

Oak Universe

Austrian Manufacturing

“Building Growth from a Strong Foundation”

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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, we are delighted to be involved in actualising such an exciting proposition.

One country that we are immediately associate with the manufacturing of tomorrow, or the Industry 4.0 transformation, is Austria. It is no secret that Austrian manufacturing is characterised by outstanding companies that equal the backbone of the industry in the country, if not beyond. Think of Austrian manufacturing, and several globally significant, large, multinational enterprises might spring to mind. But it doesn't stop there. Medium-sized firms are also important actors in this manufacturing transformation, with innovation, research and first-mover initiative all being terms we associate here. With such a stellar reputation, it might be all too easy to assume that the industry is moving in the way it should to cement the region as a global leader in manufacturing excellency. Yet the adoption of more cutting-edge innovative technologies is a must for Austrian manufacturers, and particularly SMEs, to increase both productivity and competitiveness.

This is where Oak Universe comes in. Oak Universe is an investment firm dedicated to the future of manufacturing in Europe. We focus on helping privately-owned, small- and medium-sized manufacturing businesses achieve the next stage of their growth through the adoption of advanced technologies. We do this by providing not only the capital to finance that growth, but also a close partnership which brings access to know-how, strategic insight, and consulting support when undertaking projects that drive

new value and growth. We recognise that current investment needs not only require a focus on the tangible assets that drive the manufacturing industry, but also on the intangible assets that drive industrial change and innovation and allow for a wide outreach of benefits- for firm, for sector, for society.

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



Odysseas Christofi
Founding Director.

“Building Growth from a Strong Foundation”

This paper presents a positive overview of the prospects for manufacturing in Austria. We highlight both the opportunities evident for Austrian manufacturing firms, whilst accounting for the challenges faced by small- and medium-sized manufacturing firms. With increased growth, resilience and operational efficiency as the penultimate aim, we map out how manufacturing firms can reach these goals whilst faced with economic and societal shifts, as well as the sweeping impact of digital technologies. We aim to demonstrate just how relevant the hands-on approach towards value creation adopted by Oak Universe is for SMEs in Austria, allowing for the chasm between the growth potential of firms and realisation of ambition to be closed.

Snapshot

Austria’s manufacturing industry employs roughly 670,000 individuals, across 29,000 companies. The industry accounts for 18% of GDP in the country, generating around €233 billion in 2020. Several globally significant multinationals are located in Austria, as well as an estimated 200 global leaders in technology. The majority of the industry, however, is comprised of small and medium-sized, family-owned organisations, with an average of 100 employees each. Austria is home to roughly 25,700 manufacturing SMEs, employing 320,900 individuals, and generating a turnover of €73 billion¹.

Austrian manufacturing covers every sector, from the manufacture of basic goods to the production of highly processed products. The manufacturing industry is considered both the backbone of the Austrian economy, and a major driver of innovation in the country. A significant and increasingly important share of the manufacturing industry is the manufacture of plants and systems (encompassing the planning, delivery, assembly of turn-key production facilities, and the required operational expertise). This sector, along with the electronics sector, is strongly export-oriented. Austrian manufacturing is susceptible to high levels of competition and the effects of global crises.

The sector is under pressure to reduce costs and achieve heightened efficiency in the face of strengthening global competition. Where German and Japanese manufacturers were once the main threat to Austrian firms, an increase in higher quality products from China, backed by government resources, is faced by manufacturers². The COVID-19 pandemic made the country particularly vulnerable to cross-border contagion and mobility restrictions due to geographic position and economic structure³. Structural transformations to the industry are further required to keep up with the transition to a net-zero emission economy and the generalisation of advanced modes of digitisation.

