



It has been a year since 22nd Nov. 2019 when the COVID-19 was first recognized as "unexplained viral pneumonia." The virus has not loosened its grip ever since though many countries have imposed lockdowns on cities and taken various preventive measures. Such circumstances have convinced us to change the way we work: remote working has been gaining popularity rapidly. Online communication tools have been playing a part in it, as you know.

### **Moving From E-mail to Chat**

In a surging number of companies, chat has been replacing e-mail, with the spread of COVID-19. It has had a huge impact on Chatwork, the most popular chatting platform in Japan: their earnings became up 6.9-fold. Chatwork has been introduced to Asahi Sosetsu, too, since around 3 years ago. We set up a new group upon receiving an initial customer inquiry, and all the relevant members from such departments as Sales, Development, Design, Production, Production Control, Purchasing and Quality Assurance join the group. The group shares all the information, i.e. customer needs and project update, instantly. Sharing new information as the project proceeds necessarily facilitates communication between departments. Also, erroneous information, if any, can be pointed out by anybody involved. This way, the information can be not only shared but verified. Chat system has disadvantages, too, however. First, you have to share every piece of information as "reminders" to a greater or lesser

degree in the chat room, for which you needed only private e-mails or phone calls before. Second, you get an enormous amount of information: all room members have to check all messages posted in the room whether each of the messages is relevant to them or not. The members could be overwhelmed by all such information and, as a result, become reluctant even simply to enter the chat room.

## Transition From Telephoning to Web Conferencing Tool

Web conference tools have dominated the market more largely than chat tools did. We introduced Zoom for web conferencing, too. Though the software is an effective and powerful alternative, it still has many issues to be addressed. The application setting and usage are largely dependent on individual skills. Also, face-to-face communication is more efficient and makes members more motivated and creative: in-person meetings would not be totally replaced by web conferences.

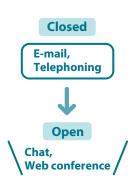
More interestingly, the web conferencing is very attractive substitute for telephoning. You get phone calls suddenly without any appointments, most of which are not urgent. Except very short ones, they break your concentration and steal your time unlimitedly. Web conferencing, on the other hand, lets you organize your time, communicate face-to-face, and share files at the same time. Moreover, with an appropriate screen sharing capability, you can share 2D/3D CAD drawings, too. While phone enables only man-to-man

communication, web conference enables meetings, though smallscaled, among plural people, which is effective in reaching consensus and sharing information among team members efficiently.

Without any doubt, conventional

### **Adaptation**

closed communication tools, i.e., email and telephone, will be replaced by open communication tools, i.e., chat and web conference. Because your virtual office will be composed of those new tools, you will have to be skilled to use them. More importantly, a further large amount of information will be available to each individual. Though you might just want to ignore it showing a disinterest, it seems not realistic in the future. If each one of us voluntarily and consistently accepts an abundance of information and makes full use of it, Japanese "monozukuri (manufacturing)" industry will be further developed. While the tools are advancing day by day, humans, who utilize them, must change more.



## The Rise of New Food Materials

In recent years, many people are talking about plant-based meat. In Western countries, Beyond Meat began its operation in 2009, and Impossible Foods in 2011. The industry, with the two businesses as super-powers, is expected to develop into 50-trillion-JPY market in 2040. They are next-generation food businesses producing cell-cultured meat and fish as well as plant-based meat and eggs. The industry is swelling: it had approximately 20 companies in 2018 and 290 in 2019. That makes us think that the forecast is sensible.

### **Why Choose Plant-Based Meat**

Though many people believe that plant-based meat is widely consumed as vegetarian food, that is not quite true. Actually, about 90 % of the plant-based meat consumers regularly eat ordinary meat. People eat plant-based meat for the following three reasons. First, the world has become more conscious of the environment. A large amount of greenhouse gas is emitted through the supply of livestock food product: Food and Agriculture Organization of the United Nations attributes 14% of the emissions to livestock business. People want to replace ordinary meat to reduce emissions. The second reason is globally-growing health-consciousness. Everyone, however, has his or her own preferences: meat-eaters want to eat "real meat." I, myself, might try burgers with plant-based meat patties only if they have almost the same taste and texture as ordinary meat. The third reason is, so to speak, a "protein crisis." The world's population has been forecast to reach roughly 10 billion by 2050. The population growth and developing countries' economic

growth will cause a protein supply shortage. Making plant protein products imitate animal protein products is apparently inefficient: lots more protein can be consumed if people take in plant protein directly.

### Meat Alternative: Technologies Employed by the Two Meat Substitute Giants

Impossible Foods' meat substitute is made mainly of soy protein. The product is designed so intricately like a puzzle: they use coconut oil to replace fatty meat and add soy-derived "leghemoglobin" to give the patty beef-specific flavor so the product tastes and looks like ordinary meat. On the other hand, Beyond Meat's meat substitute is made mainly of pea protein. Canola oil and coconut oil is added as fat substitute, and beets are added to redden the patty. While mixing plant-derived substances to make plant-based meat resembles cooking, analyzing many ingredients and developing prototypes resembles chemical experiments.

