ISRAELI TECH VS. CORONA
A Guide for Governments

START-UP NATION CENTRAL

With the eruption of the COVID-19 pandemic, Start-Up Nation Central focused its efforts on identifying Israeli "CoronaTech" innovation and making it accessible to decision-makers in Israel and around the world.

Mapping and tagging relevant Israeli technologies on the Finder Innovation Discovery Platform

Introducing Israeli entrepreneurs and technologies to organizations seeking COVID-19 solutions

Launching the CoronaTech Israel Information Hub, promoting knowledge-sharing and rapid collaboration

For additional information, introductions, or large-scale customization, please contact Jeremie Kletzkine, VP Business Development:

jeremie.kletzkine@sncentral.org

Challenge 1: Real time tracking of where and how the virus is moving and spreading

The European Union has ruled that by 2022, all members must have national geographic information alert systems and methods, including, among other application possibilities, online real-or near-real-time mapping of disease cases and of social reactions to disease spread, predictive risk mapping using population travel data, and tracing and mapping super-spreader trajectories and contacts. for timely and effective epidemic monitoring and response. To achieve this, each member - usually the government office that deals with civil defense - has launched a tender for such solutions.

anodot

Anodot offers a turnkey approach to machine learning through an AI-driven platform that continually analyzes and correlates business parameters and provides real-time alerts and forecasts. Anodot has launched a public service that monitors locally reported COVID-19 cases, and notifies users when the number of infected people in a particular region changes significantly.

Deployment stage: Pilot

DIAGNOSTIC ROBOTICS

The Diagnostic Robotics triage system assesses and monitors individuals at risk for COVID-19. The platform can allow governments to remotely monitor virus progression at scale and predict spread of the disease.

Deployment stage: Market ready

CARBYNE

Carbyne offers law enforcement agencies with dynamic tools to safeguard their communities and bring greater operational efficiency to emergency response. Merging data from emergency call centers (911,311), health centers, remote doctors, and state government incident mapping into a single dashboard, Carbyne provides emergency communications centers with real-time information that protects first responders from COVID-19.

Deployment stage: Early stage

EDAS Healthcare enables governments and healthcare systems to screen large groups for respiratory infections, including COVID-19. The company's solution detects the patient's specific infecting pathogen, using only anonymous patient demographics and without any physical tests or equipment. The solution allows for instant and remote detection of infection with over 90% accuracy (~10% false positives) and with ~98% elimination accuracy (~2% false negatives).

Deployment stage: Pilot

Launched by the Israeli Ministry of Health, HaMagen predicts possible user exposure to confirmed COVID-19 patients with a high degree of accuracy by cross-referencing information about the location of confirmed patients with the location of the app user. Users are notified upon the detection of such an event, (including time and location) so that they can be tested and quarantined if necessary.

Deployment stage: Market ready

ConFINE by NGSoft is a smartmobile application that monitors and alerts the public to COVID-19 outbreaks and potential infection. The app enables users to receive personal notifications in case of continuous proximity to infection sources. The app support decision-maker assessment and has been deployed at Ben Gurion Airport.

Deployment stage: Market ready

Track Virus is a global digital solution developed to track and slow the spread of infectious diseases such as COVID-19. The mobile app provides personalized notifications based on users' wellness data and risk of exposure based on currently available epidemiological information. Web services help organizations and health authorities to detect, analyze, and monitor areas of high risk. Data collection and processing are conducted with the utmost respect for user privacy.

Deployment stage: Market ready

Challenge 2: **Screening employees/visitors before they get to the office**

Symptom screening, testing, and contact tracing must be carried out in a way that protects confidentiality and privacy, to the extent possible, and is consistent with applicable laws and regulations.

AnyVision thermal cameras measure body temperature from a distance and determine whether a high temperature is caused by disease or a different cause (e.g., physical activity). The company has also developed a mask detection system. A screen installed in waiting rooms or elevators identifies people wearing masks, with a green "Like" and those not abiding by the rules with a red "thumbs down.

