



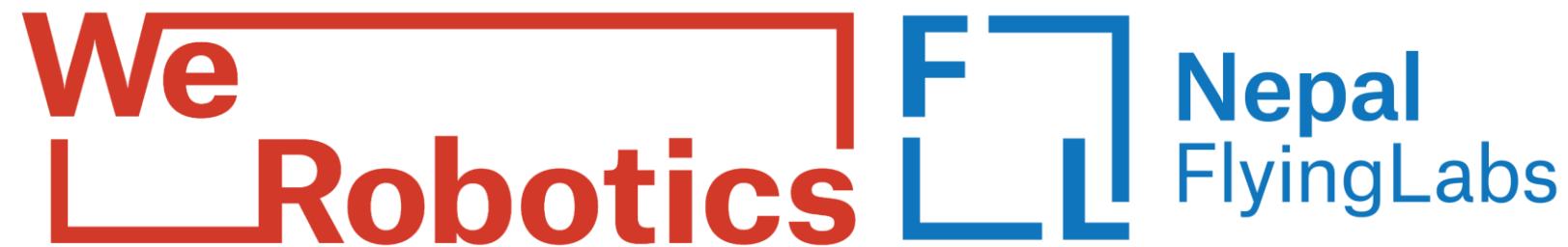
YGPS

Young  
Geospatial  
Professionals  
Summit

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21 November 2018 Deqing, China

# Flying Labs, WeRobotics



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# Nepal: 2015 Earthquakes

Nepal experienced two major earthquakes on April 25 and May 12, 2015 at magnitudes of 7.8 and 7.3 respectively.

