Oak Universe

UK Manufacturing

A Time of Disruption and Opportunity

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Introduction Statement

The manufacturing of tomorrow. Industry 4.0. Making needed things. Helping established SMEs on the next stage of their growth and transformation. Offering not only capital but also expertise, an ecosystem of support. Value creation. A way through the disruptive challenges of uncertain times. These themes describe Oak Universe as an investment firm, and I'm delighted to be part of such an exciting proposition as Managing Partner for the UK.

I was born in Birmingham, in the industrial heartland of the UK. I spent most of my career as a management consultant and as an expatriate in several countries as well as the UK. It showed me that change is a constant in business. It can destroy and it can create. Businesses that flourish in the face of change do so through more than a survival instinct. They have leaders who understand the implications of change and embrace the new opportunities it brings, but who also have the courage to adapt. Navigating this ambivalent change process takes more than financial capital. It takes hard-headed strategic insight and decisions. It takes essential disciplines in execution. It takes vision, leadership and culture to inspire people. Oak Universe integrates these ingredients, which is why I was drawn to them as a way of participating in the manufacturing renewal of the UK.

There are outstanding companies to be found across our country, and the UK Government's current industrial, social and innovation policies are aiming to promote a "levelling up" among UK regions and the formation of viable industrial eco-systems. We are also witnessing the beginnings of a re-shoring trend, whereby UK companies re-situate previously offshore production processes closer to home. The current and ever-increasing international supply chain disruption risks will surely cause more companies to work in this direction, but it is precisely digitalisation and the adoption of advanced technologies that will provide the improvements in cost and quality that make the build-out of resilient supply chains in the UK realistic.

In this article we explore some of these challenges and outline the Oak Universe approach to engaging with and investing in manufacturing SMEs. If this is of relevance to your firm, please reach out to me and let's explore further.

Philip Gudgeon
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A Time of Disruption and Opportunity

This paper sounds an upbeat note about the prospects for manufacturing in the UK. In highlighting the opportunities, we also take a realistic view of the challenges faced by smaller and medium-sized manufacturing firms and map out how these firms can seize the opportunity to boost growth, resilience and operational efficiency in the face of economic and societal shifts and the sweeping impact of digital technologies. We aim to show the relevance of Oak Universe's hands-on approach to value creation and how it can help SMEs in the UK bridge the gap between their growth potential and their realisation of their ambitions.

Snapshot

The UK's roughly 270,000 manufacturing firms employ roughly 2.5 million people, representing 10% of total employment and 14% of turnover. Just 5,353 of these firms represent large enterprises employing 500 or more people, but among the smaller and medium-sized enterprises (SMEs) are many family businesses that developed over several generations, successfully modernising and adapting themselves to a changing market.

The national and geopolitical issues underlying the relative long-term decline of the UK manufacturing sector are well known. Nevertheless, manufacturing accounts for 51% of the UK's total exports, attracts 15% of business investment, and the UK remains the 9th largest manufacturing nation in the world by output.

There is a broad range of sub-sectors, of which the most significant by size are food, beverages and tobacco; transport and mobility; and metals and metal products.

Positive tailwinds

Recent attention has often focused on the immediate challenges posed to manufacturing businesses by Brexit, by the COVID-19 pandemic and by geopolitical disruptions to the supply and price of commodities and raw materials. However, taking a slightly longer perspective, we may note a decisive shift in UK Government policy over the past 10-15 years, breaking with the defeatism and indifference which once characterised attitudes to the country's manufacturing competitiveness and proposing instead pragmatic and forward-looking policies designed to boost innovation, competitiveness and job creation in the sector.

As of 2022, manufacturing is central to five of the UK Government's key ambitions:

- The Levelling up strategy to reduce regional disparities and revitalise depressed regions and towns. Clear regional clusters are emerging to support this approach.

- Net zero and the Circular Economy: incentives and financing to drive achievement of ambitious net zero targets, promote green technology, clean energy and sustainable waste and resource management.

- Science and technology: the ambition to invest 2.4% of GBP in research and development, forging a partnership between Government, private sector and academia.

- Regulatory leadership: implementing balanced regulation that ensures fair competition, high standards of quality and safety, and facilitates international trade.

- **Global Britain:** among many aspects contributing to the UK's place in the world, the ambition to make the UK a "science and technology superpower" and a "top destination for private technology investment" are prominent.

