Bottlenecks to breakthroughs: What we've learned one year into COVID-

DHL CSI– Customer Solutions and Innovation

Revisiting Pandemic Resilience in a nutshell

Out of the starting blocks

It’s a marathon, not a sprint

The home stretch

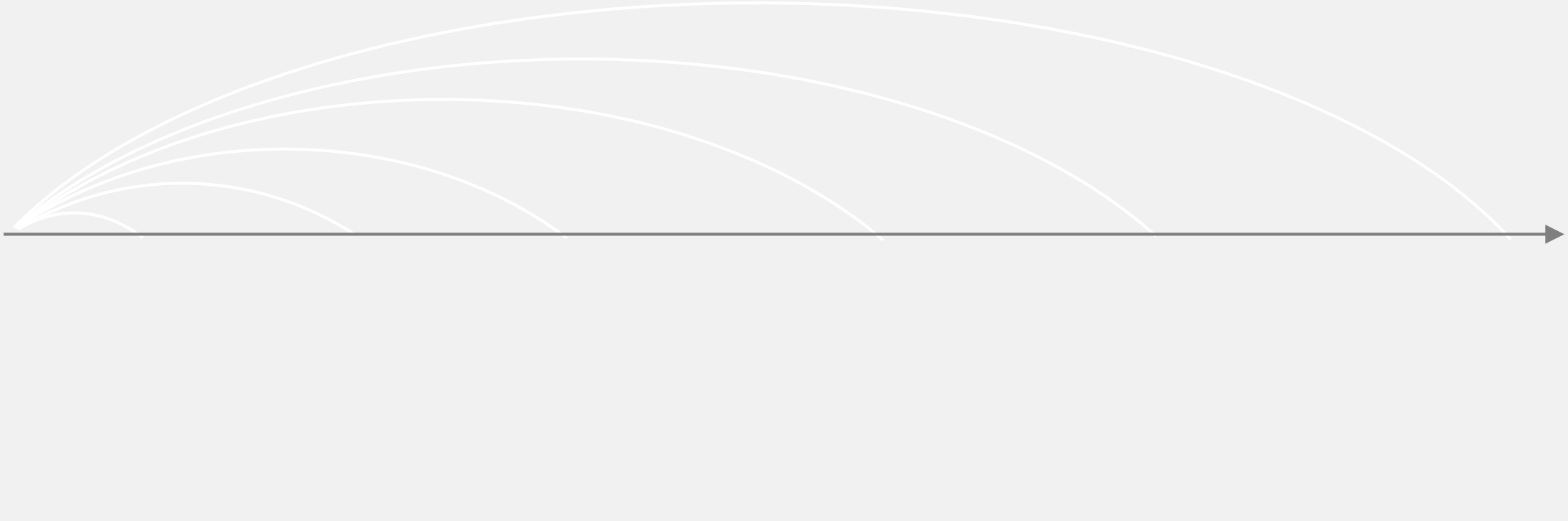
Getting ready for the next race

Deep Dive on following slides

1. COVID-19 vaccine development occurred five times faster than any other vaccine in history
2. Two new vaccine platforms, that can tackle diseases beyond COVID-19, have emerged and begun to mature
3. Total global vaccine production quadrupled within a year
4. The complex global vaccine supply chain was ramped-up successfully
5. Extreme cold-chain requirements were met at scale – flawlessly!
6. The vaccination rate already outpaces the infection rate by a factor of nine
7. Multilateral action was taken to ensure global access to vaccines
8. Vaccine economics work: on a per capita basis end-to-end costs for vaccination equal just one week of lockdown costs
9. Markets quickly met the high demand for testing, ancillary supplies, and PPE
10. Large-scale research on therapeutics has been promising

