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Mark Sanders
Axel Marx
Mikael Stenkula *Editors*

The Entrepreneurial Society

A Reform Strategy for Italy, Germany and the UK

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Chapter 8
A Reform Strategy for the UK

Mark Sanders, Mikael Stenkula, James Dunstan, Saul Estrin, Andrea M. Herrmann, Balázs Páger, László Szerb and Elisa Terragno Bogliaccini

Abstract In this chapter we outline a reform strategy to promote an entrepreneurial society in the UK. To put it in the words of the Varieties of Capitalism framework, the UK today represents a distinct liberal market economy with a deregulated environment, flexible labor markets, well-funded elite universities, and strong protection of intellectual property rights. Overall, the entrepreneurial ecosystem is supportive, but bottlenecks remain regarding radical innovation, export orientation, and informal investment. To address these shortcomings, the UK should aim at strengthening the

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workforce's knowledge base and talent pool as well as the capital base from which UK entrepreneurs can draw. It furthermore is advisable to open opportunities for not only starting but also growing innovative firms in all regions in the UK.

Keywords UK · Entrepreneurship · Varieties of Capitalism · Entrepreneurial ecosystem · Entrepreneurship policy

8.1 Step 1: Historical Roots of Institutions and Recent Policies

8.1.1 Global Empire and Splendid Isolation—A Short History of the UK

In its current form, the UK of Great Britain and Northern Ireland has existed since the partition of Ireland as an independent country in 1922. But, of course, British history has much deeper roots. The British Isles were raided, invaded, occupied, and settled from the mainland frequently in the early middle ages. But since the invasion of William the Conqueror in 1066, the British Isles have not experienced further foreign occupation. Still, it took a long time for the country to unify. The seventeenth century saw the English Civil War (1642–1651) and the Glorious Revolution (1688). With the Acts of Union of 1707 England, Wales and Scotland formed the UK of Great Britain and with the Acts of Union of 1800 the Kingdom of Ireland joined.

In the seventeenth century, the UK started to rise as a naval superpower and built up a colonial empire that spanned the globe. The first British Empire (1583–1783) established Britain as a global power but ended with the loss of the Thirteen Colonies in the American Revolution. The Second Empire (1783–1815) saw the exploration of the Pacific and the rise and fall of Napoleon. The defeat of the latter at Waterloo left Britain without serious challengers and ushered in the *Pax Britannica* during which the UK was the unrivaled global superpower until the Great War of 1914–1918. In this imperial century, the British Empire expanded into Africa, India, and Asia. And through its dominance in global trade, finance and diplomacy the UK effectively ruled the world, while at home the Industrial Revolution turned Northern England into the workshop and London into the financial capital of the world.

With the unification of Germany, the opening up of Japan and the end of the civil war in the USA, however, new rivals to the UK's dominance rose toward the end of the nineteenth century. With the defeat of Germany and its allies in the Great War, the British Empire saw its last territorial expansion, which reached its peak in 1921. The Great War, however, had weakened the UK and boosted the confidence of colonial elites. Independence movements in India and Ireland and later the rest of the empire ushered in a gradual decline, while Britain's rivals rapidly industrialized and caught up militarily and economically.

In World War II, the UK and its allies defeated Nazi Germany and Imperial Japan, but its days of unrivaled global dominance were over. The UK had to reposition itself in the new world order, while the age of empire left a strong economic and geographical imprint on the country. The London area had developed into an economic, administrative, and cultural powerhouse, far bigger than the UK alone could have supported (Parkinson et al. 2006), whereas the Industrial Revolution had brought prosperity to the northern regions, but also left them struggling with the loss of the empire and its markets.

Therefore, by the 1980s, an economic policy focused on specific areas or *zones* was implemented by the Thatcher government. The focus of the program was to incentivize inward investment to areas experiencing severe economic problems (Potter and Moore 2000). The Regional Development Agencies Act of 1998 then divided England into nine regions, each with its own Regional Development Agency funded by six different government departments, as well as EU funds (Richardson 2011). But different regions in the UK started from very uneven starting points. Former industrial centers such as Swansea and Middlesbrough had to divest from traditional industries in the wake of globalization, whereas the British cities such as Cambridge, Oxford, and Reading all lacked such industrial heritage (NESTA 2008).

In terms of entrepreneurship, the levels in the UK have historically varied substantially across regions and localities and with different effects. With London as the administrative, financial, and political center of the Empire, a lot of the entrepreneurial talent and resources from all over the country migrated to that area. This pattern was further reinforced when globalization and international competition devastated the economy in the Northern industrial districts. A long history of political unity implies that the formal institutions have largely been built at the national level and are uniform across the country. But the economic geography of the British Isles and its diverse informal institutional make-up imply that entrepreneurship functions vary in different parts of the country. Mueller et al. (2008), for example, found that, for Great Britain as a whole, new firm formation had a positive effect on employment growth. Yet this effect was much smaller in Scotland and Wales and even negative for the lower quartile regions. This all suggests that we should not take the London area to be representative of the UK and carefully consider the heterogeneity that is hidden in aggregated data. The needs and opportunities of London are not those of Scotland and the other way around. Therefore, a one-size-fit-all reform approach to the UK is not advised and a regionally diversified approach is needed.

Against the backdrop of this rich history, Britain developed the institutions that currently define its entrepreneurial ecosystems. To establish and maintain its global Empire, the UK set up institutions that mobilized financial, human, and knowledge resources at an unprecedented scale, whereas the loss of the empire enforced an institutional adjustment process that arguably is still ongoing. Still, the most relevant institutions supporting entrepreneurship in the UK have deep roots. In what follows, we focus on its institutions for knowledge creation and diffusion, its financial institutions, and its labor markets. We then proceed to an overview of recent policy programs and initiatives to support entrepreneurship.

8.1.2 Institutions for Knowledge Creation and Diffusion

Institutions for knowledge generation and diffusion are largely concentrated in a country's academic system of education and research and its system of intellectual property rights. In this section, we will discuss the nature and historical roots of each in the UK.

8.1.2.1 Universities

The UK has a long history of higher education, beginning in the city of Oxford from the year 1096 (University of Oxford n.d.) and followed a century later by Cambridge in 1209 (University of Cambridge n.d.). In the fifteenth century, St Andrews, Glasgow, and Aberdeen—the first three Scottish universities—were founded by Papal Bull, and a century later the University of Edinburgh was established in 1583 by Royal Charter (University of Edinburgh n.d.). These six universities are classified as the "ancient universities" (established before 1800), with the classification sometimes stretched to include Durham University (Bathmaker et al. 2016).

In the nineteenth century, a major expansion of higher education occurred in the UK. St. David's College, Lampeter (Wales), and King's and University College of the University of London were awarded university status by Royal Charter (British Council n.d.), and the University of London was established as a secular alternative to Oxford and Cambridge (University of London n.d.). The need for a more localized higher education system (Barnes 1996) and a desire to increase education of the applied sciences (Heyck 2012) resulted in the founding of the civic universities (or, "redbricks") in Manchester, Leeds, Liverpool, Sheffield, Birmingham, and other industrial Victorian cities. Simultaneously, the ancient universities of Oxford and Cambridge introduced new curricula and relaxed admission requirements (Scott 2014a).

Socio-economic trends fueled by technological innovation, cheaper transportation, and the emergence of the knowledge economy put education high on the policy agenda (Clarke 2001; Ashton and Green 1996). But while the Scottish universities had historically lower tuition fees and living expenses, English universities before the twentieth century remained accessible only to the wealthy as a result of the *laissez-faire* principles of Victorian Britain (Anderson 2016). This paradigm radically changed following the infamous Robbins Report of 1963, which specified 178 recommendations for the higher education system focusing on greatly expanding the number of students in tertiary education (Moser 1988). One year prior to the report, the 1962 Education Act had already introduced state funding for full-time higher education (domestic) students in order to equalize educational opportunity and bring higher education to the masses (Wilson 1997).

The 1960s also saw the establishment of The Polytechnics (Henkel and Kogan 1993). Following Anthony Crosland's 1965 speech advocating the establishment of two parallel systems of higher education (Taylor 2003), these polytechnic institutions

arose through the merger of colleges of technology, commerce, and art (later, including colleges of education) and were committed to the application of knowledge. They offered an alternative form of education to that of traditional universities by overcoming the traditional dichotomy between theory and practice (Brosan 1972). This created what is now referred to as the "binary divide" in UK higher education that lasted for over a quarter of a century (Pratt 1997). The essential difference between the two educational systems being that polytechnics continued to be controlled by local education authorities, as opposed to the greater autonomy which the older colleges enjoyed (Scott 2014b). In 1992, the binary divide ended, and the "new" polytechnics became universities (Cranfield and Taylor 2008).

In 1985, universities were finally given the rights to exploit their own innovations, which led to the spreading of science parks around universities in the UK. By 1993, almost every university in the UK had its own science park, providing a business environment for almost 1,200 firms and 20,000 employees (Storey and Tether 1998). The presence of entrepreneurship "in the classroom" is a more recent phenomenon, and as recently as the 1990s, only a handful of higher education institutes provided a serious opportunity for enterprise/entrepreneurial education (Hannon 2005). Responding to the Lambert Review of Business-University Collaboration, the government announced the Science and Innovation Investment Framework in 2004, cementing business-university collaboration within the portfolio of UK universities (Wilson 2012).

In conclusion, British universities and higher education deliver high-quality research and degrees and compete for the best and brightest at the global level. Relatively high tuition fees notwithstanding, UK universities attract students, PhDs, and staff from around the world, and these contribute to an excellent and world-class scientific research infrastructure. The relative weaknesses in the UK educational system, however, are the missing middle. Compared to countries like Italy or Germany (Sanders et al. 2020a, b) or Japan and China in Asia, the quality of vocational education is lacking due to a weak apprenticeship system and low engagement with employers (OECD 2015). Moreover, there is hardly a culture of lifelong learning or applied vocational education. This leads to over-education at the high general skills levels, and a mismatch and under-education at the low vocational skills (e.g., Green et al. 2016; Machin and Vignoles 2018). This affects the level of human capital in the UK labor supply that is needed to grow the knowledge-intensive ventures that emerge out of the knowledge created in its excellent research institutions.

