

INNOVATION TRIGGERED BY THE COVID-19 CRISIS

LEBANESE SUCCESS STORIES

MAY 2020

The global pandemic that has hardly hit all countries has shown that yet again Lebanese are innovators, able to adapt in no time to rapidly changing requirements and support their country in tackling the crisis.

This document aims to list the several solutions put in place by Lebanese innovators, whether companies, SMEs or startups to mitigate the consequences of the current crisis as well as the various initiatives steering the innovation and production towards sectors deemed critical.

Note: This list is non exhaustive and we are in the continuous process of updating it as new innovation come to light

INNOVATION IN TIMES OF COVID

Covid 19 has not only created a severe threat to public health and safety, the pandemic has affected the long term food security, wellbeing and education of millions.

This document lists for each of the aforementioned threats, the innovations put in place and the support initiatives available at the disposal of innovators:

**I. INNOVATIVE
PRODUCTS
& SOLUTIONS**

**II. SUPPORT
PROGRAMS**

**III. OTHER
INITIATIVES**

I. INNOVATIVE PRODUCTS & SOLUTIONS



INDEVCO & AFFILIATED PHOENIX STEP-IN TO DESIGN VENTILATORS

Indevco Industrial Group primarily specialized in the production of packaging, plastics, paper, tissues and other disposables, joins efforts with its affiliate Phoenix Co. to produce ventilators.

The innovation, which will benefit the country's intensive care units, was built by the engineering and technical teams at Phoenix Co. in compliance with international specifications as well as advanced and versatile technologies.

www.indevcogroup.com



A NEW LIFE SAVING INITIATIVE BY THE TECHNICA INTERNATIONAL TEAM

After weeks of hard work behind the scenes, the Technica International team with the collaboration of Holy Spirit University of Kaslik (USEK) and the Notre Dame des Secours University Hospital have launched the final prototype of the new ventilator under the name of "AmbuVent" in compliance with worldwide standards for health and safety.

The main medical components of this ventilator abide by the standards of Project Libnor (The Lebanese Standards Institution), having added an advanced electronic monitoring system which allows the medical staff to control and monitor its operation and was successfully tested in ICUs.