Austria’s Manufacturing Industry

29,000
Companies

670.000
Individual Employment

€73
Billion Turnover

18%
Of GDP

Positive tailwinds

Recent attention in terms of the challenges faced by Austrian manufacturing businesses often focus on the effects of the COVID-19 pandemic and geopolitical disruptions to the supply and price of commodities and raw materials. Considering a more long-term view of challenges, the attention perhaps might be best placed on the dwindling competitiveness of the region, and the ability of manufacturers to keep the pace with technological advances and ever-changing environmental considerations. SMEs particularly face considerable obstacles during digital transformations, where a lack of strategy and vision, high investment costs and uncertainty surrounding future technology and return on investment are likely to obstruct firms from making structural transformations. Considering this, we may note current Austrian initiatives, trends or policy, placing manufacturing competitiveness and process improvements as a central aim, that suggest a positive trajectory:

Industry 4.0 Platform

Established in 2015 by the Federal Ministry for Transport, Innovation and Technology, “Platform Industry 4.0”⁴ represents an established competence provider in Industry 4.0 technologies for manufacturers, alongside employer and employee associations. This platform supports the dynamic development of the Austrian manufacturing sector to accelerate innovation, skills and research and contribute to future productivity and employment levels.

Trend Leaders

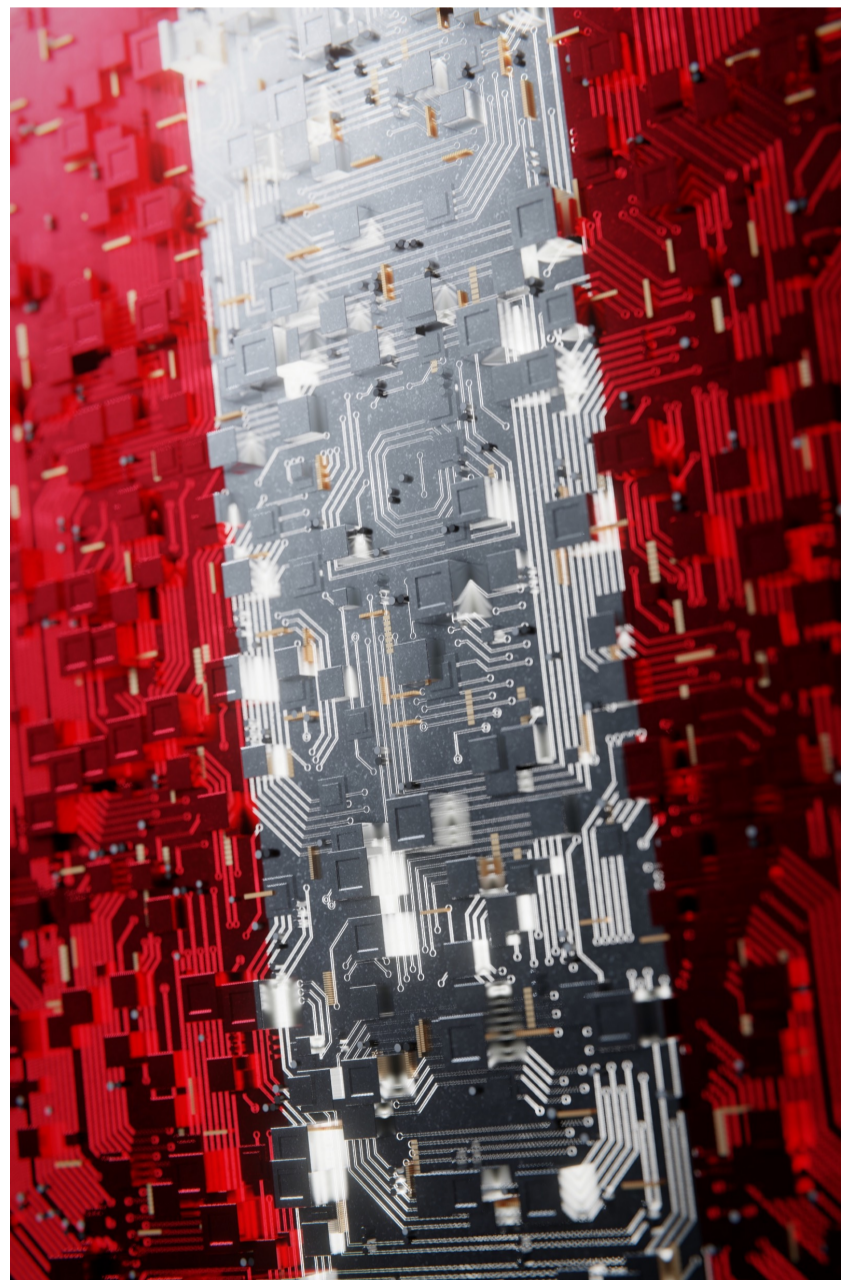
The trend leaders of Austrian manufacturing are those in the mid-range technology segment that provide industrial machinery and inputs in globally competitive supply chains (electronics, metal, automotive, plastics production, and processing). These industries are first-movers and the most frequent users of Industry 4.0 technologies².

