



**GLOBAL
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SUPPLY CHAIN SUMMIT



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2018 Global Health Supply Chain Summit
Lusaka, Zambia



supporting last-mile supply chain efforts using Unmanned Aircraft Systems (UAS)

Hitesh Hurkchand
(on behalf of Sara de la Rosa)

Interagency Supply Chain Group
UAS Coordinator



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Lusaka, Zambia

Photo Credit: Zipline, Rwanda
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Interagency Supply Chain Group (ISG)

Informal Group – ISG formed in 2014.

Hosted by the WHO since April 2017 through support from UNICEF, the Bill and Melinda Gates Foundation and the African Resource Centre

UAS Coordination: Hosted since June 2018 by The Global Fund and UNICEF. Partnership of **7 major donor agencies** involved in providing **Public Health supply chain** support to emerging countries:



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Last-mile distribution use cases

- **Routine pharmaceuticals and supplies**
 - difficult access geographies (seasonal disruptions or remoteness)
- **2-way delivery**
 - diagnosis + treatment + waste management
- **Cold-chain high value commodities**
 - Scheduled campaigns - Extended Program of Immunization (EPI)
- **Unpredictable demand**
 - plasma for emergency situations (post-partum hemorrhage, pediatric malarial anemia, or trauma)
 - Anti-venom, rabies vaccines, oxytocin, etc.



Credit: UNICEF India, Nepal, Chad



mit

Health Impact = saving lives

i.e. one 5 lbs delivery parcel can protect the life of about 100 children



- **Access**

- reliable, fast access within 15-45 minutes to rural and remote health facilities

