Cabinet Office

UK CABINET OFFICE

A global vaccine confidence platform, working in six weeks.

With the World Health Organization, the UK Cabinet Office used Syntasa on Google Cloud to build the Global Vaccine Confidence Platform, showing real-time sentiment toward vaccines across more than 110 countries.

SECTOR
Public sector

INDUSTRY
National government, public communications

REGION
Global, more than 110 countries

DEPLOYMENT
Hosted on Google Cloud, in a private environment the customer owns and governs

PARTNER
World Health Organization, for the UK's G7 presidency

USE CASES
Sentiment analytics, Narrative and topic modeling, Dashboards, Cross-border collaboration

TIME TO MVP
6 weeks
from start to a working platform

COVERAGE
110+
countries with real-time vaccine sentiment

DATA SOURCES
7
public, research and social data sets in one platform

> **Our vision is to build the digital infrastructure, with the World Health Organisation, to enable the collaboration of international, national and local partners, including in vulnerable countries to promote vaccine confidence.**
>
> Gerald Mullally, Director, Government Communication Service International

CONTEXT

Vaccine confidence, as a G7 priority.

Even before the COVID-19 pandemic, the World Health Organization named vaccine hesitancy, the reluctance or refusal to vaccinate despite available vaccines, as one of the top ten threats to global health.

The UK Cabinet Office, which supports the Prime Minister and Cabinet and coordinates the delivery of government objectives, worked with the WHO to build vaccine confidence and address misinformation as a key deliverable of the UK's G7 presidency.

It engaged Syntasa to build a Global Vaccine Confidence Platform on Google Cloud, so stakeholders around the world could understand vaccine hesitancy and collaborate more effectively.

CONSTRAINT

Insight that couldn't cross borders fast enough.

- **Insight locked away.** Governments and the public and private sector held useful data on hesitancy and misinformation, but others often didn't know it existed or couldn't reach it.
- **Lessons too slow to travel.** Successful vaccine-confidence campaigns in one country reached others too slowly to make an impact when it mattered most.
- **Narratives that keep moving.** Misinformation drives hesitancy, and willingness to vaccinate shifts over time and place, so a one-off view goes stale fast.
- **Data under the customer's control.** The software and all data had to sit in a private cloud environment owned and governed by the customer.

TIMELINE

How the work grew.

BEFORE

A top-ten health threat

The WHO names vaccine hesitancy one of the top ten threats to global health.

G7

A UK priority

With the WHO, the Cabinet Office makes vaccine confidence a key deliverable of the UK's G7 presidency.

6 WEEKS

A working platform

Syntasa delivers the minimum viable product of the Global Vaccine Confidence Platform.

NEXT

National instances

Separate national instances let local stakeholders share proprietary data securely.

ABOUT UK CABINET OFFICE

The Cabinet Office is a department of the UK Government that supports the Prime Minister and the Cabinet. Its units support Cabinet committees and coordinate the delivery of government objectives through other departments.

DEPLOYMENT

From scattered data to a shared global view.

Syntasa built the platform with the Cabinet Office, delivering a minimum viable product in six weeks.

01

Bring the sources together

Google COVID-19 Open Data, Google Health Trends, Carnegie Mellon's CovidCast, the COVID-19 World Symptom survey, Signal AI, Twitter and Brandwatch, structured and unstructured, in one platform.

02

Find the narratives

Bigtable, BigQuery and Google Cloud's Natural Language API measure the direction and strength of sentiment, and topic modeling finds the themes emerging in conversations worldwide.

03

Put it in front of communicators

Looker dashboards show undecided populations by country, with country views by age, gender, ethnicity and more, and how narratives relate to vaccination rates.

ARCHITECTURE

The platform, on Google Cloud

Data sources
Open data, health trends, surveys and social media

→

Bigtable and BigQuery
Storage and analysis at global scale

→

Natural Language API
Sentiment and topic modeling

→

Looker dashboards
Global and country views

→

Communicators
Governments, the WHO and partners worldwide

HOW IT WORKS

How the platform reads sentiment

The aim: an up-to-date global view of vaccine hesitancy, so stakeholders can focus on the communities who need help most.

1 **Gather**
Seven public, research and social data sets, structured and unstructured, in one platform.

2 **Analyze**
Google Cloud's Natural Language API measures the direction and strength of sentiment as perception changes.

3 **Find narratives**
Topic modeling on social conversations surfaces emerging themes in vaccine hesitancy around the world.

4 **Show**
Looker dashboards map undecided populations by country and break them down by age, gender and ethnicity.

RESULTS

The numbers.

MEASURE	BEFORE	WITH SYNTASA
Time to a working platform	–	**6 weeks**
Countries covered	–	**110+**
Data sources in one place	Scattered	**7 joined**
View of vaccine sentiment	Hard to reach	**Shared, up to date**

WHY SYNTASA

What made the difference.

- **Speed when it mattered.** Software and expertise that delivered a working platform in six weeks.
- **Language at scale.** Natural language processing and topic modeling to see which narratives emerge.
- **The customer stays in control.** A private, scalable cloud environment owned and governed by the customer.
- **Flexible data ingestion.** Surveys, vaccination metrics, news, social media and search, structured and unstructured.
- **Insight communicators can use.** Intuitive dashboards and maps that show where to focus campaigns.

About Syntasa

Syntasa is the data and AI platform that runs inside your own cloud, turning first-party data into models, audiences and real-time decisions without copying it anywhere else.

Talk with our team
syntasa.com/contact