

LATEST ON FUTURE WATCH AND FORESIGHT PUBLICATIONS SARI ARHO HAVRÉN

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LATEST PUBLICATIONS FROM FUTURE WATCH

- Based on the future signals created in Team Finland Future Watch workshop in spring 2019 in Hong Kong, six phenomena have been studied and are or will be published in Market Opportunities platform.
- China related new signals:
 - China's Generation Z (Published)

Lack of Cultivable Land in Asia (special focus on China) (Published)

Cooling China with air conditioners, threats and possibilities (Will be published in October)

Aging China and Health Care (Will be published in Oct-Nov)

Corporate Social Credit System (Will be published in Oct-Nov)

Fintech – Hong Kong's role in global Fintech competition (Will be published in Nov-Dec))

OTHERS

Cyber security risks in Asia (including China) (Published) Hong Kong in the midst of Trade War between China and the US (Not public publication, confidential) Hong Kong's future economic outlook (Will be published in Oct-Nov)



LATEST ON FUTURE WATCH: WHAT'S TRENDING GLOBALLY TOWARDS 2030? - FOOD FOR THOUGHT, HOW'S CHINA REFLECTING THE GLOBAL DRIVERS?

OVERSATISFACTION OF BASIC NEEDS

- \Rightarrow Thinking will change into "what can I do to the world" instead of "What the world should do to me"
- \Rightarrow People start to turn towards sensible and meaningful basic needs

CLIMATE CHANGE WILL HIT US ON OUR FACES

⇒ Denialism: The crises on our door steps will increase the amount of people who want to deny climate change in order to safeguard their own financial and vested interests CONFLICT BETWEEN THESE GROUPS

CORPORATE CULTURES AND LEADERSHIP WILL BE UNDER PRESSURE TO CHANGE

- \Rightarrow Shareholder value is not the only value any more in the future
- ⇒ Businesses are becoming increasingly politiced values (environmental, political) are influencing businesses through consumers
- \Rightarrow People start demanding their voice to be heard in corporate leadership

