



BREXIT'S IMPACT ON PHARMA, HEALTHCARE, AND LIFE SCIENCES IN THE UK

by Rob Pinnock

Perhaps the biggest impact of Brexit is the uncertain direction of the UK across the board – this should not come as a surprise to most. A former colleague now employed in the UK affiliate of one of the top five US Pharma companies spoke to me within the last month of their need to hold a ‘War Room’ meeting every morning over the last two years to manage the unprecedented environment. Establishing workarounds and crisis management plans to maintain existing supply chains, ensure patient access to medicines, and continue running ongoing clinical operations form the basis of these meetings. There is no simple metric for the impact of this additional load across the industry.

Pharma executives talk to one another, they speak at conferences and open forums ... and, yet, there seem few voices suggesting a positive outcome (see *Pharma industry steels itself for no-deal Brexit*¹). The reader can judge for him/herself how this might impact business investment decisions when given a choice between chaos in the UK and a competitor EU or other country offering a stable long-term environment.

Data on UK inward investment by business sector is generated post-hoc and is usually up to two years out of date by the time it

has been analysed sufficiently to enable long term decisions. Since the 2016 referendum, the impacts on immediate operational issues have been thoroughly reviewed and dissected.² While businesses always develop contingency plans to respond and survive in a changing environment, there is no argument to be made for additional cost burden through a process that cannot be shown to bring material benefit to themselves and the UK.

The eventual outcome will depend on whether a softer or harder BREXIT occurs. It could be anything between companies maintaining

or growing a presence in the UK to almost total withdrawal, leaving a few percent of the workforce. However, the triumphant announcement³ in November 2017 that MSD and Qiagen would invest £1Billion in the UK, heralding the continued bright future for R&D outlay by Pharma companies, has so-far failed to materialise significantly. Whether the anticipated increase in MSD or Qiagen’s headcount has occurred is still unknown.

At this stage, while definitive investment numbers are difficult to obtain to support any clear assessment, it is not unfair to conclude

Pharma companies are hesitating to invest in the UK. Outside of the UK there are more stable situations so it would seem logical to assume the Healthcare Industry would still be investing in these other territories. A Bloomberg analysis in March this year,⁴ gave an indication of the costs incurred so far over the breadth of UK industry. The analysis shows that investment is essentially stagnant since 2016 compared with previous years, with small inward- or outward-investment changes. However, the movement of ~£0.5 trillion balance sheet assets from major finance institutes to Frankfurt since 2016 gives a picture of the overall mood of the business community in a risky environment.

UK Pharma and Life Sciences is a high-tech area rather than a factory, so in many ways, biopharma and life sciences are more flexible and in a better position to respond to vagaries due to Brexit indecision. This flexibility is something UK industry must learn to use to its advantage. One of the rare pieces of more positive short-term news comes from the Bio Industry Association and some of its partners, who currently see a resilient thriving sector.⁵ This is welcome news.

In the UK, biotech has become very successful and has grown to be a significant part of the economy. However, it should be set against the background ecosystem it requires to operate within – biotech requires a pipeline of ideas and highly qualified people in its discovery and service/supply chain companies to operate successfully.

Is this ecosystem at risk? To think it is not is mistaken. Over thirty years ago, Margaret Thatcher's Conservative Government showed little goodwill to the science budget and universities. Consequently, emigration of skilled workers accelerated and a generation of UK scientists (mostly those at the start of their careers) began leaving for the EU and USA leading to the formation of 'Save British Campaign' a non-political lobbying organisation.⁶

Crucially at this time, Pharma grew its UK research base so hard-learned skills in the sector were not lost and not-for-profit organisations such as the Wellcome Trust increased funding by thirty-fold.⁷ Over the next decade the importance of science to national prosperity was recognised and cross-party political support for funding both science and strong links to Europe were established. This became a success story that the healthcare industry should recognise and it must use all its influence to maintain this environment.

"THE 'WINDRUSH SCANDAL' HAS ALREADY LEFT AN INDELIBLE IMPRINT"

It should not be forgotten that currently the UK is a net beneficiary of very significant funding from the EU for research. While government has made promises to compensate for this loss of EU support, and there is some evidence that some funding could become available,⁸ there is no certainty that it can maintain these levels of funding in the scenarios predicted by UK treasury (see details in a later section). Furthermore, the UK would be required to pay a net contribution into the EU scheme – this is anathema to the politicians wishing to leave the EU and would have no governmental support.

