



# BIG DATA

## FOR SOCIAL GOOD

**Painel Telebrasil**  
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# About the GSMA

THE GSMA  
WAS FOUNDED IN  
**1987**

15 OFFICES  
WORLDWIDE



SHANGHAI



SAN FRANCISCO



BEIJING



SÃO PAULO



NAIROBI



NEW DELHI



LONDON



DUBAI



ATLANTA



BRUSSELS



BARCELONA



HONG KONG



BRASILIA



BUENOS AIRES

Connecting everyone and  
everything to a #betterfuture



The mobile industry is the  
first to formally commit  
to the UN Sustainable  
Development Goals



The GSMA  
represents  
the interests  
of mobile  
operators  
worldwide



UNITING  
NEARLY  
**800**  
MOBILE  
OPERATORS



WITH ALMOST  
**300**  
COMPANIES  
in the broader mobile ecosystem



The world's leading mobile industry events,  
Mobile World Congress and Mobile World  
Congress Shanghai, together attract

**160,000+**

people from across the globe each year

The GSMA works to deliver a regulatory environment  
that creates value for consumers by engaging  
regularly with:



MINISTRIES  
OF TELECOMS



TELECOMS  
REGULATORY  
AUTHORITIES



INTERNATIONAL &  
NON-GOVERNMENTAL  
ORGANISATIONS



CONNECTING  
**23,000+**  
Industry Experts

Exclusively for GSMA Members,  
InfoCentre<sup>2</sup> is your place to  
connect with a global  
community of industry experts

GSMA Working Groups  
provide frameworks and  
standards in commercial,  
operational and  
technical matters that help  
maintain and advance  
mobile industry ecosystems



**8.1  
BILLION+**

MOBILE CONNECTIONS  
WORLDWIDE



The Mobile Industry Purpose

CONNECTING  
**EVERYONE**  
— AND —  
**EVERYTHING**  
—  
*to a* BETTER  
**FUTURE**





# Big Data and Social Good



## Urgent needs

**1.8**  
Billion

Number of people affected by a **disaster** in the last decade

**15**  
Million

Number of people who die as a result of **infectious diseases** each year



## Mobile Big Data can help



Mobilising Big Data for **people in need**



Providing **actionable** insight



Enabling **effective** and **efficient** response



Ensuring a **big impact** where it **matters** most

Identifying where people are and moving is essential to **understand** and effectively **respond** to **disease** outbreaks and spread, natural **disasters** and **environmental** issues



# The GSMA Big Data for Social Good Initiative

GSMA

Industry Purpose

SDG Accelerator

BD4SG

- The Big Data for Social Good (BD4SG) initiative was launched at **Mobile World Congress 2017**
- Backed by **20 operators** accounting for over two billion connections in over 100 countries and an advisory panel of **11 global agencies and partners**
- After first wave of trials showcasing big data capabilities in **epidemics & health**, the initiative is expanding to focus its next wave on **disaster preparedness & climate impacts**
- In these trials, MNOs are capturing anonymised, aggregated mobile indicators in a consistent output format, whilst **respecting and protecting the privacy of individuals** via an agreed Code of Conduct

# Value of Mobile Big Data

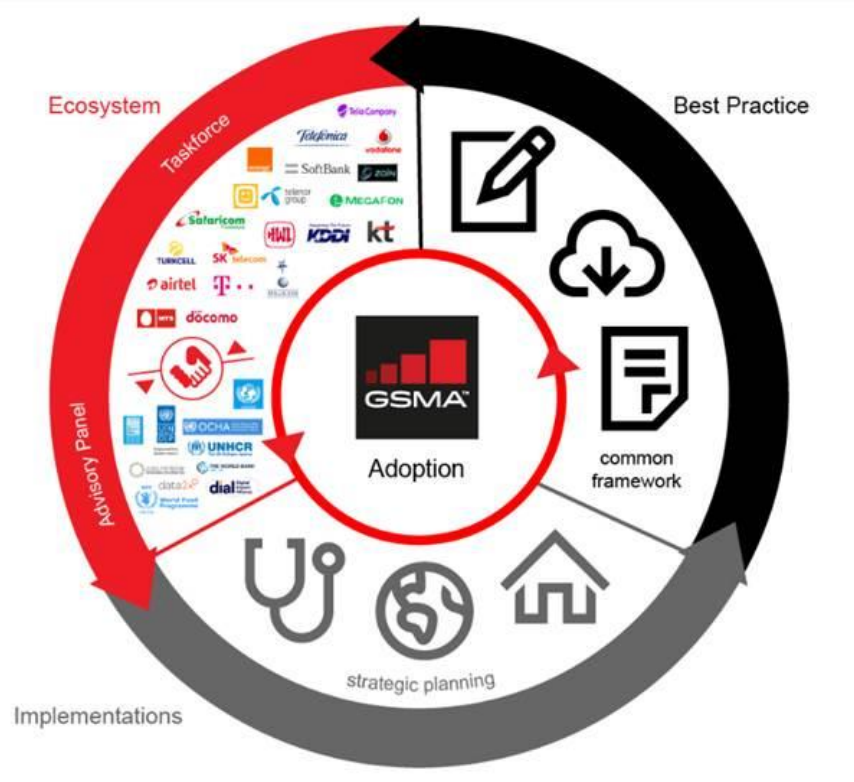
Mobile network operators capture location and usage information that are