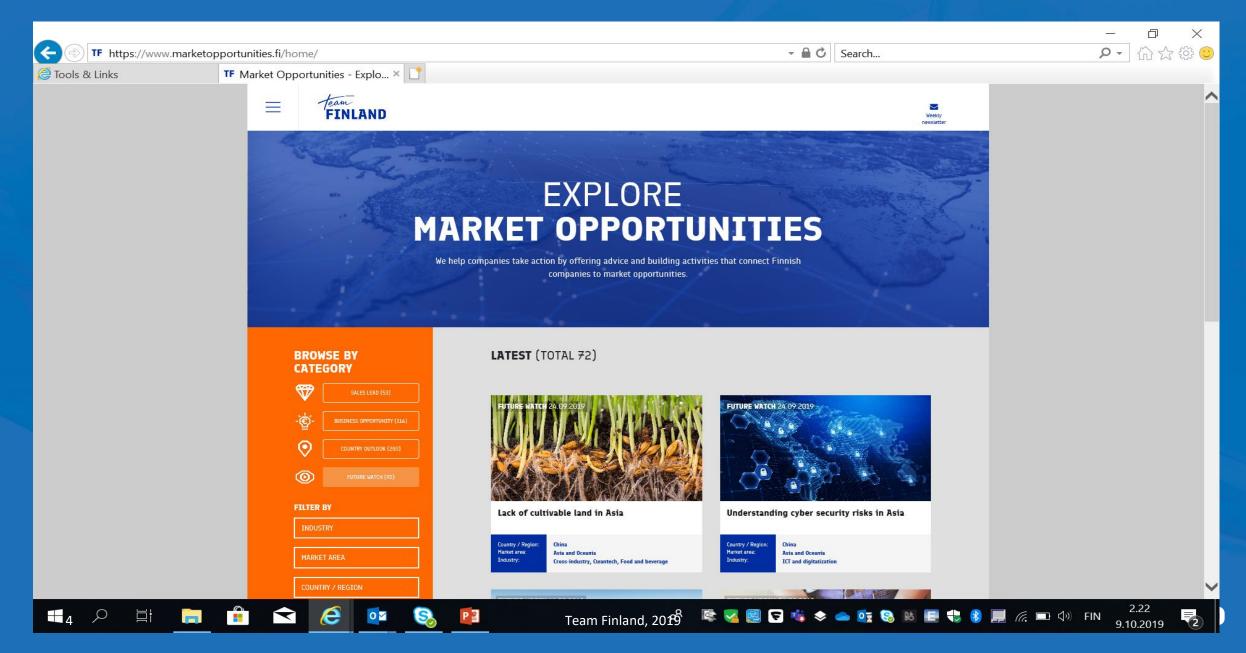
PEOPLE HAVE LOST THE ABILITY TO UNDERSTAND HOW THE LIVING ORGANISMS WORK

- \Rightarrow Industrialisation and urbanisation have caused people to alienate from the planet
- \Rightarrow Digitalisation is further alienating us

STRONG SIGNALS THAT THE WORLD IS DIVIDING INTO TWO ENTITIES: DIGITAL, POLITICAL, IDEOLOGICAL



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CHINA'S GENERATION Z

China's one child policy has contributed to the evolution of the Generation Z. The most common definition for China's Generation Z is the post 1995 generation, ranging between the ages of 15 and 23. Generation Z in China differs from peers in Western Countries notably in the economic conditions that has been favourable particularly for this generation of young people who have witnessed constant economic growth. Prosperity characterises the lives of these young people as they make almost one-third of the total consumption in China. The market is valued at 50 billion US dollars. Grandparents and parents (so called 4-2-1) practically enable the lifestyle of the Generation Z. Above 10% of average household spending in China originates from Generation Z. This generation is vitally important for the consumer brands: they have money to spend and on an annual level, they buy luxury items using more than 7,000 US dollars.

Generation Z is not too interested in saving; credit and debt are also options when it comes to financing expenses. In addition to 'living in social media', Generation Z also spends their money there.

Published in September 2019



UNDERSTANDING CYBER SECURITY RISKS IN ASIA

Cyber security is becoming increasingly important in all over the world and not least in Asia. The cyber threats landscape consists of eight different threats.

Cyber-physical attacks, Data nationalism, Cyber attacks using next-gen technologies, Victimise small & medium businesses, Political & economic threats, Enhanced regulatory requirements, Commodisation of cybercrime and Digital enablement threats.

Readiness of the countries' is usually depending on countries' maturity and regulations. Matured countries have usually more efficient regulation ranging from the data breach notifications to the clear processes. The problems for developing countries include finding IT experience and expertise. The lack of tension and interest makes these countries vulnerable to Cyberattacks. The exception is China, which has created its distinct environment. China's goal is to create "internet sovereignty".

In 2017, China implemented the Cyber Security Law (CSL). This law affects Finnish companies in many ways. Ever-changing regulations make it hard for companies to keep up.

The best ways to be prepared for cyber attacks are:

- Align cyber security with business operations
- Establish clear operational responsibilities for cyber security
- Ensure executive understanding and oversight
- Ensure executive understanding and oversight



LACK OF CULTIVABLE LAND IN ASIA

Every year, around three million hectares of agricultural land is lost globally. The more land we lose, the more difficult it becomes to produce the amount of food needed to feed the growing population. China has to feed almost a quarter of the world's populations but it only has 7% of the world's total arable land. Huge amounts of land are lost each year to new highways, housing, and other construction for urban needs.

The world population is expected to reach 9.7 billion by the year 2050 in which 90% is going to be in Asia or Africa. In the same year, the world needs to provide 60% more food than we currently produce.

In China, the farmable land is not expected to increase, so it must be able to produce a larger amount of food with the same resources. China's answer? Technology

New market opportunities all over the world will appear in food and agriculture businesses, and not least in China. In 2019, UBS investors calculated that the food production business will create over 700 billion USD market until the end of the year 2030. The market forecast is showcased on the right.

New business opportunities may emerge in the following areas:

- 1. Creation of new cultivable land.
- 2. Cleantech services to purify soil and preventing further contamination.
- 3. Food production styles such as vertical farming type production.
- 4. Innovations and technologies in agriculture (AI, robotics, drones).
- 5. New types of meat substitutes.
- 6. Creating stronger crops and seeds



SIGNAL: COOLING CHINA WITH AIR CONDITIONERS- THREATS AND POSSIBILITIES

Due to global warming and a growing number of heatwaves, the number of air conditioners will triple to 5.6 billion units by 2050.

