## The Telegraph

## Vaccine rollout highlights the benefits of globalization

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That the UK led the world in the <u>Pfizer-BioNTech vaccine rollout</u> this week is cause for celebration and a testament to our gratifyingly nimble Medicines and Healthcare products Regulatory Agency.

Earlier inoculations will save at least hundreds of additional elderly British lives from Covid-19. Health Secretary Matt Hancock was understandably relieved when he broke down on TV, adding, "There's so much work that's gone into this and it really, really ... I'm just proud to be British."

The rapid green light for this vaccine deployment, alongside the advanced pre-purchasing of 40m doses, is a British government success story. But the Pfizer-BioNTech vaccine tale, overall, is an ode, not to the exceptionalism of Britain or its government, but to modern globalisation. It is a tribute to the movement of people, ideas, and capital across national boundaries; to the intricacies of sophisticated supply chains and the global collaboration of scientists.

BioNTech, the German company that developed the vaccine, headquartered in Massachusetts, was founded by Turkish immigrant <u>Dr Ugur Sahin and his wife Dr Özlem Türeci</u>, herself the daughter of Turkish immigrants.

They ultimately partnered with Pfizer, a giant American pharmaceutical company founded by 19th century German migrants and currently led by a Greek. As my colleague Scott Lincicome has noted, Pfizer's executive leadership currently includes a South African, a Swede, and two Brits.

Both companies drew on capital and income from across the globe to finance the undertaking. BioNTech's founders sold their previous company, Ganymed Pharmaceuticals, to the Japanese-based Astellas Pharma in 2016 in one of those "foreign acquisitions" bemoaned when entailing the sale of a UK firm. They also raised hundreds of millions from private share issuance from dastardly capitalists.

Pfizer, of course, is one of those detested giant multinational corporations, whose pockets were deep enough to risk ramping up the trials, manufacturing, and distribution capabilities without much government assistance. The company's accumulated footprint across the world made all of these tasks easier.

The vaccine itself owed much to international cooperation. The <u>complete genetic mapping</u> was undertaken by Professor Zhang Yongzhen of Fudan University, China, in early January and shared to the world by Professor Edward Holmes of University of Sydney.

The underlying mRNA technology saw its potential pushed for years by Hungarian biochemist Katalin Karikó and American immunologist Drew Weissman in collaboration at the University of Pennsylvania.

When it came to the trials, Pfizer's presence, relationships and reputations in foreign countries proved crucial. The company was able to execute 150 trial sites across the US, Germany, South Africa, and Turkey, building up participation of 44,392 people in order to get reliable results quickly.

Now the vaccine is at the manufacture, storage, and distribution stage, with Pfizer and BioNTech estimating they will produce 50m doses this year and 1.3bn by the end of next. That requires a dense supply chain, incorporating Pfizer's own facilities in three locations in the US, an operation in Belgium to serve Europe, as well as BioNTech's German facilities.

To get those vaccines delivered, however, will rely on major cargo companies and international airlines, alongside <u>Pfizer's own cool box technologies</u>. This says nothing of all the trade-tested technologies, inputs, and products that go into the vehicles or even the refrigerators serving hospitals and other vaccine sites — most of which themselves have foreign capital, labour, parts and the best-practice that arises from global competitive pressure embedded in their family tree.

This is not just about the Pfizer-BioNTech vaccine either. Every other vaccine has a similar origin story of cross-border research, reliance on global investment, and dependence on a rich network of gradually-accumulated capabilities that we just take for granted in ordinary times.

At the start of this crisis, the fast spread of the disease was taken as evidence that the <u>tide was turning on globalisation</u>. Supply chains were dubbed brittle in the wake of disruption from the marauding virus, while "sicken thy neighbour" trade practices saw governments banning medicine and PPE exports as countries scrambled to protect their own.

What events show us since is how interdependence, in fact, makes us more resilient. Most countries, at various stages, have suffered acute domestic problems, arising often from bad government planning, failures of regulation, damaging spikes in transmission of the virus, or petty protectionism.

But international supply chains have proven adaptive and robust, while it is ultimately the vaccine — the manifestation of pan-national integration, arising from slowly accumulated networks of people, capital, and ideas — that will save the day.

As we turn the tide on this crisis, we should not forget or downplay this. The UK Vaccine Taskforce can applaud itself for helping grease the wheels for this week's achievement. But it is mistaken to see the vaccine moment as an opportunity to <u>push for reshoring</u> the whole swathe of vaccination capabilities, from trials to distribution, on the basis of the supposed downside of "dependence" on foreigners.

As shown by Britain leading the way in the <u>distribution of this vaccine</u>, a lack of domestic production capacity is no barrier for reaping the benefits of these technologies in the modern world. The deep global market in biotechnologies and pharmaceuticals has been a strength for us, not a weakness that requires activist industrial policy to overcome.

Matt Hancock and US vice president Mike Pence, who said this week "only in America could you see the innovation that resulted in a vaccine in less than one year," are correct in one sense — the vaccine owes much to British and American innovation.

But the key innovation responsible is the globalised economic market our countries used to champion. That is a concept, these days, often denigrated by politicians and for which the public seems perennially ungrateful.