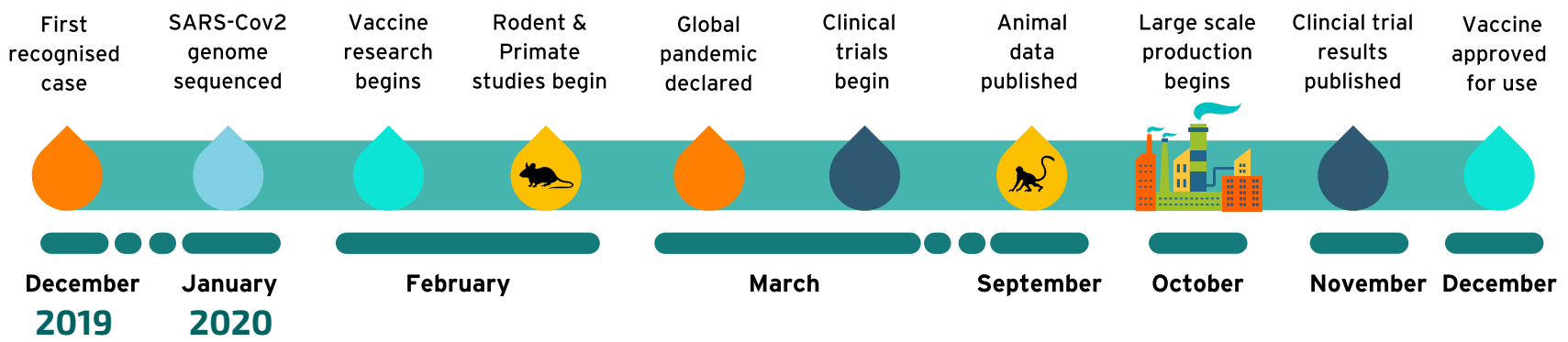


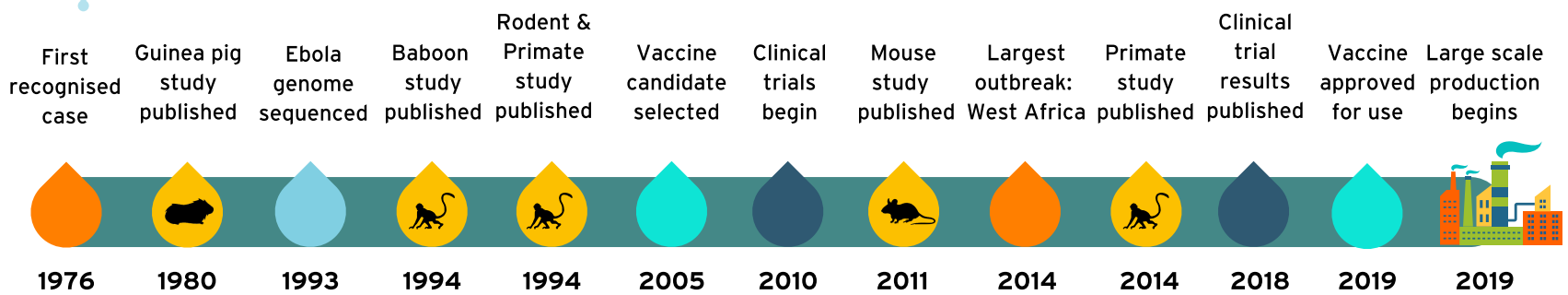
COVID-19 VACCINES

How were they developed so quickly?

Pfizer/BioNTech Covid-19 Vaccine Timeline



A Typical Vaccine Timeline e.g. Ebola Virus



Experience

Historically, vaccines have taken over 10 years to develop, but Covid-19 vaccines have been developed in less than a year. When Covid-19 first emerged, we already knew how to make effective vaccines, how to sequence a virus's genome to identify weak points, and researchers had already been working on coronavirus vaccines based on SARS, MERS, and Influenza. Thanks to decades of scientific experience, advancements in technology, and new research emerging every year, the Covid-19 vaccine development process has been much faster, without any corners being cut.

Funding

Covid-19 is the first global pandemic since the Spanish Influenza in 1918, therefore vast funding opportunities have been provided by governments, research funders, and commercial companies. More funding means vaccine development can happen faster as scientists don't have to wait for grants to be approved. Before the West African Ebola breakout in 2014, scientists struggled to secure funding for manufacturing, even though the vaccine had been proven effective.

Cooperation

Cooperation between organisations has been a huge factor in speeding up the timeline. Volunteers for human trials were screened early in the process so once safety data from pre-clinical studies, which include animal research, was available, the trials could begin straight away. Manufacturing a vaccine usually takes place last, but for Covid-19 manufacturing began early. The vaccine was prioritised for regulatory approval, but the usual safety requirements still had to be fulfilled.