- **aggregated** and **anonymised**
- delivering **valuable insights** to drive better **decision-making**
- whilst **respecting** and **protecting privacy**



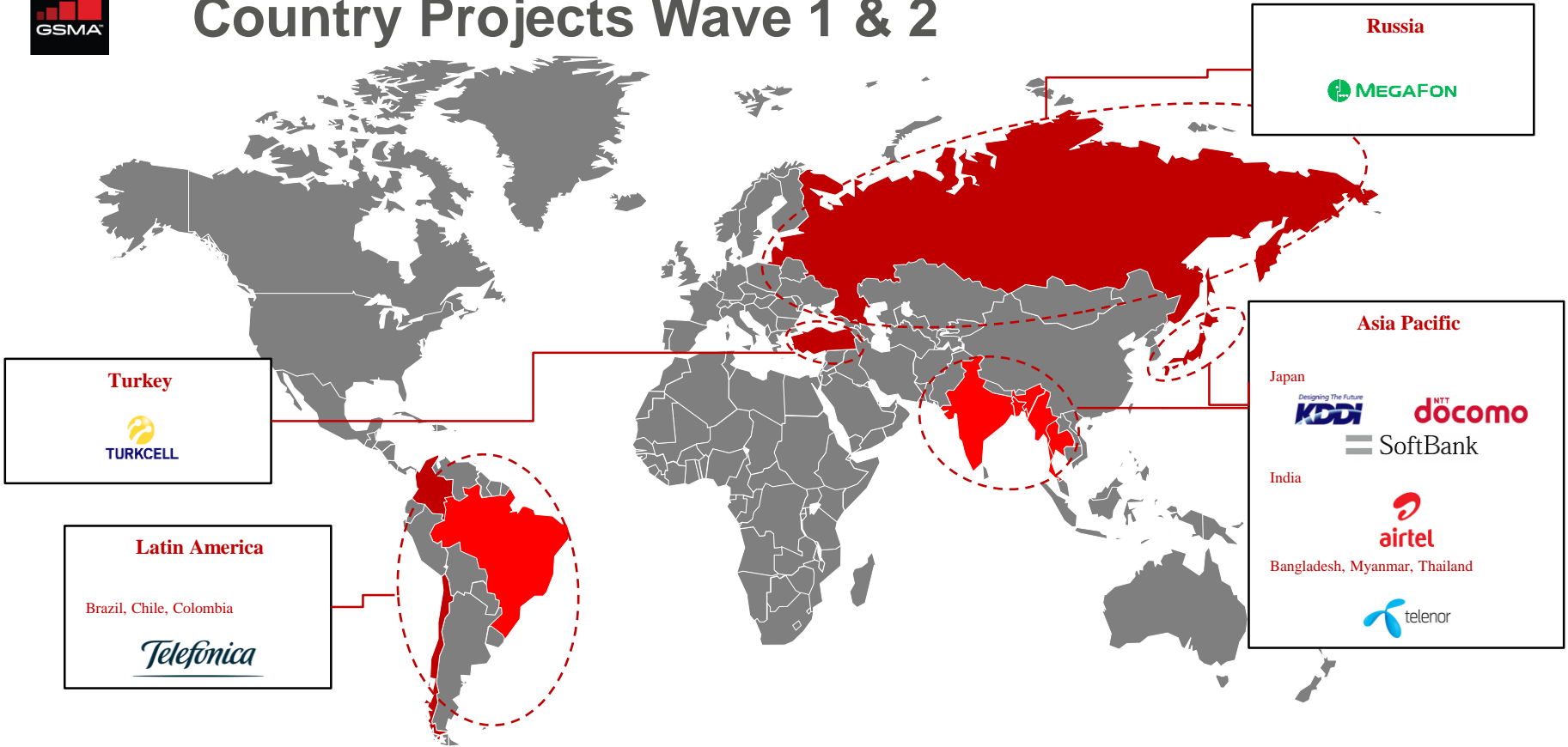


# Key Pillars and Approach





# Country Projects Wave 1 & 2



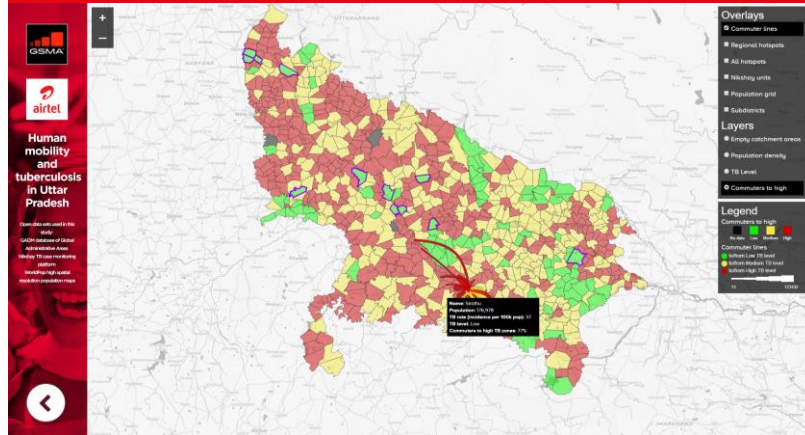




# Tuberculosis in India

## INDIA

### Tuberculosis





# Tuberculosis in India

## Challenge

- Tuberculosis is a major health burden in India, where c. 480k people die and 2.8 million new cases occur annually (WHO, 2016)
- The government of India has established a National Strategic Plan to end tuberculosis by 2025

## Solution

- Collaboration between WHO/ ITU Be He@lthy Be Mobile, Airtel and GSMA to understand value of mobile Big Data for health systems
- Leveraging anonymised, aggregated mobile and TB case data to create maps of TB incidence rates and assess transmission patterns

## Impact

- The Proof of Concept predicts locations at risk of increasing TB rates, or where missing (undiagnosed) cases might be found
- This can help target interventions such as awareness raising, mobile clinics, vaccination campaigns, or tobacco cessation initiatives



World Health  
Organization



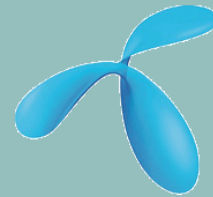
BE  
HEALTHY  
BE  
MOBILE  
MOBILE TECHNOLOGY FOR HEALTH



# Multi-Drug Resistant Malaria in Asia Pacific

## BANGLADESH- MYANMAR-THAILAND

Multi-drug resistant malaria



telenor  
group



**HARVARD T.H. CHAN**  
SCHOOL OF PUBLIC HEALTH



# Multi-Drug Resistant Malaria in Asia Pacific

## Challenge

- Multi-Drug Resistant Malaria has emerged in Cambodia and is spreading across international borders

