

# Chapter 8

## A Reform Strategy for the UK



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**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.

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

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

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

80 Against the backdrop of this rich history, Britain developed the institutions that  
81 currently define its entrepreneurial ecosystems. To establish and maintain its global  
82 Empire, the UK set up institutions that mobilized financial, human, and knowledge  
83 resources at an unprecedented scale, whereas the loss of the empire enforced an  
84 institutional adjustment process that arguably is still ongoing. Still, the most relevant  
85 institutions supporting entrepreneurship in the UK have deep roots. In what follows,  
86 we focus on its institutions for knowledge creation and diffusion, its financial  
87 institutions, and its labor markets. We then proceed to an overview of recent policy  
88 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

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

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

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

### 164 8.1.2.2 The Patent System

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

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

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

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

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

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

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

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<sup>1</sup>Patent No. 1 of 1617 granted to Rathburn and Burges for "Engraving and Printing Maps, Plans &co."

### 211 8.1.3 *Development of Financial Institutions*

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

226 From 1709 onwards, the Bank of England was the only bank allowed to operate  
 227 on a joint-stock basis (Ferguson 2009). The next big leap in the history of UK  
 228 banking was the Bank Charter Act of 1844 (Bank of England n.d.), which restricted  
 229 the issuance of banknotes solely to the Bank of England. With restrictions on joint-  
 230 stock banking lifted by 1858, corporate branch deposit banking developed in the UK  
 231 (Newton and Cottrell 1998) and large commercial banks such as Lloyds (1884) and  
 232 Barclays (1896) began to emerge. On the eve of the World War I, residents’ deposits  
 233 in British banks totaled almost £1.2 billion, with a total bank-note circulation of only  
 234 £45.5 million (Ferguson 2009). UK SME finance was left predominantly to the big  
 235 four modern banks—Barclays PLC, HSBC Holdings PLC, Lloyds Banking Group  
 236 PLC, and Royal Bank of Scotland Group PLC—who still hold 78% of the SME  
 237 market and 95 percent in the case of Scotland (Han et al. 2012).

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

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<sup>2</sup>The bank allowed William Hog, a merchant, to take £1000—the equivalent of £63,664 today—more out of his account than he had in it.

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

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

### 269 **8.1.4 Labor Institutions**

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

#### 279 **8.1.4.1 Employment Protection**

280 Labor relations in the UK (and in fact the Anglo-Saxon world) have always been  
 281 rather conflicting. Due to laws such as the Masters and Servants Acts of 1823 and  
 282 1867, disobedient workers could be punished for a criminal offense (Woods 1982;  
 283 Choi 2010). British labor law only gradually turned in favor of the workers in the  
 284 early twentieth century (e.g., the Old Age Pension Act of 1908 and the National  
 285 Insurance Act of 1911).

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



289 1970) related inequalities. High unemployment and large losses in nationalized industries  
 290 wreaked havoc in the public sector budget, and the Thatcher years in the 1980s  
 291 saw a decade of legislation to break union power and liberalize labor markets. The  
 292 2002 Employment Act was implemented and essentially shifted the responsibility  
 293 of enforcement of employment rights from public tribunals to private management-  
 294 controlled procedures, giving more weight to the competitiveness of the employer  
 295 than the welfare of the individual (Hepple and Morris 2002; Hepple 2002). The  
 296 reforms in labor protection of recent decades have brought the UK back to a position  
 297 in which low wages and low employment protection create high uncertainty for and,  
 298 consequently, low loyalty of employees for their employer. The flexibility of the  
 299 labor market implies it is easy to hire employees, but the lack of investment in firm-  
 300 specific human capital and employability makes it hard to accumulate firm-specific  
 301 knowledge and retain brains. For this reason, it is easy to start a venture in the UK,  
 302 but very hard to grow that venture into a globally competitive firm of significant size.