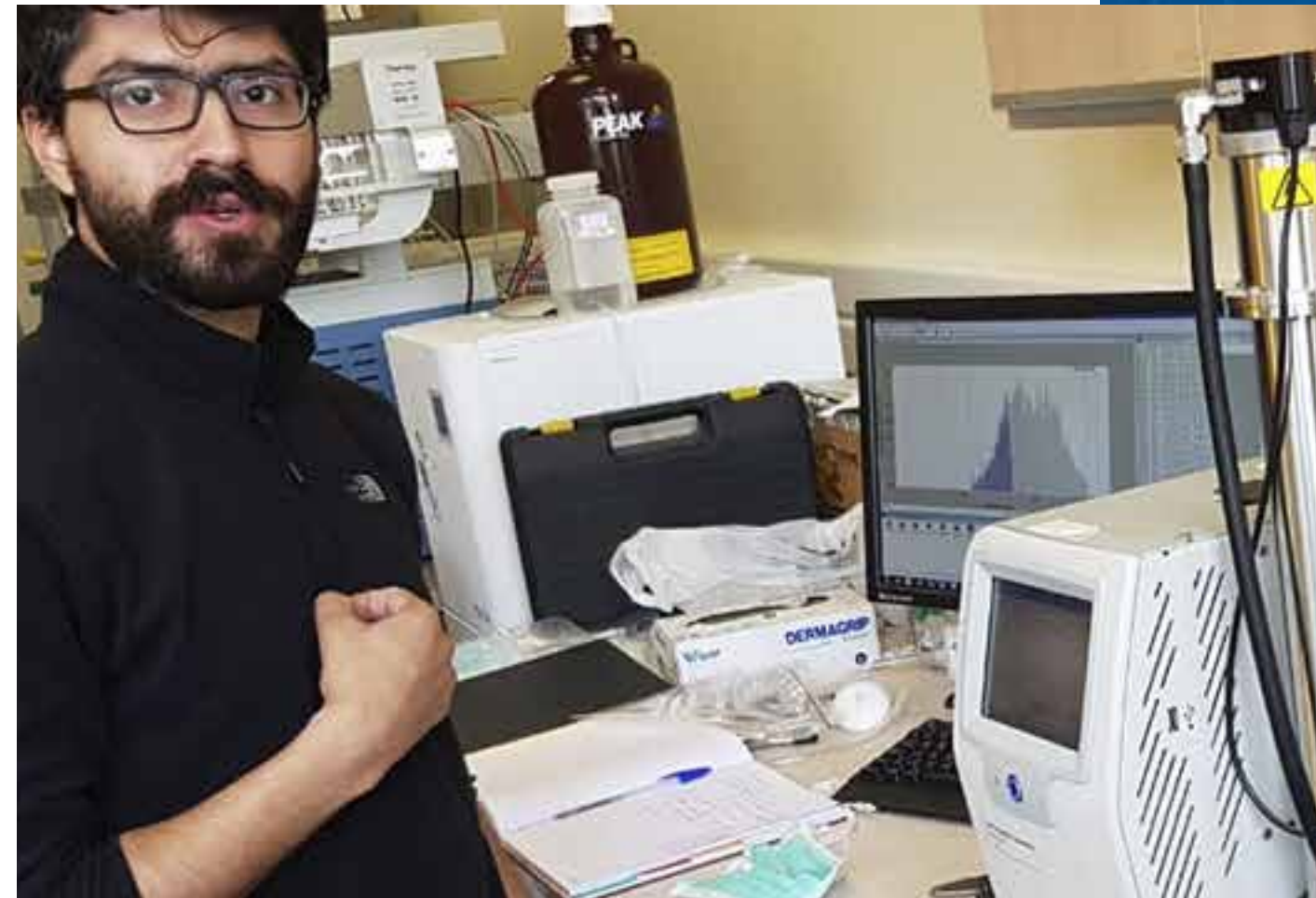
I. INNOVATIVE PRODUCTS & SOLUTIONS



AMERICAN UNIVERSITY OF BEIRUT JOINS THE FIGHT AGAINST CORONAVIRUS THROUGH ITS COVID19FABLAB!

At the newly founded Covid19FabLab within the **Maroun Semaan Faculty of Engineering at the AUB (MSFEA)**, the team is working around the clock designing, prototyping, and testing respirators and masks made from locally-sourced materials to address the global shortage of personal protection equipment. This project aims to provide medical personnel with a reusable respirator mask to guard against inhalation exposure to COVID-19 virus particles. All design files and related information will be made available to public so that facilities around the world can make their own.

www.aub.edu.lb/msfea/Covid19FabLab



I. INNOVATIVE PRODUCTS & SOLUTIONS

LOCAL ARCHITECTS SHIFT EFFORTS TO PRODUCE 3D MASKS

Architect Edgar Meksass is using a Swedish mask design that protects the eyes, nose and mouth to produce face masks using 3D printers within 48 minutes. His printers are working around the clock, producing 155 masks a day and are being sold at a nominal price on the local platform beiruting.com. The medically certified product is manufactured in a way to minimize the use of germ captive fabrics.



I. INNOVATIVE PRODUCTS & SOLUTIONS

LEBANESE INDUSTRIALISTS TEAM UP TO PRODUCE INNOVATIVE PROTECTION GEARS

The Lebanese industrialist Paul Abi Nasr, CEO of Polytextile group, joins efforts with Dr. Henry Fakhoury to develop protection gears with improved filtration and barrier reducing aerosolization and respiratory dead space, reducing the need for the common combination of the N95 face masks, goggles and face shields.

The end product, which have been developed in coordination with renowned international experts including the Stanford Covid Team, was provided as an in-kind assistance to the Rafic Hariri University Hospital (RHUH).

The completion of this innovative solution relies on a wider collaboration that included a leading paint manufacturer Tinol, as well as volunteers in the printing industry.



I. INNOVATIVE PRODUCTS & SOLUTIONS



A NEW LEBANESE ONLINE SYMPTOM CHECKER

In collaboration with the Epidemiological Surveillance and the Ministry of Public Health in Lebanon, and in line with the World Health Organization's guidelines, the Lebanese startup **trakMD** has developed an online symptom checker and self-help guide for people who suspect having symptoms of COVID-19, or need guidance in this regard.