Number of people killed  
As of 26 May 2015

**8,673**

Number of people injured  
Source: UNRCO/Gov. of Nepal

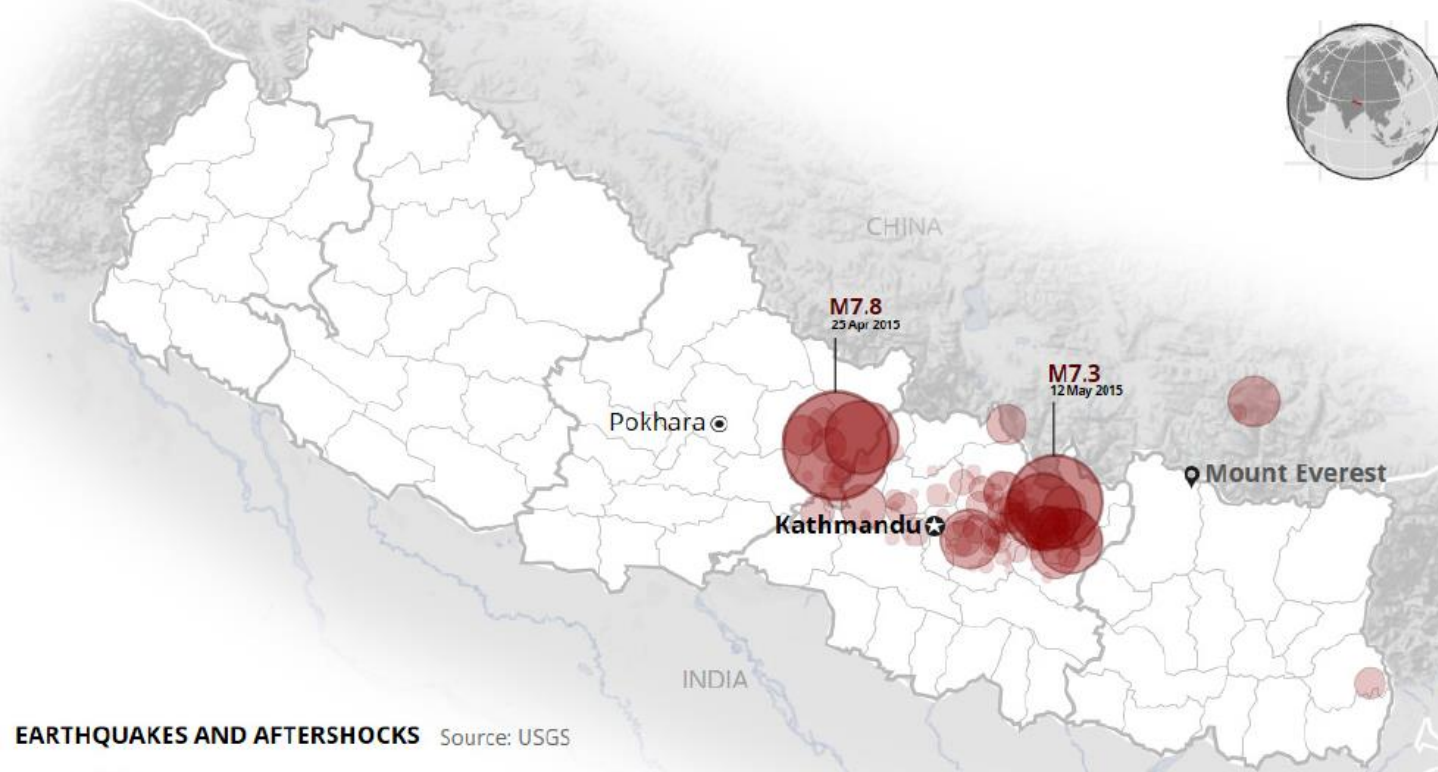
**21,952**

INTERACTIVE MAP

EARTHQUAKES AND AFTERSHOCKS

PEOPLE KILLED BY DISTRICT

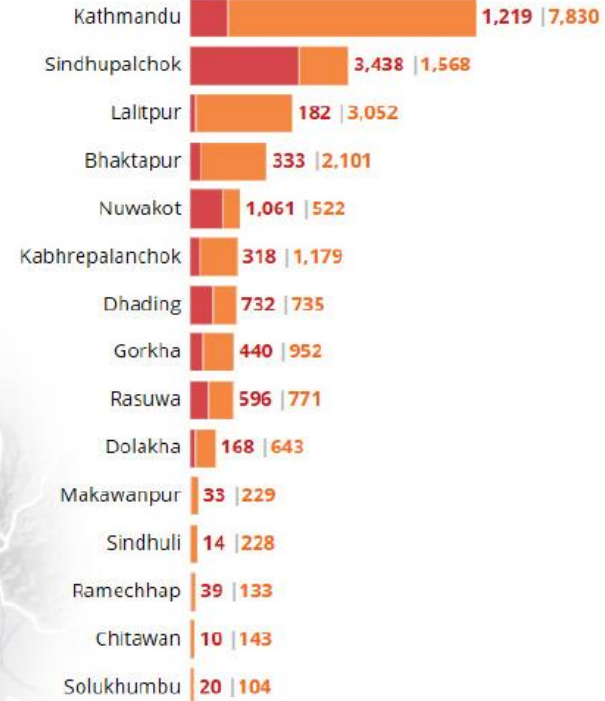
PEOPLE INJURED BY DISTRICT



## PEOPLE KILLED AND INJURED BY DISTRICT

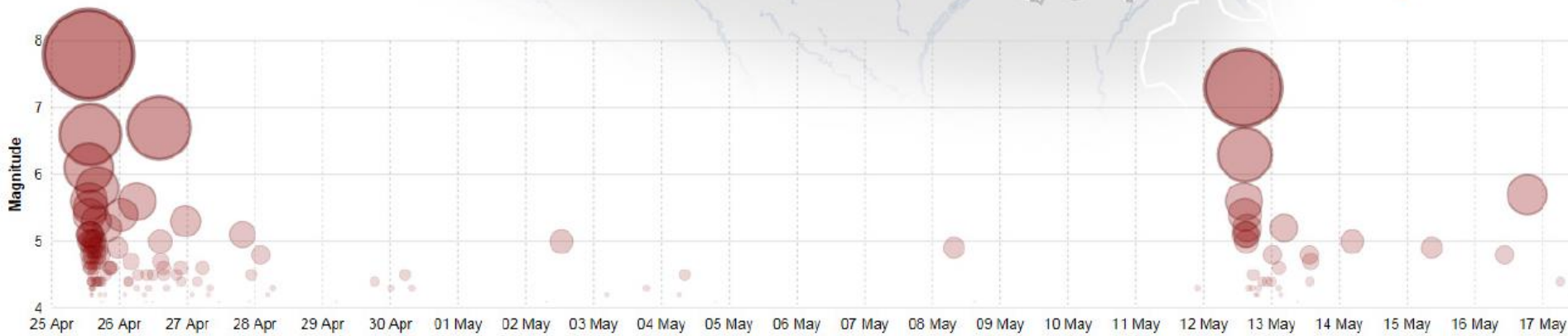
Number of people killed | Number of people injured

