



# **THE COVID-19 VACCINE SUPPLY CHAIN – LESSONS LEARNED FROM A LOGISTICS PERSPECTIVE**

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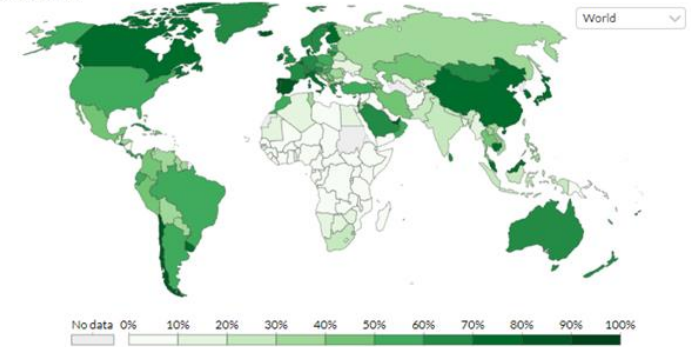
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# Challenges and implications for the COVID-19 vaccine supply chain

- With the development of the first COVID-19 vaccines, the global vaccine supply chain and its key players faced various challenges:
  - An estimated 10 billion doses are needed in 2021 alone; first estimates indicate the need of 7-9 billion doses for 2022 and beyond
  - Cold chain storage requirements for some vaccines
  - Need for trade facilitation measures to assure supply chain effectiveness (e.g. pre-arrival clearance, exemption from export restrictions)
- Many countries implemented measures warranting the efficient and expedited import of vaccines by removing import barriers, both tariff and non-tariff alike
- However, a short term adaption of border management processes will not be sufficient to combat the pandemic in the long-term

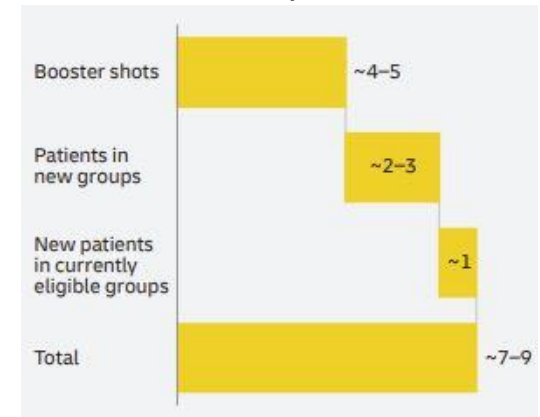
Share of the population fully vaccinated against COVID-19, Nov 10, 2021

Total number of people who received all doses prescribed by the vaccination protocol, divided by the total population of the country.



Source: Official data collated by Our World in Data – Last updated 11 November 2021, 05:30 (London time)  
Note: Alternative definitions of a full vaccination, e.g. having been infected with SARS-CoV-2 and having 1 dose of a 2-dose protocol, are ignored to maximize comparability between countries.  
OurWorldinData.org/coronavirus • CC BY

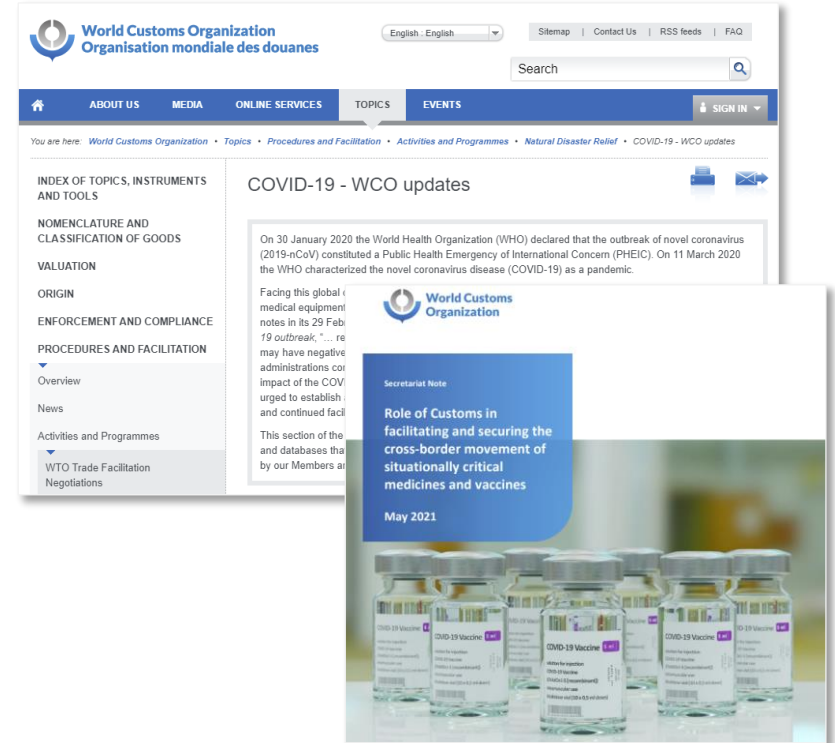
## Estimated additional vaccine quantities for 2022 and beyond



