

## Sino Nordic Business Development Center **NEWSLETTER VOL1-2020**

### **China announces its first mandatory national standard in aged care services**

The "Basic Standards of Service Security for Elderly Care Institutions" was released recently. This is the first mandatory national standard in the field of elderly care services in China, and it is also the bottom line requirement for the quality of elderly care services.

The main content of this standard includes basic requirements, security risk assessment, service protection and management requirements.

For the basic requirements, it made clear that the elderly care institution should meet the mandatory regulations and requirements in the standards of fire protection, sanitation and health, environmental protection, food and medicine, construction, facilities and equipment standards; the elderly caregivers will only be qualified after training; round the clock patrol and shift system should be established; the confidentiality system of the elderly's personal information and monitoring content should be formulated; the health food and medicines should be prevented from being sold in the institution; the contaminated fabrics should be cleaned, disinfected and disposed of separately; no smoking in the living and activity areas of the elderly.



This standard proposes that the scope of service safety risk assessment should include 9 aspects: food choking, food and drug ingestion by mistake, pressure ulcers, burns, falling out of bed, tumbling,

other injuries and self-injuries, missing, and accidents in cultural activities. Time and frequency are also required: at least once a year.

The results of the assessment should be informed to the relevant third parties, that is, the elderly spouse, guardian, and individuals or organizations that provide funding guarantees or agency for the elderly. Risk level should be classified based on the evaluation results and a care plan be made for the risk level so that the plan is evidence-based.

Source: [http://www.gov.cn/zhengce/2020-01/13/content\\_5468701.htm](http://www.gov.cn/zhengce/2020-01/13/content_5468701.htm)

### **Two Ministry and Commission Issued the Opinions on Accelerating the Establishment of Regulations and Policies on Green Production and Consumption**

On March 17, the National Development and Reform Commission and the Ministry of Justice issued the "Opinions on Accelerating the Establishment of Green Production and Consumption Regulations and Policies", which proposed the implementation of green design, strengthening of industrial clean production, development of industrial circular economy, strengthening of industrial pollution control, promotion of the development of clean energy, green agriculture, and green service industry, expansion of green product consumption, and many other tasks.



The opinion suggests that in promoting clean energy development, policy support for distributed energy, smart grids, energy storage technologies, and multi-energy complementarity should be increased, standards and support policies for the development of new energy sources such as

hydrogen and ocean energy should be studied on and formulated. In expanding consumption of green products, the promotion mechanism of green products such as energy-saving appliances, high-efficiency lighting products, water-saving appliances, green building materials, and new energy vehicles should be established and improved. Where possible, appropriate support to consumers in purchasing energy-saving home appliances, energy-saving new energy vehicles, water-saving appliances, etc, should be provided. Encourage new and updated vehicles using new energy and clean energy in public transportation, sanitation, rental, commuting, urban postal express operations, and urban logistics. In promoting a green lifestyle, the price policies for residents' use of electricity, water and gas should be improved. Implement a sewage treatment fee system and adjust the sewage treatment fee standard to a level that compensates the operating costs of sewage treatment and sludge disposal facilities and is reasonably profitable.

According to the opinion, by 2025, the regulations, standards and policies related to green production and consumption will be further improved, and an institutional framework with incentives and constraints in place will be established. Green production and consumption methods will be fully implemented in key areas, key industries and key links.

Source: <https://www.ndrc.gov.cn/xxgk/zcfb/tz/202003/P020200317570029922474.pdf>

## **Mobile healthcare and COVID19**

### *China built a hospital in 10 days to battle Coronavirus*

A medical facility in the city of Wuhan in China opened its doors to patients after just 10 days of construction, to treat patients infected with the coronavirus.

Construction of the Huoshenshan facility began on Jan. 25. The swift construction was the product of a round-the-clock effort fueled by 4,000 workers and 1,000 construction machines. The 645,000-square-foot makeshift medical facility is made up of two floors and is equipped with 1,000 beds, several isolation wards, and 30 intensive care units.