8.1.2.2 The Patent System

In the British context, patents originated in the form of "letters patent" during Elizabethan England. These were essentially royal privileges granting monopoly power to the introducers of new techniques (WIPO n.d.a). However, this system came to be abused by the monarchy whose royal favors were perceived as privileges granting selective monopolies. Consequently, judicial pressure and public outcry forced intellectual property to be regulated under common law. The Statute of Monopolies

enacted in 1623 made all monopolies illegal except for those "… made of the sole working or making of any manner of new manufactures within this Realm to the true and first inventor" (Statute of Monopolies 1623). While this was by no means the first form of patent protection for inventors, it is historically important for instilling the principle that only "the true and first inventor" owns the rights to a monopoly patent (Machlup and Penrose 1950).

The patent system established in 1623 remained in place for another two centuries and evolved through the work of lawyers and judges in courts without government regulation (IPO 2014a). This initial *laissez-faire* approach to patent law meant no examination was required to acquire an English patent, only its registration. The establishment of intellectual property rights was a fitting precursor to the Industrial Revolution in the eighteenth and nineteenth centuries. It is important to note that the British patent system, while present, actually provided weak and erratic protection to inventors (MacLeod 1988).

By the mid-eighteenth century, growing criticisms with the patent system included being too costly, as well as it being almost impossible to specify an invention in any such way that would satisfy the courts (Robinson 1972). Consequently, the significance of the British patent system prior to the Patent Law Amendment Act of 1852 remains debated (MacLeod and Nuvolari 2006). Mokyr (2005) concludes that in this period, innovation and industrialization were not held back by limited intellectual property protection.

In essence, the reform of 1852 made two main changes to the prior patent system. Firstly, legal fees were greatly reduced, and secondly, it implemented a single patent for the UK (Dutton 1984). However, costs were still relatively high, but the 1883 Patents Act reduced patent filing fees by another 84% (Nicholas 2014).

Patent law in recent times can be mainly derived from the Patent Act of 1902, which required patent examiners to construct an extensive archive of prior specifications. By 1907, all recorded patent specifications had been classified, with the first documented patent dating back to the year 1617 (IPO 2014b).[1] The 1977 Patents Act applied more stringent novelty tests to patents, while also implementing the European Patent Convention of 1973 and the Patent Co-operation Treaty of 1970 (WIPO n.d.b). The UK is still signatory to these treaties and will remain so after Brexit, making intellectual property rights in the UK a matter of international negotiations.

The skepticism toward monopolies—such as expressed in the Act from 1623 mentioned above—may be one reason for the fact that British firms, unlike their German counterparts, are less inclined to engage in large-scale collaborations within the framework of over-arching industry associations (Herrmann 2020). Given that large-scale collaboration is discouraged, British firms lack an important tool, via industry-wide coordinated associations, to access a broad knowledge base (Tate 2001; Teubner 2001).

[1] Patent No. 1 of 1617 granted to Rathburn and Burges for "Engraving and Printing Maps, Plans &co."

8.1.3 Development of Financial Institutions

Banking in the UK began during the seventeenth century. The Bank of England was founded by Royal Charter in 1694 and was primarily used to fund the war effort against France (Bank of England n.d.). The Bank of Scotland was established one year later in 1695 following an act made by the Parliament of Scotland providing a legal monopoly on banking (Lloyds Banking Group n.d.). It initially fulfilled a different role to its English counterpart, acting mainly to develop Scotland's business and trade with England and the Low Countries. In 1696, the Bank of Scotland became the first European commercial bank to successfully issue a paper currency (BBC 2008). When its legal monopoly ended in 1716, the Royal Bank of Scotland was chartered in 1727, creating a historic rivalry between the two Scottish banks (White 1992). The Bank of Scotland's monopoly ended much earlier than the Bank of England's. Scotland then enjoyed a significant expansion in banking services and by the end of the century had one of the most developed banking sectors in Europe (Collins 2012). The Royal Bank of Scotland even invented the overdraft (BBC 2009).[2]

From 1709 onwards, the Bank of England was the only bank allowed to operate on a joint-stock basis (Ferguson 2009). The next big leap in the history of UK banking was the Bank Charter Act of 1844 (Bank of England n.d.), which restricted the issuance of banknotes solely to the Bank of England. With restrictions on joint-stock banking lifted by 1858, corporate branch deposit banking developed in the UK (Newton and Cottrell 1998) and large commercial banks such as Lloyds (1884) and Barclays (1896) began to emerge. On the eve of the World War I, residents' deposits in British banks totaled almost £1.2 billion, with a total bank-note circulation of only £45.5 million (Ferguson 2009). UK SME finance was left predominantly to the big four modern banks—Barclays PLC , HSBC Holdings PLC, Lloyds Banking Group PLC, and Royal Bank of Scotland Group PLC—who still hold 78% of the SME market and 95 percent in the case of Scotland (Han et al. 2012).

In 1945, the Industrial and Commercial Finance Corporation was created (3i Group n.d.) via a political decision to increase funding availability for SMEs. By then, larger banks and the London Stock exchange mainly focused on overseas commerce (Merlin-Jones 2010) so no "readily accessible channel, corresponding to the new issue market for larger firms, through which the small industrialist can raise long-term funds" existed (Radcliffe Committee on the Working of the Monetary System cited in Merlin-Jones 2010, p. 5). In addition, the National Research Development Corporation, founded in 1948, and the National Enterprise Board, conceived by the Labour government in 1973, acted to provide loans to small firms to improve R&D and boost innovation (Rothwell 1985). The inauguration of the Thatcher government in the 1980s brought the reduction of corporate and personal taxes to encourage greater entrepreneurship, alongside the new Business Expansion Scheme which offered up to £40,000 in tax relief to individuals investing in non-public UK

[2]The bank allowed William Hog, a merchant, to take £1,000—the equivalent of £63,664 today—more out of his account than he had in it.

companies (Mason and Harrison 1989). Over the 1990s and early 2000s, liberalization and globalization implied that the UK financial system grew in number and became more concentrated in terms of market participants and geographically. The financial sector in the UK today is extremely concentrated in (the City of) London, where all superlatives still apply. The UK boasts the biggest currency, commodities, stock and asset markets in Europe and serves as a global financial center rivaling New York and Tokyo. But the skyscrapers of the city are not primarily in the business of financing SMEs and/or innovative young ventures. The UK has a significant venture capital market and new initiatives in platform-based FinTech innovation benefit from a sensible and benign regulatory regime, but the financial crisis of 2007 hit London perhaps hardest of all and revealed vulnerabilities in the strong reliance on global financial asset trading.

In conclusion, the financing of small-scale experimental ventures may not be the biggest activity in the London City, but the sheer size of UK financial markets still implies that entrepreneurs face little financial constraints in the UK. Moreover, financial regulation in the UK is arguably more flexible than in the Euro-Area, as UK financial regulators take a tougher stance on incumbent banks' interests while leaving more space for new, platform-based alternative intermediation services.

8.1.4 Labor Institutions

The labor force in the UK is typically not very loyal to the employer because that loyalty is often not reciprocated (Herrmann 2020). At the lower end of the spectrum, wages are low and jobs are insecure, making investment in firm-specific human capital a risky strategy for UK workers (OECD 2019). This implies it is easy to start a venture, but much harder to grow one into a global competitor as the latter implies accumulating also tacit and firm-specific knowledge on product, market, and process (e.g., Thirkell and Dau 1998). As in other countries, the existing equilibrium in labor relations in the UK has deep historical roots that can be traced in the history of employment protection, wage bargaining, and social security.

8.1.4.1 Employment Protection

Labor relations in the UK (and in fact the Anglo-Saxon world) have always been rather conflicting. Due to laws such as the Masters and Servants Acts of 1823 and 1867, disobedient workers could be punished for a criminal offense (Woods 1982; Choi 2010). British labor law only gradually turned in favor of the workers in the early twentieth century (e.g., the Old Age Pension Act of 1908 and the National Insurance Act of 1911).

In 1963, the Contracts of Employment Act introduced statutory protection from termination of employment and protection of wages (Brown et al. 2000), with subsequent acts addressing race (Race Relations Act 1965) and gender (Equal Pay Act

1970) related inequalities. High unemployment and large losses in nationalized industries wreaked havoc in the public sector budget, and the Thatcher years in the 1980s saw a decade of legislation to break union power and liberalize labor markets. The 2002 Employment Act was implemented and essentially shifted the responsibility of enforcement of employment rights from public tribunals to private management-controlled procedures, giving more weight to the competitiveness of the employer than the welfare of the individual (Hepple and Morris 2002; Hepple 2002). The reforms in labor protection of recent decades have brought the UK back to a position in which low wages and low employment protection create high uncertainty for and, consequently, low loyalty of employees for their employer. The flexibility of the labor market implies it is easy to hire employees, but the lack of investment in firm-specific human capital and employability makes it hard to accumulate firm-specific knowledge and retain brains. For this reason, it is easy to start a venture in the UK, but very hard to grow that venture into a globally competitive firm of significant size.

8.1.4.2 Wage Bargaining

In the UK, wage-bargaining institutions go back far in history and were formed out of conflict between the aristocratic landowners and skilled peasants and artisans of England. One of the earliest pieces of legislation, which came about after the breakout of the black death, was the "Ordinance of Laborers" legislation of 1349 that implemented a series of labor regulations and price controls to mitigate the problems of labor shortages after the plague (Craig 2007). Building on this legislation, the Elizabethan Statute of Artificers of 1563 prohibited conspiracies to raise wages and the first worker's associations formed in response to the legislation (Woodward 1980).

Unions in Britain had effectively been repressed by the aristocracy and large employers (Curthoys 2004). By 1824, unions became partly legalized due to the repeal of the combination laws (Shawl 1954).[3] But it was not until the repeal of the Masters and Servants Act (1867) and the Trade Union Act (1871) that there was a positive step toward establishing more harmonious relations between the unions and the courts (Kahn-Freund 1944).

The relationship between employers and the employed during the nineteenth century remained one of conflict, where the interests of both parties were at odds. The proposals set forth by the Whitley Committee led to the establishment of the country's first Joint Industrial Council in 1918 (Clegg et al. 1985). But this was short-lived and, following the deterioration of laborers' power due to postwar unemployment, the state abandoned its support for co-management and consultation (Lewchuk 1984).

The mid-1970s saw the turmoil of UK recession as a result of the oil crisis in 1973 and the decline of traditional British industries. This culminated in the "winter of discontent" 1978–79, where 1.5 million public sector workers took part in Britain's largest single day of industrial action since the general strike of 1926 (Hay 2010). In

[3]The combination acts of 1799 and 1800 were the embodiment of Parliament's conversion to a *laissez-faire* policy, removing protection of labor conditions up until their repeal in 1824.

