



IMPACT OF
COVID-19
ON THE
**MEDICAL
DEVICES**
INDUSTRY



FutureBridge

The outlook of the med-tech industry until mid-2020 would remain dim, however, the industry would gain due to quick regulatory approvals, strategic partnerships driving innovation & speed of technology adoption in critical care and respiratory care

Current Situation

- The supply chain of many global medical device companies got disrupted due to the Covid-19 outbreak in China resulting in **the shutdown of their manufacturing units**.
- Reduction, postponement or cancelation of elective surgeries, including many orthopedic and spine cases have hit hard, leading to **alterations or suspension of earning guidance** of several medical device manufacturers.
- Many companies have **revised their revenue guidance** as they envision dip in the global demand for non-Covid related solutions, but longer-term revenue trends for medical products and device makers are promising.
- The companies are **deploying their workforce for the production of medical supplies/consumables, including** protective equipment, testing kits, and medical devices such as ventilators or ventilator parts.
- Cancellation of annual meetings and conferences** related to medical devices such as the American Academy of Orthopedic Surgeons, which was scheduled for March 24-28.

Impact

	AREA	INTENSITY
Supply	Approvals through emergency use authorization	High - Positive
	Tax waivers to medical supplies required for pandemic	Medium - Positive
	Private public collaborations & open innovation	Medium - Positive
	Increase in cyber attacks	Medium - Negative
	Troubled supply chain	High - Negative
Demand	Demand for medical supplies/ consumable	High - Positive
	Sales of online health/life insurance	Medium - Positive
	Adoption of e-health	Medium - Positive
	Cancellations or delay in elective medical procedures	Medium - Negative
	Delay in the launch of new medical devices	High - Negative

Solution/ Emerging Trends



3D printing

Helping in localized production due to disruption in supply chain logistics



Digital Twin

Aiding resource optimization in hospitals and other medical organizations



Medical Robot

Automating the medical procedures to minimize human contact



Virtual Care

Providing patient care and treatment remotely

India and other low-cost manufacturing countries would gain in medium to long term as governments like Japan & Australia are motivating companies to move manufacturing out of China

Overview

~39% of US medical devices are exported from China, which could be impacted

~5% decline in sales due to shutdown or delay of elective medical procedures as reported by Johnson & Johnson

14 billion USD package of fast-track financing sanctioned by World Bank to assist companies and countries in COVID-19 crisis

500 planned inspections by USFDA of Chinese plants postponed which could mean lesser surveillance

Market Status

- China has been the hub of manufacturing facilities for most of the top 10 global medical device companies, but also being the Covid-19 epicenter is disrupting the medical products supply chain
- Production slow-downs of medical devices in American and European countries resulting in supply delays and revenue losses to manufacturers and assemblers
- Delay in regulatory inspections of medical device plants due to travel ban in various geographies would lead to lesser surveillance raising doubts over the product qualities

Key Risks to Business Due to Covid



Mitigation Measures Taken by Companies

- Boston Scientific** has taken proactive steps to reduce costs through pay-cuts for executive members, temporarily reducing work-week schedules for employees, and decreasing discretionary spending
- Sanofi** is encouraging all office-based employees to work-from-home and leverage digital tools & platforms instead of face-to-face meetings to interact with healthcare professionals
- Medical organizations such as hospitals are ensuring accelerated initiatives towards the digital transformation of health care delivery models
- Huge cash reserves with the major players in the industry may result in immense funding for start-ups and M&A deals later this year

Supply chain

- **Impact:- High - Negative**
- Being a manufacturing hub, Covid's impact in China has impacted the supply chain of most medical device companies, barring a few companies exporting essential medical devices

Cyber attacks

- **Impact:- Medium - Negative**
- Interpol warned hospitals and medical organizations about the possible cyber-attacks during the pandemic, as they are busy focusing on people affected with the coronavirus

