Policy, which for more than three decades has channelled billions into regions described, often patronisingly, as "laggards"? Its most pressing threat is now internal. The Commission's 2025 proposal for the post-2027 Multiannual Financial Framework signals a shift towards streamlined, nationalised investment envelopes reminiscent of the Recovery and Resilience Facility, a model that allocated funds to Member States with limited regard for where they landed (Rodríguez-Pose, 2025b). Folding Cohesion Policy into broad national envelopes would strip out precisely the feature that has made it work: its responsiveness to local conditions, needs and potential.

Others have argued more constructively for expanding the MFF

without sacrificing its territorial dimension. Busse et al. (2025) propose to increase investment in European public goods such as research and innovation, the clean energy transition and defence, while explicitly preserving current spending on Cohesion Policy and the Common Agricultural Policy, and funded through a more permanent presence of EU borrowing paired with new own resources. Whether or not such a strategy proves politically feasible, the logic of the position is the right one: the case for stronger EU-level action on public goods is powerful, but it should not come at the expense of the place-based instrument that has done the most to hold the Union together.

A more granular critique comes from Darvas et al. (2026), who posit that integrating cohesion, agricultural, migration and internal security spending into a single framework of National and Regional Partnership Plans (NRPPs) may be conceptually sound —reducing long-standing overlaps and coordination failures— but identify two features that threaten its territorial logic. First, making sub-national cohesion spending conditional on unrelated national reforms bears only an indirect relationship to the local projects being funded; such conditionality is defensible only when the reform itself produces cross-border benefits or genuinely improves the local impact of the spending. Second, concentrating the approval and modification of NRPPs in the hands of the Commission and the Council, without a formal role for the European Parliament, raises legitimate accountability concerns about the mechanism that will govern a large share of the next budget. Moreover, the renationalisation of a large chunk of European investment would strip Europeans of one of their main instruments of voice and participation in the process of European integration (Rodríguez-Pose, 2025b). Both points reinforce this paper's broader argument: a reorientation of Cohesion Policy is not, in itself, the problem. The problem is a reorientation that loosens its connection to the places it is supposed to serve.

A more fruitful reorientation would be different in kind. Rather than compensatory transfers aimed at plugging deficits, Cohesion Policy should move towards a performance-based model that rewards each region for exploiting its specific assets. This is the spirit of smart specialisation, but with a sharper focus on local potential than on uniform convergence (European Commission, 2024). Targeted support for Gdańsk's shipbuilding heritage, or for Murcia's agro-industrial clusters, illustrates what such an orientation looks like in practice.

Critically, this does not mean abandoning less-developed regions (European Commission, 2024; Rodríguez-Pose et al., 2024a). It entails developing innovation intermediaries and networks that channel knowledge spillovers from leading clusters to follower regions (Lee, 2024). Estonia's Digital Innovation Hubs illustrate how tech-savvy areas can support rural SMEs, bridging the digital divide through collaboration rather than mandate. The OECD (2025) has recently offered an analytical framework for this kind of place-based industrial policy, linking national sectoral priorities to local capabilities in ways that mobilise underused assets rather than compound existing inequalities.

7. Harnessing endogenous strengths through technology

7.1. Reinforcing core sectors

If Europe is to remain globally competitive, it must first shore up the sectors in which it already holds a comparative edge. Pharmaceutical hubs in Germany, chemicals in Wallonia, aeronautics in Toulouse, wind energy in Denmark, luxury manufacturing in northern Italy: these are not relics of a bygone era but engines of innovation well placed to absorb AI, sustainable technologies and automation to stay at the frontier. Denmark's transition from maritime expertise to wind-energy leadership illustrates how related diversification can breathe new life into traditional competencies (Grillitsch and Hansen, 2019). Novo Nordisk's breakthroughs in obesity drugs, similarly, owe much to Denmark's dense web of life-science start-ups, regulatory clarity and culture of open innovation. Such ecosystems are not conjured overnight; they are the product of decades of cumulative learning and targeted public action.

Strengthening core sectors calls for specialised R&D consortia, tax incentives for technology transfer, and regulatory frameworks that encourage experimentation without inviting chaos. These are unglamorous policy tools, but they are the ones most likely to compound returns over time.