National Cluster Platform

A strong network of industry clusters exists under the government-led National Cluster Platform, which brings together 7000 companies in 61 industry clusters focusing on mechatronics, information and communication technologies, materials and mobility.

Resilience Plan

Austria’s recovery and resilience plan responds to the need to foster a strong recovery to the COVID-19 pandemic and make Austria future ready. Related policies and initiatives in the plan support reform and investments in Austria to become more resilient, sustainable and well-equipped to respond to the challenges and opportunities of the digital and green transition. Increasing the adoption of digital technologies by smaller companies is an essential aim of this plan.



Agenda for growth and reinvention: The company-level view



Against the background of both geo-economic and geo-political shifts, rapid technological innovation, changing demographics, workforce dynamics and skill requirements, manufacturing SMEs in Austria can forge the way towards competitiveness, growth 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:

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Strategic Intent

Product Service Design

Geographic Management

Customer Centricity

Partnerships

Industry Value Chains



Capability Building

Process Digitalisation

Industry 4.0 Technologies

Data Analytics Decision Making

Sustainability and Climate Impact

Cybersecurity



Enablers to Execute

Investment Capital

Program and Project

Expertise

Workforce Culture upscaling

Human and societal relevance



Strategic intent

What 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.

For whom 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

How 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 chain⁶. 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.

Where 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 Austria 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.

Existent expertise in Austria presents a mixed picture. Generally, skills shortage is a big problem in Austrian SMEs, with an OECD Economic Survey reporting that the vast majority of Austrian SMEs report skills shortage as a major obstacle to growth⁷. Particularly, ICT specialist skills are lacking, constraining the adoption of new technologies in manufacturing SMEs and higher productivity. Despite this, the smart factory sector of Austria, along with electronics companies are increasingly engaging with topics such as automation and Industry 4.0 and are now considered some of the best. The roll out of expertise and skills, across a wider sample of manufacturing SMEs is essential to allow for the assimilation of new technologies and disciplines and build the capabilities described above.