Source: DHL (2021). Revisiting Pandemic Resilience, p. 25

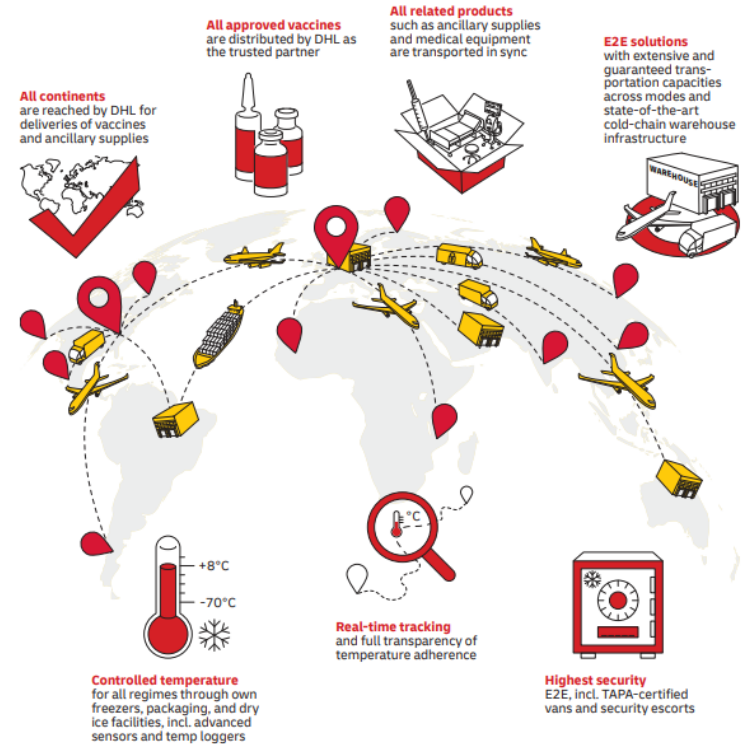
# The role of customs ensuring the effective delivery of vaccines

- Overall, regulators, especially at the borders face the challenge to ensure safety and security vs. the clearance of goods as quickly as possible
- The WCO created a website to assist Customs authorities and MDAs on the measures to facilitate the export and import of vaccines and related products
  - Many steps are already covered in the *Immediate Release Guidelines*, the *Revised Kyoto Convention* and the *TFA*
  - Engaging and involving key stakeholders such as the WHO, ICC and WTO
  - Key recommendations range from setting up a central taskforce to implementing digital infrastructure to minimize human contact and to identify essential goods