The online symptom checker allows people to determine if testing is needed and provides information on the nearest testing location, and best course of action. The solution is available in both Arabic and English and can be accessed through the Ministry's mobile app and website.



www.trakmd.com/coronavirus

I. INNOVATIVE PRODUCTS & SOLUTIONS



PROXIMIE IS BEING DEPLOYED ACROSS THE GLOBE TO SUPPORT THE GLOBAL FIGHT AGAINST COVID-19.

The Lebanese scaleup Proximie is using its technology platform to support more than 50 Hospitals in the UK and US and internationally by remotely connecting self-isolating healthcare professionals to the front line to support their colleagues in trauma, emergency operating rooms and ICU facilities. By maximizing healthcare resources, scaling expertise, and minimizing exposure, the Tech startup is helping save lives while ensuring every patient has access to the best possible care.

www.proximie.com



SANITA TO EMBARK IN THE PRODUCTION OF SURGICAL MASKS

The manufacturer and distributor of household and personal care products Sanita, plans to embark around the end of April in the production of medical masks type 1, and simplified surgical masks intended for treatment.

PM Neemat Frem, the CEO of the Group announced that "the production capacity will be around 400,000 units per day and would be able to meet more than 80% of local demand for these two types of masks".

www.sanitalb.com



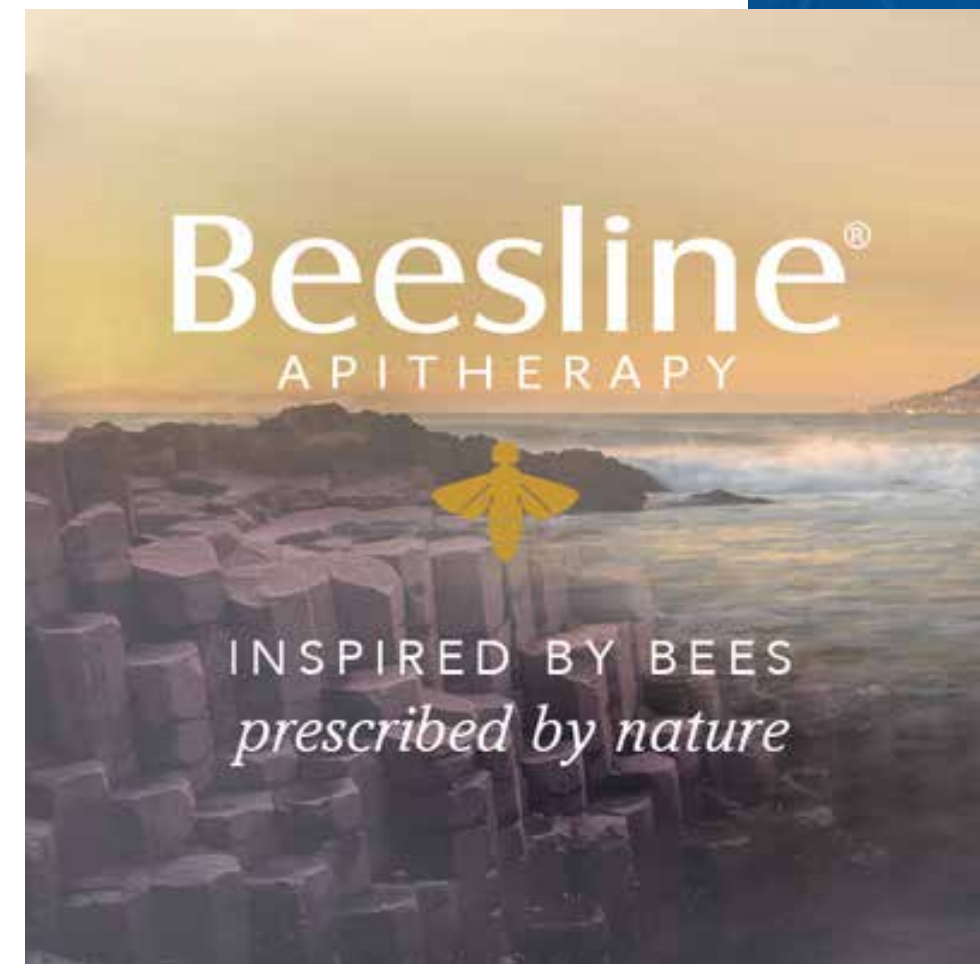
I. INNOVATIVE PRODUCTS & SOLUTIONS



BEESLINE DEDICATES ITS PRODUCTION LINES TO SANITIZING PRODUCTS

Co-founded by Mohamad Arayssi, and Maha Arayssi, the Lebanese natural cosmetic brand based on Apitherapy Beesline is dedicating its factory to produce personal hygiene and sanitizing products such as sprays and gels.