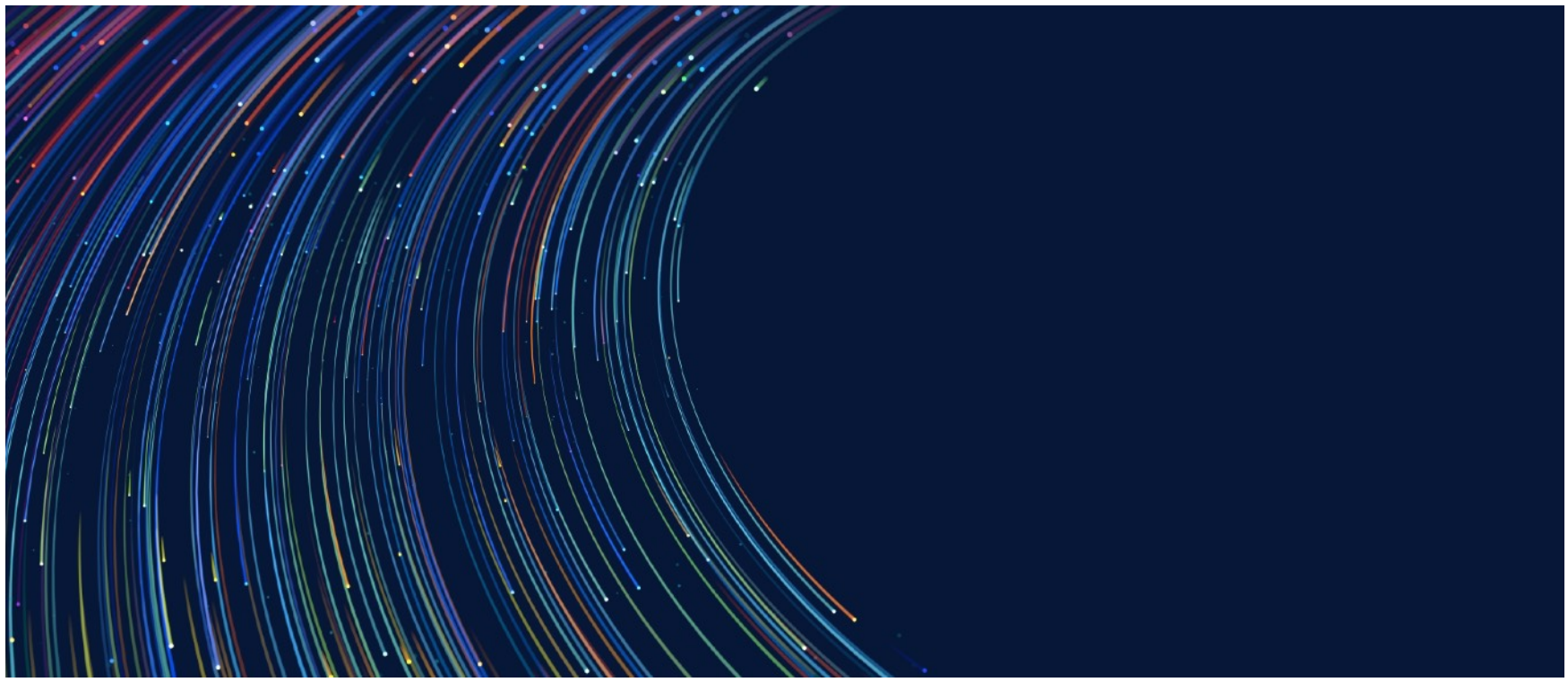
Several examples serve to illustrate the UK Government's belief in the potential of manufacturing to revitalise the economy post-Brexit:

- The High-Value Manufacturing Catapult was established by the Government innovation agency Innovate UK in 2011 and represents a network of 7 manufacturing research centres conducting leading-edge R&D on behalf of and in partnership with their industrial members.

- In October 2021 at a Global Investment Summit held in London, Prime Minister Boris Johnson announced the prospect of 30,000 new jobs being created around the UK thanks to £9.7 billion of new foreign investment pledged at the Summit – a total of 18 deals in sectors such as wind and hydrogen energy, sustainable homes and carbon capture and storage, cementing the UK's climate leadership for COP26 and beyond[4].