#### 303 8.1.4.2 Wage Bargaining

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

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

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

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

<sup>3</sup>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 Labor 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 Labor 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

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

### 375 **8.1.5 Recent Entrepreneurship Policies in the UK**

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

#### 380 **8.1.5.1 (De)regulation**

381 Since the 1980s, UK governments of all signatures were actively working to make  
 382 regulation better for businesses (Ashmore 1988). This started with the 1985 and 1986  
 383 White Papers “Lifting the Burden,” and “Building Businesses ... Not Barriers.” In  
 384 1997, the government established the Better Regulation Task Force to advise the  
 385 government how to reduce unnecessary burdens of regulation. Government also  
 386 focused on lifting regulation for small firms specifically with the “Think Small First”  
 387 campaign.

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

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

<sup>4</sup>This is particularly true for the renewable energy sector in UK (Leendertse 2017).

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

### 407 **8.1.5.2 Access to Finance**

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

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

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

430 Considerable efforts were also made to get banks to lend to SMEs (UK Govern-  
431 ment 2015). For example, in 2009, the Enterprise Finance Guarantee was initiated,  
432 allowing banks to offer small businesses a normal, secured commercial loan. In early  
433 2011, the Bank Appeal Process, which allowed SMEs to appeal against a bank's  
434 decision to decline a loan, was also launched. More than 9,000 businesses used the  
435 process, resulting in £42 millions of further lending. But although this can be con-  
436 sidered a success of the appeals process, it also signals that banks in the UK have  
437 not been very keen on financing SMEs.

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

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

### 452 8.1.5.3 Innovation

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

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

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

### 483 8.1.5.4 Enterprise Culture

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

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

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

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

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

### 516 **8.1.6 *Brexit and the LSE Growth Commission Report (2017)***

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

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

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

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

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

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

### 556 **8.1.7 Conclusions**

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

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

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

## 578 8.2 Step 2: Data Analysis with REDI for the UK

### 579 8.2.1 UK's International Position

580 For calculating country scores of the Regional Entrepreneurship and Development  
 581 Index (REDI), we used the population-weighted REDI-scores. Out of 24 European  
 582 countries, the UK then ranks 4th with 56.0 points behind Ireland, Denmark, and  
 583 Sweden (Table 3.3, Varga et al. 2020). The REDI ranking for the UK is quite con-  
 584 sistent with other more commonly used indicators. The UK continues to be in top  
 585 10 in terms of “Ease of Doing Business” on the World Bank Doing Business report,  
 586 ranking 7th out of 190 economies in the 2017–18 report.

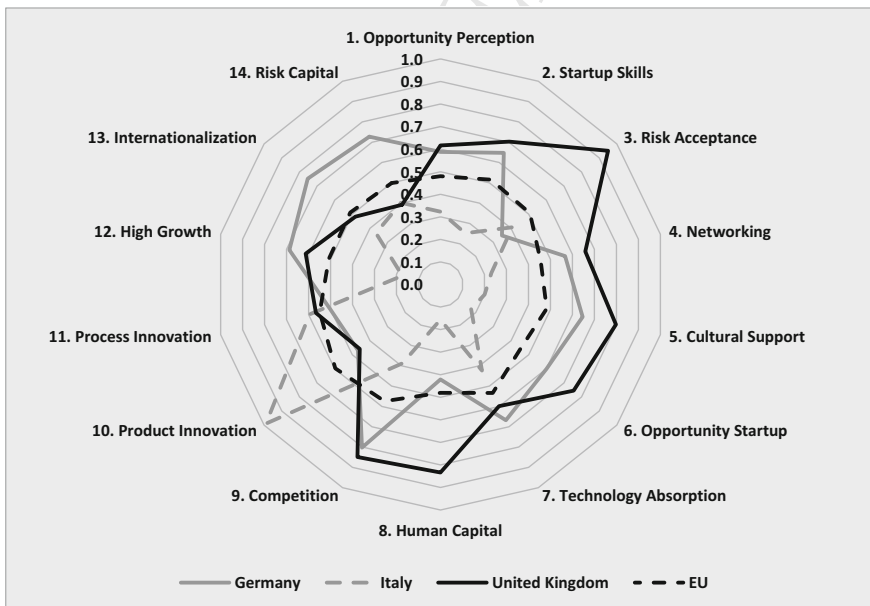
587 The LSE Growth Commission (2017) identified human capital, especially among  
 588 low wage employees, as a key weakness. Their report suggested leveling the playing  
 589 field, now tilted in favor of self-employed, to promote long-term employment and on-  
 590 the-job training in the UK. Again,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