1980, Thatcher's government abolished the statutory procedure that allowed independent trade unions to seek official recognition and British employers were no longer legally required to bargain with the unions (Towers 1989). Thus, the 1980s and 1990s saw a dramatic decline in trade union power and a decentralization of collective bargaining (Wooden and Sloan 1998).

In 1999, the New Labour government under Tony Blair passed the National Minimum Wage Regulations which set a minimum wage of £3.00 per hour for 18–21-year-olds and £3.60 per hour for anyone older. The wage floor improved the conditions for "outsiders," such as those employed in small businesses (Morris et al. 2005), but also increased the operating costs of smaller firms (Rusly et al. 2017).

Liberalized *laissez-faire* wage formation in the UK has arguably depressed wages by lowering union bargaining power, and the UK saw significant wage diversion between strong (insider educated white managerial jobs) and weak (outsider uneducated minority female manual) jobs in the 1990s and polarization in the 2000s (Goos et al. 2009, 2014). Labor market polarization has led to widening income inequality and reduced incentives for medium-level human capital investment at school and on the job.

8.1.4.3 Social Security

The earliest underpinnings of a modern welfare state in the UK can be traced back to the sixteenth and seventeenth centuries with the Act for the Relief of the Poor in 1597 and the Poor Relief Act of 1601 (Birtles 1999). The modern welfare state in the UK arose after the landslide victory of the Liberal government in 1906. It introduced the concept of national health and unemployment insurance in the 1911 National Insurance Act (Feld 2011). The Beveridge Report of 1941 influenced one of the most radical changes in British history by establishing three main principles for postwar policy development: the introduction of family allowances, a National Health Service, and state maintenance of full employment in order to maintain funding for such social provisions (Whiteside 2014). The centuries' old poor laws were replaced by the National Assistance Act of 1948 (Spicker 2014), and in that same year, the Attlee Labour government launched the National Health Service that is still operating today (NHS n.d.).

By the 1980s, the Thatcher government introduced various measures to shift social security into an enterprise incentivizing framework. The government for example implemented an Enterprise Allowance Scheme, which gave individuals direct transfers of between £40 and £100 per week for their first year of self-employment (Cowling and Mitchell 1997).

In conclusion, the UK labor institutions have always been, but certainly since the Thatcher Era, tilted in favor of employers. This creates great labor mobility and flexibility on the one hand, but arguably low mutual loyalty, and rather militant labor relations on the other. This results in a labor market in which it is easy to hire and fire workers, but hard to find committed employees that will invest in firms' specific human capital and are willing to go the extra mile and make sacrifices for

their colleagues or employers. Moreover, in such a constellation the incentives and rewards for accumulating capital are high, whereas the incentives and rewards for accumulating skills are not. In the end, this entrenches wage and wealth inequality, creating strong incentives to start but few opportunities to grow successful new businesses.

8.1.5 Recent Entrepreneurship Policies in the UK

In our analysis of recent entrepreneurship policy initiatives in the UK, we consider the four priorities of public policy—deregulation, access to finance, innovation, and enterprise culture (based on a framework by Huggins and Williams 2009)—that have guided policy initiatives since the early 1980s.

8.1.5.1 (De)regulation

Since the 1980s, UK governments of all signatures were actively working to make regulation better for businesses (Ashmore 1988). This started with the 1985 and 1986 White Papers "Lifting the Burden" and "Building Businesses … Not Barriers." In 1997, the government established the Better Regulation Task Force to advise the government how to reduce unnecessary burdens of regulation. Government also focused on lifting regulation for small firms specifically with the "Think Small First" campaign.

In 2011, the government introduced the *Micro-Business Moratorium*—a freeze on new regulation for start-ups and companies with fewer than 10 employees. It then applied a "one-in, one-out" rule for UK business regulation in 2012, and following a political logic, the rule was changed into "one-in, two-out" in 2013 and "one-in, three-out" in 2016. Regulation of business is, however, not a matter of quantity, but rather of quality, including transparency. More interesting initiatives in recent years develop sensible regulation in a more interactive way. Entrepreneurs need regulatory stability rather than ongoing changes. Frequent changes of regulation may be detrimental for the development of the firms, a view supported by the survey of British founders presented in Sect. 8.3.[4]

The deregulation doctrine is still very much alive today. In 2015, the Parliament passed the Small Business, Enterprise and Employment Act, requiring the government of the day to publish a "Business Impact Target". Social security burdens for especially small employers were reduced in 2014, when the government introduced the Employment Allowance for all businesses and charities and since 2016 allows start-ups and SMEs to employ four workers without paying any social security contributions. The policy has not yet been evaluated on its effects and can be expected

[4]This is particularly true for the renewable energy sector in UK (Leendertse 2017).

to promote the creation of new but hamper the growth of successful businesses in the UK.

8.1.5.2 Access to Finance

In the early 1990s, the government started supporting the development of informal venture capital. The Business Expansion Scheme, which was implemented in 1983, was replaced in 1993 by the Enterprise Investment Scheme. This scheme provided both front-end and capital gains' tax relief on investments made directly in qualifying unquoted companies, strengthening incentives for business angels (Mason et al. 2010, p. 47). Furthermore, the Financial Services and Markets Act (UK Government 2000) created the opportunity for unquoted firms to raise equity and allowing investors to obtain certification without going through an authorized institution (Mason 2009). The government then set up the Business Finance Partnership, increasing lending to small- and medium-sized businesses and the Enterprise Capital Funds, providing venture capital investment for early stage, innovative small- and medium-sized businesses with high growth potential (UK Government 2015).

With these incentives in place, a vibrant angel and venture capital sector developed (Wiltbank 2009; Mason et al. 2010), and the creation of co-investment funds to match private investments with public funds enabled business angels to increase the availability of finance for new ventures (Mason 2009, p. 548). In November 2011, the Business Angel Co-Investment Fund was launched, investing with syndicates of business angels in SMEs.

Hence, the successive governments in the UK first allowed a private business angel and venture capital market to emerge and then also channeled public funds to SMEs and start-ups through these channels, thereby avoiding the problem of having to pick winners or write extensive protocols to administer subsidies and grants.

Considerable efforts were also made to get banks to lend to SMEs (UK Government 2015). For example, in 2009, the Enterprise Finance Guarantee was initiated, allowing banks to offer small businesses a normal, secured commercial loan. In early 2011, the Bank Appeal Process, which allowed SMEs to appeal against a bank's decision to decline a loan, was also launched. More than 9,000 businesses used the process, resulting in £42 millions of further lending. But although this can be considered a success of the appeals process, it also signals that banks in the UK have not been very keen on financing SMEs.

Nevertheless, in July 2012, with support from the government, the Bank of England (BoE) launched Funding for Lending, allowing banks and building societies to borrow from the BoE at cheaper than market rates for 4 years. In 2014, the Department for Business, Innovation and Skills established the British Business Bank, managing all government programs that help smaller businesses to access finance. In the first quarter of 2018, the Funding for Lending program was discontinued as it was predestined to (Pike 2017). But it was also discontinued after it was shown to have a great detrimental effect on the savings in high-street banks, as interest rates fell by two-thirds in January 2017 (Jones 2018).

In conclusion, tax and other policy initiatives have given formal UK financial markets a great boost in recent decades. The UK now has the largest VC and angel investment market in Europe, and London, arguably, remains the financial capital of the world. But the flow of finance to SMEs and start-ups, especially in their earliest stages of growth remains limited, especially outside London.

8.1.5.3 Innovation

For decades, the UK governments tried to improve the translation of knowledge into products and services. In 2001, the government launched the Small Business Research Initiative with the aim to increase the demand for R&D from high-technology SMEs. In addition, the Knowledge-Transfer Partnerships helped entrepreneurs access expertise and skills for growth by connecting them with academic institutions. Following the recommendations of the Lambert Review (HM Treasury 2003), the UK government began to promote knowledge transfer between universities and businesses by rewarding universities for activities that enhanced collaboration. In 2004, the government established the Technology Strategy Board and launched the Science City Program in several cities to also attract investors to strong, science-based assets. In 2007, the UK Innovation Agency launched Innovate UK that was complemented with several capital funds which supported innovative businesses and university innovation (HM Treasury 2010). The Business-University Collaboration and the Business-Research Council Collaboration initiatives of 2009 and the Gateway to Research launched in 2013 all aimed to improve the flow of information between ventures and research. Finally, University Enterprise Zones were launched in 2014, where Bradford, Bristol, Liverpool, and Nottingham won the bids and started pilots that ran till 2017 and a new round of funding for 2019 has been announced (UK Government n.d.).

To improve adult literacy and numeracy, the Skills for Life strategy was initiated in 2001 (HM Treasury 2009). The National Skills Academy Programme was then launched in 2005 to train specialists and the Train to Gain program and designed to improve skill deficiencies (HM Treasury 2006). The program was discontinued in 2010, however, after it was recognized that "…it [was] simply paying for training that would have happened anyway" (Brennan 2010).

In short, the British government over the past decades has implemented many initiatives to try and strengthen the collaboration between its world-class scientific institutions and its business sector, but with mixed success. These programs have been evaluated elsewhere, but it is difficult to ascertain their impact. It would take us beyond the scope of this chapter to attempt an assessment here.

8.1.5.4 Enterprise Culture

The UK government seems to have encouraged an entrepreneurial culture through awards starting decades ago. For example, The Queen's Awards for Enterprise is

prestigious awards for businesses and individuals in the UK since 1965. The Enterprise Act of 2002 made bankruptcy law more forgiving, recognizing that not all of the bankruptcies are the result of misconduct and irresponsibility (Walters 2005). The Davies Review (Davies 2002) argued that the best way to make the culture more entrepreneurial was through the educational system. In 2004, the government established the National Council for Graduate Entrepreneurship to promote a culture of entrepreneurship in higher education and launched the initiative Enterprising Britain, which since 2005 is an annual competition.