- The UK Department for International Trade has launched a new Investment Atlas, an online platform designed to help international investors identify and execute high priority investment opportunities in England, Scotland, Wales and Northern Ireland. The Atlas highlights strategic investment opportunities across the UK, each with a strong sustainability element: among new projects showcased are offshore wind substructures in Scotland, manufacturing ports in Teesside and Humber, sustainable food systems delivery in Telford and net zero transport in Coventry[5].

Agenda for growth and reinvention: The company-level view



Against a bewildering background of geo-political and geo-economic shifts, of rapid technological innovation, of changing demographics, workforce dynamics and skill requirements, it takes boldness for manufacturing SMEs in the UK to chart a path to growth, competitiveness and efficiency.

The digital revolution – the increasing capacity of digital technologies to transform processes and generate and process large volumes of data – creates fundamentally new possibilities for production and supply chain organisation. SMEs, often overwhelmed by the complexity of competing visions and technologies and awed by the scale of investment implied, can easily recoil from the task and content themselves with low ambitions and modest increments of change.

Let's examine the nature of this challenge from the perspective of these manufacturing SMEs. To take full advantage of the digital age and achieve ambitious growth and increase in efficiency, **firms will have to elaborate a clear strategic intent, develop new capabilities and secure the financing, expertise and project discipline to execute against the intent :**

Strategic Intent	**Capability Building**	**Enablers to Execute**
Product Service Design	Process Digitalisation	Investment Capital
Geographic Management	Industry 4.0 Technologies	Program and Project
Customer Centricity	Data Analytics Decision Making	Expertise
Partnerships	Sustainability and Climate Impact	Workforce Culture upscaling
Industry Value Chains	Cybersecurity	Human and societal relevance

Strategic intent

<u>What</u> to make? While the global realignment of markets and supply chains may create windfall opportunities for some firms, others face the risk of rapid decline in demand for their products and the appearance of new competitors with more attractive products. Firms cannot afford to take a static view of demand based on historical sales volumes, market segment growth rates and price points, but need to understand the changing quality of demand from the customer's standpoint. New product development and the R&D to support it has become ever more critical to success. Increasingly, products are hybrid: they come bundled with services and software, and the process of developing them involves the use of digital tools to add value in such areas as providing superior insight into user needs, predicting lab test outcomes, inventing new materials. The business model for these hybrid products and services often involves partnerships between firms, necessitating various degrees of operational integration. This in turn has major implications for the development of new digital skills and creative inputs into product and service design.

<u>For whom</u> to make it? Firms need to take a fresh view of their markets, going beyond the country-by-country market and competitor analysis which has driven such decisions in the past. While thinking globally, they should consider not just the changing patterns of international supply and trade which will redefine opportunity and the relative attractiveness of different markets, but also have a dynamic awareness of changing customer profiles and requirements. "Know your customer" has never been more of an imperative, and this includes the ability to optimise the customer journey and experience. Customers are increasingly partners, integrated into the processes, ecosystems and information systems of their suppliers.

Capability Building

<u>How</u> to make it? Henrik von Scheel, who is credited with coining the term *Industry 4.0*, offers a list of technologies relevant to the technological transformation of the production chain[6]. Internet of Things (IoT), Cloud computing and Automation/ robotics top the list, closely followed by advanced data analytics, cybersecurity and additive manufacturing. But the list is long, and the business value lies in the creative and far from self-evident application of the technologies themselves. Alongside technological considerations, the whole set of sustainable development issues (circular economy, waste minimisation and recycling, environmental care and net zero commitments, social responsibility etc) are also having a major impact on how UK manufacturers are thinking about their product and production processes.

<u>Where</u> to make it? Issues of production localisation and broader supply chain reconfiguration arise from many of the global trends already discussed. Obtaining raw materials and delivering the end-product to the customer most efficiently requires a fresh look at questions of insourcing and outsourcing within an ecosystem of suppliers and partners. An incipient but evident trend in the UK towards reshoring of production, driven by higher costs and disruption risks of offshore supply, is a clear example of this. It may be that this same perception of market supply and logistics uncertainties will also drive a trend towards greater vertical integration of value chains; but this will likely be balanced by a continuing trend towards companies focusing on specialised capabilities and decoupling these capabilities from their own business functions in order to source best-in-class capabilities externally where this is advantageous, and to market their own internal capabilities on the external market.