- **Availability**

- Reduce % stockouts due to delivery failure

- **Local empowerment**

- economic impact
- high quality supplies and business services



- **Turnaround time**

- Laboratory patient diagnosis and
- delivery of treatment

- **Decreasing waste**

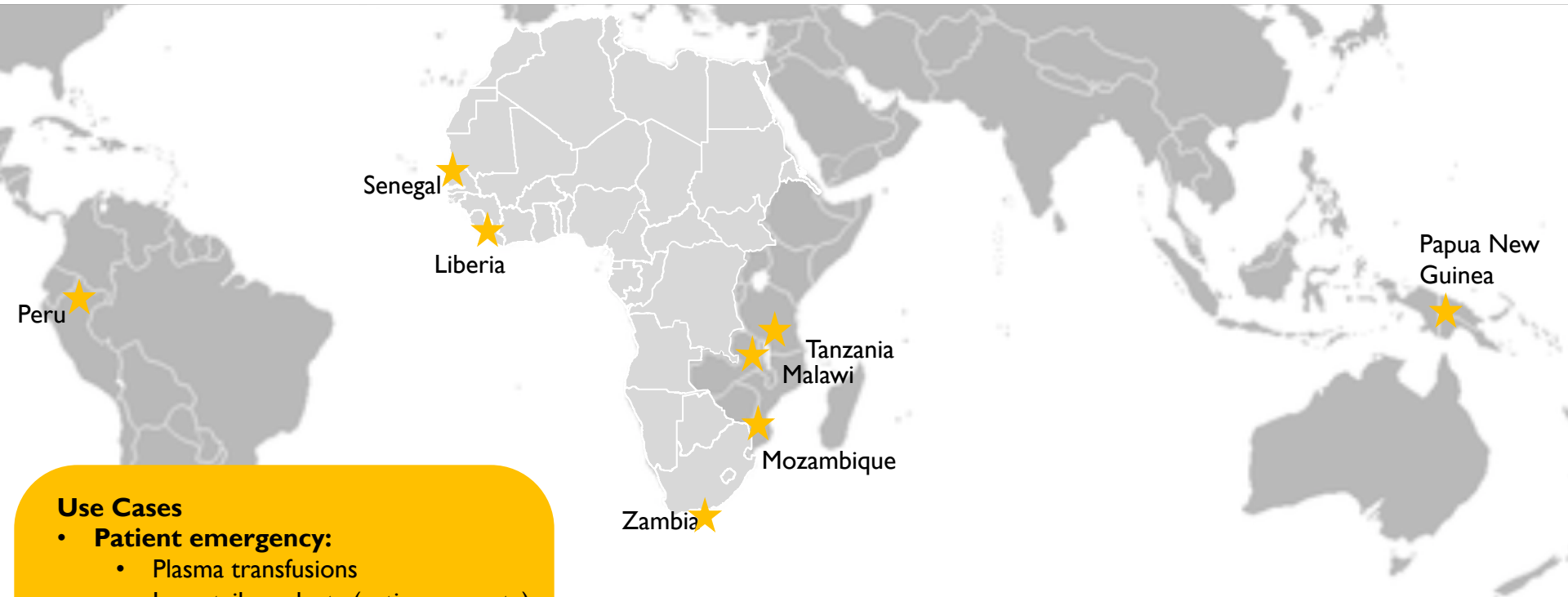
- expiries and spoilage



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Overview of Project stages

UAS projects funded by ISG members around the world



Use Cases

- **Patient emergency:**
 - Plasma transfusions
 - Long-tail products (anti-venom, etc)
 - Referral samples
- **Vaccines**
 - disease outbreak response
- **Routine**
 - diagnosis + treatment (Tb, HIV, ARV)
 - Stock-outs
- **Vector control**

★ PoC complete

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- ★ In planning
- ★ Projected



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■ Fully implemented
★ Ongoing

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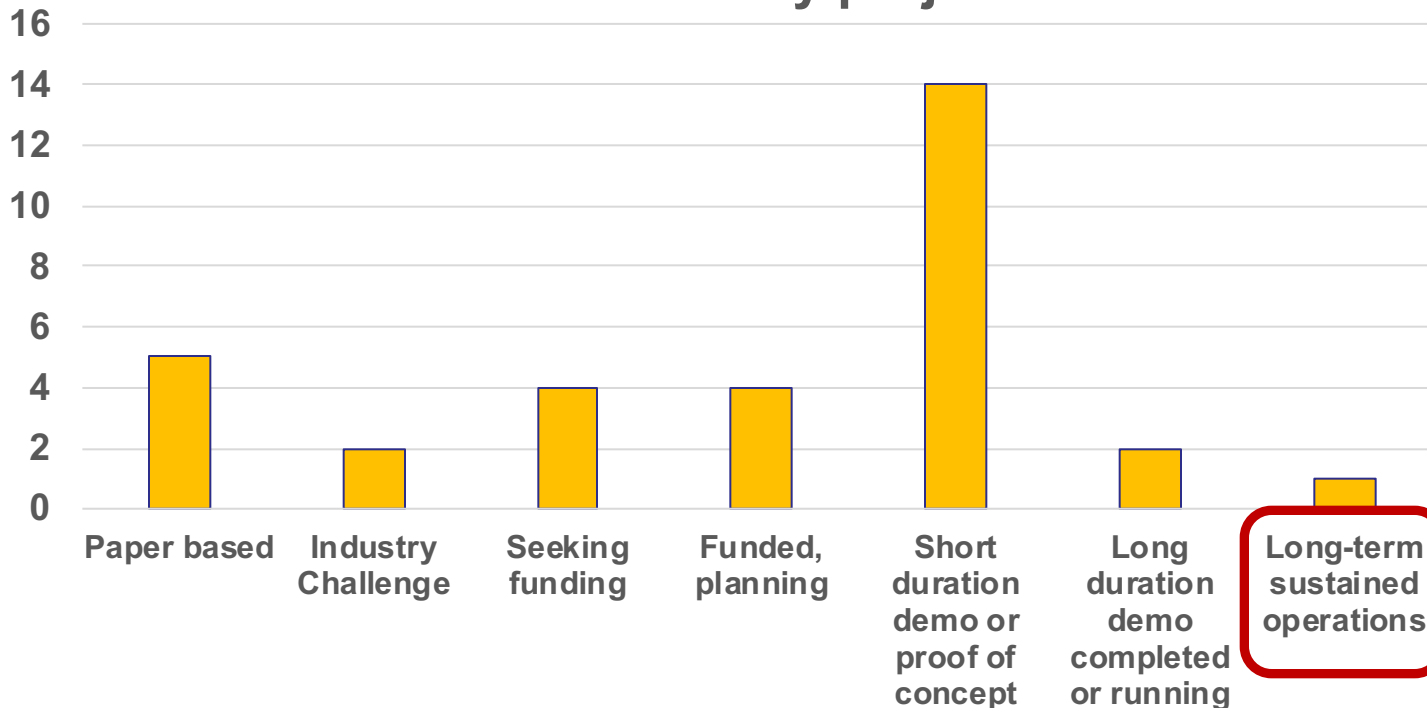
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UAS Project status

- 21 countries + numerous projects
- too few really get off the ground and are continued