## **Schmeat: Creating Meat Out of Meat**

While meat substitute is plant-based, schmeat is quite simply meat. However, we are talking about chemistry here: you extract bovine stem cells, remove only muscle cells from them, and immerse them in a culture medium containing essential nutrients such as amino acid to culture them. Though schmeat is made out of "real meat," many people might be, as I am, frightened more or less when they learn how it is made. Technology advances very fast truly by the way: while a patty, reportedly, used to cost 39 million

JPY, it now costs only approximately 1.3 thousand.

## Soy Meat: Japanese Soy Bean Derived Meat

Soy meat, derived from soybeans (grain), is not new and tastes strongly of soybeans. On the other hand, as a result of extensive researches, we can now use "newly sprouted soybeans," whose amino acid, vitamin, and mineral content has risen rapidly since the germination, to make the analog taste like pork, fish, or beef more (patented technology).

In our endeavour to create food alternative material and ingredients, and to develop relevant techniques, the most important things must be "deliciousness" and "safety."

Today's technological advancement seems to be able to secure stable future supply of such food products. We deeply think that we must keep up with the technology advancement and strive to develop machines which can process such new food material into tasty and safe food products, too.

#### [Next-Generation Food]



Meat Alternative







### **Thailand Updates -Facing COVID-19 Pandemic**



Topics: Inside Thailand, Bangkok, Business and THAIFEX Exhibition (Held During: 22-26/9/2020)

[Contributor: Hiroshi Yamamoto,

International traveling had been once

In an attempt to improve the situation,

Track" and "Business Track." I went to

Bangkok, Thailand in the first group of

international traveling has been approved

again within the framework of "Residence

travelers of "Residence Track which required

14-day compulsory quarantine," in the end

During my stay in Thailand, there had

reported no COVID-19 community spread

Thailand had been successfully prevented

registrations and temperature checks used

to be conducted before entering shops, only

temperature checks are required these days.

Though the state of the emergency was

once declared, the life of Thai people have

been getting back normal just like it was

before the pandemic.

by implementing a 14-day compulsory

quarantine rule. Though "ThaiChana"

cases. Moreover, the spread of the virus into

prohibited completely due to the pandemic.

Chairman, Asahi Sosetsu Co., Ltd. (Posted on: 30/9/2020)]







Empty Erawan, one of the popular tourist site

On the other hand, the economy has been badly damaged because the number of annual travelers to Thailand (population: 67 million) dropped from 40 million to nearly 0. Thailand's economy has not got back to normal actually: rather, it has been slowing down, somewhat, as it was before the epidemic.

Even during such a difficult time, we participated in THAIFEX. Though the number of exhibitors dropped sharply from 2,745 to 797 as well as visitors from 67,136 to 21,104, we thought we had been able to be prepared and had many serious and effective business talks because only a small number of casual visitors had come to the show. Everything in the show was just normal except that the organizer requested that visitors took precautions of preventing infection from further spreading.

Since the start of the epidemic, teleworking and web conference have become very popular as new business systems. It is said that because you can supervise and instruct your customer overseas how to install purchased machines on

social networks, etc., you do not have to actually go there all the way.

However, pictures show only what is or was happening: they do not show what will happen: what matters most would be probably hiding behind what you see on the pictures. Before the pandemic, people had appreciated Sangen principle, which tells people that you must go to the site, make a direct observation and determine the facts. As the idea has been being forgotten these days, we need to make a step forward in applying the principle again instead of believing only the realities you can see in the pictures.

You can obtain most of the necessary information on the Internet. Find the clue for your successful future and start preparing for fastest world market penetration once the epidemic calms down. Otherwise, you would not survive the new era. I think I should remember this myself,



The exhibition hall



HI-COOK(Thailand)' s booth

#### The Man with Enthusiasm Vol. 2

With a fall breeze blowing, there is a man who is dashing through the front gate of Asahi for work. He is Mr. Miyamoto from the Production department. He loves trail running. He runs along a mountain road in Hokuriku area every week. By the way, trail running is a risky and exciting athletic sport: you have to negotiate around such obstacles as mud, rocks, and tree roots to race along the bumpy mountain road fully enjoying nature. He has ever competed in 12-hour and 20-hour races. You do not have to rush so you can stop and enjoy views during a trail running race, while you are in a quest solely for speed in a marathon race. Also, you do not get bored: you can enjoy very different sceneries according to the time and the weather. Even bumps differ from one another, he says. His

Manufacturing Department

goal is to run for 300km or more a month. He wants to participate in the Mt. Fuji 100-mile (some 168km) race in the near future. The race is also called "Taikyu (endurance race)." willingness to compete in such a challenging race proves that he has unlimited physical and mental toughness. His high aspiration



must further improve his job performance continuously.

Special running sandals which offer strong grip as if you are running barefoot. He made it by himself to gain enjoyable and effective running experience.



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