Limited to the top 15 districts



## EARTHQUAKES AND AFTERSHOCKS

Source: USGS







sky NEWS HD

LATEST KATHMANDU

**BREAKING NEWS NEPAL EARTHQUAKE  
DRONE FOOTAGE OF DESTRUCTION IN NEPALESE CAPITAL**

14:22 DE 7.8 EARTHQUAKE BREAKING NEWS NEPAL EARTHQUAKE: FOREIGN OFFICE EMERGENCY HELPLIN





Innovations

# In Nepal, a model for using drones for humanitarianism emerges

By **Matt McFarland** October 7, 2015



# Continuation of Drones for Social Good Activities afterwards ???

**If Drone operators aren't already on site by the time disaster strikes, they probably will not arrive in time to be useful.**





# Localization of the Technology







# **WeRobotics:** Inclusive Participation

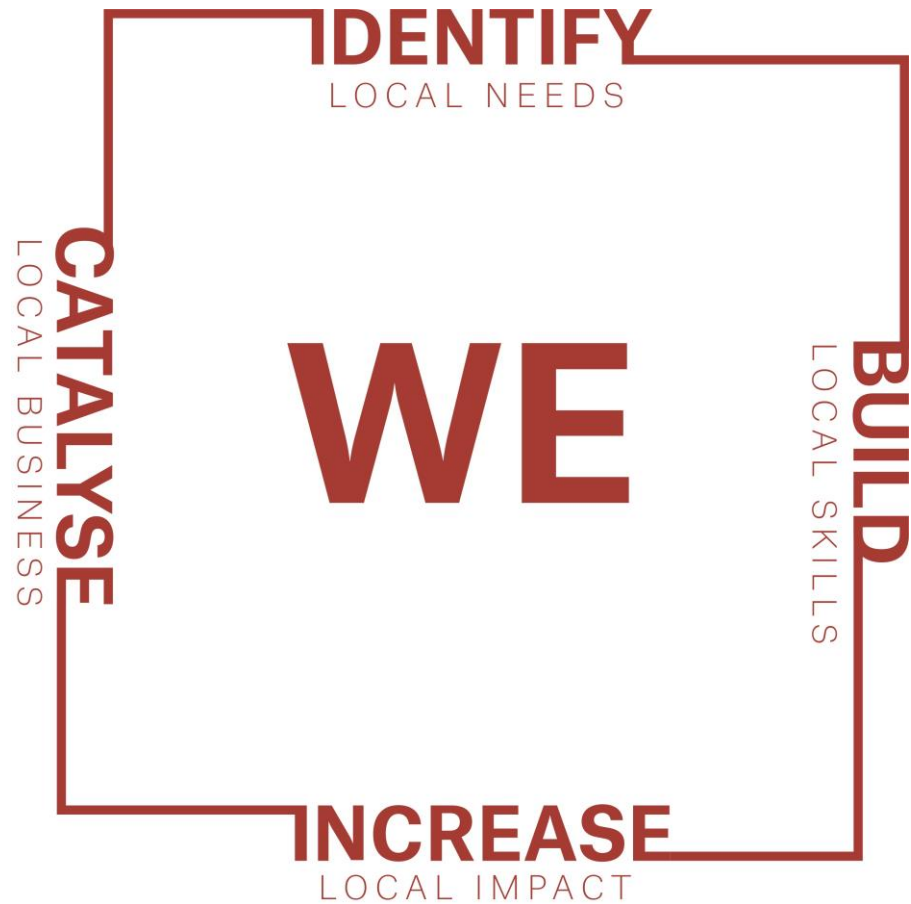
**Building Aid, Health, Development and Environmental solutions by sustainably Localizing Robotics Technologies.**