Tax waivers

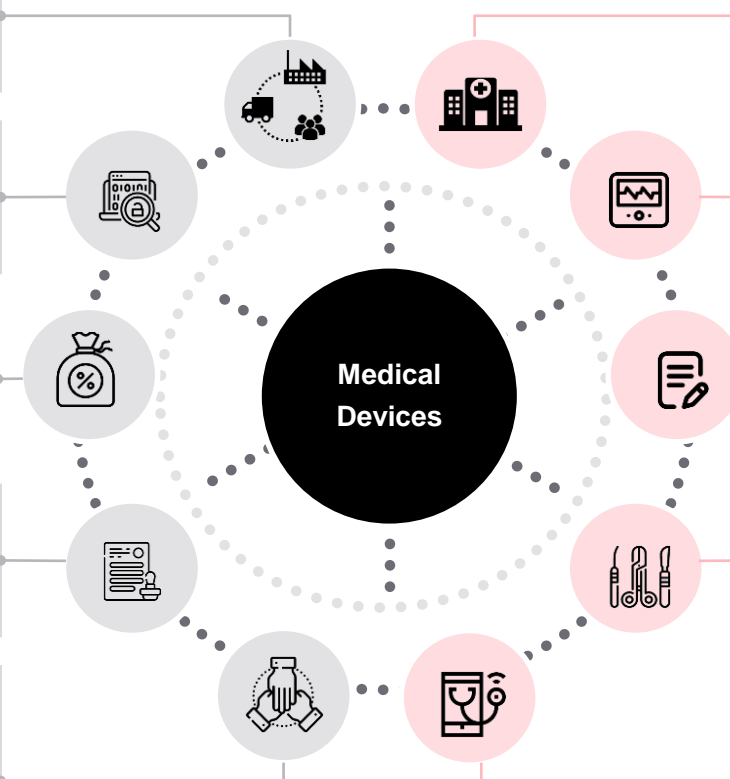
- **Impact:- Medium - Positive**
- Many governments have lifted custom duty and other indirect taxes on protective equipment, testing kits, and medical devices such as ventilators to enable cost-effective procurement

Accelerated Approvals

- **Impact:- High - Positive**
- Regulatory bodies are granting speedy approvals through Emergency Use Authorizations (EUAs) to medical devices used during the pandemic such as ventilators, N95 masks, etc. to meet the increasing demand

Private public collaborations and open innovations

- **Impact:- Medium - Positive**
- Government and private companies are joining hands to provide resources in short supply; open-source libraries are helping volunteers in their contribution to medical supply production

**Consumable medical supplies**

- **Impact: High - Positive**
- With an increasing number of COVID-19 patients, demand for hospital supplies such as ventilator splitter, N95 masks, etc. have ramped up

Launch of new medical devices

- **Impact: High - Negative**
- Delays in testing or launch of new medical devices are expected as most clinical trials are suspended as hospital units are reserved for monitoring COVID-19 patients

Online health/life insurance sales

- **Impact: Medium - Positive**
- With the government's mandate to compulsorily cover Covid-19 expenses under the health/life insurance policies, sales of online insurance policies have increased by 20-30%









Elective medical procedures

- **Impact: Medium - Negative**
- Many hospitals are postponing around 80% of non-critical surgeries to relieve healthcare systems from all non-urgent medical requests