Health delivery projects

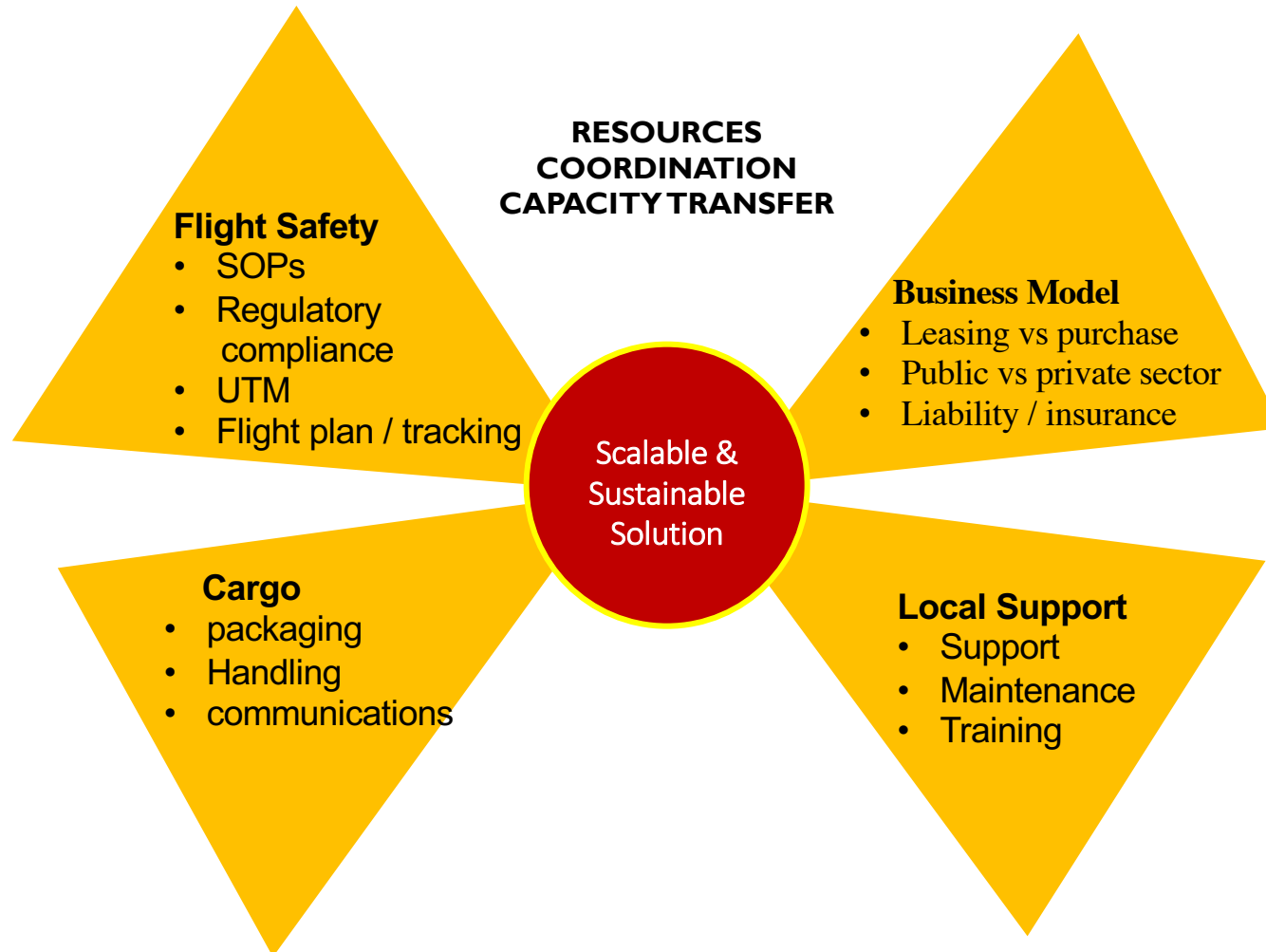
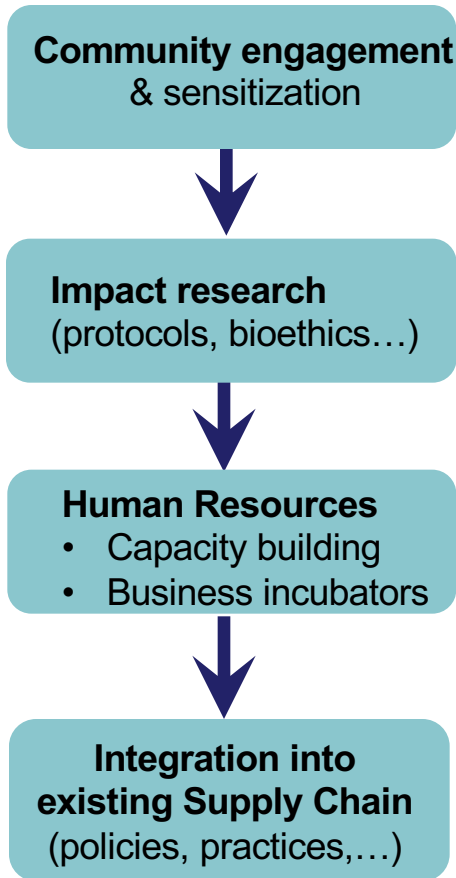