The Huoshenshan hospital was built from prefabricated elements assembled on-site to reduce cost of construction and completion time. The design of the hospital is similar to that of the Xiaotangshan hospital that was built in Beijing to tackle the 2003 SARS virus outbreak—constructed within seven days. The second prefabricated hospital, Leishenshan, covering an area of 30,000m<sup>2</sup> and is equipped with 1,500 beds was also completed.



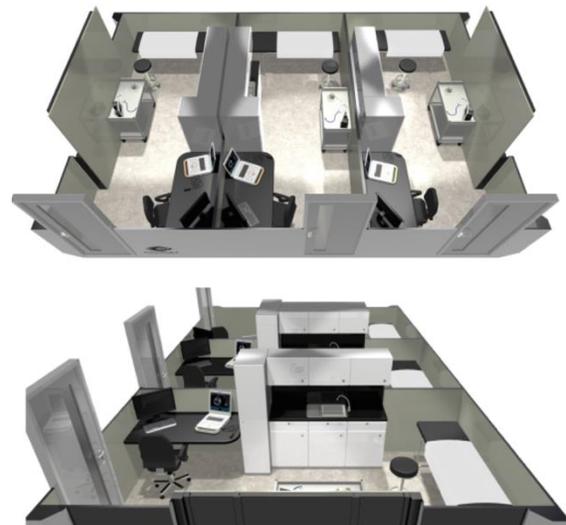
Source: [http://www.nea.gov.cn/2019-11/13/c\\_138551341.htm](http://www.nea.gov.cn/2019-11/13/c_138551341.htm)

### Nordic Smart Sustainable Living Lab in India

Under the threat of unpredictable infectious diseases, it is particularly important to provide patients with fast and convenient medical services in response to emergencies. The Nordic Smart Sustainable Living Lab in New Delhi, will **Connect**, **Create** and **Innovate** Smart livable urban healthcare centers with leading edge sustainable solutions in a Nordic-India partnership, as shown in the figure below.

### Solutions

	<b>Mobile</b> A truly flexible healthcare facility that provides access to healthcare wherever it is needed.
	<b>Relocatable</b> A unique result of clever thinking that reshapes the provision of healthcare delivery.
	<b>Container</b> An innovative platform for a fast track to improve healthcare accessibility.



The Healthcare center is an expandable and moveable healthcare solution. The healthcare center has the size of a 40 f container and can be moved to a specific location and placed there with foundation as part of the solution. On the construction site, the module can then be expanded to a

size of a 50m<sup>2</sup> healthcare center. See video here: [http://www.nordicflexhouse.dk/wp-content/uploads/2020/02/expandable-units.mp4?\\_=1](http://www.nordicflexhouse.dk/wp-content/uploads/2020/02/expandable-units.mp4?_=1)

One important cornerstone of the concept is the use of mobile units equipped with the latest technology within areas, such as Telemedicine solutions including Artificial Intelligence (AI) and Virtual Reality (VR). Medical applications:

- Elderly care – “Senior-mobile” for emergency and chronically ill elderly patients.
- Women and child – “GP-mobile” for prevention screening and vaccination.
- Screening – “Screening- mobile” – available for breast, prostatic and other screening activities.
- Advanced diagnosis and treatment – including technologies such as High Intensity Focus Ultrasound (HIFU) for treatment of prostatic- gynaecology and breast tumours.
- Advanced surgery – technology for the latest development of holographic imaging and VR.

For more information, contact Anders Thomsen, Nordicflexhouse (email: [ant@nordicflexhouse.dk](mailto:ant@nordicflexhouse.dk) and phone: +45 52250493).

## **Chinese economy hit by Coronavirus outbreak**

Preliminary data on the effect of the COVID-19 disease on the Chinese economy shows substantial dips in areas of retail sales and industrial production.

The National Bureau of Statistics of China released a report showing a 13.5 percent decline in industrial output over the first two months of the year. For retail sales, an even larger 20.5 percent decline was reported for the months of January and February, while a metric gauging construction activity saw a 24.5 percent decline in the country due to mass quarantines and social distancing measures taken to prevent the coronavirus spread.