While money is part of the success story, it is the ready access to resources and a skilled workforce that makes it function so well. Leaving the EU disrupts this entire ecosystem. There is no reason to expect most areas would not suffer a similar experience to those in the European Galileo Satnav project described in a recent edition of Nature⁹ where the UK simply loses access to entire programs and areas of collaborative research.

While not as readily portable as financial or IT business, pharma and the life sciences industry is becoming more so as education levels and training rise world-wide (especially with dissemination of papers, webinars, and classes). Scientists in the UK are already preparing for a break with Europe (see, e.g., Nature's take on the topic¹⁰). Just under 20% of UK academics are Europeans, and this extends into the commercial research and development sector. Uncertainty of residence status is already discouraging EU scientists from working in the UK. Significantly, nothing is preventing UK scientists leaving the UK – there is already an EU Blue card¹¹ for highly skilled workers to take employment and settle in the EU that would be an immediate attraction for disenfranchised UK nationals.

The 'Windrush Scandal'¹² has already left an indelible imprint, and despite government reassurances to the contrary, current generations of researchers (who in the vast majority voted to remain in the EU) do not find them in any way credible when they see an increasingly hostile immigration environment.

On a more general healthcare point, beyond the uncertain future for EU residents in the UK, is the impact on UK nationals. Hospital administrators already face a crisis in recruiting for hospital staff. Every day brings news of more 'guidance' to physicians and healthcare staff along with steps to cope with the shortage of some medicines, e.g., radio-chemicals for diagnostics and treatment of cancer. The Association of the British Pharmaceutical Industry (ABPI), a UK pharma industry group, has even called for a temporary ban on drug exports in the event of a no-deal Brexit to prevent shortages for National Health Service (NHS) patients.¹³

While it must be offset against higher costs for imported raw materials and future tariffs, one suggested high point is that the fall in the value of the UK currency provides an opportunity to ►

invest. A low-priced currency and workforce enable UK exported goods and services to be cheaper for foreign customers. Perhaps this is an incentive to invest in the UK, particularly in the highly skilled employment sectors where margins are greater.

The overall long-term consequences of leaving the EU are detailed in official government documents. These documents offer little encouragement – see details at “HM Treasury analysis: the long-term economic impact of EU membership and the alternatives, April 2016,” an official government treasury analysis that summarizes the outcomes.¹⁴ For example, consider the analysis of ONS data of median UK household incomes in the range of £28-29,000.¹⁵ A post-BREXIT estimate of GDP per household compared to staying in the full membership of EU is:

- Leave the EU but stay in European Economic Area, (EAA): minus £2,600 (see p29 of report for the implications to an average UK household)
- Leave the EU with a Negotiated deal: minus £4,300
- Leave the EU with no deal and WTO terms: minus £5,200

By that analysis, the life sciences and health care industry should not be viewed naively as infrastructure but rather as a skilled workforce competing in an international market. The recent historical experience is that educated professionals follow the path to the more prosperous countries where their career aspirations can be met. Silicon Valley and Boston are not exemplars of low-cost economies but the opposite. No clearer example is the UK’s reliance on foreign doctors and nurses to staff its health service (~25% of the staff comes from the EU). All the evidence suggests that this human resource is in decline if not in reverse, with recruiting for nurses falling by 92%.¹⁶ Why would skilled people come to the UK

to be poorer with fewer opportunities in a hostile environment?

In summary, nothing will be any clearer until the official exit day, now pushed off until perhaps the 31st of October 2019 and even then, there are years of trade negotiations to be carried out. To global business leaders intending to invest their money abroad, the current post-BREXIT plans do not paint a picture of a well-thought through strategy to exit the EU bringing great economic benefits. Rather it appears more of a desperate scramble to string together a survival strategy until something better comes along. For any senior manager it would be hard to make a case at board level for investing in the UK when the current conversation is of damage containment of existing investment and planning how best

to operate profitably in an environment with reduced GDP and less negotiating power to access international markets.