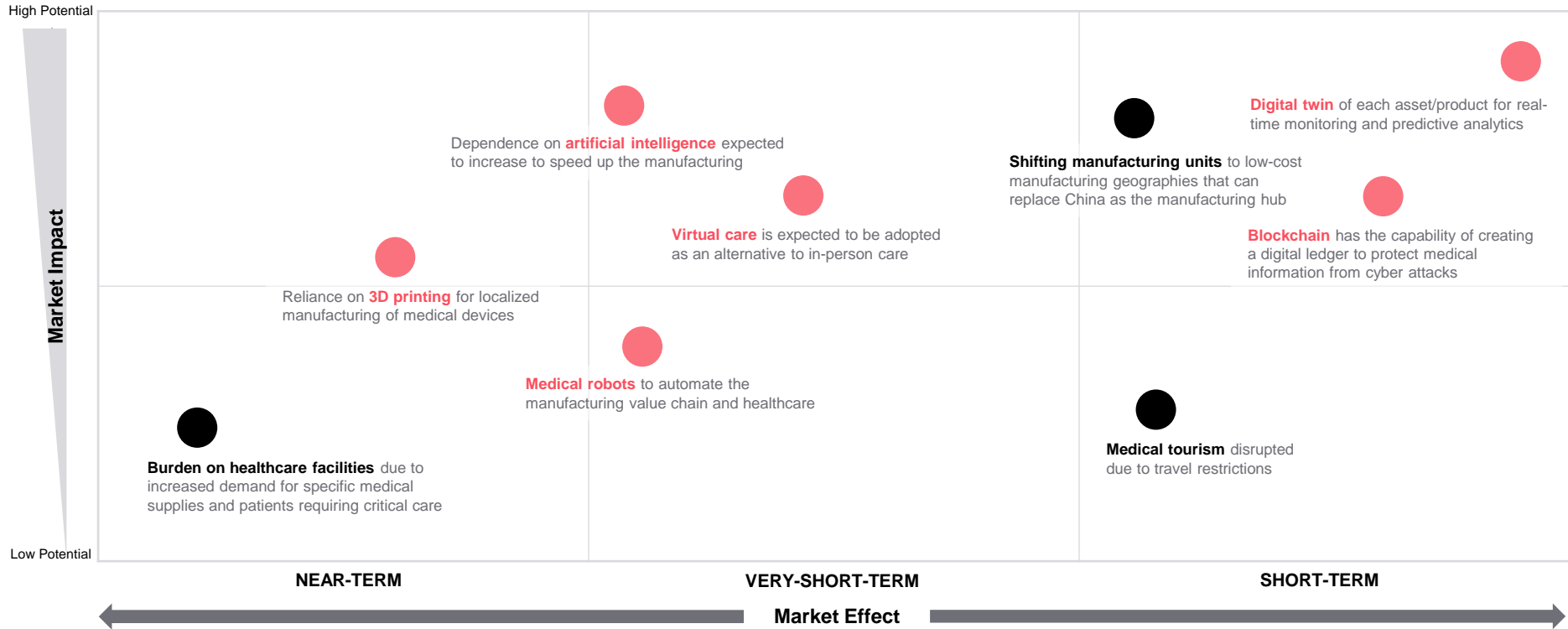
E-health

- **Impact: Medium - Positive**
- Significant increase in the adoption of digital tools such as telemedicine, monitoring through wearables, online health surveys, etc. for high-quality remote care in response to COVID-19

Medical organizations are partnering with technology developers to focus on developing and validating innovative applications of existing technologies amidst the Covid pandemic

Technology Trends				
Technology	3D printing	Digital Twin	Medical Robot	Virtual Care
				
Reasons for Adoption	<ul style="list-style-type: none"> Disruption of supply chain logistics Localized production in a timely manner Possibility of mass customization 	<ul style="list-style-type: none"> Inability to access, mobilize, and utilize data Empower patients to make informed decisions 	<ul style="list-style-type: none"> Automating several medical procedures Minimizing human contact 	<ul style="list-style-type: none"> Enhance access to patient care and treatment Quick and time-efficient care
Future Trends	<ul style="list-style-type: none"> Rise in investment for related innovations A prominent role in futuristic supply chain 	<ul style="list-style-type: none"> Tremendous growth expected within resource optimization Automate value chain in an error-free manner 	<ul style="list-style-type: none"> A surge in the robotic application for contactless medical procedures Elective surgeries may be picked up with robotic technology, such as Stryker's Mako 	<ul style="list-style-type: none"> Scalable technology to provide personalized virtual health/ wellness coach, specifically focusing on elderly people
Case Study	<ul style="list-style-type: none"> VESper: FDA-EAU 3D printed ventilator expansion device that allows one ventilator to support up to two patients 	<ul style="list-style-type: none"> CriticalCare Project: digital twin of every hospital to provide real-time status of critical care bed availability across the UK 	<ul style="list-style-type: none"> LightStrike: full-spectrum UV germ-zapping robot to help slow down the coronavirus spread within healthcare settings 	<ul style="list-style-type: none"> TeleICU: artificial intelligence-based predictive analytics to identify disease severity from a remote command center 

Within digitalization and connected devices - 3D printing, robotics & virtual care would have high potential in near to short term



Note: Red color text indicates positive impact and black indicates negative impact on the industry

Questions that the clients are asking us

What are the technology trends that are emerging due to COVID-19, e.g., open/external innovation, humanitarian aid, etc.?

Which suppliers, manufacturers, and service providers (CMOs/CDMOs/CROs) are active in consumables and emergency medicines that are ready to collaborate in specific geographies?

Which start-ups are active in developing disruptive solutions to address the issues associated with COVID-19?

What are the key risks associated with the medical device manufacturing and supply chain?

How companies are leveraging exponential technologies to overcome the impact of COVID-19 like 3D printing, Digitalization, Artificial Intelligence, etc.?

What measures have been taken by competitors to minimize the impact of COVID-19 on their different business units?