Factories and business around China were locked down over the course of January and February to curtail the spread of the novel coronavirus. This method has shown success so far in stopping the spread, and has prompted governments around the world to follow China's example and mass quarantine their citizens. Still, while the spread of COVID-19 appears to slow with such aggressive measures, the impact on China's production and economy shows what may be in store for some countries as global markets continue to plummet.

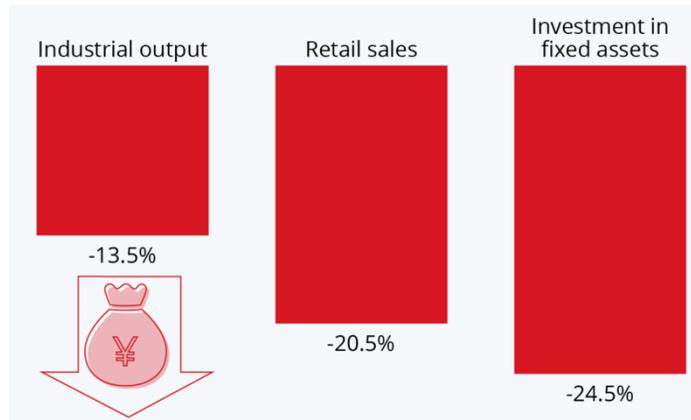


Figure:

Year-on-year change in economic activity in China in Jan. and Feb. 2020

Source:

<https://www.statista.com/chart/21135/production-and-sales-losses-in-china/>

## **IDC FutureScape: Worldwide Healthcare 2020 Predictions-China Implications**

International Data Corporation (IDC) recently released "IDC FutureScape: Worldwide Healthcare 2020 Predictions-China Implications" (January 2020). The report introduces the ten predictions of the global health industry in 2020 and China's implications. A guideline for technology buyers in the healthcare industry to consider in the technology development path during 2020-2025. The top ten predictions of IDC China's healthcare industry in 2020 are as follows:

Prediction 1: Real-world evidence. The pursuit of economics will drive the life science industry to use real-world evidence (RWE) technology in quantitative best practices in the near future. By 2021, 20% of the strategic insights of Chinese life science companies will be directly supported by RWE.

Prediction 2: Normative Internet of Things. By 2022, more than 30% of China's pharmaceutical and biotechnology companies will use IoT-based normative analysis and artificial intelligence technology to optimize their supply chains.

Prediction 3: Personalized medical and health services. By 2022, China will use technology to integrate all health sectors to provide personalized medical services and the percentage of medical institutions that have demonstrated significant results will increase to 30%.

Prediction 4: Personalized medical insurance plan. In order to cope with the increasing pressure on medical costs and consumer demand, by 2023, insurance companies will provide “comprehensive protection plans” for participating consumers in 30% of health insurance plans.

Prediction 5: Digital patient connection. By 2023, 30% of pharmaceutical companies and 40% of medical institutions in China will provide smartphone or smartwatch applications to improve medication compliance and patient participation.



Prediction 6: Data Excellence. By 2023, 20% of medical institutions and 20% of life sciences institutions in China will achieve advanced data applications through advanced data analysis and intelligent cores that support human-machine collaboration.

Prediction 7: Successful application of artificial intelligence. By 2024, 30% of China's medical and life sciences organizations' business and clinical decisions will be prompted by artificial intelligence insights, and one-fifth of the insights will be rejected for lack of commercial and clinical participation.

Prediction 8: Future work. By 2023, human-robot collaboration and artificial intelligence-driven interfaces will change the way hospitals work in the future and the corresponding medical information systems.

Prediction 9: Smart hearing aids. By 2025, smart hearing aids from wearable device vendors will account for 20% of the global market for mild to moderate hearing loss hearing aids.