Vaccination innovation

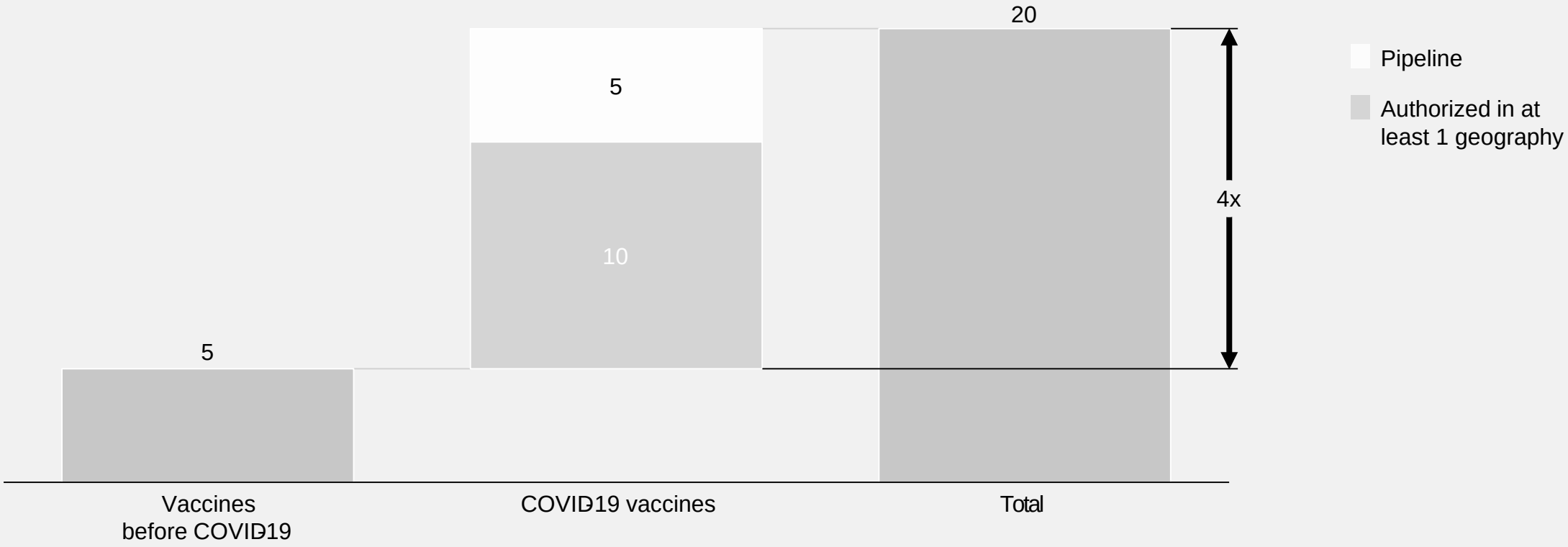
Time from infectious agent identification to vaccine approval in the US, years



1: Note that COVID-19 vaccines have received Emergency Use Approval, whereas the other vaccines have received biologics license application approval in the stated timeframe

3 Total global vaccine production quadrupled within a year

Vaccine production
2021, billion doses



Source: UNICEF COVID-19 production tracker with additional assumptions on realization and shipment timing of announced volumes (per vaccine development stage). Pre-COVID-19 vaccine data based on Airfinity and the WHO Global Vaccine Market Report 2020.

4 The complex global vaccine supply chain was ramped-up successfully

CHAPTER 2: It’s a marathon, not a sprint

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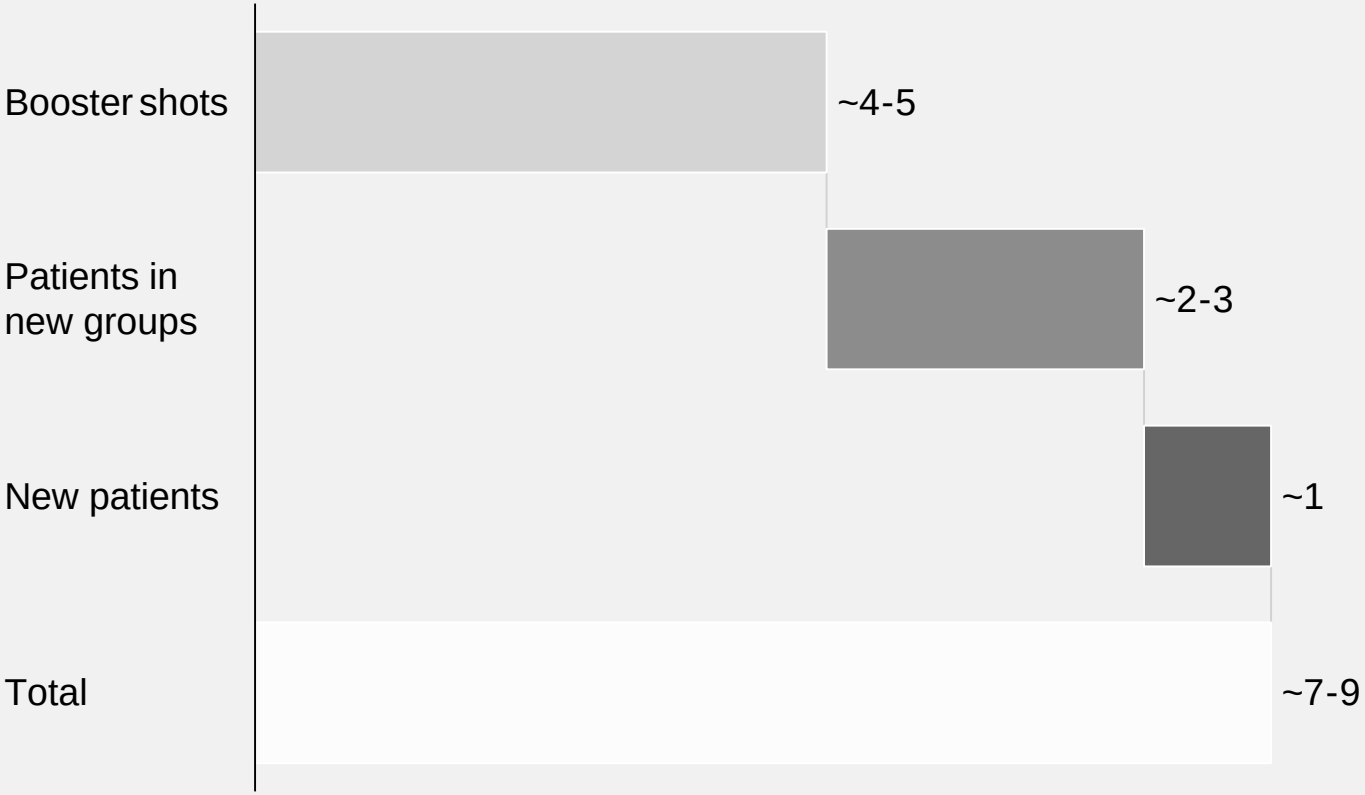
Going forward, 7-9 bn additional doses will be needed annually to keep COVID-19 in check