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



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

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



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

624 Concerning Entrepreneurial Aspirations (10–14), Germany and even occasionally  
 625 the EU as a whole outperform the UK. These include the outcomes and availabil-  
 626 ity of financial and knowledge resources, where it seems that the British ecosystem  
 627 could benefit from reforms. This confirms the above-mentioned Growth Commis-  
 628 sion’s analysis that it is the final step from invention to innovation and economic  
 629 growth where the UK ecosystem has (relative) weaknesses. The data show that the  
 630 UK performs at or above the EU average on almost all pillars and only underper-  
 631 forms in comparison with the EU average on three pillars: “Product Innovation,”  
 632 “Internationalization” and, perhaps surprisingly at first glance, “Risk Capital.”

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

## 641 **8.2.2 A More Detailed Regional Quick Scan**

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

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

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

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

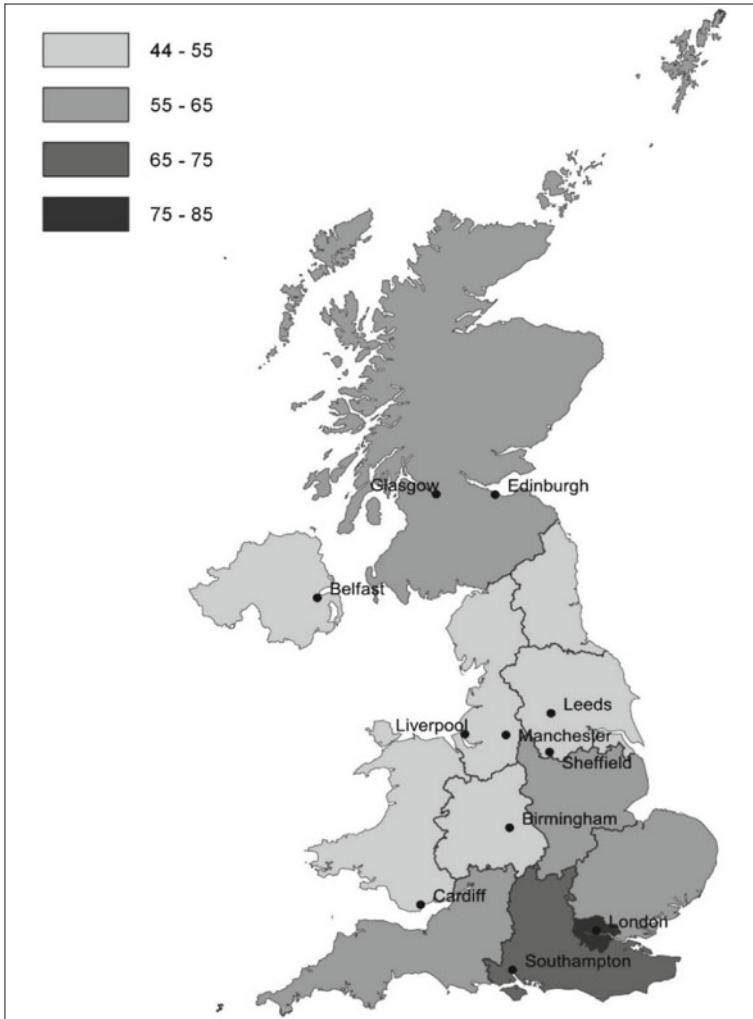


Fig. 8.2 REDI map of UK's regions. Source Authors' own compilation

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

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

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

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

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

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

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

### 715 **8.2.3 Overall Conclusions of the REDI Analysis**

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

## 727 **8.3 Step 3: Triangulating History, Data, and Survey Results**

### 728 **8.3.1 Venture Creation Processes in the UK**

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

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

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

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

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

### 765 **8.3.2 Regulatory Barriers to Entrepreneurship in UK**

766 To examine regulatory barriers to entrepreneurship, we conducted interviews with  
 767 158 founders in the UK between 2016 and 2018. Table 8.3 provides an overview of  
 768 the answers given to the question: "Which regulatory requirements did you perceive  
 769 as major obstacles during venture creation?" that were coded to compare the answers  
 770 also across countries.

