



Addressing supply challenges during the COVID-19 pandemic for uninterrupted animal care and research activities in animal facilities

Ms Nur A'tikah Ali, SEMC
Ms Amy Tay, SEMC
Ms Stephanie Ng, SEMC

Introduction

SingHealth Experimental Medicine Centre (SEMC) provides comprehensive support services for animal research, including animal care and research support, in facilities at Academia, National Large Animal Facility (NLARF) and Duke-NUS Vivarium. To perform the support activities, SEMC has to procure and/or coordinate export/import of supplies for both animal care and research studies, such as feed, drugs and laboratory animals. Some supplies are critical as they are the basic need for animal maintenance (e.g. feed), crucial for the well-being of animals (e.g. drugs) and/or essential for research timeline (e.g. specialized animal models).

Availability of critical supplies for animal care and research

Before COVID-19 Pandemic ¹	COVID-19 Pandemic ²
<ul style="list-style-type: none"> Adequate supply and options Reliable and generally on-schedule delivery / shipment 	<ul style="list-style-type: none"> Limited raw materials, shortages in supply Frequent delay / cancellation of shipments / flights Supply disruptions due to travel restriction and flight embargo Additional administrative work and higher cost

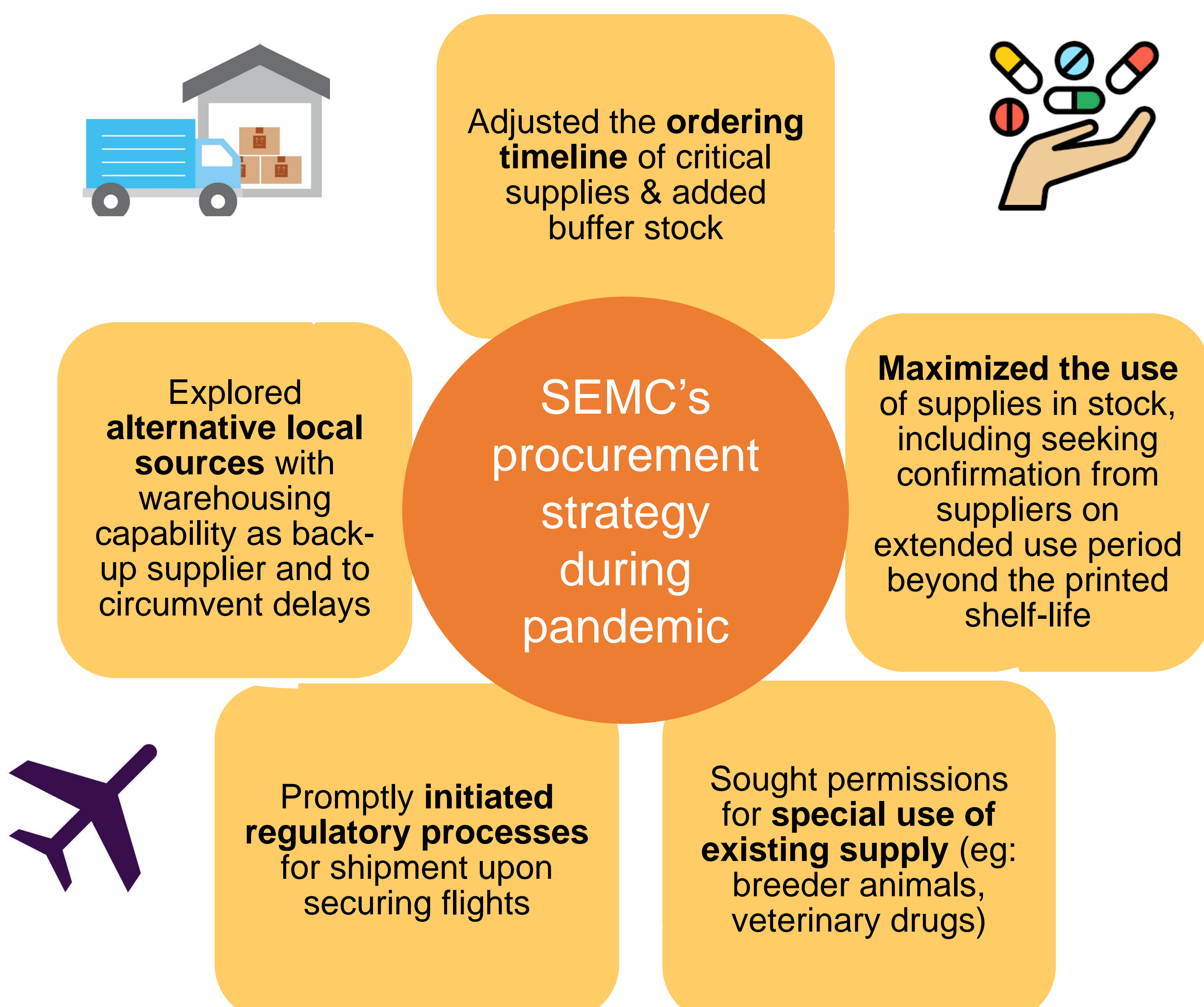
¹ Period between Financial Year (FY) 2018 and 2019 (April 2018-March 2020)

