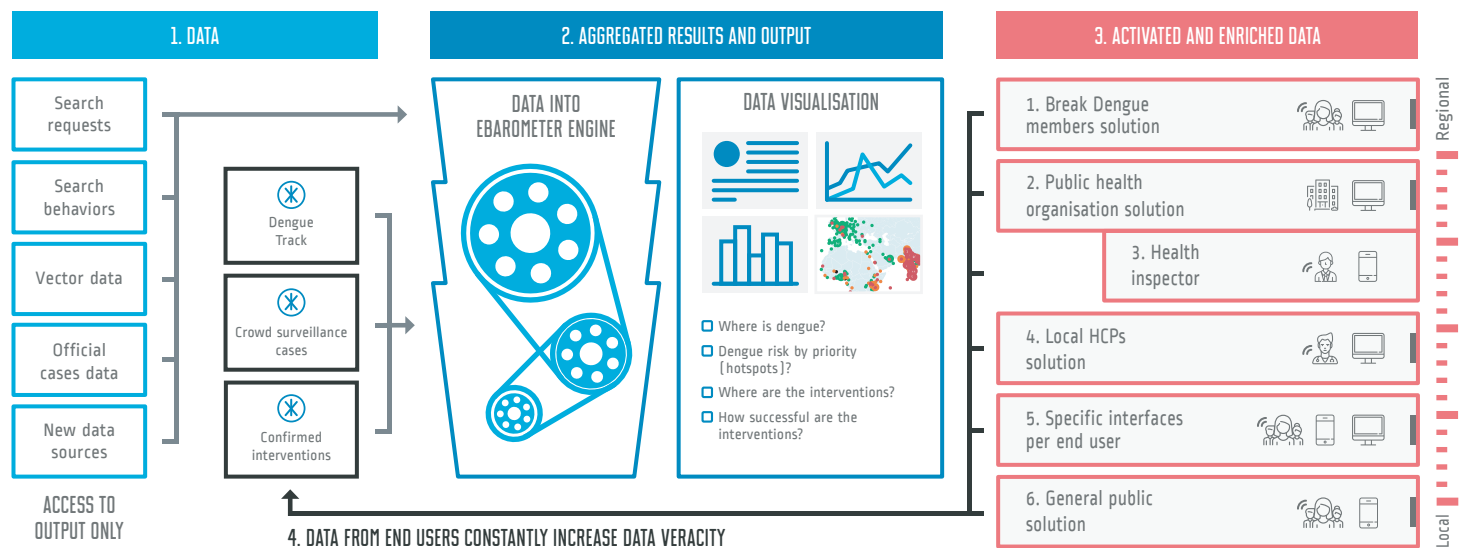# Break Dengue

THE DENGUE EBAROMETER

The eBarometer brings together multiple data sources ① including traditional epidemiological sources, search queries, crowd-surveillance from Dengue Track, social media, and potentially other relevant or complementary data from existing or new sources generated by the partnership.

The data is cleaned, assimilated and modeled individually per source and then aggregated into multi-source models ② . Aggregated data is visualized and delivered in a global and regional format to highlight global dengue trends.

Data output is then made actionable both in terms of format and through specific channels to various public health actors ③ . Dedicated interfaces such as websites and apps are designed according to the

needs of different end users from the ground to regional level, including healthcare professionals, health inspectors, laboratories, hospitals, schools, the general public and Break Dengue partners. Each end user receives targeted information about dengue (e.g. geolocalized outbreaks on a map, access to a searchable dashboard).

And finally, each end user in turn can submit their own observed data (confirmed dengue cases, on site interventions, breeding sites, etc.) that will feed back into the eBarometer and create a positive feedback loop ④ , self-enriching the dataset and helping measure impact of various activities such as vector control campaigns, vaccine prevention, awareness and sensibilization or anti viral campaigns. The whole system will create ever-greater value and impact than the sum of its parts.

1. DATA

- Search requests
- Search behaviors
- Vector data
- Official cases data
- New data sources

ACCESS TO OUTPUT ONLY

- Dengue Track
- Crowd surveillance cases
- Confirmed interventions

2. AGGREGATED RESULTS AND OUTPUT

DATA INTO EBAROMETER ENGINE

DATA VISUALISATION

- ☐ Where is dengue?
- ☐ Dengue risk by priority (hotspots)?
- ☐ Where are the interventions?
- ☐ How successful are the interventions?

4. DATA FROM END USERS CONSTANTLY INCREASE DATA VERACITY

3. ACTIVATED AND ENRICHED DATA

1. Break Dengue members solution
2. Public health organisation solution
3. Health inspector
4. Local HCPs solution
5. Specific interfaces per end user
6. General public solution

Regional — Local

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1. Break Dengue members
- Privileged access
- Searchable dashboard
- Regional risk map - dengue hotspots by priority and interventions
- Assess interventions
- Identify intervention sites

2. Public health organisation solution
- Searchable dashboard
- Regional map showing risk zones by priority and interventions
- Early warning system
- Report cases
- Identify risk areas
- Apply and assess interventions

Receive / Input   Give back / Output

3. Health inspector solution
- Outbreak alerts
- Monitor intervention
- Report breeding sites
- Report interventions

4. Local HCPs solution
- Searchable dashboard
- Localized map showing cases and risk zones
- Localized early warning system
- Confirm cases
- Log interventions

5. Specific interfaces per end user
- Searchable dashboard
- Localized map showing cases and risk zones
- Early warning system
- Report cases
- Report interventions

E.g. hospitals, construction sites, schools, laboratories

6. General public
- Localized map showing cases and risk zones
- Outbreak alert
- Dengue prevention toolkits by risk profile
- Crowdsourced reports of symptoms & cases

PARTNER BENEFITS

The eBarometer project is built on a foundation of shared value benefiting supporting partners . They will actively help shape the project to achieve maximum co-impact for this initiative and dengue while enabling individual partner goals to be reached.

- ☐ Have a real world test environment to make partners data and its models actionable
- ☐ Connect scientifique work and expertise with local public health stakeholders and populations at risk
- ☐ Increase the whole impact through co-impact and measure it
- ☐ A scalable approach which can be extended to other diseases and according to the needs of partners
- ☐ Co-authorship of peer-reviewed publications
- ☐ Co-branding and communication of activities at conferences and through other channels
- ☐ Shared credit for the ground-breaking impact of the eBarometer project

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