

# LESSONS LEARNT FROM COVID-19...

## ... on emergency medical material management, manufacturing resistance and digitalization.

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Facing the Covid-19 crisis in France, a group of Mines Alumni in China has led a charity initiative of 15 Grandes Écoles Alumni, in close partnership with La Croix Rouge Française and the logistic company Heppner. We would like to **thank all our alumni for your generous help and donations**. We have received 200 000+ euros and shipped 300 000+ masks and other medical materials to France.

We are very much honored to share some of lessons-learnt and reflections during our charity initiatives: **International medical material management**. With the thin-stretched international supply-chain, quality & certificate issues, market panic and geo-political struggles, we have faced a lot more challenges than normal time: an emergency mechanism is needed. **Manufacturing resistance**. The Covid-19 crisis is by itself a stress test. We have interviewed several French manufacturing companies and tried to summarize some practical ideas on global-scale crisis management: against both pandemic and de-globalization.

**Digital tools & privacy**. Digital tools have become the “new norm” to manage the pandemic. However, these digital tools have left privacy and data issues unsolved. We need to better manage them, proactively.

### EMERGENCY MEDICAL MATERIAL MANAGEMENT: TOWARD A “GLOBAL EMERGENCY SWAP” MECHANISM

During this chaotic period, our team has been struggling every day: finding trust-worthy suppliers, making quality-control, negotiating the price, waiting for international freight flight and customer clearance, etc. With all these firsthand experiences, we have observed quite a few mal-functions:

- **Quality issues and certification mismatches**. Taking mask as an example, the Chinese standard KN95, US standard N95 and European standard FFP2 are similar enough to be substitutes for emergency use. However, we were unable to purchase the abundant KN95 in China for the usage in France due to standard difference. Besides,

lack of CE certificated suppliers has not only provoked mask shortage but also nurtured counterfeiting.

- **Market panic and speculations**. The Chinese factory price of KN95/FFP2 masks has increased from 0.3-0.7€ to more than 5€ by end of January, with a 2nd peak at 2.5-3.5€ in early April when the virus took hold in Europe and US. Whereas the price surge is more the result of speculation than real supply shortage. For example, in March, we have found FFP2 masks produced in Morocco but stocked in China by speculators.

- **International logistics congestion**. During the crisis, most of cross-continent passenger flights are cancelled and very few freight flights are left due to sanitary regulation imposed on pilots. As a result, the freight price from China to France has surged from 1.7USD/kg to 16USD/kg within days. Besides, due to quality issues and geo-political concerns, both Chinese and French customs have tightened the export/import inspections. As a result, a batch of donated masks of another association has stationed in Shanghai airport for 3 weeks and in Paris airports for another 3 weeks before being finally distributed to hospitals.

All these issues point to a same cause: **lack of planning and international collaboration**. That’s why we believe that a “**Global emergency medicine & medical device swap mechanism**” will be a powerful tool against global pandemics: **1. “Equal for Emergency Use” (EFEU) list of medicine and medical devices.**



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EFEU products are the ones with similar function but under different certification regimes. For example, FFP2(EU)/KN95(CN)/N95(US) masks should be considered as EFEU products. We believe that at least 3 categories of products: 1) protective medical device, 2) basic medicine and 3) vaccine should enter the “Critical List”. The detailed list of EFEU should be decided by the WHO (World Health Organization).

- 2. **“Strategic stock” of EFEU products**. The WHO should 1) directly manage a global strategic stock of EFEU products 2) advise on member countries’ EFEU strategic stock’s amount and 3) coordinate the use of strategic stocks when emergency is declared.
- 3. **“Customs green channel”**: pre-defined protocols and prioritized cus-

tom service for EFEU products during emergency.

- 4. **“Emergency protocols”**. The “EFEU product” and “Customs green Channel” will only be effective once the WHO has declared “Emergency”, which means that during “normal” time, the products in the EFEU list are not “swap-able” among countries and these EFEUs should follow conventional import/export rules. Meanwhile, WHO and member countries should establish clear decision-making process for emergency declaration and follow-up actions.

To make the mechanism work, the **leadership of WHO** is the key. And we firmly believe that **international collaboration**, not isolation, is the only way to face global pandemic.