# Securing inbound delivery of vaccines and ancillary supplies

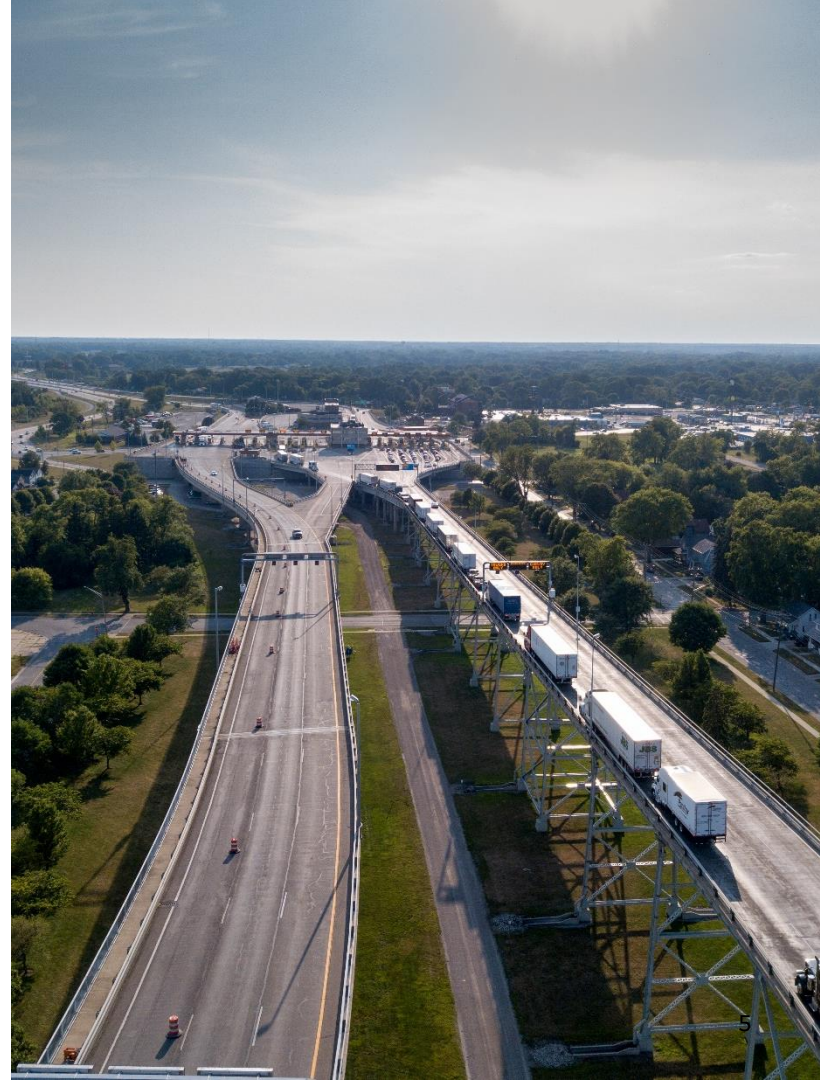
- More than 95 percent of global COVID-19 vaccine doses are produced in only 8 countries underlining the need to set up dedicated vaccine supply chains
- Data from DHL Express and DHL Global Forwarding, Freight showed that there have been **no major challenges or delays pertaining to clearance of COVID-19 vaccines**
  - Most shipments were pre-cleared and released immediately due to the well-coordinated logistic effort between all stakeholders, regulatory engagement, high visibility and importance of vaccine imports for countries
  - However, no globally or regionally standardized and harmonized border processes are in place for vaccine imports, resulting in the definition of Standard Operating Procedures for each country
- Unlike COVID-19 vaccine supply chains, the import of COVID-19 related ancillary supplies (e.g. needles, dilutes, PPE) and medicines is subject to clearance and import processing delays



Source: DHL (2021). Revisiting Pandemic Resilience, p. 13

# Lessons learned from a logistics perspective

- 1 Rethink the **approach to border management** as the pandemic has demonstrated the need of well-coordinated logistic effort between all stakeholders and authorities involved
- 2 Keep **streamlined and digitized processes** and further support the cross-border movement by adopting WCO guidelines and implementing the TFA
- 3 **Adapt the regulatory framework** and guidelines accordingly and allow the private sector to comment prior to introduction
- 4 **Extend facilitations** beyond COVID-19 vaccines also to related products as they have proven their value and benefit during the pandemic and will support us to build back better economically and to tackle future crises



**THANK YOU**