www.beesline.com/me/about



I. INNOVATIVE PRODUCTS & SOLUTIONS

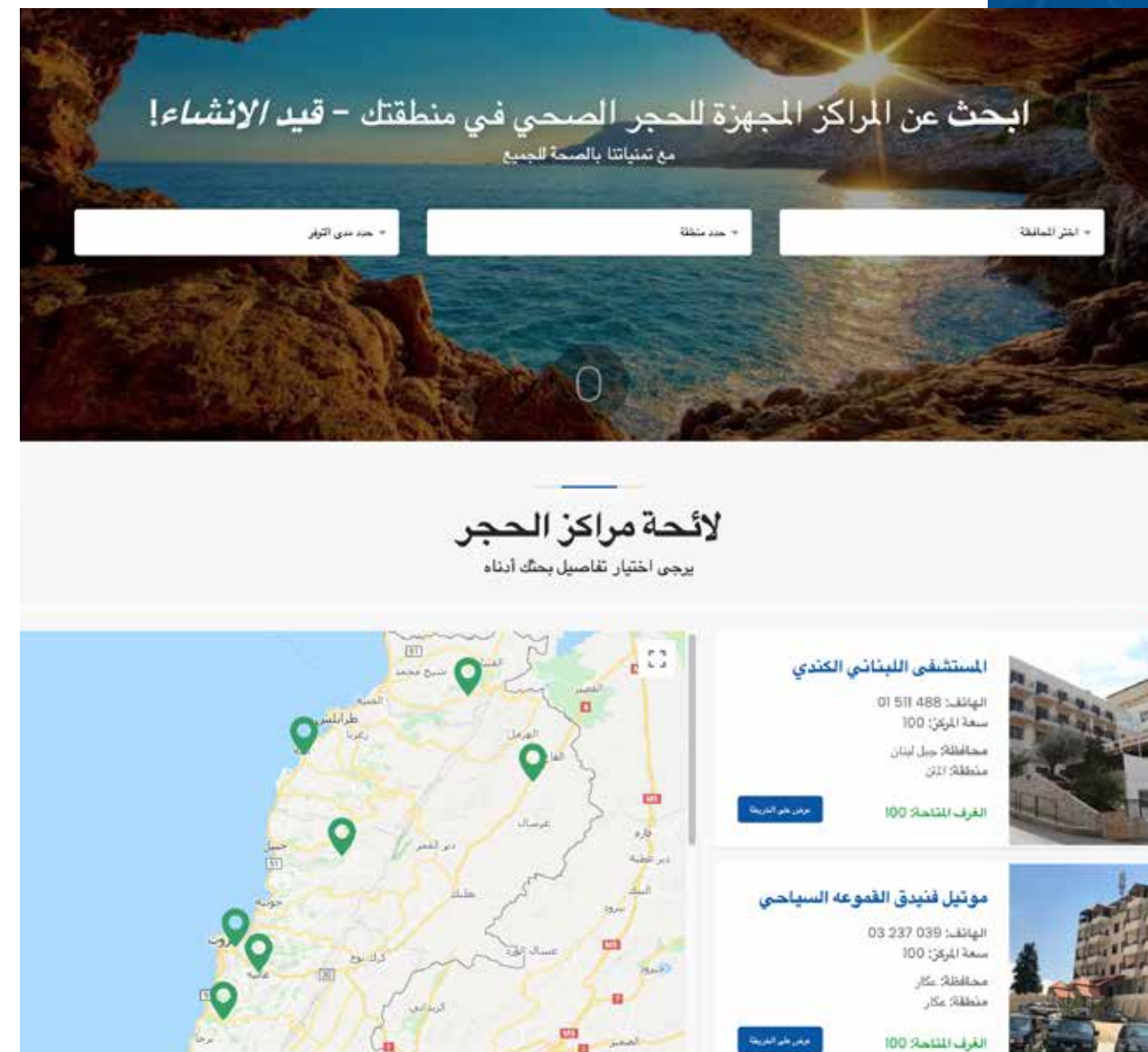
A NEW QUARANTINE CENTERS LOCATING TOOL

As part of the HealthTech Solutions Initiative, the Berytech team created a platform listing quarantine centers available in the country, while giving users the flexibility to search by district and in both English and Arabic languages.