### MANUFACTURING RESISTANCE: CASH MANAGEMENT, LOCALIZED GLOBAL SUPPLY-CHAIN AND TALENT MANAGEMENT

The Covid-19 is a “stress test” for all companies, by interviewing several French manufacturing companies, global consulting firms and Chinese internet companies on how they (and their clients) manage the Covid-19 crisis, we were able to summarize a few lesson-learnt for manufacturing industry.

- 1. **Cash is the king**. During large-scale crisis, business come to halt, so does the cashflow. Meanwhile, the crisis can be as well an opportunity for consolidation.

- **Financial discipline**. Even with a strong business base, short-term sol- ▶▶

- vency can be fatal. A simple “rule of thumb” can be helpful: “How much time can your business last without revenue?” While during Covid-19, each country is shut-down for 3-4 months.
  - **Agility of cash management.** There is a “sweet window” to secure financial resources at the beginning of the crisis, especially when the crisis does not break-out at your country. Using this time to beef-up cash cushion can both save financing cost and create business maneuvering space to seize risk-related opportunities.
  - **Cash for suppliers / clients.** The weak chains of manufacturing are seldom the OEMs, but the SME suppliers / distributors. As a result, the crisis financial plan should include your key suppliers / clients. For example, an automotive OEM has completed a suppliers & dealers’ survey within 2 weeks’ Covid-19 breaking-out in China and it has arranged special payment terms / loans to help its key suppliers.
- 2. “Global network of local fulfillment centers”.** One of the major challenges of Covid-19 is its large-scale disruption on supply-chain. We believe that a “localized-global” double-layer supply chain can provide good resistance.
- **“Local fulfillment centers”** means being close to local clients and using local materials/components. Such sourcing strategy helps a company to synchronize with clients’ orders and suppliers’ capacity. For example, a French industrial material company’s factory in Hubei (epicenter of Covid-19) was at halt for several months, whereas the business impact is mitigated because both suppliers and clients of the factory are in the same region: they are at halt precisely at the same time.
  - **“Global network”** seems vulnerable, however, when combined with “Local fulfillment centers” and “strategic stock”, a global network is truly an advantage. For example, a chemical

company was able to satisfy Asian clients’ needs in February with European and US production and vice-versa in April with Asian production. The company has deployed “strategic stocks” in each region by predicting the Covid-19’s spreading and implemented an agile approach on international shipping with smaller/irregular packs. To make this possible, a centralized global resource coordination office is often needed.

At last, we have observed a “structural shift” on company’s risk preference and supplier management logic:

- “Risk management” coming back on CEO’s table
- More collaborative supplier relationship
- Localization of fulfillment capabilities with local supply chains

**3. Care about employees.** Talents are the most valuable asset; however, they are often the first being harmed by the crisis.

- **Production planning, ahead.** The top priority is to keep production on going while ensuring the employees’ health and safety. For example, besides following all governmental rules, an industrial material company has reduced the number of workers per shift to minimum cross-worker contamination while shortening each shift to reduce fatigue. Such measures were implemented swiftly and smoothly thanks to pre-defined risk protocols and trainings.

- **Clear communication from top management.** During the crisis, leaving HR questions open are even more harmful than reasonable lay-offs. For example, a chemical company has set-up a Wechat (the dominant messenger/social network APP in China) working group with country manager, production head and HR to communicate on production & employee related topics and they have kept all employees updated daily. Another example is a Chinese internet com-

pany: it has declared a mild employee cutting plan and communicated clearly that no further lay-off will happen. Such measures have contributed to the team’s stability.

- **Contra-cycle talent strategy.** The crisis is an opportunity for talent acquisition. In China, the BAT (Bytedance/Baidu/Tencent/Alibaba) have been busy harvesting talents released from the busted start-ups. Similar cases happen in Silicon Valley, too.

**DIGITAL TOOLS: CHOICES, TRADE-OFFS AND BETTER MANAGEMENT**

As lockdowns are progressively eased, government developed apps aimed at monitoring and stopping the spread of Covid-19. In Europe, these apps implementation have sparked significant controversy over data privacy protection. Yet, countries worldwide have traded-off epidemics control efficiency and data privacy differently. A broad view of different scenarios can be found in Tomas Pueyo’s article “To beat the coronavirus, Build a better Fence”, the New York Times, Sept 14th 2020. Here we analyze three approaches adopted in France, China and South Korea and offer a recommendation on how to best compromise between public health and individual freedom.