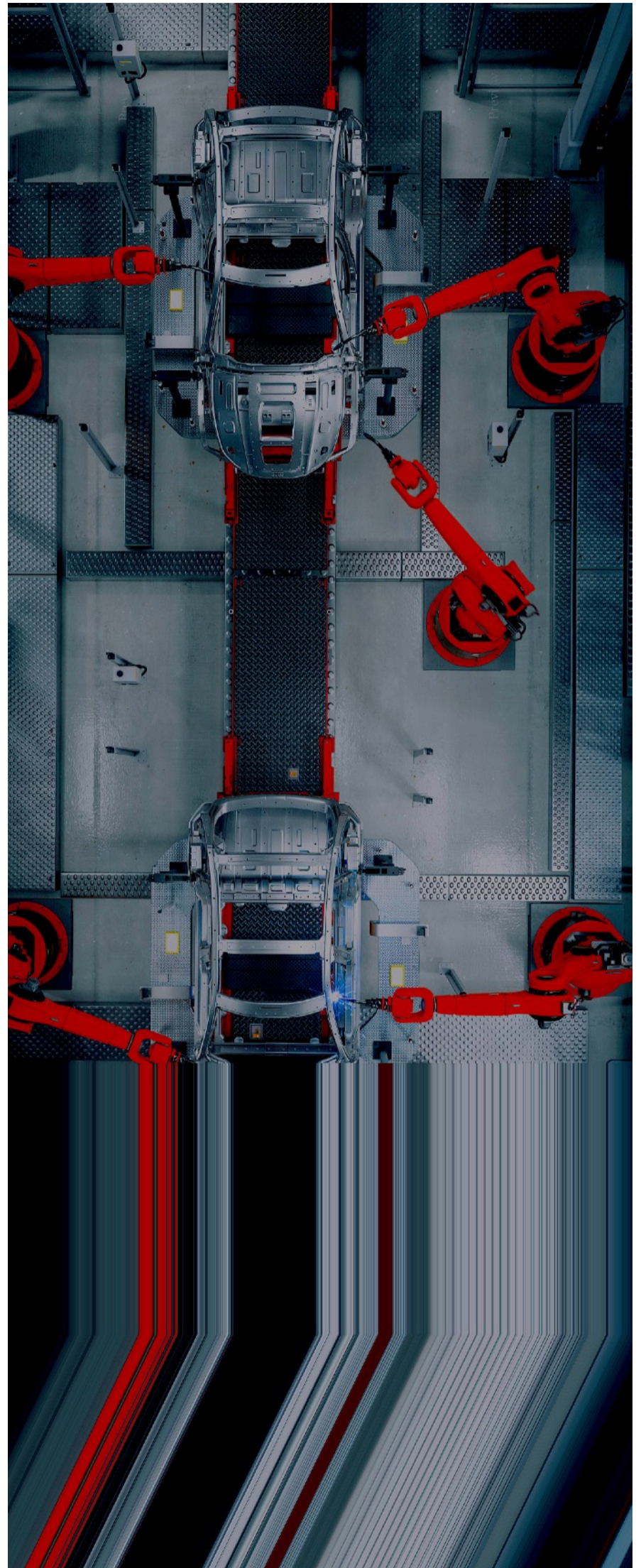
Human relevance. Growth strategies and digital transformations will not succeed unless they create conditions for individuals to develop and flourish. Of primary importance is job creation, resulting from growing businesses, ecosystems and industries. Equally, workplace culture and conditions must make manufacturing in Austria 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. Increased focus on filling the skills gaps evident is required, in order to attract the right talent to the right role.

What it will take to succeed

Does the ambition level of Austrian 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?