This project is being implemented in partnership with the Disaster Risk Management committee of the Lebanese government and consists of:

- Public platform for citizens
- Private platform for concerned people to monitor the availability of beds/rooms remaining in each facility with status of hosted patients.

www.quarantinecenters.com



A NEW FACE SHIELD PROTOTYPE BY THE BERYTECH'S FAB LAB

Following the increased demand on face shield and protection kits, the Fab Lab team at Berytech has successfully designed and prototyped a face shield, a PPE device to help protect healthcare professionals to safely deal with COVID-19 cases. After prototyping and testing, the final product includes the headband of the Proto Shield, which is inspired by the Prusa face mask, and the shield of this open source prototype that covers the face from all sides.

www.berytech.org/profiles/face-shield/



I. INNOVATIVE PRODUCTS & SOLUTIONS



AN AEROSOL BOX BY THE FAB LAB TEAM AT BERYTECH

Under the HealthTech Solutions Initiative, The Berytech Fab Lab team designed and successfully prototyped an aerosol box for protecting doctors and support medical staff from splashes during any intubation process. Its production is expected to cost around USD 80 in materials and only requires 24 minutes to be assembled. The innovation was tested at the Hariri University Hospital.

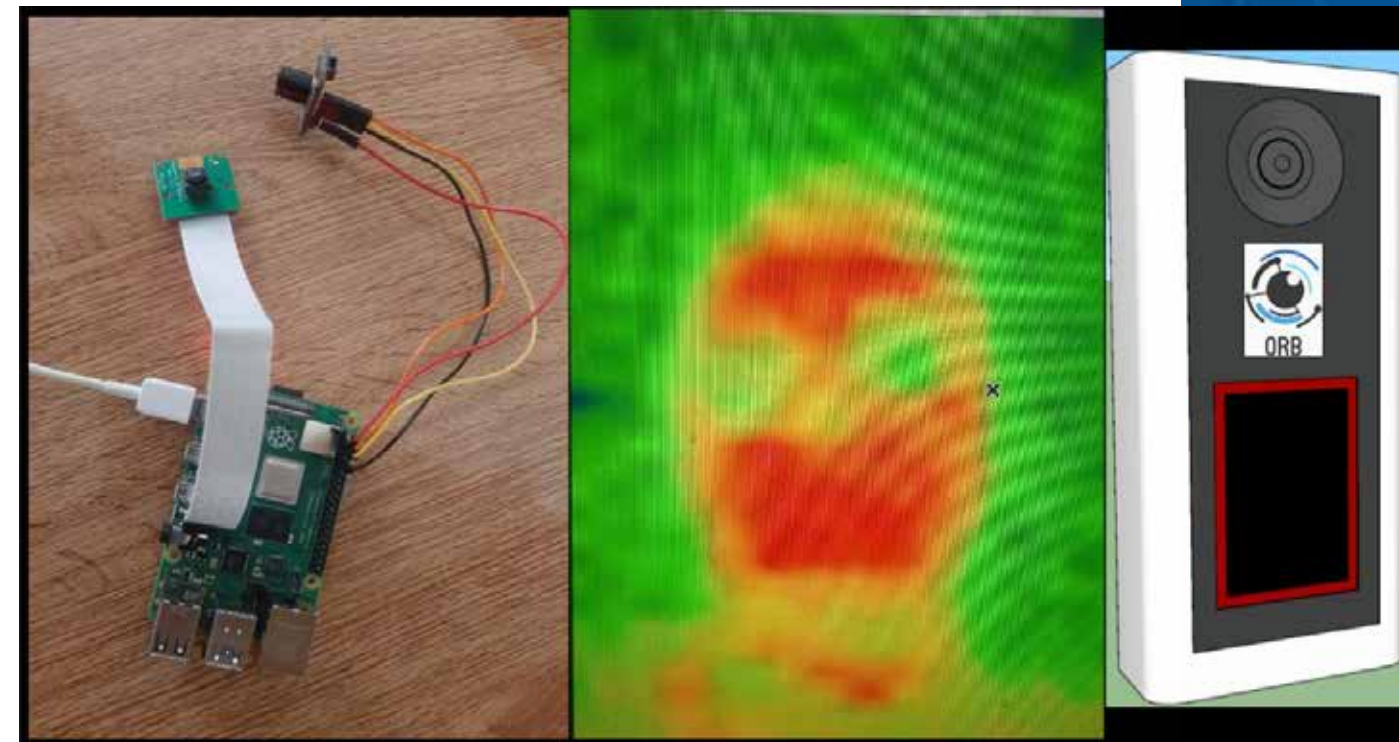
www.berytch.org/profiles/aerosol-box-intubation-box/