Enablers to Execute

The above strategic questions are complex enough in themselves, but effecting the required transformation poses another set of tough challenges, particularly to resource-constrained private firms:

Investment capital. Such firms will struggle to generate the capital for the required step-changes from operational cash flow or retained profits. External financing is available, including Government support, but with strings attached. Many SMEs have an aversion to private equity as akin to "selling family silver" merely to finance the latest era in the company's development. According to research by Make UK and business advisory firm BDO, a third (34%) of manufacturers are considering private equity investment to help fund the growth of their business. While the UK boasts a vibrant PE sector, adopting this path often connotes a significant loss of control over the business, with traditional owners reaping only a partial share of the value which the business is capable of realising.

Transformation management covers the range of disciplines needed to reach a clear strategic determination, plan the transformation and orchestrate the initiatives needed to see the programme through to full realisation of the investment case. Adoption of these disciplines often involves significant culture change as well as injection of specialist experience which many SMEs lack. Relevant aspects include:

- Choice and establishment of the right program management and digital transformation structures;
- Application of test-and-learn and other typical agile development principles in place of linear, slow, risk-averse and in-house development processes;
- Use of crowdsourcing and hackathons to add intensity to problem-solving and find solutions faster;
- Agile digital platforms which collect large volumes of unstructured data from a plethora of internal and external sources and process them into actionable insights, as well as allowing information sharing with external partners;
- Adoption of advanced simulation techniques such as digital mock-ups and digital twins, allowing for flawless construction of real-world factories and machinery and their continuous updating;
- The decision-making processes needed to mediate between physical and digital processes.

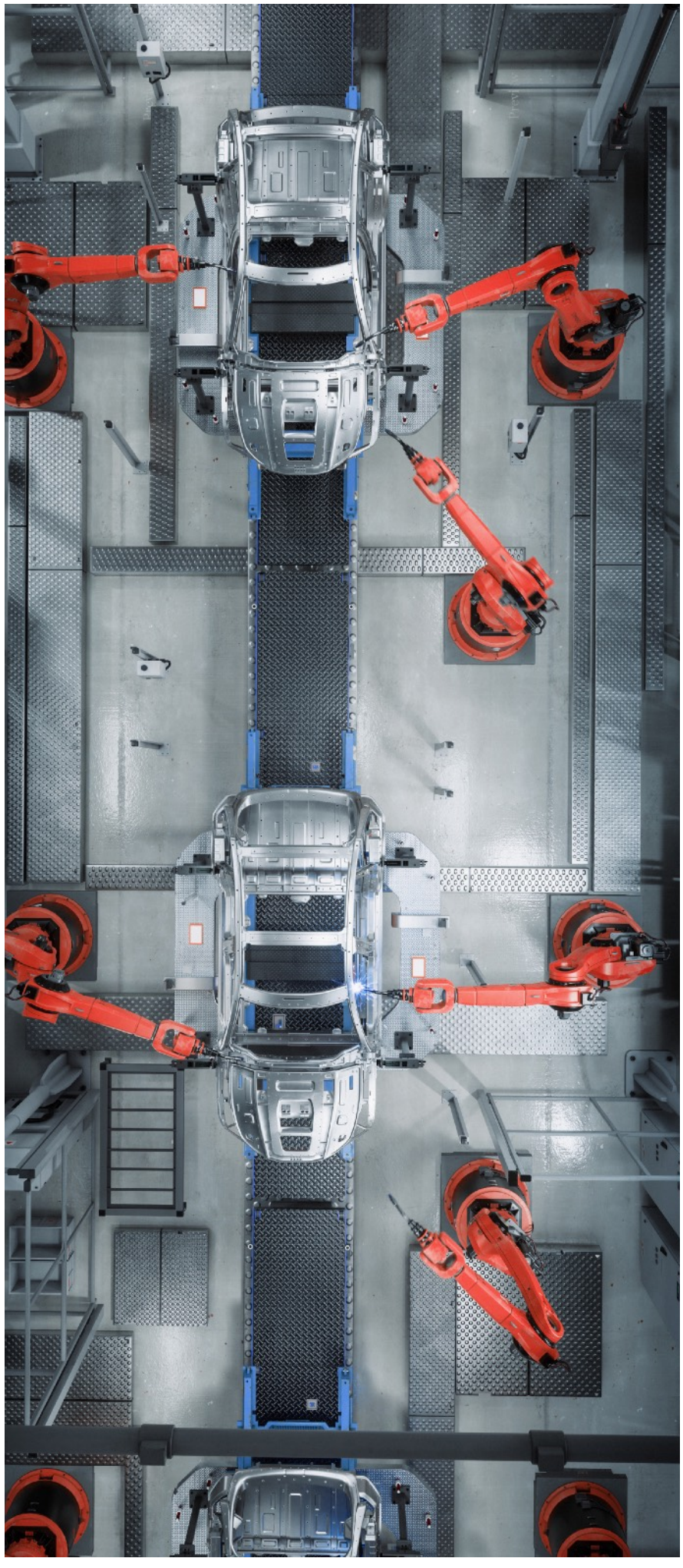
Expertise. UK SMEs often cite a lack of in-house know-how and the expense and difficulty of harnessing external expertise to assimilate new technologies and disciplines and build the capabilities described above. In 2018, a Made Smarter report stated that greater digitalisation of industry could add £455 billion to the UK economy, improve productivity by 25% and increase manufacturing sector growth by between 1.5 -3.0% per annum. But cost, risk, complexity and a potential lack of relevant digital skills were all hampering these efforts. Similarly, a survey by GAIN LINE established that manufacturing organisations are falling behind in terms of digital adoption. The survey asked 1,000 senior managers and heads of procurement, HR and Operations at SMEs about the use of and attitudes towards digital services and tools within the business. It found that 57% of leaders in the manufacturing sector aren't confident with technology, with more than half lacking the skills needed to move from paper to digital services.