Teaching pupils to be entrepreneurial, however, is not the same as teaching them about entrepreneurship. The government therefore shifted focus with the aim to foster a more entrepreneurial youth. They launched Inspiring the future, where young entrepreneurs are volunteering to go into schools to talk about running their own business, Enterprise Village which supports teachers to set up and develop a school-based business, and the Premier League Enterprise Academy model which enabled football clubs to develop enterprise in young people, concentrating in deprived areas. The government also funded the development of Student-led Enterprise Societies. Their main activity was working together with local firms to get loans for student support and launching start-ups. The Global Entrepreneurship Week is, further, an annual event to help young people learn about the range of support programs available to entrepreneurs in the UK.

Besides awards, support, and events, the UK government encouraged entrepreneurship through Enterprise Zones, established since 2012. These Enterprise Zones are designated areas across England that provide tax breaks and government support. Initiatives to improve access to information and counseling are all part of a big umbrella campaign called Great Business, under which the government launched the Business in You Campaign with the aim to help people understand how they can start and run their own business.

In conclusion, subsequent UK governments have always had an interest in and developed (national) initiatives to promote an entrepreneurial mindset and culture throughout the UK.

8.1.6 Brexit and the LSE Growth Commission Report (2017)

In discussing the current situation in the UK, it would be incomplete not to discuss the issue of Brexit. Although the exact relationship of the UK with the European Union after Brexit remains unclear at the time of writing this book (January 2020), the LSE Growth Commission (2017) has published a noteworthy report on the growth prospects of the post-Brexit UK. The Commission reports some progress on the recommendations made in its 2013 prequel (mainly on increasing competition and investment in long-term assets and SMEs) but, interestingly, now calls for a tax and minimum wage system that is neutral with regard to forms of employment to promote lifelong learning and adaptable skills in light of rapid technological changes. Coupled with a new system of tax breaks for skills investment and better endowed technical

education, this should make British workers more resilient in future labor markets while supplying British entrepreneurs with the much-needed skilled labor force.

For the financial sector, the Commission suggests maintaining the links to EU markets by developing a substitute for the financial services "passport" while also diversifying its portfolio. The latter should be done by building new links to emerging markets and tapping into domestic markets by widening SME access to bond markets and boosting equity tax relief schemes for investors in SMEs. If at the same time smart regulation would make the banking market more competitive while supporting the emerging FinTech sector, the private financial markets can be an asset, not a liability for the British economy. To complement the private sector, the Commission advised the government to strengthen the British Business Bank, to establish a new infrastructure bank, and to fill the funding gaps the private market will not fill.

Finally, the Commission challenges the UK's industrial strategy, stating that two-thirds of the workforce are now employed in sectors where productivity is below average. The Commission therefore recommends the government to establish a new framework in order to pursue six key priorities, namely:

1. Skill shortages;
2. Low productivity sectors;
3. Small firms (less obstacles in terms of taxes and regulations);
4. Universities and private sector collaboration;
5. City-growth policies (support locally);
6. Growth, environment, and well-being.

The analysis of the Commission also largely supports the proposals we present below. Still, our focus on entrepreneurship and the entrepreneurial ecosystem has led us to identify slightly different bottlenecks. Furthermore, a more historical and regionally differentiated approach leads us to focus our proposals on making the UK ecosystem more diversified and inclusive, while de-emphasizing the more traditional UK strategies of further SME deregulation, putting a strong focus on (global) finance and linking academic research to the private sector.

8.1.7 Conclusions

In conclusion, the UK has an eventful history that shaped its institutions in a unique way. The British Isles were not invaded from outside since 1066, but saw centuries of internal conflict before the country unified in the seventeenth and rose to unrivaled global supremacy in the nineteenth century. In the twentieth century, however, this unrivaled position was challenged and the UK, like any other nation going forward, will have to compete in an increasingly global marketplace with innovative and efficient competitors for the favor of consumers across the globe.

During the Thatcher years of the 1980s, the UK developed into a distinct liberal market economy (Hall and Soskice 2001) with a deregulated business environment,

flexible labor markets, well-funded elite universities, and strong protection of intellectual property rights. In such a system, however, low labor protection arguably reduces incentives to invest and accumulate (firm-specific) human capital. Policies based on further deregulation and stronger market competition will not be able to address this weakness. In line with the LSE Commission on Growth (2017), we thus argue, below, that the UK needs to start paying more attention to its collective physical, digital, and financial infrastructures—factors that entrepreneurs need to succeed in global markets. A well-educated, loyal labor force, and excellent infrastructure are essential for ventures to grow into sustainable and globally competitive businesses. If, as a corollary, the UK entrepreneurial ecosystem can also become more inclusive—regionally, and across income groups and wealth levels—this may turn out to be vital for the long-run sociopolitical sustainability of the UK model.

8.2 Step 2: Data Analysis with REDI for the UK

8.2.1 UK's International Position

For calculating country scores of the Regional Entrepreneurship and Development Index (REDI), we used the population-weighted REDI-scores. Out of 24 European countries, the UK then ranks 4th with 56.0 points behind Ireland, Denmark, and Sweden (Table 3.3, Varga et al. 2020). The REDI ranking for the UK is quite consistent with other more commonly used indicators. The UK continues to be in top 10 in terms of "Ease of Doing Business" on the World Bank Doing Business report, ranking 7th out of 190 economies in the 2017–18 report.

The LSE Growth Commission (2017) identified human capital, especially among low wage employees, as a key weakness. Their report suggested leveling the playing field, now tilted in favor of self-employed, to promote long-term employment and on-the-job training in the UK. Again, this contrasts specifically with Germany, where permanent contracts enjoy very strong labor protection and on-the-job training is very strong. Clearly, the UK and Germany have developed different models, as the Varieties of Capitalism literature already suggested. In the same way as in Germany, the strengths of the UK model typically imply its weaknesses.

To address the UK's weaknesses, the LSE Growth Commission (2017) advocates, among other things, the implementation of a more directive industrial policy to shape future markets and negotiating new trade deals with the EU and USA to ensure London's bank and service-oriented dominance after Brexit. We believe the success of both these policy approaches depends to a large extent on factors beyond UK control and therefore represent high-risk strategies. The only certainty the UK has is that a lot of things will change, and the country must brace for a major shock. We would therefore argue that diversification and flexibility are the best defense and propose that a more vibrant, agile, and flexible entrepreneurial society will be able to cope with such uncertainty and change.

The UK's entrepreneurial ecosystem, though performing well in international comparison, also has its bottlenecks. The UK is known to suffer from the so-called European paradox (EC 1995). That is, on innovation scoreboards, the UK consistently ranks high (Schwanen and Wyonch 2018), but it seems the UK has problems commercializing that knowledge and bringing new technology to global markets. As the latter is the role that Schumpeter (1911) and, more recently, the knowledge spillover theory of entrepreneurship (Acs et al. 2009, 2013) foresee for entrepreneurs, this suggests there must be weaknesses in the entrepreneurial ecosystem that more traditional indicators and indices fail to identify. Figure 8.1 gives us a first glance at how the UK is performing relative to Germany, Italy, and the EU average on the 14 pillars identified in the REDI (Acs et al. 2014; Szerb et al. 2017, 2019).

It is clear from the graph that the UK entrepreneurial ecosystem is strong on almost all pillars and outperforms the Italian ecosystem on all but two pillars, "Product Innovation" and "Risk Capital." In the former pillar, the Italian ecosystem benefits from its strong emphasis and specialization in small-scale manufacturing industries, whereas the UK economy is much more characterized by services, where product innovation is simply harder to observe. The UK also outperforms the EU and Germany on several pillars, especially when it comes to Entrepreneurial Attitudes (pillars 1–5 in the figure) and Entrepreneurial Ability (6–9).

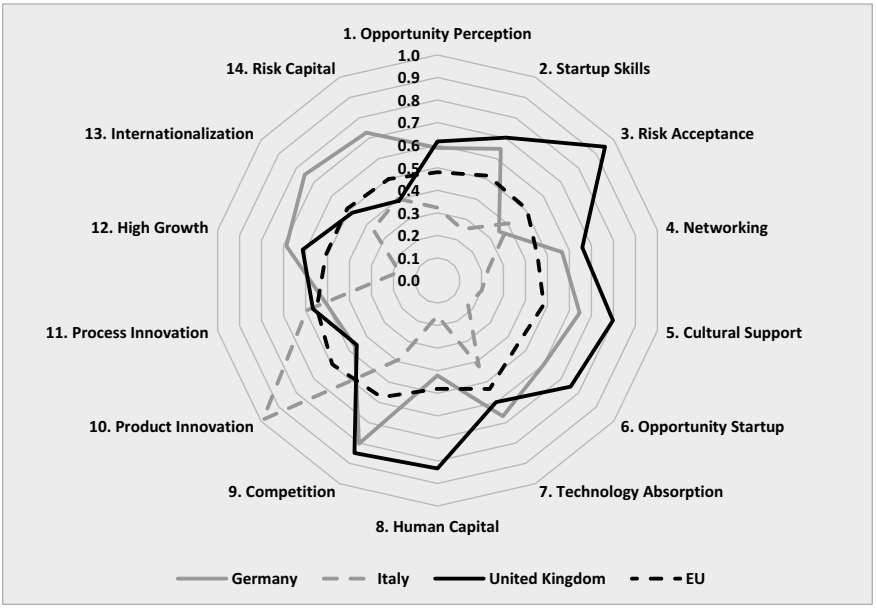

Fig. 8.1 Radar-plot REDI comparison Germany–Italy–UK and EU-average. *Source* Authors' own compilation

Concerning Entrepreneurial Aspirations (10–14), Germany and even occasionally the EU as a whole outperform the UK. These include the outcomes and availability of financial and knowledge resources, where it seems that the British ecosystem could benefit from reforms. This confirms the above-mentioned Growth Commission's analysis that it is the final step from invention to innovation and economic growth where the UK ecosystem has (relative) weaknesses. The data show that the UK performs at or above the EU average on almost all pillars and only underperforms in comparison with the EU average on three pillars: "Product Innovation," "Internationalization" and, perhaps surprisingly at first glance, "Risk Capital."

The underperformance on the pillar "Risk Capital" is mainly driven by large regional variations (see also Sect. 8.2.2), where many remote regions (e.g., in northern England) have very low values. In the central parts of UK, the financial system works better. Still, in this low score, we see a long-term challenge for the British governments since the early 1970s (HMSO 1971, 1979) is confirmed. These sources argue that paradoxically, as a result of strong formal financial markets for equity and VC capital, the funding gap for ventures that cannot gain access to these channels (and typically rely on less abundant informal finance) is more pronounced.