A NEW FACIAL RECOGNITION & FEVER SCREENING SYSTEM

While areas with high traffic are increasingly susceptible to being epicenters of infection, the Berytech's Fab Lab team successfully prototyped an all-in-one security system coupled with facial recognition and fever screening systems. The device is coupled with mobile and web applications for quick notification authorizing or denying entry to screened individuals and alerting concerned parties.

www.berytech.org/profiles/orb-facial-recognition-fever-screening-system



II. SUPPORT PROGRAMS



PROTOTYPING SOLUTIONS FOR COVID CRISIS AT THE **BERYTECH FAB LAB**

Berytech announced that it is welcoming in its Digital Fabrication Lab innovators and entrepreneurs working on Health-Tech solutions such as Test Kits, Respiratory Devices or mobile applications for detecting, tracing, and information sharing, that can respond immediately to the Coronavirus crisis and tackle the emergency shortage in medical supplies in Lebanon.

The incubator will be supporting up to 5 projects with up to a \$10,000 grant each to cover material used while giving them access to a team of engineers in addition to a “prototyping space” equipped with various digital fabrication tools, allowing anyone to design, engineer and produce their solutions.



www.berytch.org/prototyping-healthtech-solutions-at-the-berytch-fab-lab/

III. OTHER INITIATIVES

FREE CARS RENTAL FOR NURSES FIGHTING COVID-19

Under the campaign “سياراتنا إلكم” A.N.Boukather Holding (ANB) has launched an initiative to provide Free Mazda and Opel Rental cars to nurses fighting COVID-19 in Lebanese Hospitals.

The aim of this initiative is to provide safe transportation for healthcare workers fighting the coronavirus in light of the Lockdown measures put in place.