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

777 Still, some challenges remain. According to a recent poll among business owners  
 778 (thus, not only founders), 51% of businesses think that the level of regulation in  
 779 the UK is an obstacle to success, whereas 46% of small businesses identified tax  
 780 administration as a burdensome area of compliance (NAO 2014). These findings are  
 781 confirmed by our survey. Tax legislation, together with stringent data protection laws  
 782 and onerous information requirements, was mentioned (each about 5% of all times)  
 783 among the most important obstacles to venture creation. This suggests that in the UK,  
 784 founders occasionally have difficulties to find the right information and navigate the  
 785 complexities of government bureaucracy. It is furthermore noteworthy that unreliable  
 786 or very specific regulation was perceived as an obstacle. Accordingly, legal insecurity  
 787 as well as legal requirements for approval were perceived as obstacles in, together,  
 788 about 8% of all times. Similarly, specific requirements related to the energy sector  
 789 (almost 3% of times), stringent environmental regulation (almost 2% of times), and  
 790 a constantly changing regulatory environment (almost 2% of times) were mentioned  
 791 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

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

### 796 8.3.3 Founders' Suggestions for Reforms in the UK

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

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

804 By far, the most common suggestion called for facilitating access to finance for  
 805 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 %
None	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

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

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

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

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

### 842 **8.3.4 Conclusions**

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

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

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

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

#### 865 **8.4 Step 4: Mapping onto the FIRES-Reform Proposals**

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

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

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

889 We argue below that the UK needs to start paying more attention to the public  
890 and collective infrastructures that the individual entrepreneur also needs to succeed.  
891 Making the UK entrepreneurial ecosystem more inclusive—regionally as well as  
892 across income groups and wealth classes—may well turn out to be vital to the long-  
893 run sociopolitical sustainability and global competitiveness of the UK model (Piketty  
894 2014; Van Bavel 2016).

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

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

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

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

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

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

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

**Table 8.5** FIRES-reform proposals for the UK<sup>a</sup>

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.

(continued)

Table 8.5 (continued)

No.	Policy area	Proposal	UK
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.
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.

(continued)

Table 8.5 (continued)

No.	Policy area	Proposal	UK
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.

(continued)



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 employed 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.

(continued)



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.	<p>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.</p> <p>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.</p>
40	Insolvency	Set up publicly funded “entrepreneurial knowledge observatories” where knowledge accumulated in the entrepreneurial process is collected, curated, and freely diffused.	

(continued)

Table 8.5 (continued)

No.	Policy area	Proposal	UK
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.
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.

<sup>a</sup>Numbered as in Elert et al. (2019)  
 Source: Authors' own compilation

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

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

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

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

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

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

990 the job and maintain their skills. One may conclude that the proposals are insufficient  
 991 to create the powerful incentives to invest in on the job training that exist in CMEs,  
 992 but at least these proposals take us in the right direction and are consistent with the  
 993 historically evolved institutional framework of the UK. Reforms in education aim  
 994 to make workers more entrepreneurial while increasing their skills and flexibility,  
 995 whereas reforms in the financial system and tax code aim to allow for more private  
 996 wealth to accumulate and flow to the SMEs and start-ups that VC and angel investors  
 997 have shunned. The interventions proposed do not limit the mobility of resources  
 998 in the UK but will help to strengthen regional entrepreneurial ecosystems. Private  
 999 wealth and informal investment, as well as training on the job in small- and medium-  
 1000 sized manufacturing firms, tend to strengthen local and regional ecosystems, without  
 1001 risking leakage of resources to the center. London, meanwhile, can attract resources  
 1002 from all around the world and still thrive as the entrepreneurial hotspot of the UK.