7.2. Incremental transformation of traditional sectors

Equally important is the gradual reinvention of sectors that sit outside the headline-grabbing frontier. Automotive SMEs in Emilia-Romagna will never become quantum computing laboratories, but they can, and do, adopt advanced robotics, digital twins and Internet-of-Things-driven supply-chain tools to climb the value chain. This is the evolutionary concept of branching (Frenken and Boschma, 2007; Davies and Maré, 2021): industries evolving into adjacent niches by drawing together on existing and new skill sets rather than completely ditching the old for the new.

Such transformations are sensitive to policy design. Grants and subsidies targeted at SME digitalisation can lower the barriers to technology adoption, while regional tech-transfer offices can give smaller firms the expertise they need. Targeted measures that encourage backshoring and modernisation can spark self-reinforcing cycles of growth, provided they are aligned with local potential rather than imposed against it (Capello et al., 2025).

7.3. Talent, scale-up and the graduation problem

Technology without people is only code. The capacity of a region to absorb new technologies, to diversify into more complex activities, to scale up its firms and to hold a strategic industrial position rests, in the end, on the availability, attraction, retention and continuous upgrading of skills. Europe's historic strength in research-intensive sectors owes much to its universities and vocational training systems, and the Union has lately made skills a centrepiece of its competitiveness and cohesion agenda, most visibly through the Union of Skills initiative launched in 2025. Yet retaining talent, and distributing it across regions, remains the hardest part. Places that lose their brightest minds to the usual hubs struggle to reinvent themselves, and the drain compounds over time.

Attracting talent, however, is easier to prescribe than to achieve. Nowhere more so than in the regions that need it most. The assumption that skilled workers will simply move to wherever opportunity beckons underestimates the frictions that now stand in the way. Housing costs in Europe's most dynamic cities have climbed to levels that price out the very workers those cities seek to recruit, while a politics of anti-immigration sentiment, hardening across much of the continent, has made the international recruitment of skills more fraught than at any point in a generation. Peripheral and lagging regions face a double bind. They must compete for mobile talent against better-endowed metropolitan rivals and they often lack the amenities, services, skills and career depth that make relocation attractive in the first place. A skills strategy that ignores these constraints will disappoint. The implication is not to abandon the ambition but to broaden it. This implies complementing the recruitment of mobile talent with the patient cultivation of local human capital through vocational training, apprenticeships, lifelong learning and partnerships between regional firms and universities, so that regions can grow the skills they need rather than depending wholly on their capacity to import them.

The related, and more neglected, problem is what happens to firms, not people. Europe has no shortage of start-ups. What it lacks is the infrastructure to help them graduate. The trajectory from promising SME to dynamic mid-cap firm to globally significant large firm is the part of the innovation pipeline where Europe leaks the most value. Late-stage venture capital is thin. Stock exchanges for scale-up IPOs are fragmented. Regulatory rules vary across Member States in ways that penalise firms trying to expand beyond their home market. The EU's

proposed Scaleup Europe Fund, the associated 28th corporate regime, and the deepening of the Savings and Investments Union are aimed precisely at this graduation problem (European Investment Bank, 2024; European Commission, 2025). Their design matters more than their size: what Europe needs is not only larger pools of growth capital but also deeper secondary markets, simpler cross-border expansion, and fewer incentives for scale-ups to relocate to New York or Singapore the moment they mature.

The human-capital and firm-graduation problems are linked. Scholarship programmes tied to regional work placements, tax credits for firms that invest in employee upskilling, and cross-border educational initiatives can blunt the zero-sum scramble for talent that AI adoption threatens to intensify. A more integrated single market for talent —with the recognition of qualifications and cross-border social-security portability that the EU Startup and Scaleup Strategy now seeks— would do more. A Europe that integrates these measures into its technology strategy will not eliminate regional asymmetries, but it can prevent them from hardening into permanent divides and stop letting its best firms walk out of the building just as they come of age.

8. Governance and political economy: implementing a different strategy

A territorial strategy is only as good as the institutions that deliver it. The concentration of investment in particular places carries serious political implications, particularly when expected returns are unevenly distributed. If the most competitive regions already have a head start, will they not simply pull further ahead? The answer lies in the quality of governance. EU frameworks must be built on a close diagnosis of existing potential everywhere in Europe, not just in its economic capitals, and cross-regional collaboration must channel knowledge flows between leading and follower regions rather than cement the gap between them (Trippl et al., 2020; Lee, 2024).