While there will no-doubt be some incredible opportunities in which the UK will excel as it always has, right now those are unknown, and the overall temperament is downbeat.¹⁷ ■



Rob Pinnock is free-lance scientific consultant to healthcare companies, not for profit organisations and is an associate member of Cambridge University. He has spent over thirty-five years working in research, drug development and business in Academia, Biotech and Pharma in the UK and USA.

References

1. Pharma industry steels itself for no-deal Brexit, Sarah Neville, Financial Times, 26 Feb 2019, <https://www.ft.com/content/bcb554da-35cf-11e9-bd3a-8b2a211d90d5>
2. How Businesses Are Preparing for Brexit, Deal or No Deal, November 27, 2018 (Updated: April 11, 2019), <https://www.bloomberg.com/graphics/brexit-impact-tracker/>
3. U.K. Seeks to Remove Brexit Sting with Industrial Strategy, Alex Morales, November 26, 2017, 7:01 PM EST Updated on November 27, 2017, <https://www.bloomberg.com/news/articles/2017-11-27/u-k-seeks-to-take-sting-out-of-brexit-with-industrial-strategy>
4. The Brexit Day That Wasn’t Leaves Britain Counting the Cost, Joe Mayes, Irene Garcia Perez, and Aine Quinn, March 29, 2019, https://www.bloomberg.com/news/articles/2019-03-29/the-brexit-day-that-wasn-t-leaves-britain-counting-the-cost?cmpid=BBBXT032919BIZ&utm_medium=email&utm_source=newsletter&utm_term=190329&utm_campaign=brexit
5. Biotech in post-Brexit Britain: the future for the UK’s pharma-innovation engine? George Underwood, PharmaForum, February 18, 2019, <https://pharmaphorum.com/views-and-analysis/biotech-in-post-brexit-britain-the-future-for-the-uk-pharma-innovation-engine/>
6. See, The Campaign for Science and Engineering (CaSE) website, <http://www.sciencecampaign.org.uk/about-us/history-of-case.html>
7. See, The Wellcome Trust website, <https://wellcome.ac.uk/about-us/history-wellcome>
8. After Brexit, can British science have its cake and eat it, too?, Holly Else, Nature, 31 May, 2018, <https://www.nature.com/articles/d41586-018-05305-8>
9. Could the United Kingdom really build its own global satnav system?, Declan Butler, Nature, 12 Dec 2018, CORRECTION 13 Dec 2018, <https://www.nature.com/articles/d41586-018-07734-x>
10. Six months to Brexit: how scientists are preparing for the split, Ehsan Masood, Inga Vesper, Richard Van Noorden, Nature, 26 Sep 2018, CORRECTION 05 Oct 2018, <https://www.nature.com/articles/d41586-018-06781-8>
11. See, EU Blue Card Network website, <https://www.apply.eu/>
12. See, e.g., Wikipedia website for detail on the 2018 “Windrush Scandal” concerning “people who were wrongly detained, denied legal rights, threatened with deportation, and, in at least 83 cases, wrongly deported from the UK by the Home Office.”, <https://en.wikipedia.org/wiki/Windrushscandal>
13. UK Pharma calls for temporary drug export ban after no-deal Brexit, Richard Staines, PharmaForum, 29 March 2019; <https://pharmaphorum.com/news/uk-pharma-calls-for-temporary-drug-export-ban-after-no-deal-brexit/>.
14. HM Treasury analysis: the long-term economic impact of EU membership and the alternatives, April 2016, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/517415/treasuryanalysiseconomicimpactofeu-membershipweb.pdf; see especially pages 7-8
15. Average household income, UK: Financial year ending 2018, Office for National Statistics, published 26 February 2019, <https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/bulletins/householddisposableincomeandinequality/yearending2018>
16. See “The UK in a Changing Europe” website, The impact of Brexit on NHS staff, Tamara Hervey, Jean Monnet, and Sarah McCloskey, 15 March 2018, <https://ukandeu.ac.uk/the-impact-of-brexit-on-nhs-staff/>
17. More CFOs See Worse Business Environment After Brexit: Survey, Luca Casiraghi, April 14, 2019, <https://www.bloomberg.com/news/articles/2019-04-14/more-cfos-see-worse-business-environment-after-brexit-survey>