Prediction 10: Future industry. By 2025, 30% of hyper-relevant innovations will be driven by a combination of large-scale social, health, and environmental goals and will be achieved through ecosystems including industry participants, academia, and government.

Source: <https://www.idc.com/getdoc.jsp?containerId=prCHC45922620>

## **Sino Nordic Innovation Cluster Expanded to India**

The Sino Nordic Innovation Cluster has been expanded to India. We will have the same focus as in China. Indian has the same challenges as China but is around 10 years behind China in its development. Our focus on:

- Air monitoring and purification
- Water/waste treatment solutions
- HVAC (healthy indoor climate solutions)
- Healthcare technologies
- Green agricultural technologies
- Smart home and smart community solutions.



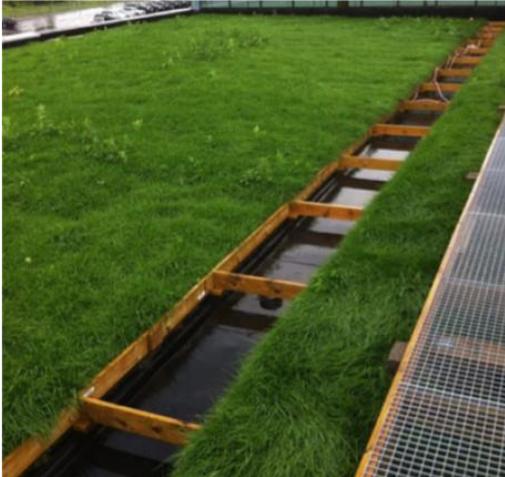
We have made strategic partnerships with key stakeholders on the India market, like Invest India, Ministry of Housing and Urban Affairs (MOHUA), Danish embassy in New Delhi and Bangalore (they are interested to promote Nordic Technologies in India). Nordicflexhouse has by the MOHUA been selected as a Proven Technology Provider for affordable green apartment projects in India, under the GHTC-India (Global Housing Technology Challenge). We are involved in a big apartment project in New Delhi of 526.091 m<sup>2</sup>. This project will implement Nordic Technologies into the project to promote and sell green apartments in India. We have established good partnerships with major India companies across mentioned sectors, like Air purification sector, Water and waste treatment and Healthcare sector. These India companies can be distributor, OEM manufacturing company or joint venture partner in India for Nordic technology companies. Our homepage: [Indonordicbusiness.in](http://Indonordicbusiness.in) will be open soon. Membership of Sino Nordic Innovation Cluster will in 2020 also include India.

For further information, contact Anders Thomsen, Nordicflexhouse. (email: [ant@nordicflexhouse.dk](mailto:ant@nordicflexhouse.dk); phone: +45 52250493)

## New members of our sinobusiness.dk

### Taklorv

Nittedal Torvindustri AS and "Nittedals Taklorv<sup>®</sup>" – Nittedals Roofing Turf



- Nittedal Torvindustri AS in Norway – established in 1948 and is producing a wide range of natural growth substrates
- Introduced in 1988 Nittedals Taklorv<sup>®</sup> – "Nittedals Roofing turf" – a modern turf product supporting the establishment of traditional green roof also on modern buildings in urban environments
- Turf for roofs are normally available as loose bulk material – Nittedals Roofing Turf is packed in unique mesh bags which you can put directly on the roof securing very EASY INSTALLATION

Nittedals Taklorv<sup>®</sup> – Nittedals Roofing Turf, a perfect growth substance for an improved intensive green roof



- Delay and reduces the flow of rainwater from your roof
- Creates a green active and useable surface to the benefit of humans, birds and insects
- Supporting biological diversity and ecological balance also in urban areas
- Absorbing carbon dioxide, dust and other particles giving improved air quality in urban areas
- Reduce the buildings energy cost, reduce indoor and outdoor noise and stabilise outdoor temperature
- Very cost effective compared with almost all other greenroofs