We  
Robotics

# Flying Labs Framework

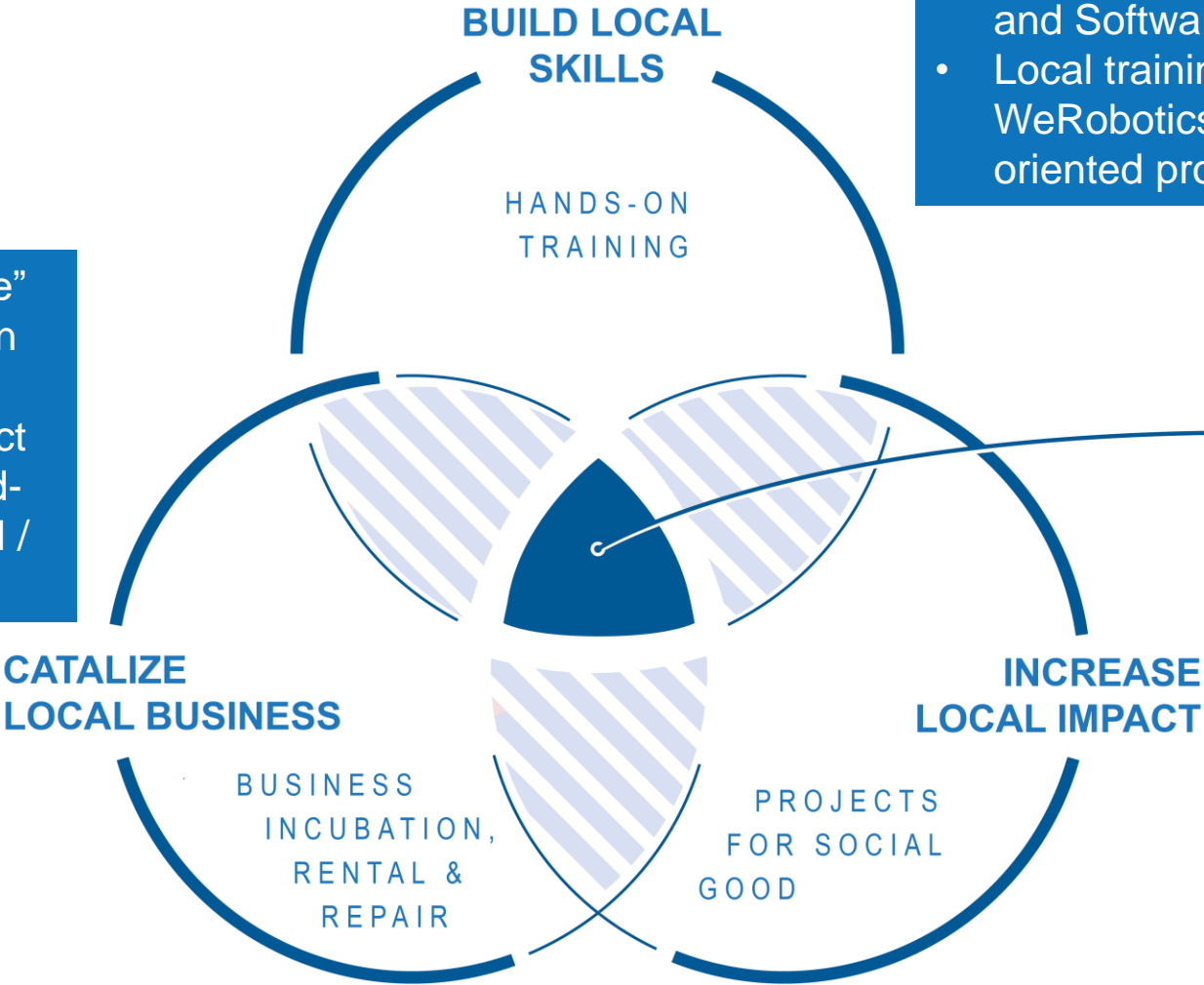


The goal of our Flying Labs is to create local robotics capacity addressing local social challenges.