A differentiated strategy requires capable institutions (public, private and civic) at every tier of government. Yet the quality of public services is not evenly distributed across EU regions. The most recent European Quality of Government Index (Charron et al., 2024), the World Bank's Subnational Business Ready reports, and the World Justice Project's EUROVOICES surveys converge on a single message: progress on government quality has stalled in much of Europe. The consequences are measurable. Low government quality depresses economic growth (Ketterer and Rodríguez-Pose, 2018; Peiró-Palomino, 2019), trade (Barbero et al., 2023) and innovation (Rodríguez-Pose and Di Cataldo, 2015) in EU regions. No technology-centric policy, however well designed, will succeed where institutional capacity is thin.

Political narrative matters too. Instead of framing the debate as a sprint to “close the gap” with the US and China —a frame that implicitly puts Europe in a perpetually subordinate position— leaders would do well to speak of the distinctive capacities that can make Europe a global trailblazer in green technologies, sustainable manufacturing or life sciences. Such a narrative treats the continent's diversity as a competitive strength rather than a handicap and invests political capital in converting that diversity into innovation-driven prosperity (European Commission, 2022).

The political price of getting this wrong is high. Policies that concentrate activity further while failing to address deep-seated territorial imbalances risk igniting the discontent that has already upended even the most well-structured strategies. The Forum Disuguaglianze Diversità (2024) has warned that comprehensive EU policies blind to local conditions can backfire in regions where Euroscepticism is entrenched. The solution is not to abandon lofty ambitions but to embed them in a nuanced recognition of local challenges and strengths. By demonstrating tangible benefits in often-overlooked communities, policymakers can build a broader political base for integration and innovation-led growth. And, in the process, deny Euroscepticism and populism the fuel they have been burning for a decade.

9. Conclusion: playing Europe's hand

Europe's choice is not as stark as the current debate pretends. The alternative to a monolithic catch-up agenda is not resignation or retreat. It is a more confident, more strategic and ultimately more ambitious use of what Europe already has as a means to transform and reinvent Europe, but not from scratch. Territorial myopia is not just economically wasteful. It is politically dangerous. Europe does not need to ask what it might have been had it produced a Silicon Valley or a Shenzhen. It needs to ask what it becomes if it keeps building on the very real strengths it has accumulated over seventy years of integration and millennia of history.

Those strengths are substantial. They include the ingredients most frequently overlooked in the current debate: world-class universities and public research systems; a skilled industrial labour force; globally dominant firms in aerospace, pharmaceuticals, precision engineering and semiconductor equipment; a dense web of innovative SMEs across hundreds of regional clusters; regulatory capacity that others now copy; and an institutional framework that, for all its frictions, has kept twenty-seven Member States cooperating through a succession of shocks that would have broken less robust structures. The task is to convert these ingredients into durable competitive advantage: by doubling down on the sectors where Europe is already close to indispensable; by incrementally transforming traditional industries through AI, digitalisation and automation; by removing the institutional barriers that prevent good ideas from becoming large firms; by deliberately building European chokepoints in strategic sectors rather than chasing American or Chinese ones; and by embedding the whole strategy in a reformed Cohesion Policy (Rodríguez-Pose, 2025a) that treats regional diversity as an asset rather than a nuisance.

If Europe does this — if it plays its own hand rather than someone else's— it will not become Silicon Valley, and it will not become Shenzhen. It will become something more interesting: a highly sophisticated and diversified economy, with a constellation of regional specialisations feeding into a larger whole, with real strategic chokepoints, and with the political cohesion to sustain the long-term investments these outcomes require. It will also remain a place that others look up to because of its diversity, security and quality of life. This is not a story of decline dressed up in optimistic prose. It is a realistic account of where Europe's comparative advantage actually lies, and of how to deepen it.

The continent has been written off before. It also has a habit of disappointing those who underestimate it. If the question is whether Europe can outspend the US or outscale China in raw frontier digitisation or in robotics, the honest answer is probably not. If the question is whether Europe can build a prosperous, innovative, resilient and politically cohesive economy on its own terms —one that leads the world in specific domains and refuses to write off any of its regions— the answer can and should be a decisive yes. The ingredients are there. The science is there. The firms are there. The institutions, for all their faults, are there. What is required is the confidence to use them, rather than the anxiety of pretending to be someone else. For if the continent is bound to struggle at imitation and catching up, it might as well succeed, at last and on its own terms, at being itself. And in so doing, it may yet surprise the world.

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