## Nittedals Taktorv® – Nittedals Roofing Turf

- Turf packed in unique Mesh bags, 700mm x 450mm x 170mm
- Available with or without a natural seed mix in the bag
- Normally supplied as 36 bags on pallet (11 sqm)
- Bag weight of 17 kg securing easy transportation up to the roof and easy handling
- 3,2 – 3,5 bags per sqm, depending on the roof angle
- Normal weight of the commercial product: ca 55 kg/sqm
- Weight of product saturated with water: ca. 130 kg/sqm
- Scientifically documented product

Business contact:

Aarbogh Business Partner ApS  
Att. Terje Aarbogh  
Junggreensvej 1, DK 2000  
Frederiksberg, Denmark

Email: [terje.aarbogh@nittedals.dk](mailto:terje.aarbogh@nittedals.dk)

Phone: +45 21744739

Webpage: [www.nittedals.dk](http://www.nittedals.dk)

## Consibio

Consibio is a Biotech-spinoff from Aarhus University, School of Engineering with expertise in optimization and automation of biological production.

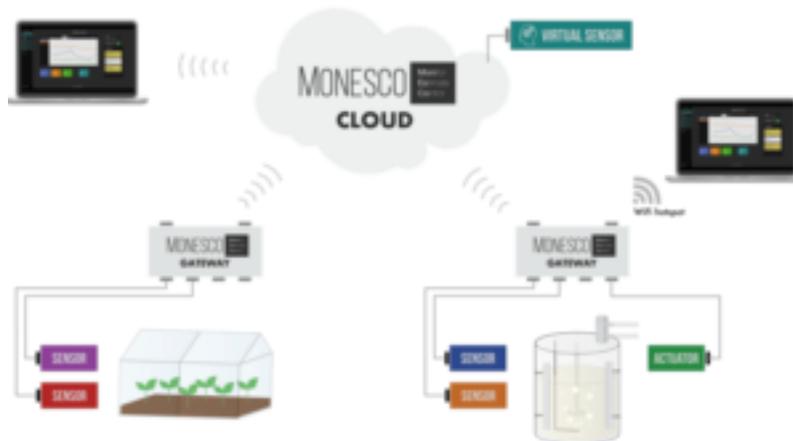
Consibio develops the product “Monesco”. Monesco is a highly scalable platform for process monitoring and automation. The system is designed to be “plug-&-play” which enables easy implementation of additional or 3rd party sensors and actuators.

Consibio’s Virtual Sensor technology enables operators or managers to log in to the cloud platform and see the specific performance indicators in real-time to increase up-time and improve productivity.

The Monesco is currently being utilized within biogas, aquaculture, insect productions, laboratories, wastewater applications and urban farming solutions.

Product video: <https://www.youtube.com/watch?v=BJaWHAxntel>

Product overview:



Contact: [www.consibio.com](http://www.consibio.com), email: [contact@consibio.com](mailto:contact@consibio.com)

## Absolicon

### *Brief introduction of the company*

Absolicon is a listed Swedish solar energy company, specializing in concentrated solar heating. The solar collector T160 operates up to 160°C and has the highest optical efficiency ever measured for a commercially available small parabolic trough. After achieving groundbreaking performance, Absolicon has built two robotized production lines, one in Sweden and one in China that can produce 50 MWp(th) annually, one 5.5 m<sup>2</sup> solar collector every six minutes. The company combines solar energy research with sales of solar collector fields to industries that need heat and steam and complete robotic production lines for T160.



### *Brief introduction of the technology /product*

Absolicon is a world-wide supplier of robotic production lines that produces the best solar thermal troughs in the market. If our technology should cover the expected demands from the market we must have domestic productions worldwide to achieve good lead times, competitive prices and reduce the costs of logistics and customs. We are the only company in the world that do offer this solution.

Our solar collector design is best in class with highest measured efficiency and utilizes sun tracking system to collect the solar energy optimally. The troughs has a sealed design with self-cleaning glass developed to withstand extreme weather conditions.

### *The advantages of the technology*

Solar energy is clean, free and unlimited. With Absolicon solar thermal technology we can help industries go sustainable and reduce CO2 emission all the way down to net zero. We will together with our customers find the best solutions to reach their sustainable goals.