The need for an additional 7-9 billion doses will be driven by three factors:



3 watchouts needed to be implemented to ensure that today's supply chain provides a solid platform for the next years

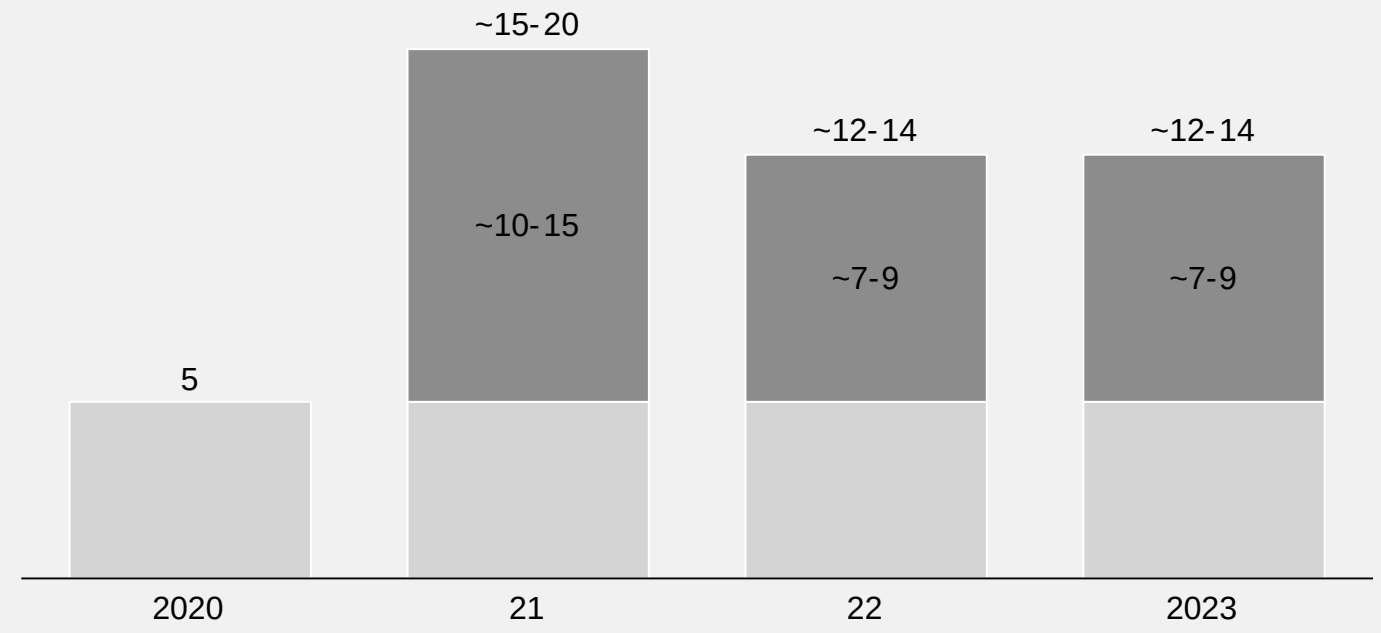
Players need to implement 3 measures:

- Remain prepared for high patient and vaccine volumes
- Maintain logistics infrastructure and capacity
- Plan for seasonal fluctuations

… then supply chain provides solid platform due to 30% lower volume

Projected global vaccine shipping volumes

Billion doses



Source: UNICEF COVID-19 production tracker, Airfinity and the WHO Global Vaccine Market Report 2020. DHL analysis

CHAPTER 4: Getting ready for the next race

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The home

Getting ready for the next race

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