1003 It is possible that, even though all regions stand to benefit from such interven-  
 1004 tions, the fact that density and clustering tend to promote the quality and impact of  
 1005 entrepreneurial venturing, will imply that the same policy improvements will benefit  
 1006 London most. Still, that should not stop policy makers from pursuing these inter-  
 1007 ventions. It is the UK citizens, not its administrative units per se, that the national  
 1008 government should care about. In addition, the UK has effective automatic transfer  
 1009 systems in social security and the National Health Service that will help maintain  
 1010 a high quality of life throughout the country, even if the available entrepreneurial  
 1011 resources end up being deployed only in parts of the territory.

1012 As a final point, it should also be stressed that policy makers should ensure that  
 1013 regulation is long-term oriented and does not change frequently, as this will deter  
 1014 entrepreneurial activities and makes it hard to plan for the future. Information about  
 1015 the requirements to create ventures could also be made more easily accessible for  
 1016 potential entrepreneurs and, if possible, of better quality.

1017 Of course, these proposals will need a much more detailed discussion and form the  
 1018 starting point, not the final word on the policy debate. In this, we join the debate the  
 1019 LSE Growth Committee's 2017 report has sparked in UK policy circles. By focusing  
 1020 on strengthening economic resilience, we believe our interventions' success depends  
 1021 a lot less on uncertain political and technological processes the UK cannot hope to  
 1022 control. Based on our analysis of the situation, we propose the UK considers this set  
 1023 of interventions to improve and maintain the health of its entrepreneurial ecosystem.  
 1024 That will be a key asset for the UK, whatever the circumstances.

## 1025 **8.5 Step 5: The FIRES-Reform Proposals in Light** 1026 **of the Countries' Historical, Geographical,** 1027 **and Institutional Context**

1028 To put our proposed reform program in its proper context, it is important to discuss the  
 1029 diagnosis and proposed treatments with experts in the field. In this case that is British

1030 policy makers that are active in the field. Given the wide diversity of policy areas  
1031 involved, it is furthermore important to not only discuss this with policy makers that  
1032 are active in “entrepreneurship policy” in a narrow sense. Our approach emphasizes  
1033 the importance of reforming institutions that determine the allocation of financial,  
1034 labor, and knowledge resources to entrepreneurial activity in the broadest and most  
1035 inclusive sense of the word. Entrepreneurship policy in the narrow sense has been  
1036 around for some three decades or more and to date has achieved only limited success.

1037 Because of its breadth, our reform agenda inevitably cuts across many policy  
1038 areas, traditionally less associated with entrepreneurship policy, including wealth  
1039 taxation, financial and labor market regulation, social security, and science policy.  
1040 As the institutions in these areas have evolved historically and policy makers in  
1041 these areas pursue different, equally relevant public policy priorities, the challenge  
1042 is to discuss the proposed agenda in sufficient depth but with a sufficiently diverse  
1043 group of policy makers and practitioners. Policies and institutions in these different  
1044 areas overlap and interact in ways that affect the quality and performance of the  
1045 entrepreneurial ecosystem (Stam 2015, 2018). The challenge is to not only propose  
1046 policies and reforms that will strengthen the ecosystem, but to do it in such a way  
1047 that other important policy priorities are also achieved.

1048 In order to receive the first round of feedback on the proposals for the UK presented  
1049 in Table 8.5, a policy roundtable was held at the London School of Economics on  
1050 April 26, 2018. Participants included senior policy makers, consultants, and political  
1051 advisors as well as entrepreneurs and suppliers of financial capital. This step can  
1052 be seen as an attempt to allow our patient, or perhaps more accurately, her team of  
1053 medical specialists, intimately familiar with our patient, to give feedback about our  
1054 diagnosis and proposed treatments. What proposals does this team endorse, question  
1055 or maybe even want to drop?

1056 The participants agreed that a more proactive government policy making along  
1057 the lines of the FIRES-report might be worthwhile considering carefully. However,  
1058 policies to reduce failure and accelerate scale-up were proposed as important policies  
1059 to generate more entrepreneurship, which some of the participants argued should be  
1060 the main focus of the FIRES proposals. The participants also suggested that the notion  
1061 of entrepreneurship itself and the meaning of the term was ambiguous, covering a  
1062 variety of activities from forming major new companies to providing work for the  
1063 socially excluded. It was important to link the policy proposals to the specific form  
1064 of entrepreneurship under consideration.