### *Application Field*

We can approach any industry that has heating processes at temperatures up to 160 degrees or 8 bar steam -and thereby replace fossil fuels. For applications with higher temperatures we could be an option for pre-heating. Example of industries are food processing, breweries, pharmaceutical, mining, pulp & paper, textile... Solar collectors can with great advantage generate both heat and solar cooling in district heating networks and for large buildings

Attached document/videos: <https://vimeo.com/absolicon>

### *Contact:*

[Kc.ching@absolicon.com](mailto:Kc.ching@absolicon.com)

Mobile / Whatsup: +46 70 576 53 53

Phone: +46 611 55 70 00

Address: Fiskaregatan 11, 871 33 Härnösand, Sweden

[www.absolicon.com](http://www.absolicon.com)

## Glocal Health

### *Brief introduction of the company*

Glocal Health AB ([www.ghiab.com](http://www.ghiab.com)) is a development company with the idea of bringing standardized, cost effective and high quality healthcare to people in emerging markets by exploring the "GloCal concept": GLObal cloud based information flow, management and exchange, combined with loCAL mobile and/or flexible hospitals. "flat package" solutions.

### *Brief introduction of the technology/product*

The "GloCal concept" takes advantage of the rapid development of mobile technology/internet, virtual experts, AI, e-learning and quality assurance. Branded local healthcare delivery can be organised and local staff can be educated, trained and equipped with solutions for internet communication and medical technology.

### *The advantages of the technology*

Access to virtual global experts AI-tools and monitoring will guarantee a cost-effectiveness and high medical quality. Continuing e-learning will improve the skills of the local staff. Further development of the concept includes integration of more advanced mobile units both for dedicated specialized healthcare and for preventive care and screening.

Application fields: Healthcare diagnosis, treatment, monitoring and screening. Elderly care.

## Amovido A/S

Amovido A/S (<https://www.amovido.dk/>) is a Danish Construction company, that manufacture sustainable modular houses in a factory. They have a factory in Jutland of 4.000m2.



The basis of our company profile is the belief that a sustainable life lived in community will become the preferred living choice in the near future. Therefore, we design and construct sustainable houses and communities with a strong focus on resource optimization through prefabrication.

Amovido differs from other housing concepts in that it is built in a mass customized platform, that can meet the modern family's individual wishes and requirements for the future of the home, in relation to functions in space, environment, design, aesthetics and total economy. Below is a clarification of the innovative elements in the housing platform.

1. Economy. Amovido's business-creating moment breaks with building traditions, by being platform-oriented and focusing on continuous additional sales of services, rather than one-off sales of static solutions.

2. Flexible. Each villa/dwelling is tailored specifically to the buyer's wishes in relation to everything from the composition of rooms, to the pattern on the wall and the technological solutions. The house can thus be scaled according to the individual's needs, financial space and geographical location.



3. Environmentally. By reaping the benefits of standardization / modularization and configurable production of green system products, Amovido makes the home financially competitive in relation to competing solutions and thus a competitive advantage in creating green sustainable urban development in China. Environmental buildings refer to energy efficiency, sustainable materials and recycling water and waste treatment in the building.

4. Well-being. Amovido creates a balance between healthy indoor climate, spaciousness, nature and functionality. Competing modular and prefabricated concepts focus only to a limited extent on completing all these aspects. Total integration is usually reserved for expensive self-built solutions (unique construction).

## **The 2nd Nordic Edge Smart City Summit in Asia postponed to November/December, 2020**

Due to the unfortunate situation with the global outbreak of the coronavirus, Nordic Edge Asia, scheduled to take place in the Chinese cities of Beijing and Yantai, April 20-24 will be postponed to November or December 2020.

More information: <https://www.nordicedgeasia.org/>

For more information, contact Anders Thomsen, Nordicflexhouse (email: ant@nordicflexhouse.dk and phone: +45 52250493).