**Compulsory and universal location tracking in China: high efficiency but limited data privacy.** The 3 major telecom operators developed apps available as mini-program on WeChat and Alipay that display the travel history of the SIM card holder in the past 14 days upon request. If no blacklisted city was visited, the app will display a green pass; otherwise it will display an orange pass. If there is suspicion of close contact with infected patients (e.g. people in the same residence), the pass displayed will be red. It is compulsory to show a green pass before entering all public spaces in China (malls, restaurants, companies, etc.). In addition, vis-

itors are requested to fill in their personal information such as name, ID, phone number on a sheet of paper to be contacted afterwards in case a contamination is detected in the building. This approach prevented a complete lockdown outside of Wuhan province (the focal point of the epidemics) while curbing the spread of the disease, allowing healthy people to go to public spaces while barring the way for suspected cases. However, it goes against many principles core to data privacy protection: Chinese government has not asked consent, has not been clear on how the data is being used, and most businesses have no processes in place for ensuring confidentiality of the collected data. As a result, many Chinese citizens have reported an increase in the spam call they received, suggesting that the data may have been sold to third parties for advertisement purpose.

**Voluntary Bluetooth contact tracking in Europe: questionable efficiency and challenges on data privacy.** Apps record when two people’s devices come into close contact through Bluetooth signals. If one person using the app is infected by Covid-19, he/she will update his/her status in the app that will then notify all people who have been in close contact with him/her, sending appropriate protocol to follow. Apple and Google have teamed up to give tracing app developers a way for phones to communicate across their separate iPhone and Android operating systems, and process data on users’ devices rather than on central servers run by national authorities. At first, most EU countries were reluctant to adopt their system, as EU governments are increasingly wary of dependence to US firms who impose their technical standards. However, concerns over inter-operability between Android and iOS systems led 22 EU countries, including Germany and Italy, to eventually accept the tech giants solutions France is one of the few



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countries which decided to develop its own tool, the StopCovid app, promising users that it will not disclose any personal information and erase records once the crisis is over. The outcome has been disappointing. The main reason being that the changing rules being applied in France: identification process of infected people, definition of incubation period, definition of contagion period, definition of quarantine period. Furthermore the test response time is too long and there is not prioritization of people to be tested. Only a well-defined process understood by the users can be implemented. The privacy issue comes after.

Interoperability between countries has not been enabled. Downloading StopCovid is not mandatory to enter French territory, and since the app is not integrated with other countries’ tracking systems, StopCovid is not able to retrieve records of suspected cases coming from abroad.

**South Korea’s seems to offer a better compromise between epidemics control and data privacy.** Only people placed in quarantine and suspected or confirmed Covid-19 cases are requested to download the location tracking app and share their travel history. For the general public, South Korea issued mass cellphone alerts of locations visited by infected patients as an alternative to systematic tracking and relies on citizens’ good judgement to avoid the risky areas. Such approach checks many of the recommendations from the European Data Privacy Board on data collection: only be carried out if necessary and of minimal extent.

To conclude, we recognize that balancing between public health security and data privacy is a delicate exercise. However, it is made easier by

1. benchmarking good practices from other countries (South Korea, Taiwan and Estonia among others) to design tools that minimize data collection
2. setting clear guidelines on which situations can trigger compulsory/more extensive data collection and
3. insuring that EU countries are aligned on the tracking methodologies, data sharing and handling practices to allow for a more efficient control of trans-border contaminations.

**EPILOGUE**

The Covid-19 was a challenge but as well an opportunity. An opportunity to re-think on business risks, on globalization and on digitalization. Despite critics on WHO, the suspicions on digital tools and isolationism, we still strongly believe that international collaborations are the only way to fight against pandemics, business risks can be better managed with global networks, and digital tools will become a necessity. The challenge is about better management, which will need the efforts from all of us. ▲

1- Tomas Pueyo, “To beat the coronavirus, Build a better Fence” – <https://nyti.ms/3lvqtnt>