² Period between FY 2020 and 2022 (April 2020- March 2022)

Aim

- ✓ To ensure **continued** availability of the critical supplies
- ✓ To maintain **sustainability** of SEMC's daily operations and Pls' research

Methods



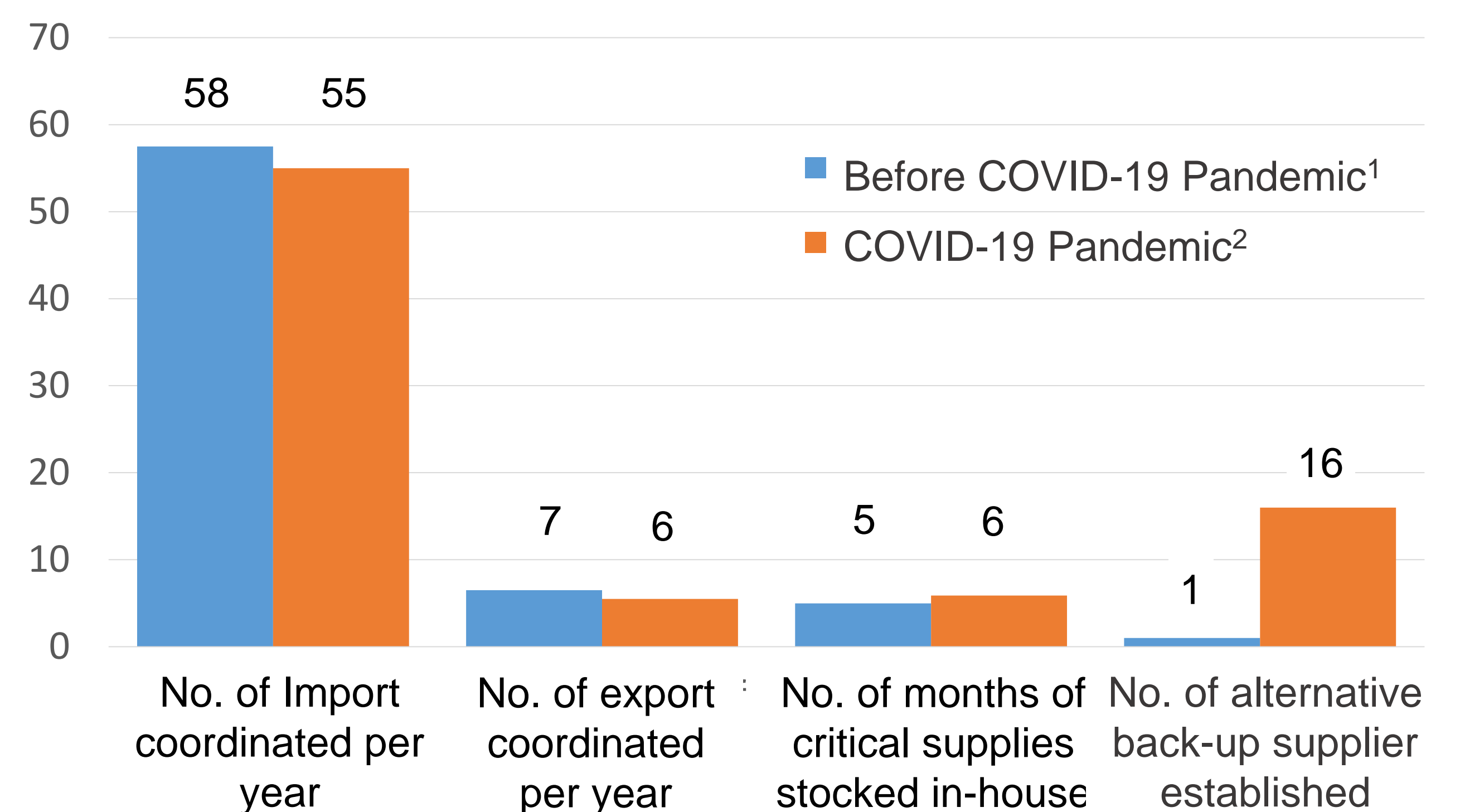
Results



During the pandemic SEMC was able to,

- Ensure **sufficient stock** of **critical supplies**
- Perform **import and export** of animals and bioresources as required by Pls' research, and

Sustained research support activities despite pandemic challenges



- Ensure **availability** of local supply of **domestic pigs** for scientific purposes.

- Import of pigs from overseas parentstock supplier was restricted in the past years.
- Permission was sought to use F1 generation to continue local production.
- Opportunity was seized to import breeders in early 2022 once flights were permitted.

Conclusion

The pandemic has greatly impacted supply chain globally, which threatened the availability of critical supplies and services for animal care and research. SEMC managed to **sustain** its daily operations and **continue supporting research activities** in all the facilities despite the challenges brought by the pandemic. This has allowed life-savings research using animals to continue, **preventing disruption** in the progress of medical advancement