# WeRobotics Activities

“Drone as a Service”  
Business Incubation  
Programs &  
Facilitation of project  
opportunities / Hard-  
and Software rental /  
Repair capabilities



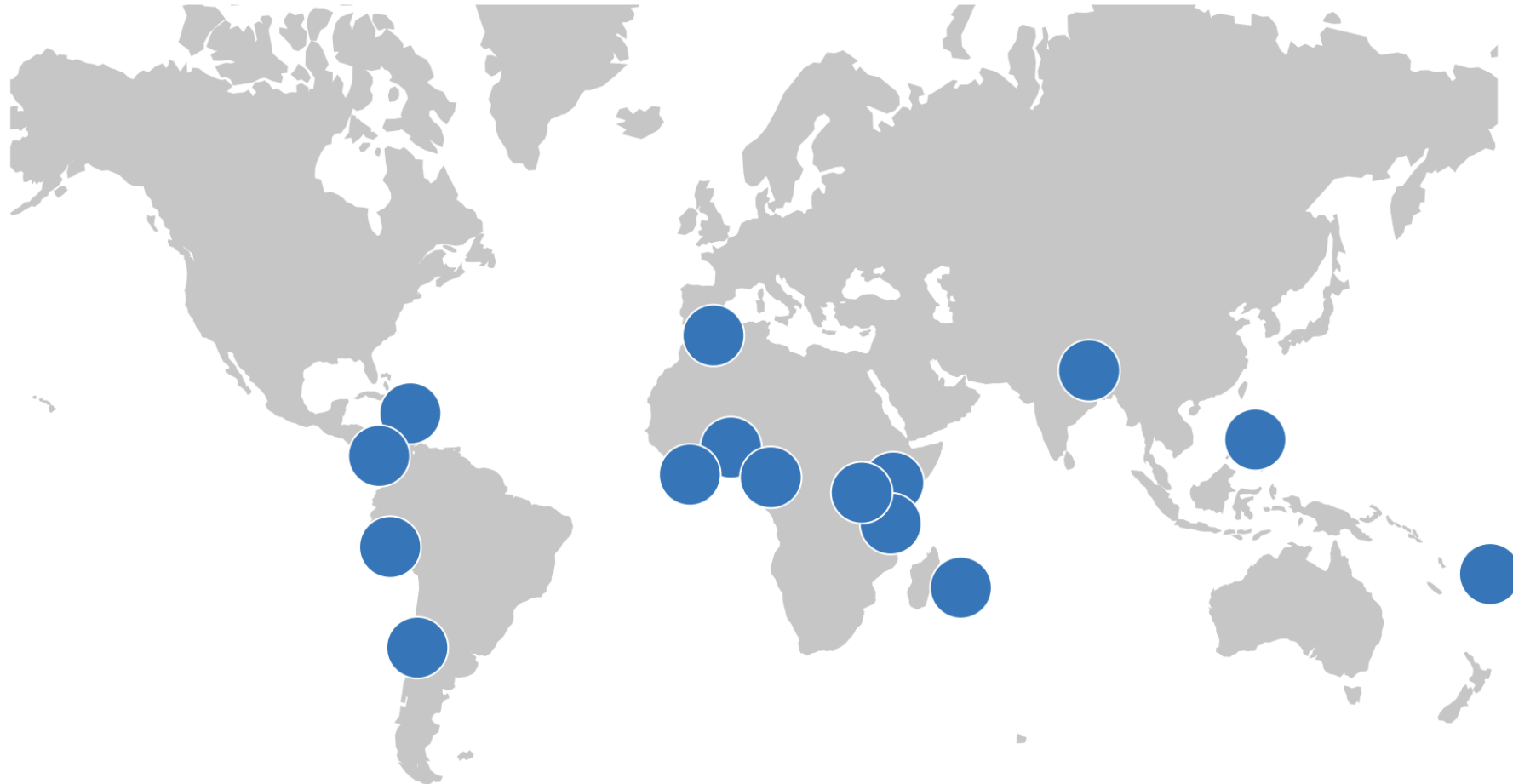
- Trainings**
- Applied Robotics Hardware and Software trainings
  - Local training tracks of WeRobotics sector-oriented program tracks

Facilitate and strengthen local and regional Robotics Eco-System and RaaS marketplace / Link to WeRobotics global community / Provide guidelines and share learnings