## Solution (ongoing)

- Aim is to model the population movements that spread drug resistant forms of malaria in Bangladesh, Thailand and Myanmar
- Telenor providing aggregated, anonymised mobility data and Harvard School of Public Health developing epidemiological analysis

## Potential Impact

- Identification of the routes of travel that spread drug resistance
- Identification of high-risk regions to target interventions and education



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SCHOOL OF PUBLIC HEALTH



# Earthquakes Preparedness in Japan

**JAPAN**

Earthquake Preparedness



**KDDI**

**NTT docomo**

**SoftBank**



# Earthquakes Preparedness in Japan

## Challenge

- Japan lies on a tectonic fault line and major earthquakes are a relatively frequent occurrence
- Earthquakes can cause huge destruction and disruption, displacing people from their homes and causing transport chaos

## Solution (ongoing)

- The Japanese mobile operators are collaborating with the Cabinet Office to produce displacement and transport maps, overlaid with seismic activity
- This will allow real-time and predictive analysis of population locations and transport routes

## Potential Impact

- Knowing how many people were in the affected region at the time of a disaster, where they have been displaced to, and which transport routes are still passable, is of huge value to emergency response efforts, allowing faster and more accurate decision-making and evacuation planning



**Our goal is to save lives.  
Collaboration between public  
and private sectors is at the  
heart of achieving the UN  
Sustainable Development goals**

**17** PARTNERSHIPS  
FOR THE GOALS