8.2.2 A More Detailed Regional Quick Scan

A national-level analysis may well hide a lot of regional heterogeneity. Bottlenecks in London may well prove to be very different from the bottlenecks in the West Midlands and Northern Ireland. Moreover, even the regional level hides relevant heterogeneity, as for example well-performing Cambridge lies in a much weaker East of England. With that caveat in mind and before we draw too strong a conclusion on how to improve the UK entrepreneurial ecosystem, let us therefore zoom in at the regional level.

The regional scores in the UK in Fig. 8.2 and Table 8.1 range from a globally highly competitive 75.5 for London, which after Stockholm and Copenhagen is third among 125 European regions, to scores as low as 44.3 in the North East, ranking at 61.[5] These regions compare in Europe to Rheinland-Pfalz in Germany or the Bassin Parisien (the region around Île de France) in France. The map and table illustrate that even at this low spatial resolution, the aggregated REDI scores capture quite a bit of the regional heterogeneity.

A more regional-level analysis also seems appropriate as sociopolitical ramifications of Brexit may well reverse the trend toward more centralized policy making in the UK. Brexit will imply the UK no longer needs strong central representation on behalf of all regions in Brussels, whereas UK regions will now assert themselves more in London. The Brexit vote uncovered important differences across regions that reflect economic realities as well. Investing in a more resilient entrepreneurial

[5]The numbers are index numbers ranging from 0 (worst) to 100 (best) across all 125 European NUTS2/3 regions for 2012–2014.

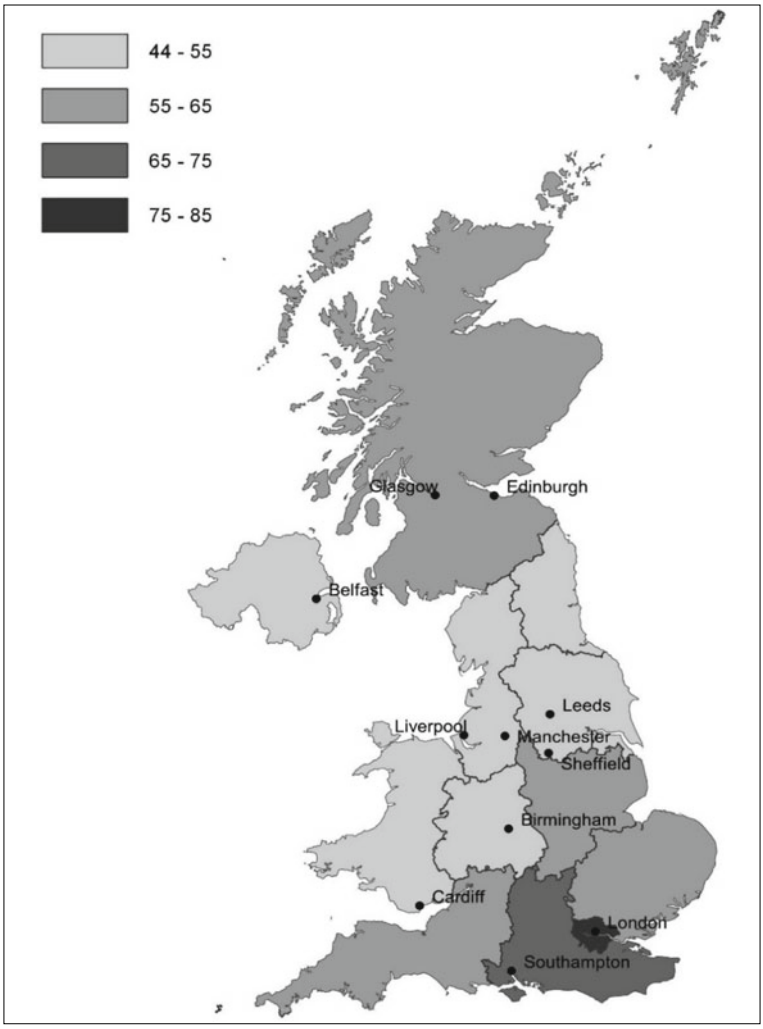

Fig. 8.2 REDI map of UK's regions. *Source* Authors' own compilation

ecosystem that generates inclusive and innovative growth across the Kingdom may well prove an important strategy to prevent further tensions.

Table 8.2 shows the weakest pillars in the REDI index across all UK regions. The analysis shows that the pillars are all concentrated in the 10–14 range, with only a few exceptions. Despite the large range between the best and worst performing entrepreneurial ecosystems in the UK, therefore, it is possible to implement policies and propose reforms that will strengthen all ecosystems alike. The frequent appearance of pillars 7, 10, and 11 suggests a bottleneck in the transfer of knowledge from basic and applied research to commercial activity, as in the aforementioned so-called

Table 8.1 REDI-score UK

Region	REDI-scores 2012–2014
North East England	44.3
North West England	50.4
Yorkshire and The Humber	51.8
East Midlands	57.9
West Midlands	54.0
East of England	58.7
London	75.5
South East England	69.6
South West England	62.3
Wales	50.4
Scotland	60.5
Northern Ireland	55.0

Source Authors' own compilation

Table 8.2 Weakest points per region

Region	Weakest pillars	Weakest variables
North East England	7, 12, 14	Absorptive Capacity and Technology Level, Clustering and Gazelles, Informal Investment
North West England	10, 13, 14	New Product, Exports, Informal Investment
Yorkshire and the Humber	10, 13, 14	New Product, Exports, Informal Investment
East Midlands	12, 13, 14	Clustering and Gazelles, Exports, Informal Investment
West Midlands	10, 11, 14	New Product and Technology Transfer, Technology Development, and New Technology, Informal Investment
East of England	10, 13, 14	New Product, Exports, Informal Investment
London	10, 11, 14	New Product, Technology Development and New Technology, Informal Investment
South East England	10, 12, 13	New Product, Gazelles, Exports
South West England	10, 11, 14	New Product, New Technology, Exports
Wales	7, 10, 11	Absorptive Capacity and Technology Level, New Product, Technology Development, and New Technology
Scotland	10, 13, 14	New Product, Connectivity and Exports, Informal Investment
Northern Ireland	1, 13, 14	Opportunity Recognition, Connectivity and Exports, Informal Investment

Source Authors' own compilation

European Paradox. It reflects the low actual uptake of new product and process technology in new ventures in the UK. This weakness is pronounced throughout the country and even the world-class London ecosystem is (relatively) weak in that respect. This calls for a targeted national approach, where interventions aim to strengthen exactly that weak link.

The frequent appearance of pillar 13, underpinned with low scores on Exports and sometimes also Connectivity, suggests UK manufacturing still has difficulty finding foreign markets and competing in the global marketplace. The strong services' orientation of, in particular, the London ecosystem can explain why this aspect of the entrepreneurial ecosystem remains underdeveloped. But although for London this does not seem to be a big problem, for the more peripheral regions in the UK it may well be. Moreover, Brexit may adversely affect the competitive position of London as the financial and business services capital of Europe. Diversification and the development of new, more industrially oriented competitive strengths could be a sensible strategy to try and strengthen these pillars in the UK entrepreneurial ecosystem.

The other pillar that stands out as remarkably and consistently weak across the UK is pillar 14 "Risk Capital." Low scores on "Risk Capital" are typically due to very low levels of informal investment being available and/or accessed. This is compensated by strong formal markets for equity in early-stage venturing, but business angel and VC markets have come under criticism for lack of regional, gender, and ethnic inclusiveness (Bates and Bradford 1992; Mollick and Robb 2016). Well-developed VC and private equity markets are of course good for the unicorns and gazelles that make the headlines, but financing the SMEs and start-ups at the base requires smaller magnitudes that promise only lower returns, making them much less interesting for VC funds and angel investors.

In Estrin et al. (2018), the authors investigated the potential for equity crowdfunding to play a complementary role in filling the funding gap. But reforms can also be proposed to strengthen the more traditional informal investment channels. This may be particularly important to boost access to informal investment, especially in the periphery.

We believe the UK is doing well in developing crowdfunding as a channel to complement formal financial markets. From Table 8.2, we may conclude that most UK regions would benefit from reforms and interventions that increase the technological sophistication and innovativeness of production and increase the flow of funds to perhaps dull, but essential small industrial firms that turn new knowledge into business. In manufacturing, this can give a boost to export performance and global competitiveness, whereas in services this will stimulate the regional and national economy.

We agree with the LSE Growth Commission (2017) that policies to level the playing field between self-employed and employees and to increase incentives for on the job training are helpful in this respect. The UK's strength in labor flexibility may well come at a cost of low loyalty and security for employees that makes investment in firm-specific human capital, especially at the lower end of the wage distribution, a less appealing proposition.

8.2.3 Overall Conclusions of the REDI Analysis

Our reading of the data above reveals that in all UK regions and in the country as a whole, the entrepreneurial ecosystem is strong. But even in the best ecosystem, there are always pillars that perform relatively weak and bottlenecks remain in a lack of innovation (New Products and Technology), export orientation (Exports), and informal investment. It is dangerous, however, to rely exclusively on data and aggregate indices, even if they are composed of a broad set of sub-indicators. It is always important to complement a data-based quick scan with common sense and more qualitative information to contextualize and complete the diagnosis. Only after triangulating the results above with the historical analysis, literature review, expert judgement and more qualitative survey results below, we can map the diagnosis onto our menu of interventions to propose tailored reforms for the UK.

8.3 Step 3: Triangulating History, Data, and Survey Results

8.3.1 Venture Creation Processes in the UK

As illustrated in Herrmann (2020), we studied in two ways how the British institutional ecosystem influences entrepreneurial activities, namely from a static perspective (based on multiannual averages) as well as from a process-oriented perspective. Both kinds of analyses provide similar insights. Our static analyses reveal that entrepreneurs in the UK are less likely to set up incrementally innovative ventures or imitate existing business ideas; they rather tend to set up radically innovative ventures (Dilli et al. 2018; Herrmann 2019).

The dynamic analyses, in turn, illustrate how the British institutional environment influences different aspects of the venture creation process. With regard to human capital, we find that national labor market institutions influence the work choices of entrepreneurs (Held 2019). Whenever labor market flexibility guarantees neither employment security nor benefits, the risk related to giving-up dependent employment in order to work full-time on venture creation is limited. Accordingly, part-time entrepreneurs in liberal market economies, such as the UK, are significantly more likely to transition to full-time entrepreneurship than their counterparts in coordinated market economies, such as Germany (Held 2019).