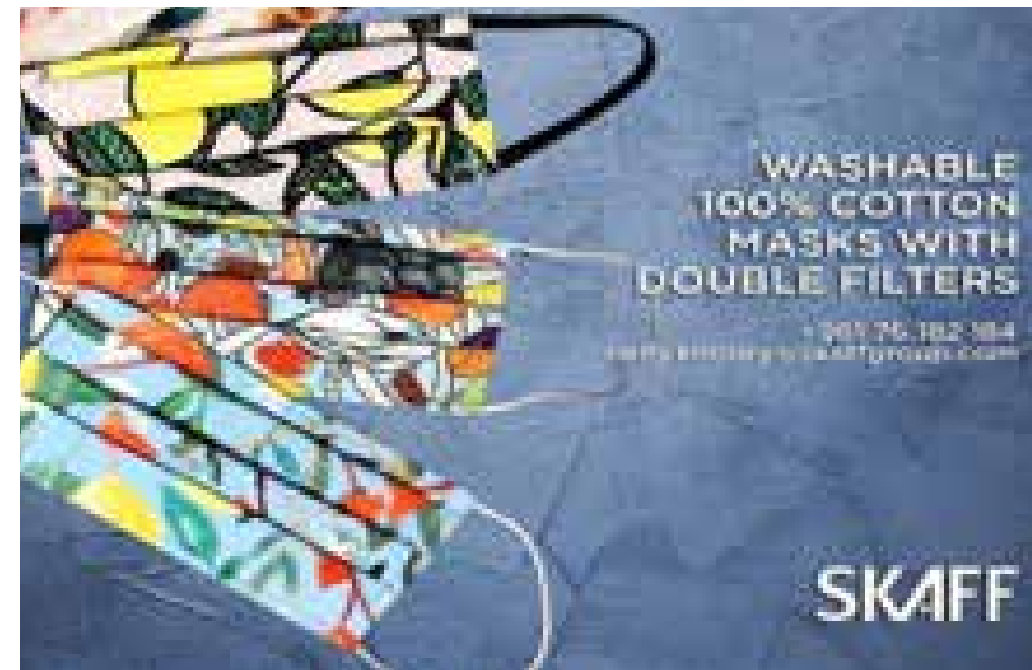
www.anbholding.com



SKAFF GROUP JOINS THE FIGHT AGAINST COVID19

A leader in Lebanon in the field of decorative fabrics and home decoration products ranging from textiles, wallpaper, furniture and home accessories, SKAFF Group joined the Covid-19 fight by launching a line of reusable washable masks with double filters that come in a variety of plain colors, printed fabrics and personalized logos with a production capacity of 20,000 masks per week. The Group coupled its project with a social initiative by donating one mask to a needy person for every mask bought resulting in more than 3000 unit donated to Beit el Baraka, Hamlin nursing home SOS Lebanon to date.

www.skaffgroup.com



III. OTHER INITIATIVES

“FROM A CHAIN OF PRODUCTION ... TO A CHAIN OF SOLIDARITY”

Lebanese fashion designer Tony Ward pitched in by transforming and prepping his atelier usually specialized in Couture craftsmanship, to produce hospital bed sheets and body suits for the Rafic Hariri University Hospital who has been experiencing a shortage in bed sheets amongst other equipment and disposables.

www.tonyward.net/portal/en-US/events/33/c/from-a-chain-of-production-to-a-chain-of-solidarity/799/



THE “MOTHER’S WORKSHOP” SHIFTS TO A PROTECTIVE GARMENT FACTORY

While many garment factories have begun shifting their production to medical supplies, the Saida based NGO “Mother’s Workshop” led the change as it jumped into the production of coveralls and surgical masks.

The factory helps widows, divorcees and refugees secure an income by training them in dressmaking. The initiative has been catering for the needs of several local entities such as the Municipality of Saida who stocked on coveralls for its employees from the Mother’s Workshop.



III. OTHER INITIATIVES

PHIBRACO TEMPORARILY SHIFTS FROM READY-MADE MEN CLOTHES TO FACE MASKS

Phibraco, an specialized in the production of ready-made clothes for men shifted to face masks production a few weeks ago to cater for a continuous increased in demand and shortage of local supply.

Masks are produced in three-ply disposable forms, made up of nonwoven fabric and a filter. The SME which employs 60 people, produces more than 15,000 masks per day, can be found in pharmacies and supermarkets.



LEBANON RESPONSE TEAM

Initiated by two engineers, The Lebanon Response Team (LRT), is a group of more than 300 volunteers from various professional backgrounds (including academia and industry) working remotely and sharing expertise to design and produce medical supplies for hospitals and health care professionals while using advanced technologies. The volunteers are additionally relying on financial contributions from Lebanese expatriates.

www.facebook.com/lrtlebanon



III. OTHER INITIATIVES

CREATIVE SPACE BEIRUT JUMPS INTO PROTECTIVE GEARS PRODUCTION

In response to the current health crisis and the shortage of Personal Protective Equipment (PPE) for medical staff in Lebanon, Creative Space Beirut, a non-profit school for fashion design, converted its working space to produce protective gear for a period of one month. The initiative will allow the distribution of 2000-3000 protective gears to hospitals free of charge, while providing income to individuals in need.

www.creativespacebeirut.com



If you know of any innovative idea being implemented by local talents to fight COVID-19, please reach out to us on **bsu@idal.com.lb** and we will add it to the list.



T +961 (1) 983306
F +961 (1) 983302



LAZARIEH TOWER, 4TH FLR,
EMIR BECHIR STREET,
RIAD EL-SOLH,
BEIRUT, LEBANON
P.O.BOX: 113-7251



invest@idal.com.lb
export@idal.com.lb



investinLebanon.gov.lb