Cooling is proven to be important, for example, for health and work efficiency. Also, air conditioners are needed to store food and medicines.

By the year 2030, 13% of the world's greenhouse gas emissions will be produced by the refrigeration sector.

China is the world leader in producing and selling air conditioners. Few manufacturers are dominating the industry and they operate with the existing regulations. Furthermore, many people in China cannot afford more expensive, energy-efficient equipment.

Inefficient air conditioners and poison coolants together form a problem that is difficult to manage.

Efficient and environmentally friendly devices are cheaper in the long run to customers but are not popular because of the high prices.

In China, the energy produced to power the AC devices is mostly manufactured by using coal.

The study made by the International Energy Agency (IEA) states that the energy-saving potential is 45% by 2050. This can be achieved by investing in energy-efficient air conditioners, environmentally friendly buildings and coolants.

United Nations has set a goal to secure clean and cheap energy also for people living in poorer areas to reduce greenhouse gas emissions.

Estimated publishing schedule October 2019



AGING CHINA & HEALTH CARE PROBLEM

China is one of the fastest aging countries in the world. United Nations has stated that by the year 2030, the entire baby boomer generation (born between 1946-1964) will be over 65 years old. Thus, in 2025 there are going to be 300 million elderly citizens in China. In 2033 that same number will be 400 million and in 2050, 487 million.

The age of retirement in China is 55 for women and 60 for men. These are considered to be one of the youngest in the whole world. On top of this, in 2017 the World Bank estimated that the current life expectancy in China will be over 76 years. People will live longer and healthier which means changing the social fabric. Elderly people have more money and time than ever before. Healthcare in particular needs innovations as the number of elderly people explodes in China. These problems have been caused by the increase in people's life expectancy, rapid urbanization and the change of family demography to the 4-2-1 system

One of the biggest problems of the future will be elderly care in China. The population will age at such a high rate that the Chinese health care system cannot prepare for this without the help of the private sector. There is already a shortage of nursing homes, nurses, doctors and hospitals. Thus, China has deregulated but has not led to the desired investment.

Healthcare was previously covered by the negative list. 01.01.2020 China will remove healthcare from this listing. This will make it much easier for foreign companies to enter the market.

Other possible solutions to the situation may be found from the new technologies such as artificial intelligence, robotics and wearable healthcare equipment (Watches, belts, etc.)

Estimated publishing schedule October/November 2019



CORPORATE SOCIAL CREDIT SYSTEM IN CHINA

By the end of 2020, China intends to fully implement the Corporate social credit system (CSCS). The system maintains a real-time point system utilizing artificial intelligence (AI). The company may gain or lose points depending on whether the company is operating under Chinese laws and good practice. These rules are set by the Chinese government. The lower the score, the harder it is for companies to do business. Penalties may include, for example, denials to entry the market or more difficult permission processes. In the worst-case scenario, the company may fall into the so-called blacklist. Higher scores, on the other hand, may enable lower taxes, getting a loan at a lower interest rate and possible public administration purchase requests. In theory, the system creates the same rules and opportunities for all businesses.

The challenge, especially for small and medium-sized enterprises, is to keep up with ever-changing rules and regulations. The compliance of the company's partners also affects the company's credit score. Thus, companies need to monitor their partner's operations. Scoring obliges companies to observe company representatives and high-end management. This type of supervision may be too much for many Western companies. The more thoroughly companies are prepared, the better. For many, the workload can come as a surprise. Companies must have good communication links with the government. Second, internal communication must be to respond quickly to changing regulations and issues. One department can quickly influence a company's points, either positively or negatively.

Estimated publishing schedule October/November 2019



FINANCIAL TECHNOLOGY (FINTECH) - IS HONG KONG THE NEW HUB?

Is Hong Kong the next Fintech hub?

How the industry will evolve?

what opportunities does this create?

How do cities and countries compete for businesses?

Estimated publishing schedule November/December 2019