With regard to the process of finance acquisition, we (Held et al. 2018a) find that various venture characteristics influence the type of funding which nascent venture acquire first and, respectively, most. These characteristics also include a venture's institutional environment. Ventures in countries with a higher stock market capitalization (such as the UK) are less likely to seek debt finance. At the same time, a more limited availability of loans to the private sector also leads nascent ventures to finance their endeavors through grants.

Finally, we find that nascent ventures in the UK and the USA are less likely to engage in R&D collaborations with external partners, such as universities and laboratories, than nascent ventures in Germany (Held et al. 2018b). It seems that nascent ventures are reluctant to engage in joint R&D projects whenever the institutions governing inter-firm collaborations make the outcome of lawsuits in case of IP conflicts rather unpredictable.

Taken together, these studies lend support to the argument that the UK's distinct finance, labor, and R&D-related institutions influence the decisions of entrepreneurs with regard to the business ideas they develop as well as the modus operandi they choose to set up their ventures. This leads to the question how British entrepreneurs experienced their institutional environment when setting up a venture: Which aspects are constraining? And what could policy makers do to facilitate venture creation in the UK?

8.3.2 Regulatory Barriers to Entrepreneurship in UK

To examine regulatory barriers to entrepreneurship, we conducted interviews with 158 founders in the UK between 2016 and 2018. Table 8.3 provides an overview of the answers given to the question: "Which regulatory requirements did you perceive as major obstacles during venture creation?" that were coded to compare the answers also across countries.

The first remarkable result of Table 8.3 is that about every second founder said that they did not experience any regulatory obstacles. This lends support to our aforementioned result that it is overall rather easy to start a business in the UK. It is also in line with the UK rankings in the World Bank's (2018) Doing Business reports. A sustained pro-business attitude since the Thatcher years has successfully reduced costs and regulatory barriers to founding and managing businesses.

Still, some challenges remain. According to a recent poll among business owners (thus, not only founders), 51% of businesses think that the level of regulation in the UK is an obstacle to success, whereas 46% of small businesses identified tax administration as a burdensome area of compliance (NAO 2014). These findings are confirmed by our survey. Tax legislation, together with stringent data protection laws and onerous information requirements, was mentioned (each about 5% of all times) among the most important obstacles to venture creation. This suggests that in the UK, founders occasionally have difficulties to find the right information and navigate the complexities of government bureaucracy. It is furthermore noteworthy that unreliable or very specific regulation was perceived as an obstacle. Accordingly, legal insecurity as well as legal requirements for approval were perceived as obstacles in, together, about 8% of all times. Similarly, specific requirements related to the energy sector (almost 3% of times), stringent environmental regulation (almost 2% of times), and a constantly changing regulatory environment (almost 2% of times) were mentioned as important regulatory constraints.

Table 8.3 Results' survey regulatory obstacles in the UK

Which regulatory requirements did you perceive as major obstacles during venture creation?	Times mentioned	In %
None	81	43.8
Does not answer question	5	2.7
Data protection laws	10	5.4
Tax legislation	9	4.9
Onerous requirements for documentation	9	4.9
Legal Insecurity	8	4.3
Legal requirements for approval	7	3.8
Specific requirements related to energy sector	5	2.7
Pension scheme	5	2.7
High taxes	4	2.2
Employment regulations in general	4	2.2
Difficulties with obtaining government funding	4	2.2
Stringent environmental regulations	3	1.6
Insurance requirements	3	1.6
Constantly changing regulatory environment	3	1.6

Note
1. Based on interviews with 158 founders mentioning 185 obstacles (more than one obstacle could be mentioned)
2. Only obstacles mentioned three times or more are reported in the table
Source Authors' own compilation

Based on these insights, we conclude that it is important for governments to carefully consider not only the contents of regulations but to also pay attention that rules and regulation have a long-term perspective. If regulation is changed frequently, this leads to insecurity among founders as well as business owners.

8.3.3 Founders' Suggestions for Reforms in the UK

In the same survey, founders were also asked: "What can policy makers do to facilitate venture creation?". The answers to this question are listed in Table 8.4.

Interestingly, only a small share of founders (7.2%) opined that policy makers could *not* facilitate venture creation. This is a remarkable contrast to the above finding that about every second founder did not feel constrained by regulatory obstacles. On the contrary, British founders had numerous suggestions on how policy makers could facilitate venture creation.

By far, the most common suggestion called for facilitating access to finance for small businesses (almost 13% of all times mentioned). This is perhaps remarkable,

Table 8.4 Policy recommendations by founders in the UK

In your view, what could policy makers do to facilitate venture creation?	Times mentioned	In %
Nothing	19	7.2
Does not answer question	6	2.3
Facilitate financing for small businesses	34	12.8
Provide better training to people for starting businesses	23	8.7
Reduce bureaucracy	18	6.8
Reduce tax rates for small businesses	17	6.4
Provide better information about how to start a business	16	6.0
Provide incentives for hiring people	13	4.9
Avoid constant policy changes	13	4.9
Provide competent advice to people starting businesses	9	3.4
Centralize information for starting business	8	3.0
Improve situation specific to energy sector	7	2.6
Help market start-ups	7	2.6
Remain in EU	6	2.3
Provide better networking opportunities	6	2.3
Provide guidance	6	2.3
Be less inclined toward incumbents	5	1.9
Offset risk of starting business	4	1.5
Improve situation specific to IT sector	4	1.5
Financial benefits for founder	4	1.5
Create feeling of support for entrepreneurs	3	1.1

Note
1. Based on interviews with 158 founders mentioning 265 suggestions (more than one suggestion could be mentioned)
2. Only suggestions mentioned three times or more are reported in the table
Source Authors' own compilation

because the UK has a well-developed financial system. The reason for this discrepancy, also discussed in our REDI analysis, is related to the different types of finance that nascent ventures use. While venture or angel capital is comparatively abundant in the UK, only radically innovative ventures have access to such high-risk finance. As pointed out by Herrmann (2020), even in the UK only a small minority (of less than 10%) of all ventures founded per year are radically innovative. This would imply that the majority of ventures, pursuing incrementally innovative or imitative business ideas, need to turn to other financial sources. For these ventures, which also are the largest part of respondents to our survey, bank- or government-based finance constitutes the most important finance source—next to the founders' own and informal funding. We therefore interpret the suggestion of better access to finance as a call for improving access to bank-based, public, and informal finance.

The second most important suggestion concerns the human resources needed for venture creation. Almost 9% of responses highlighted that policy makers should provide better training to people for starting businesses, while almost 5% suggested to provide incentives for hiring people. Overall, this is in line with our above findings that, in the UK, workers with (firm-) specific skills are comparatively scarce and difficult to retain. The suggestions of UK founders indicate that the British workforce would benefit from acquiring not only more specific skills but also more entrepreneurial knowledge. In addition, policies that facilitate the hiring of skilled workers may constitute a further measure to provide nascent ventures with the necessary human capital.

While founders also asked for lower tax rates for small businesses (in almost 6.5% of cases), they asked in various ways for better and more transparent information about venture creation. Accordingly, they did not only suggest to reduce bureaucracy (in almost 7% of cases) but also to provide better information about how to start a business (in 6%), to provide competent advice to people starting businesses (in almost 3.5%), to centralize information for starting businesses (in 3%), and to provide guidance (in almost 2.5%). Taken together, this indicates that founders have experienced systematic problems in obtaining the necessary information at the right time.

Finally, and in line with the regulatory obstacles mentioned above, the founders interviewed suggested that venture creation would be facilitated by a more reliable and long-term oriented regulation. Accordingly, they suggested to avoid frequent policy changes in almost 5% of all times and to remain within the EU in almost 2.5% of times.

8.3.4 Conclusions

While our founder survey does not confirm all the weaknesses identified in REDI analyses based on composite indices, it adds several important nuances. It thus adds complementary information to the results obtained in Sect. 8.2. For example, the surveys clearly confirm the need for better opportunities for small ventures to obtain finance. But in addition, founders also highlight the lack of (access to) an appropriately skilled workforce. The REDI analysis, in contrast, did not flag this as a problem, because of its focus on tertiary education. The founders interviewed, however, agree with the LSE Growth Committee (2017) that vocational education should be improved and incentives for employing and training workers on the job should be strengthened.

Next to these aspects, our founder survey also highlights the importance of transparent and easily accessible information about venture creation, as well as stable and reliable regulation. Given that these aspects are not covered by the REDI data, the survey offers important complementary insights into how policy makers can still facilitate venture creation—even in a comparatively business-friendly environment as the UK. Founders repeatedly highlighted the importance of clear and reliable information

about venture creation requirements, as well as stable regulation. Whenever founders are faced with uncertainty because of unclear requirements and frequently changing regulation, this substantially—and unnecessarily—hinders venture creation.

Taken together, our historical, quantitative and qualitative information for the UK, though necessarily limited in scope and depth, reveals enough information to now draw up a diagnosis for the UK and turn to a proposed treatment.

8.4 Step 4: Mapping onto the FIRES-Reform Proposals

Formulating a reform strategy to strengthen the entrepreneurial ecosystem is similar to treating a patient. In the previous sections, we have considered the medical history of the patient, used an advanced diagnostic tool to scan for their health problems, and asked the patient how they feel and what they believe would be good treatments. Based on all this information, we can reach a diagnosis, map that diagnosis onto the menu of available treatments, and propose a treatment that fits the patient.

For the UK, we conclude that its rich and long history has shaped its institutions in a unique way. And yet, British ventures compete in an increasingly global marketplace with innovative and efficient competitors for the favor of consumers around the globe. The UK is therefore well advised to improve its entrepreneurial ecosystem in order to face that competition.

Since the Thatcher years in the 1980s, the UK has relied on the private sector and market competition to assert its competitive position in the world, with mixed success. Its London-based financial sector has developed into one of the most advanced and developed markets in the world, while waning industries long lingered in the North. Policies that governments of different political orientation have implemented are often and still based on the tried and tested UK recipes of further liberalization and stronger market competition, resulting in the most liberal market economy in Europe characterized by a liberalized regulatory environment, flexible labor markets, well-funded elite universities, and strong protection of intellectual property rights. In such a system, the winner takes all, creating strong incentives to succeed. But low taxes and minimal social protection also imply high risks of failure, low investment in human capital, and eroding public infrastructures.