Human relevance. Growth strategies and digital transformations will not succeed unless they create conditions for individuals to develop and flourish. Of primary importance is job creation, resulting from growing businesses, ecosystems and industries. Equally, workplace culture and conditions must make manufacturing in the UK an attractive career choice, and for this people need to be equipped with the skills to add value in this digital and sustainability-driven world. The Fourth Industrial Revolution, for all that it is about digitisation, must bring new significance to the human dimension of work and create meaningful and enriching jobs. The UK Government's Apprenticeship Levy and Lifetime Skills Guarantee are steps in the right direction, but many commentators argue for increased scope and flexibility in these schemes.

What it will take to succeed

Does the ambition level of UK SME's correspond to the size of the opportunity associated with embracing the growth and transformation agenda outlined above? Even if in some cases it does, many companies will clearly struggle to overcome the threefold challenge of defining strategies and building essential new capabilities while harnessing the key enablers of execution: investment capital, expert know-how, human capital and transformation management. With whom should these companies partner for help in orchestrating this process? What would such a partnership look like?

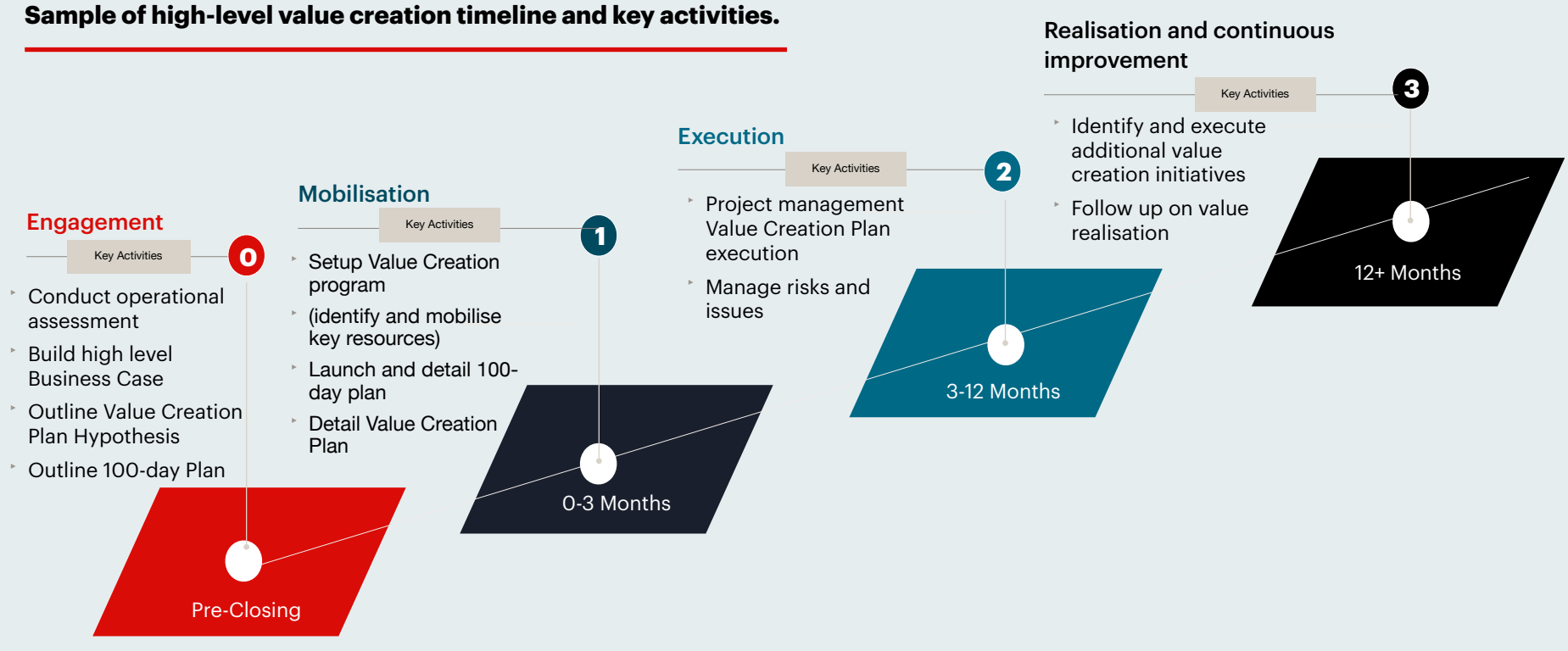
The investment firm Oak Universe is dedicated to scaling the manufacturing champions of tomorrow. It helps privately-owned, mid-sized manufacturing businesses achieve the next stage of their growth through the adoption of advanced technologies. It does this by providing not only capital, but also a close partnership bringing access to strategic insight and consulting support for undertaking carefully selected value creation initiatives. Unlike the classical private equity model, which relies on financial leverage, buyout of controlling stakes and wholesale management changes to impose what is often perceived as an aggressive and alien top-down programme, Oak Universe provides capital for growth and transformation by taking a minority stake and working in partnership with existing owners and management to inject the finance, expertise and project management in support of an agreed value creation plan. The partnership is expected to last over a 5-7 period of transformation, running from initial engagement and planning through mobilisation and execution of key initiatives to their full realisation and value creation impact.