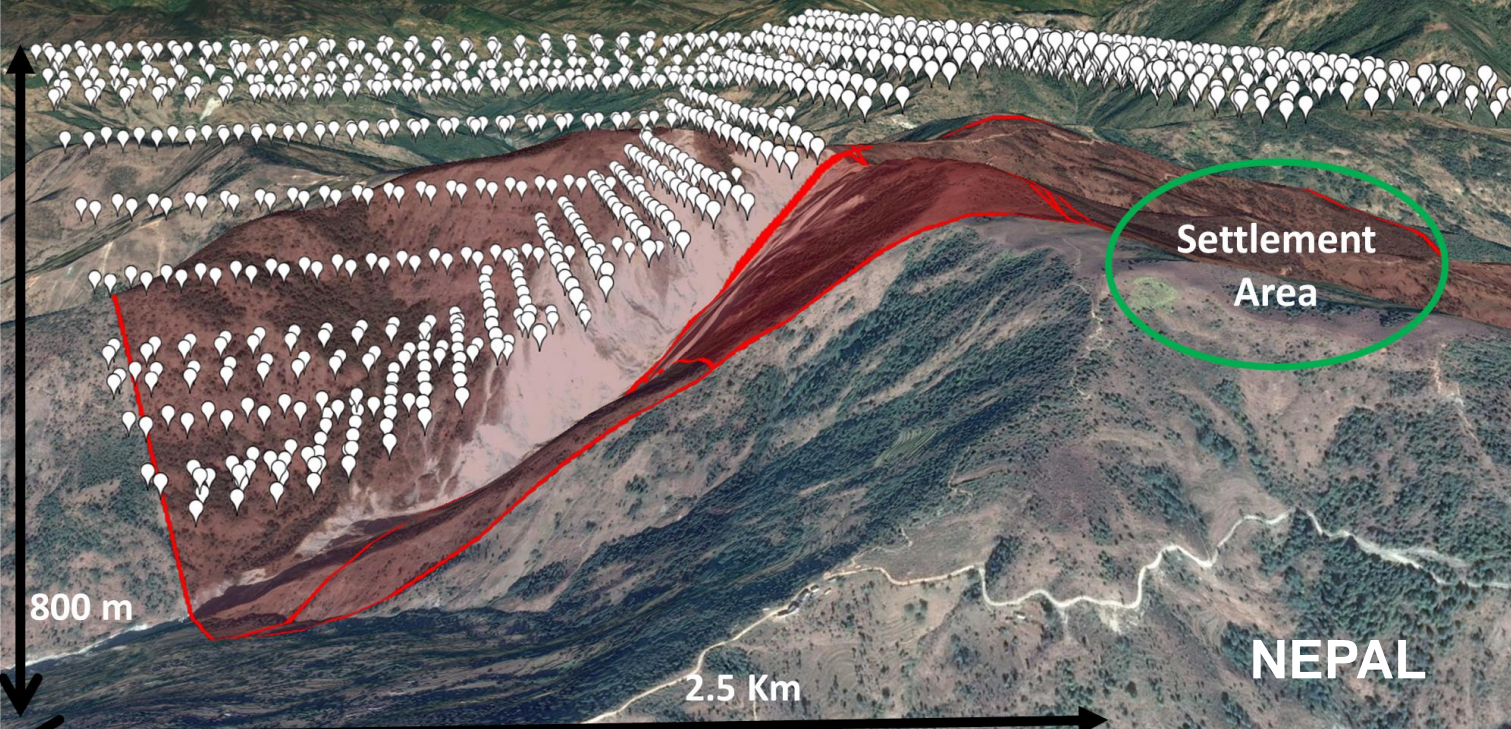
Projects for Social Good sector addressing WeRobotics' sector-oriented program tracks / Advisory services