We argue below that the UK needs to start paying more attention to the public and collective infrastructures that the individual entrepreneur also needs to succeed. Making the UK entrepreneurial ecosystem more inclusive—regionally as well as across income groups and wealth classes—may well turn out to be vital to the long-run sociopolitical sustainability and global competitiveness of the UK model (Piketty 2014; Van Bavel 2016).

The UK boasts a strong entrepreneurial ecosystem in general, but the average masks some great disparities. London (as well as the corridor from London to Bristol) is the undisputed hotbed of entrepreneurship alongside lagging rural and old industrial regions. The geographic resolution of our data reveals that UK's entrepreneurial talent and resources tend to cluster in London, where returns to such skills and

resources are highest. Quantitative data analysis then suggests large heterogeneity in entrepreneurial ecosystem performance. While this does not come out as a problem for the country as a whole, it creates a political divide, as the Brexit vote has clearly uncovered, for example.

The results from our survey do not reveal this heterogeneity. While they confirm that the challenges and bottlenecks in their ecosystem are not formidable, they still point to a lack of funding for small ventures, as well as a lack of skilled personnel. This, in turn, supports the insights obtained from the previous historical and quantitative analyses.

Our data analysis additionally reveals that entrepreneurship in the UK is less successful in adopting and commercializing high-tech knowledge developed in academic institutions and world-class R&D laboratories. New ventures in the UK score (comparatively) low in radically new products and technology absorption and its regions lack risk capital in the form of informal investment. These pillars in the ecosystem, together with non-transparent information about and frequently changing regulation of entrepreneurship, seem to be the weakest links in an otherwise business-friendly entrepreneurial ecosystem. The treatment needed should therefore help to overcome these weaknesses.

As the UK is to leave the European Union, it may be required to diversify its economy and regain its position in global markets also as a high-tech industrial exporter. This will require a well-trained labor force which is also available to nascent ventures that aim to grow into globally competitive firms. A healthy entrepreneurial ecosystem will be an asset and interventions to strengthen technology absorption and informal finance for more mundane and slow-growing industrial SMEs and start-ups will be beneficial.

Taking these prescriptions to our menu of policy interventions and reform proposals in Part I of this report, we can select the fifteen most suitable interventions. They are listed in Table 8.5. In Column 1, we find the number under which they are presented in Elert et al. (2019). Column 2 lists the policy area and 3 the full proposal, where Column 4 gives a brief motivation that links the proposal to the specific situation in the UK and the analysis presented above.

The first two proposals (2 and 4) refer to intellectual property rights and call for the UK to experiment and negotiate for less stringent and encompassing IPR. This may sound counterintuitive and goes against the mainstream thinking that strong IPR promotes innovation and growth by providing incentives to generate knowledge. In stakeholder dialogues and discussions, as well as academic research, however, that conventional wisdom is often turned on its head. Complex legal protection of IPR serves the interest of large incumbent corporates, who use IPR to maximize their profits. This rarely involves maximizing the generation and diffusion of new knowledge and technology through commercialization. The British experience in the industrial revolution, when IPR enforcement was expensive and scant, is a case in point. The reforms we propose would aim to restore IPR to its original purpose: Give credit to the inventor, while promoting further incremental innovation and commercialization by entrepreneurs. By opening up IPR, the UK would create opportunities for less sophisticated entrepreneurs to compete at the global frontier.

Table 8.5 FIRES-reform proposals for the UK[a]

No.	Policy area	Proposal	UK
2	Intellectual property	Limit the breadth, width, and span of patent protection to cover working prototypes and market-ready innovations only for a short period of time and permit economic actors to infringe upon patents that have not been commercialized.	IP is intended to promote the registration, diffusion, and commercial application of new knowledge and technology. But the system is gradually turning into a system where savvy lawyers help large corporates to prevent, not promote these things. To restore the system to its original purpose, the rights of inventors and infringers need to be better balanced. You can be the inventor/discoverer of an idea, but society only benefits if that knowledge is commercialized.
4	Intellectual property	Introduce and support existing experiments with open-source patent registration.	Open-source patents combine giving credit to the inventor, keeping a registry of useful knowledge and opening up that knowledge base for further expansion, also through commercial venturing. The UK after Brexit will remain a member of the European Patent Office but can offer to take the lead in experiments that will promote free flows of knowledge in society.
13	Private wealth	Allow for more wealth to accumulate and remain in private hands and make it possible, easy, and attractive to invest such wealth in entrepreneurial ventures.	This may sound counterintuitive as a policy to promote a more inclusive entrepreneurial society, but small, everyday entrepreneurs cannot access the increasingly formalized angel and VC markets. Their tickets are too small and returns too low to attract such funding. Thus, triple-F finance is, for now, their only recourse. This proposal aims to increase the availability of such funding. As we want to promote especially small tickets and amounts, tax exemptions can be capped at relatively low amounts. Small wealth that is actively invested in small, triple-F, equity investments should be treated differently from large fortunes, passively invested in global financial markets.

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Table 8.5 (continued)

No.	Policy area	Proposal	UK
18	Banks	Ensure that (appropriately anonymized) credit decision information becomes publicly available in the system of bank loan guarantees for start-ups.	Banks in the UK do not disclose information about credit they grant or credit they refuse (Barclays, 2017). Such information, if adequately anonymized, however, can be very helpful for other credit seekers and investors, also outside the banking sector. Access to such information should be supervised by the government and privacy must be protected.
19	Banks	Increase the mandatory equity ratio in banking gradually to 10–15 percent to allow them to take on more risk responsibly in their lending portfolios.	European and international minimum standards are applied in the UK but allow for rather low reserves and high leverage. The UK banks are among the largest and highest leveraged banks in the world, still posing a considerable risk for the UK economy while failing to serve the needs of especially SMEs. Financing entrepreneurship first requires more loss absorbing capacity in banking.
20	Banks	Introduce central bank digital currency to replace deposits at commercial banks as the dominant medium of exchange.	Following the logic of proposal 19, the Bank of England can reduce the need for strict bank supervision on the asset side of commercial banks' balance sheets after ensuring the stability of the decidedly public infrastructure for transactions and savings. By introducing a central bank digital currency, there is no need for guarantees of commercial banks liquidity and public deposit insurance that distorts banks financing costs. When payments and savings are secure, banks can once more invest on behalf of their clients for own profit, risk, and responsibility.

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Table 8.5 (continued)

No.	Policy area	Proposal	UK
26	Social security	Guarantee equal access to welfare state arrangements for all, regardless of tenure in a specific job or labor market status.	The LSE Growth Commission (2017) argued for a more level playing field between employees and self-employed on the premise that self-employed is currently favored in the UK labor market. We believe that in addition, both employees and self-employed face risks they cannot self-insure and that should not be a basis for competition. Small and risk ventures can only compete for employees on a level playing field when access to welfare state arrangements is equal for the important risks across labor market statuses.
31	Active labor market policy	Establish or strengthen training programs to prepare workers for new occupations.	Job creation and destruction are relatively high in the UK. Small firms are disproportionately responsible for this (Hijzen et al. 2010). This implies that a more entrepreneurial society, with more employment in small- and medium-sized firms in experimentation, will imply that employees need to be equipped with the skills to transfer between jobs and employers.
37	ICT	Invest in excellent, open-access digital infrastructure for European citizens and businesses.	Infrastructures benefit entrepreneurs and their clients at home and abroad and represent classic public goods characteristics and free rider problems. Efficient provision of such public goods is traditionally a government responsibility that the UK government should take up.

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Table 8.5 (continued)

No.	Policy area	Proposal	UK
38	ICT	Develop open but responsible standards and open regulation for the many digital platforms that emerge to facilitate peer-to-peer and business-to-business trade, services, and finance.	The digital revolution is beginning to change the way we do business across the board. It touches the very institutions that allocate capital, labor, and knowledge in society (Degryse 2016; Ferrari 2016; MacKenzie 2015; Lin et al. 2009). The UK is leading in platform-based financial innovation and is in a position to set the standards. A strong infrastructure with clear and well-designed open standards should be created to promote innovation and the creation of new services and create opportunities for all to contribute and participate. Crowdfunding, crowdsourcing, self-employment, and open innovation are all greatly leveraged with digital technology.
40	Insolvency	Set up publicly funded "entrepreneurial knowledge observatories" where knowledge accumulated in the entrepreneurial process is collected, curated, and freely diffused.	In the UK, there is a relatively high rate of firm formation and failure. This is beneficial and signals a healthy entrepreneurial ecosystem generating a lot of variety and selecting quick in a tough market environment. However, this also implies a lot of knowledge is lost. Incentives to retain and disclose experiences of in particular failures are low. Such knowledge constitutes a public good.
41	Education system	Reforms in primary and secondary education should provide pupils with a solid and coherent knowledge base and promote initiative, creativity, and a willingness to experiment.	The weakness in the UK we most try to address is low levels of absorptive capacity and firm-specific human capital. UK citizens are willing to start a firm, but not so much willing to work for one and invest a lot in its success. Fostering a more entrepreneurial mindset will in the long run make jobs in start-ups and new ventures more appealing, even for the non-entrepreneurs.

(continued)

Table 8.5 (continued)

No.	Policy area	Proposal	UK
44	Universities/entrepreneurial clusters	The link between universities and external stakeholders should be strengthened by encouraging universities to stimulate entrepreneurial initiatives and university spinoffs.	UK initiatives to form clusters around its academic centers of excellence can be strengthened and made more inclusive to focus on team formation and new firm foundation as opposed to licensing and exploiting IP in more traditional ways. It involves more active engagement of the universities.
48	Innovation policy	Develop highly competitive programs encouraging small businesses to engage research and development with the potential for commercialization.	This should predominantly be done in case of the UK by enhancing the resources of firms to invest in their personnel and providing incentives, other than regulation and legal protection, to retain workers and provide stable employment opportunities for loyal employees.
50	Innovation policy	Institute technology inducement prizes to further the development of commercially applicable knowledge in especially important areas, such as climate change.	Following LSE Growth Commission (2017)'s call for a mission-driven industrial policy, we would propose to shape such a policy still in an open way. That is, the government can direct innovation and entrepreneurial venturing toward societally relevant challenges, such as energy transition and circular business models, but the government should do so in a way that selects the best solutions, and not choose the incumbent firms that are best positioned to lobby for subsidies and support. We think innovation prizes could be a way to implement such an open mission-driven industrial innovation policy.