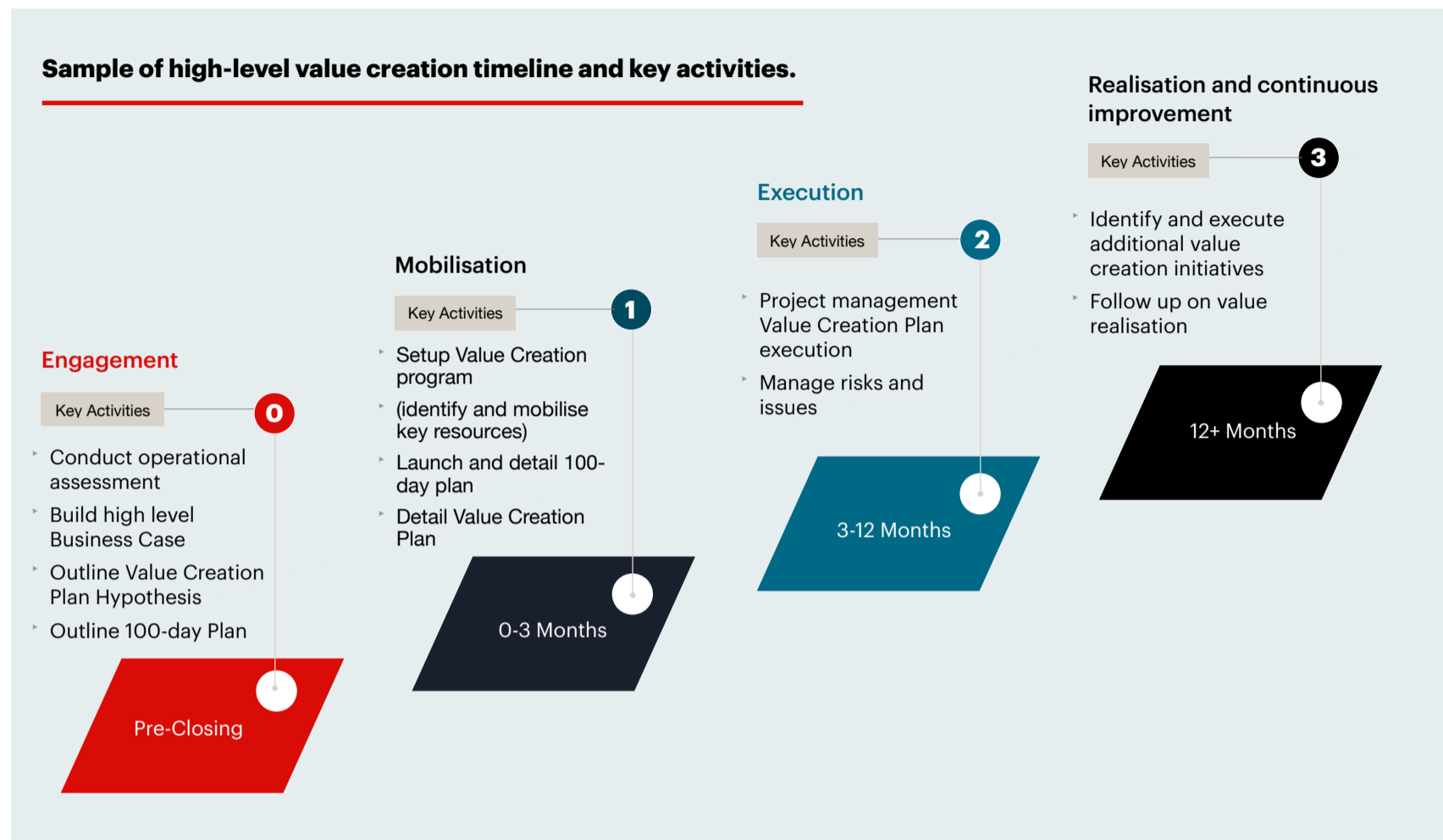
The investment firm Oak Universe is dedicated to scaling the manufacturing champions of tomorrow. It helps privately-owned, mid-sized manufacturing businesses achieve the next stage of their growth through the adoption of advanced

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.



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.

The opportunity for Austrian 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 encouraged by Government, and not only on the entrepreneurial spirit of Austria's 29,000 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.

References

Austria Manufacturing Article – list of citations

- 1 <https://www.kmuforschung.ac.at/facts-and-figures/kmu-daten/?lang=en>
- 2 Austria - Advanced Manufacturing (trade.gov)
- 3 1. Key policy insights | OECD Economic Surveys: Austria 2021 | OECD iLibrary (oecd-ilibrary.org)
- 4 Case study on the Plattform Industrie 4.0, Austria – Contribution to the OECD TIP Digital and Open Innovation project (plattformindustrie40.at)
- 5 Austria's recovery and resilience plan | European Commission (europa.eu)
- 6 "Annual Manufacturing Report 2020", The Manufacturer, p.12
- 7 Firming up the capital base of the Austrian business sector – Consolidating Austria's business sector strengths and its social role in the face of new challenges | OECD Economic Surveys: Austria 2019 | OECD iLibrary (oecd-ilibrary.org)

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