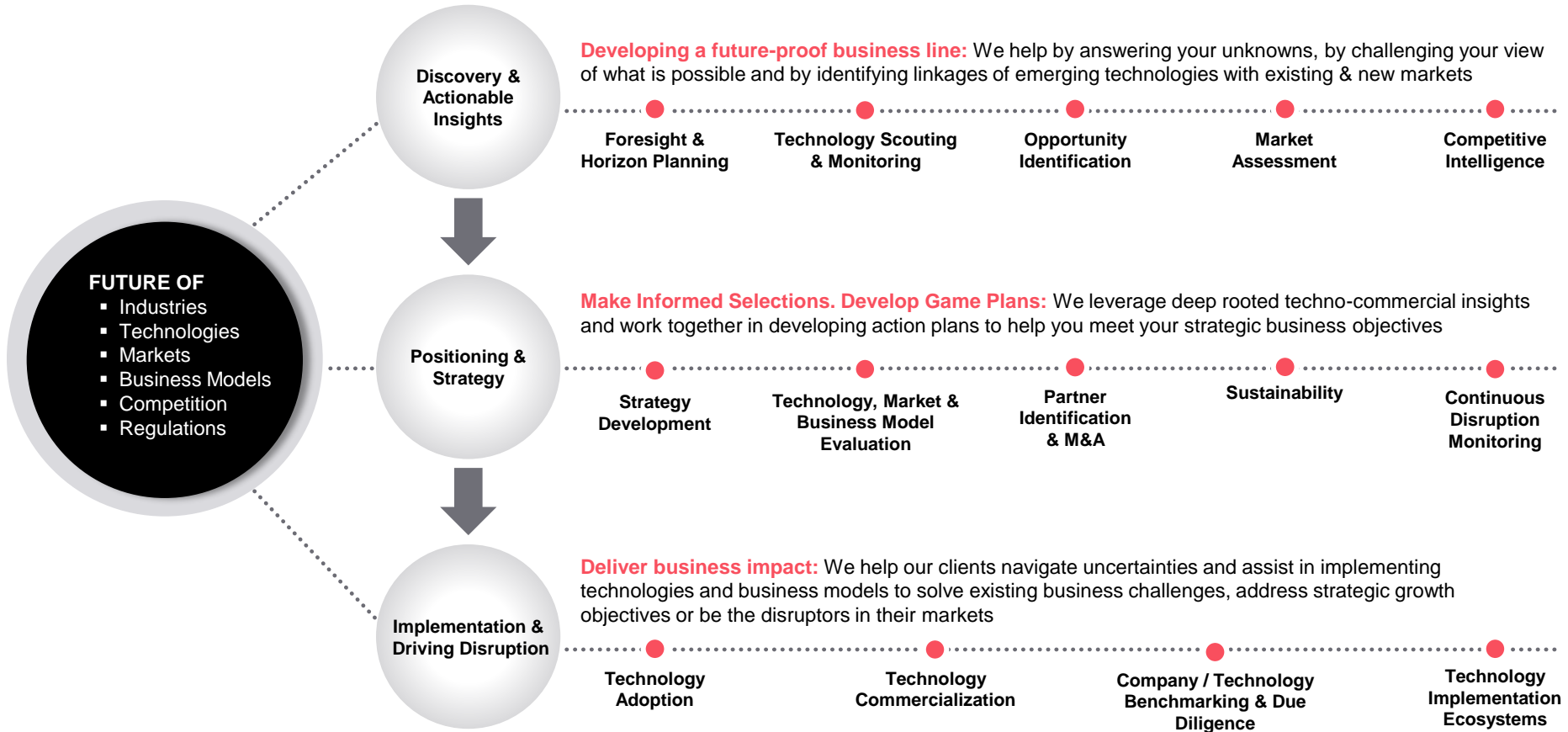
How COVID-19 pandemic would impact the business development and expansion activities, including M&As, collaborations, etc. in the short-term and long-term? What could be lucrative potential acquisition targets in the near-term?

What amendments & guidelines are expected by the global regulatory bodies in policies to minimize the current impact of COVID-19?

Which are the commercially attractive geographies that can replace China as a manufacturing hub?

Our Solutions

STRATEGIC PROGRAMS MEMBERSHIP PROGRAMS ON DEMAND – HYPER CUSTOMIZED



Thank you

North America

55 Madison Ave, Suite 400
Morristown, NJ 07960
USA
T: +1 212 835 1590

Europe

328-334 Graadt van Roggenweg
4th Floor, Utrecht, 3531 AH
Netherlands
T: +31 30 298 2108

United Kingdom

5 Chancery Lane
London EC4A 1BL
United Kingdom
T: +44 207 406 7548

Asia Pacific

Millennium Business Park
Sector 3, Building # 4, Mahape
Navi Mumbai 400 710
India
T: +91 22 6772 5700