Deployment stage: Pilot

Axonize Smart Hospital Platform enables monitoring of patients in hospital quarantine without direct staff contact. Patients and hospital staff receive ID cards with sensors that identify infected patients, and those in their proximity and broadcast where these patients are located. Based on the distance, staff can identify exactly where sick persons are.

Deployment stage: Pilot

The Binah.ai vital signs monitoring app enables remote, real-time monitoring of vital signs such as heart rate, SpO2, respiration rate, and mental stress through employee smartphones. Oxygen saturation, respiration rate, heart rate and HRV can be easily measured by looking into a smartphone camera.

Deployment stage: Market ready

Corsight face-recognition technology can identify people in real-time with only half their face showing—wearing masks. Corsight technology allows medical teams to open locked areas based on facial recognition, without removing shields or touching electronic locks.

Deployment stage: Early stage

The Papaya Global workforce management platform for global enterprises supports digital management of employees and allows engagement with them before they come to the office to make sure they are healthy.

Deployment stage: Market ready

The SmellTracker online platform is designed to help users self-monitor their sense of smell for the early detection of COVID-19.

Deployment stage: Market ready

Vocalis Health is a state-of-the-art AI method for correlating specific voice behavior with COVID-19 symptoms, enabling identification and monitoring of early symptoms. Healthcare providers leverage remote voice interactions through a call center or smart device in order to passively monitor, index, and track millions of patients living with a range of voice-affecting diseases, such as chronic respiratory or cardiac conditions and depression.

Deployment stage: Pilot

VocalZoom autonomous sensors use contactless, vibration-based technology, with built-in data processing, to monitor the health of industrial equipment for Industry 4.0 applications. The sensors are being repurposed to execute noninvasive skin scans to detect possible COVID-19 symptoms in hospitals and mass transit hubs.

Deployment stage: Early stage

Challenge 3: **Identifying populations with high-risk for COVID-19 exposure before they approach crowded places such as work, schools, and hospitals**

Stopping the spread of COVID 19 requires finding and testing all suspected cases so that confirmed cases are promptly isolated and receive appropriate care, while close contacts are rapidly identified so that they can be quarantined and medically monitored for the 14-day incubation period of the virus. To achieve this, countries and communities must fundamentally increase their capacity to identify suspected cases of COVID-19 in the general population quickly, based on the onset of signs or symptoms.

GlobeKeeper data, gathered from monitoring and tracking team member position, status, and location, can be very relevant when cross referenced with emergency notifications and data derived from applications tracing proximity to coronavirus patients.

Deployment stage: Market ready

The Medorion behavioral AI solution identifies high-impact clinical factors effecting members' behavior and uses these insights, with embedded behavioral science theories, to create personalized engagement plans targeted at individuals who are at highest risk of contracting COVID-19.

Deployment stage: Market ready

The MAISHA Labs AI-driven COVID-19 decision support system helps identify and stratify at-risk populations to prevent exposure; engage patients and monitor clinical outcomes; forecast trends and patient volume in the emergency department; predict ventilator and intensive-care unit utilization as well as inventory management; and provide situational awareness at the hospital and ward level to streamline, coordinate, and monitor patients with COVID-19.

Deployment stage: Pilot

Challenge 4: **Quickly check temperature of a large group of people upon entry to the workplace**

The Iron Drone ThermoGate screening device for remote body temperature measurement has been optimized for places in which mass gatherings take place. ThemoGate can screen up to 1,000 persons per hour with high accuracy.

Deployment stage: Market ready

As an emergency response to the COVID-19 pandemic, Neteera Technologies pivoted its remote contactless sensing platform for human vital signs to serve as a front-line contact-free pre-screening tool for deployment in hospitals, airports, workplaces and public venues. The system rapidly detects such indicators as elevated heart rate, respiration rate and temperature, raising the flag on those in need of attention and assistance.

Deployment stage: Pilot

Vayyar intelligent sensors detect and check vital signs that can indicate early-stage COVID-19 symptoms. The data, including pulse, heart rate variability and respiratory rate, are all measured remotely, without the need for touch.

Deployment stage: Market ready