1065 The participants then discussed the proposals on experimenting with or abandon-  
1066 ing IP protection laws. IP and patents are one of the few tangible components of an  
1067 entrepreneurial project upon which investors can make evaluations. It was suggested  
1068 that one could either increase renewal fees of patents or open IP systems to radical  
1069 change toward “open source.” This system would then mirror that of, for example,  
1070 the culinary industry.

1071 Some major UK issues such as immigration, human capital, and digitalization  
1072 were pointed out as having not been sufficiently addressed in the study. The partici-  
1073 pants pointed to the importance of developing a dynamic entrepreneurial environment  
1074 with a much more inclusive venture capital investment approach.

1075 The participants furthermore expressed deep concern about the geographical con-  
 1076 centration of entrepreneurial activity in UK, as discussed in the FIRES-report. There  
 1077 is a visible centralization of the entrepreneurial resources in London which only  
 1078 attracts a narrow demography and a lack of incentives for people to stay or go back  
 1079 home to the countryside.

1080 As a final point, the need for developing a benchmark that enables this study to  
 1081 better evaluate the findings by comparing it to what is happening in the rest of the  
 1082 world was stressed.

## 1083 8.6 Conclusions

1084 This chapter on the UK illustrates the FIRES-approach to formulating a tailored  
 1085 institutional reform strategy to promote a more entrepreneurial society in Europe. It  
 1086 illustrates how one could systematically analyze the situation before selecting and  
 1087 proposing reforms within this area. After carefully analyzing the UK's historically  
 1088 rooted institutional foundations, this chapter triangulates historical, qualitative, and  
 1089 quantitative information to identify the UK's strengths and weaknesses. Based on  
 1090 this diagnosis, the most relevant proposals are selected from the menu of policy  
 1091 interventions and reform proposals in the companion volume of this book (Elert  
 1092 et al. 2019).

1093 The UK's long and rich history has shaped its institutions in a unique way. The  
 1094 British Isles rose to unrivaled global supremacy in the nineteenth century, but in  
 1095 the twentieth century its rivals rapidly caught up. Like any other nation, the UK  
 1096 has to compete with innovative and efficient competitors for the favor of consumers  
 1097 across the globe. The UK has developed its distinct Anglo-Saxon model of capitalism  
 1098 with a relatively business-friendly regulatory environment, highly flexible labor mar-  
 1099 kets, well-funded universities, and strong protection of intellectual property rights.  
 1100 At the same time, low labor protection reduces incentives for people to invest and  
 1101 accumulate (firm-specific) human capital. As a consequence, the UK has relatively  
 1102 efficient and business-friendly markets, but is also characterized by short-termism  
 1103 and economic rewards that are not always socially inclusive.

1104 The UK as a whole performs relatively well by EU standards in terms of the  
 1105 entrepreneurial ecosystem. UK entrepreneurs are not short of spirit, and our survey  
 1106 suggests they are not held back by stifling bureaucracy (as they are in some EU  
 1107 countries). Moreover, its formal financial markets are world class.

1108 The chapter discusses proposals concerning intellectual property rights, how to  
 1109 increase the levels of informal investment as well as how to strengthen the infrastruc-  
 1110 ture on which platform-based financial services operate. It also discusses reforms to  
 1111 promote the flow of talent into entrepreneurial venturing and ways to strengthen the  
 1112 accumulation and maintenance of human capital.

1113 The proposals individually and in combination aim to strengthen the knowledge  
 1114 base, talent pool, and capital base from which UK entrepreneurs can draw and aim  
 1115 to open opportunities for not only starting but also growing innovative firms in all

1116 regions in the UK. All regions stand to benefit from these interventions. But by  
 1117 strengthening informal investment and the skills and resilience of low wage workers,  
 1118 while fostering a more entrepreneurial spirit throughout, it is likely that all regions—  
 1119 even peripheral—will benefit. Of course, these proposals will need a much more  
 1120 detailed discussion and only form the starting point, not the final word in the pol-  
 1121 icy debate. Moreover, even if eventually adopted, our proposals all require careful  
 1122 implementation and evaluation to complete the policy cycle.

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