A 3-5 Year Partnership for Value Creation / WIN-WIN Engagement

Oak Universe works with owners and management to design and execute a bespoke value creation path, one which overcomes these limiting factors and bridges advanced technology into business value and growth.

Sample of high-level value creation timeline and key activities.



Oak Universe invests in companies with outstanding value creation potential, but most importantly selects those with openness to change and with whom a true partnership for value creation is possible. To validate this fit, Oak Universe undertakes the initial Engagement Phase at its own expense, exploring growth opportunities and planning the value creation approach jointly with owners and management.

The initiatives that drive value creation can be highly varied, for example new market entry, reshoring of production, M&A to effect vertical integration or bolt-on acquisitions, best-in-class digital enhancements to processes and data analytics, supply chain optimisation. In some cases, the transformation could amount to a wholesale reworking of the company's business model. Besides Oak Universe's in-house team of management consultants and investment professionals, the firm draws upon an extensive R&D network and Expert Board to provide access to expertise and new know-how required by the value creation initiatives, including extensive links with academia.

The partnership between Oak Universe and the portfolio company includes support in corporate governance, both via representation on the Board of Directors and in the Management Team, but also via establishment and ongoing support for a Programme Management Office (PMO) and direct input to Business Units by external experts or consultants of the Oak Universe Value Creation Team.

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The opportunity for UK manufacturing is to build on the solid foundations already laid but also to help firms get to grips with the disruptive trends examined in this article. Whether a future generation will regard the 2020s as having marked the beginning of a new era will depend not only on the systemic policies offered by Government, and not only on the entrepreneurial spirit of the UK's 270,000 manufacturing firms, but most critically upon the champion manufacturers of tomorrow having been able to reinvent themselves for growth and enduring relevance. Oak Universe is determined to play its part in this critical endeavour.

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