# Flying Labs Network

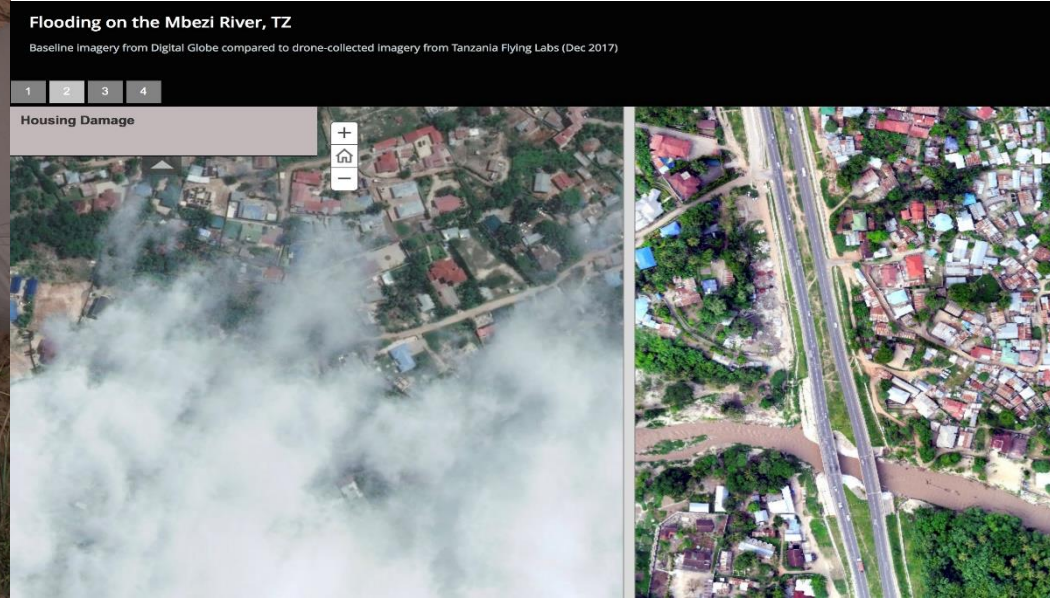
Co-creating a global network of robotics technology knowledge hubs – “Flying Labs”