Past or Current in the following countries:

- Bhutan
- Brazil
- Dominican Republic
- DRC
- Ghana
- India
- Kenya
- Liberia
- Madagascar
- Malawi
- Mozambique
- Papua New Guinea
- Peru
- Puerto Rico
- Rwanda
- Senegal
- Sierra Leone
- Tanzania
- Uganda
- Vanuatu
- Zambia

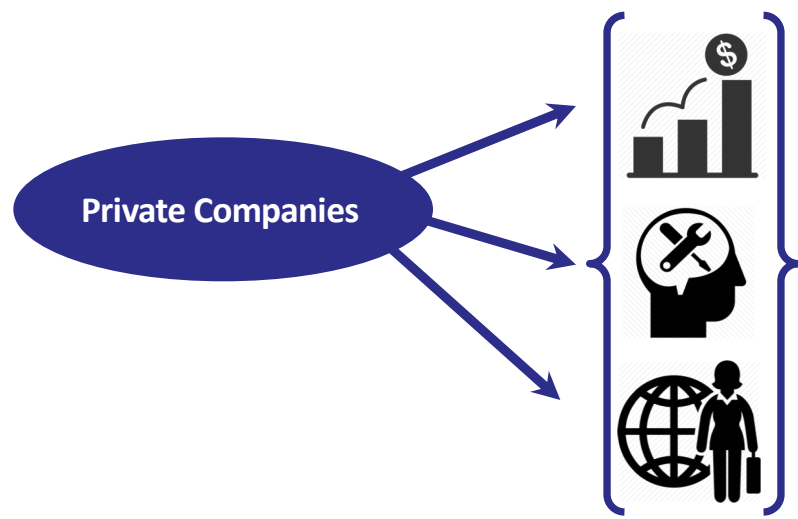
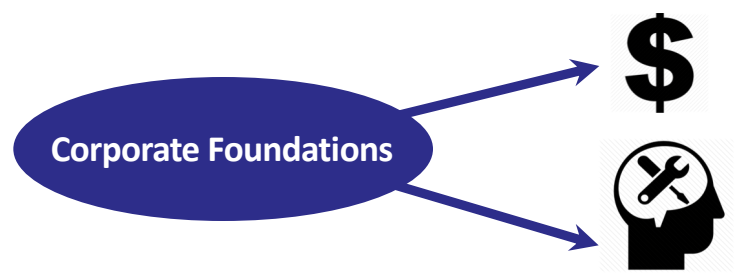


UAS Integration requires a System level change Approach





Partnership Opportunity Optimize the Innovation Disruption!



- Asset-sharing business models?
- Decentralized data, visibility & analytics?
- Improved inventory tracking?



ONGOING PROJECTS Overview

Pacific Islands, Vanuatu: Vaccine deliveries

- ✓ Contracts Awarded
 - *Swoop Aero* from Melbourne, Australia
 - Epi and the Shepherd Islands
 - Erromango Island
 - Wingcopter from Darmstadt, Germany
 - Pentecost Island

December 3-7: Phase I, North Efate Island Trial run

January to March: Phase II, scheduled EPI deliveries





ONGOING PROJECTS Overview

Tanzania: Lake Victoria Challenge

LAKE VICTORIA CHALLENGE

Building a new mobility and delivery paradigm for
African markets using cargo drones.

Conference, Expo and Challenge - June 2019

www.lakevictoriachallenge.org
info@lakevictoriachallenge.org





ONGOING PROJECTS Overview

Tanzania: Lake Victoria Challenge



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Thank you!

***New website (coming soon):
isg-health.org***



Photo Credit: Wingcopter, Tanzania



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