[a]Numbered as in Elert et al. (2019)
Source Authors' own compilation

Proposal 13 aims to increase the levels of informal investment in the UK. Allowing wealth to accumulate should not be understood as an across the board reduction in wealth or property taxes. Indeed, if our diagnosis calls for a more inclusive entrepreneurial ecosystem, such a proposal would be strange indeed. We should therefore add that this proposal is to be interpreted as interventions in the taxation of wealth that will promote the accumulation of small private fortunes to be invested in small, everyday entrepreneurial ventures, through good old personal networks, and modern crowd-based equity and lending platforms. Proposal 18 adds the credit information that banks typically consider proprietary. By disclosing that information at least for the publicly guaranteed loans, also the refused ones, private investors that can take on more risk can pick up on these opportunities to invest.

Proposals 19 and 20 also aim to have free up the banks' balance sheets for more risky financing of entrepreneurial and SME venturing. The role of banks in early-stage entrepreneurial finance is typically absent, but bank credit in the form of personal loans is an important source of finance for start-ups. Both new ventures in their growth stage as well as established SMEs would benefit from a banking sector that can take on more risk and banks on relationships rather than solid collateral and track records. To allow banks to take that traditional intermediation role (again), they need to finance their balance sheet with more equity (have more "skin in the game") and the savings and transaction money of ordinary people should not be at risk sitting as a liability in the form of deposits on their balance sheets. This implies that bank credit will become more expensive, but importantly, more risk tolerant.

Proposals 37, 38, and 40 are very much aligned with the above in strengthening the infrastructure on which platform-based financial (and other) services operate and creating central and publicly funded "observatories" that collect, curate, and disclose relevant and reliable information on entrepreneurial venturing and ventures, for entrepreneurs but also for (less sophisticated) investors.

Proposals 26, 31, 41, and 44 are directly aimed to promote the flow of talent into entrepreneurial venturing, specifically in the form of a well-trained and creative workforce. Proposal 26 creates a level playing field for small, risky ventures as employers while proposal 31 intends to make Britain's workers more resilient in the face of faster changing jobs and labor markets. Employability in a modern economy depends to a large extent on the ability to learn not just knowledge that was acquired in school. Therefore, proposal 41 aims to instill creativity and experimentation in primary and secondary education (with the required tolerance for failure), whereas proposal 44 continues this line in higher education in support of entrepreneurial behavior and venturing.

Proposals 48 and 50 then aim to also keep that spirit alive on the work floor, where the former should be interpreted in the UK context as a way to incentivize small businesses to also retain and train their employees, strengthening the accumulation and maintenance of human capital throughout the average British career, while the latter translates into the government giving direction to innovation, without exerting direct control.

The intentions of these proposals, individually and in combination, are to make British entrepreneurs and SMEs more inclined to hire workers and also train them on

the job and maintain their skills. One may conclude that the proposals are insufficient to create the powerful incentives to invest in on the job training that exist in CMEs, but at least these proposals take us in the right direction and are consistent with the historically evolved institutional framework of the UK. Reforms in education aim to make workers more entrepreneurial while increasing their skills and flexibility, whereas reforms in the financial system and tax code aim to allow for more private wealth to accumulate and flow to the SMEs and start-ups that VC and angel investors have shunned. The interventions proposed do not limit the mobility of resources in the UK but will help to strengthen regional entrepreneurial ecosystems. Private wealth and informal investment, as well as training on the job in small- and medium-sized manufacturing firms, tend to strengthen local and regional ecosystems, without risking leakage of resources to the center. London, meanwhile, can attract resources from all around the world and still thrive as the entrepreneurial hotspot of the UK.

It is possible that, even though all regions stand to benefit from such interventions, the fact that density and clustering tend to promote the quality and impact of entrepreneurial venturing, will imply that the same policy improvements will benefit London most. Still, that should not stop policy makers from pursuing these interventions. It is the UK citizens, not its administrative units per se, that the national government should care about. In addition, the UK has effective automatic transfer systems in social security and the National Health Service that will help maintain a high quality of life throughout the country, even if the available entrepreneurial resources end up being deployed only in parts of the territory.

As a final point, it should also be stressed that policy makers should ensure that regulation is long-term oriented and does not change frequently, as this will deter entrepreneurial activities and makes it hard to plan for the future. Information about the requirements to create ventures could also be made more easily accessible for potential entrepreneurs and, if possible, of better quality.

Of course, these proposals will need a much more detailed discussion and form the starting point, not the final word on the policy debate. In this, we join the debate the LSE Growth Committee's 2017 report has sparked in UK policy circles. By focusing on strengthening economic resilience, we believe our interventions' success depends a lot less on uncertain political and technological processes the UK cannot hope to control. Based on our analysis of the situation, we propose the UK considers this set of interventions to improve and maintain the health of its entrepreneurial ecosystem. That will be a key asset for the UK, whatever the circumstances.

8.5 Step 5: The FIRES-Reform Proposals in Light of the Countries' Historical, Geographical, and Institutional Context

To put our proposed reform program in its proper context, it is important to discuss the diagnosis and proposed treatments with experts in the field. In this case that is British

policy makers that are active in the field. Given the wide diversity of policy areas involved, it is furthermore important to not only discuss this with policy makers that are active in "entrepreneurship policy" in a narrow sense. Our approach emphasizes the importance of reforming institutions that determine the allocation of financial, labor, and knowledge resources to entrepreneurial activity in the broadest and most inclusive sense of the word. Entrepreneurship policy in the narrow sense has been around for some three decades or more and to date has achieved only limited success.

Because of its breadth, our reform agenda inevitably cuts across many policy areas, traditionally less associated with entrepreneurship policy, including wealth taxation, financial and labor market regulation, social security, and science policy. As the institutions in these areas have evolved historically and policy makers in these areas pursue different, equally relevant public policy priorities, the challenge is to discuss the proposed agenda in sufficient depth but with a sufficiently diverse group of policy makers and practitioners. Policies and institutions in these different areas overlap and interact in ways that affect the quality and performance of the entrepreneurial ecosystem (Stam 2015, 2018). The challenge is to not only propose policies and reforms that will strengthen the ecosystem, but to do it in such a way that other important policy priorities are also achieved.

In order to receive the first round of feedback on the proposals for the UK presented in Table 8.5, a policy roundtable was held at the London School of Economics on April 26, 2018. Participants included senior policy makers, consultants, and political advisors as well as entrepreneurs and suppliers of financial capital. This step can be seen as an attempt to allow our patient, or perhaps more accurately, her team of medical specialists, intimately familiar with our patient, to give feedback about our diagnosis and proposed treatments. What proposals does this team endorse, question or maybe even want to drop?

The participants agreed that a more proactive government policy making along the lines of the FIRES-report might be worthwhile considering carefully. However, policies to reduce failure and accelerate scale-up were proposed as important policies to generate more entrepreneurship, which some of the participants argued should be the main focus of the FIRES proposals. The participants also suggested that the notion of entrepreneurship itself and the meaning of the term was ambiguous, covering a variety of activities from forming major new companies to providing work for the socially excluded. It was important to link the policy proposals to the specific form of entrepreneurship under consideration.

The participants then discussed the proposals on experimenting with or abandoning IP protection laws. IP and patents are one of the few tangible components of an entrepreneurial project upon which investors can make evaluations. It was suggested that one could either increase renewal fees of patents or open IP systems to radical change toward "open source." This system would then mirror that of, for example, the culinary industry.

Some major UK issues such as immigration, human capital, and digitalization were pointed out as having not been sufficiently addressed in the study. The participants pointed to the importance of developing a dynamic entrepreneurial environment with a much more inclusive venture capital investment approach.

The participants furthermore expressed deep concern about the geographical concentration of entrepreneurial activity in UK, as discussed in the FIRES-report. There is a visible centralization of the entrepreneurial resources in London which only attracts a narrow demography and a lack of incentives for people to stay or go back home to the countryside.

As a final point, the need for developing a benchmark that enables this study to better evaluate the findings by comparing it to what is happening in the rest of the world was stressed.

8.6 Conclusions

This chapter on the UK illustrates the FIRES-approach to formulating a tailored institutional reform strategy to promote a more entrepreneurial society in Europe. It illustrates how one could systematically analyze the situation before selecting and proposing reforms within this area. After carefully analyzing the UK's historically rooted institutional foundations, this chapter triangulates historical, qualitative, and quantitative information to identify the UK's strengths and weaknesses. Based on this diagnosis, the most relevant proposals are selected from the menu of policy interventions and reform proposals in the companion volume of this book (Elert et al. 2019).

The UK's long and rich history has shaped its institutions in a unique way. The British Isles rose to unrivaled global supremacy in the nineteenth century, but in the twentieth century its rivals rapidly caught up. Like any other nation, the UK has to compete with innovative and efficient competitors for the favor of consumers across the globe. The UK has developed its distinct Anglo-Saxon model of capitalism with a relatively business-friendly regulatory environment, highly flexible labor markets, well-funded universities, and strong protection of intellectual property rights. At the same time, low labor protection reduces incentives for people to invest and accumulate (firm-specific) human capital. As a consequence, the UK has relatively efficient and business-friendly markets, but is also characterized by short-termism and economic rewards that are not always socially inclusive.

The UK as a whole performs relatively well by EU standards in terms of the entrepreneurial ecosystem. UK entrepreneurs are not short of spirit, and our survey suggests they are not held back by stifling bureaucracy (as they are in some EU countries). Moreover, its formal financial markets are world class.

The chapter discusses proposals concerning intellectual property rights, how to increase the levels of informal investment as well as how to strengthen the infrastructure on which platform-based financial services operate. It also discusses reforms to promote the flow of talent into entrepreneurial venturing and ways to strengthen the accumulation and maintenance of human capital.

The proposals individually and in combination aim to strengthen the knowledge base, talent pool, and capital base from which UK entrepreneurs can draw and aim to open opportunities for not only starting but also growing innovative firms in all

regions in the UK. All regions stand to benefit from these interventions. But by strengthening informal investment and the skills and resilience of low wage workers, while fostering a more entrepreneurial spirit throughout, it is likely that all regions—even peripheral—will benefit. Of course, these proposals will need a much more detailed discussion and only form the starting point, not the final word in the policy debate. Moreover, even if eventually adopted, our proposals all require careful implementation and evaluation to complete the policy cycle.

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