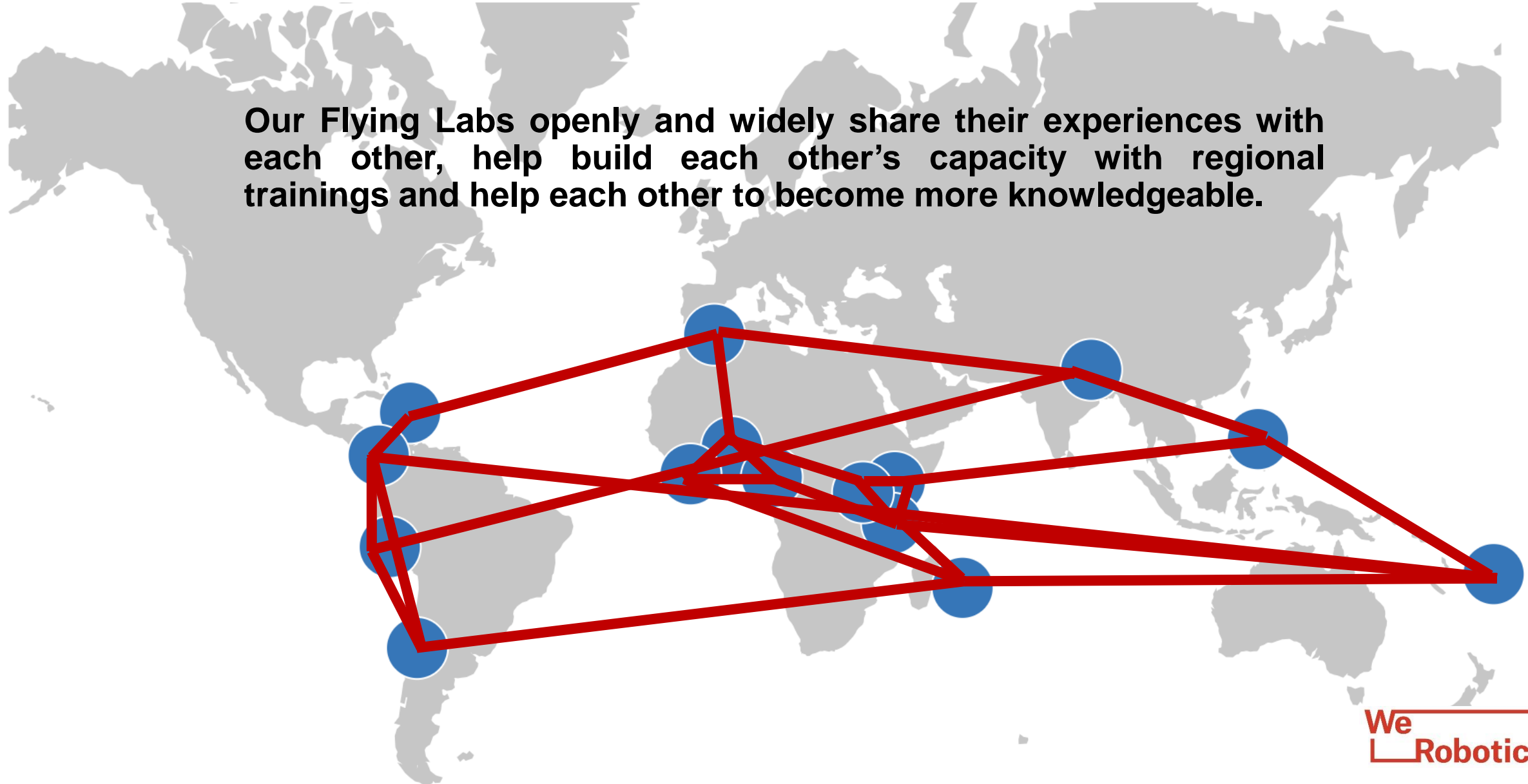
## Flying Labs : As Expert Centers





# South-to-South Collaboration

**Our Flying Labs openly and widely share their experiences with each other, help build each other's capacity with regional trainings and help each other to become more knowledgeable.**





# Drones in Social Good & Research

## Disaster Management (Pre/Post)

Use drones to create 2D and 3D geospatial data products of affected areas to create base layers for local decision making and resilience/rebuilding efforts.

## Disaster Relief

Provide high resolution aerial imagery after natural disasters to create geospatial data products and base layers for disaster relief management plans.

## Nature Conservation & Climate Change

Provide high-resolution geospatial data supporting research projects and find new ways of addressing nature conservation needs and climate change issues.

## Health

Identify low-cost ways that provide high-precision health care in remote area setting through cargo and mapping solutions.

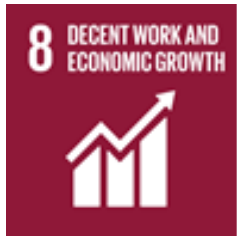
## Agriculture & Land Management

Support local communities & farmers with data for more productive and sustainable farming and land management.

## Development

Create local “Drones-as-a-Service” markets and ecosystems to address the 4th industrial revolution.

# Addresses 9 SDGs



LOCALIZE

FLYING LABS

SUSTAINABLE & MEANINGFUL

ACCELERATE

PROGRAMS & TRAININGS

SHARE

COMMUNITY





*“Give a man a fish, and you feed him for a day.  
Teach a man to fish and you feed him for a lifetime.”*

**- Lao Tzu**

## New Japan Flying Labs Committed to Build a More Resilient Country



After a first [webinar](#) held in Japan, we are launching our highly anticipated [Japan Flying Labs](#) plan: building a more resilient country.

Run by Prof. Furuhashi and endorsed by [NPO Crisis](#), [AOYAMA VISION](#), Japan's leading environmental and education organization.

With the help of fixed-wing drones, we are sharing Japanese knowledge and experience with disaster-hit and disaster-prone countries to inform decision-making.

### Youths in Fiji to Map Informal Settlements Using Drones

Fiji was largely spared the wrath of Cyclone Gita, but the high-end category 4 Cyclone devastated the islands of Tonga nearby. As typically happens, the drone companies that international organizations are now hiring to carry out aerial surveys of the damage come from Australia and/or New Zealand. These foreign companies usually arrive weeks after the disaster. They also charge high consulting fees, and rarely speak the local language. In addition, they typically stay a week or two at most, which means aerial imagery is not available during the recovery and reconstruction phase. Lastly, foreign companies rarely if ever have time to build local capacity, let alone the know-how to sustainably transfer drone technology to local partners.

Our mission at WeRobotics is to localize appropriate robotics technology by placing drone solutions directly in the hands of local professionals. We do this through our growing network of Flying Labs—local action labs run



## Join our Drone Training in Tanzania!

We held our first ever [regional drone training](#) in Tanzania last year and it was a [huge success](#)! We received well over 60 applications from dozens of countries including India, Swaziland, South Africa, Rwanda, Zambia, Ethiopia, Kenya, Nigeria, Ghana, Cameroon and Zimbabwe. So we're offering our professional drone training again this year on March 12-14 in Dar es Salam in collaboration with the World Bank and the Hewlett Foundation.



**Amrita**  
*-Youngest Lab Coordinator*





THANK YOU



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