

# Science China Newsletter, April 2020

## Trends in education, research, innovation and policy



Ningbo Port, China

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## Swiss Spotlight

### Entrepreneur: Scaling Leadership Coaching

(André Gisiger, April 30, 2020)

André Gisiger is an entrepreneur in the virtual professional development field. A native of Zurich, he studied Economics at UC Berkeley and obtained an MBA at MIT. He has worked in China for 15 years, first as MD for a boutique consulting firm, then managing New Platform Development at EF before co-founding ILE/GloCoach. Prior to China, he worked for McKinsey & Co, PwC and AIG in the US, Germany, Denmark and Switzerland. GloCoach uses a data driven approach to identify areas of improvement and match candidates with the best possible coach. The system combines coaching with advisory and allows to set and track targets with ease, giving stakeholders access to information they need to make the right decisions at the right time. André Gisiger has designed recruiting tools, leadership content and programs for the virtual world of coaching. In times of Covid-19, the importance of virtual solutions has increased, both from practical and financial perspectives. André Gisiger occasionally also coaches, hosts webinars and publishes articles on the topic of coaching and virtual talent development.



[/web/2020/00-200430-96](#)

### Startup: Embion Technologies S.A. - One touch Solution to Innovate in Nutrition

(Embiontech, April 30, 2020)

Embion empowers access to next-generation nutrition innovation through its platform technology. The Company specializes in the efficient extraction of bioactive nutrition for humans and animals. By enabling industries to innovate responsibly on its rapid-prototyping platform, Embion aims to remodel renewable nutrition, material, and energy smartly, with integrity and speed. Embion's mission is to catalyze the world's transition to zero waste. As antibiotics are withdrawn from livestock production, producers are looking for cost-effective, natural alternatives. Embion's first commercial application of the technology platform enables the production of affordable, next-gen prebiotics, the nutrition for the microbiome. Using food side-streams, the process is targeting available materials naturally rich in desired prebiotic types. By addressing both animal and human nutrition, Embion may leverage insights across species for the development of increasingly targeted prebiotics. The Swiss based hard-tech start-up, spin-off of EPFL, seeks to connect with industry experts in the world over. Embion looks forward to being part of the Innosuisse Market Validation Camp China in 2020.



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## 1. Policy

### Ministry Supports Development of New Technologies

(China Daily, April 05, 2020)

China will strengthen support for the development of cutting-edge technologies and new formats of industries showing great potential during the COVID-19 epidemic, and create a favorable environment for technological innovation, an official from the Ministry of Science and Technology (MOST) said. The MOST will increase support for the development of cutting-edge technologies, focusing on advanced computing, core software, broadband communications, blockchain, optoelectronics, micro/nano electronics, artificial intelligence and new materials, among other fields. The MOST will also strengthen guidance and support for new businesses and new models that have shown great potential in the epidemic prevention and control, focusing on new health industries, sci-tech services, smart cities, modern logistics and education services.

[/web/2020/01-200405-21](#)



### Amending Law to Strengthen Copyright Protection

(Xinhuanet, April 26, 2020)

China's lawmakers began reviewing a draft amendment to the Copyright Law to strengthen copyright protection in cyberspace and enhance supervision and punishment on illegal acts. The draft amendment was submitted for deliberation at the regular session of the Standing Committee of the National People's Congress. With the rapid development and application of new technologies, some existing regulations can no longer meet the practical needs, read Yuan Shuhong, vice minister of justice, when briefing on the draft to the legislators. The Copyright Law was put into effect in 1991 and amended in 2001 and 2010.

[/web/2020/01-200426-7f](#)

### New Cybersecurity Rule

(China Daily, April 28, 2020)

China's new regulation on a cybersecurity review system, which aims to promote an orderly, secure and open cyberspace and safeguard national security, will take effect on June 1, according to the country's top internet regulator. The new document, entitled cybersecurity review measures, reiterated the cybersecurity compliance obligations imposed under the Cybersecurity Law, showing the government's ongoing commitment to safeguarding national security and ensuring the safety of supply chains in relation to critical information infrastructure, experts said. They said the implementation of the review system will help eliminate potential cybersecurity risks, ensure public safety and national cyberspace as well as promote the healthy and orderly development of the information industry.

[/web/2020/01-200428-77](#)



## 2. Education

### Free Online Vocational Training Program

(China Daily, April 09, 2020)

China has launched a large-scale online vocational training program free of charge, as part of its efforts to improve workers' professional skills and facilitate poverty alleviation, the Ministry of Human Resources and Social Security said. The ministry will select more than 50 high-quality online platforms to provide free skill training for over 5 million people from late March to the end of June, with digital training resources covering over 100 types of jobs. Labors in rural and urban areas, including migrant workers, unemployed people and college graduates, can all apply to receive the training, the ministry said. Subsidies will be given to enterprises





participating in the program and trainees, especially those in financial difficulties.

[/web/2020/02-200409-25](#)

## When Classes Start Again, Masks Required

(China Daily, April 13, 2020)

The Beijing Municipal Education Commission said in a circular that surgical masks are must-have items for teachers when giving lessons at school. It added that the disinfection of classroom floors, study lounges and labs should be conducted twice daily, and used tissues and face masks should be placed in special trash cans with people assigned for clean-up. If the novel coronavirus is confirmed or suspected in a school, an emergency response plan must be launched and measures such as a suspension of classes or even closing the school would be taken to guarantee the safety and health of students and teachers, the notice said. A relatively closed class management method will be adopted at the start of the new semester. All classes will set different times for breaks, meals or leaving school to reduce interaction as much as possible between students.

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## Improving High School Education

(China Daily, April 13, 2020)

China has made progress in improving high school education, with its gross enrollment rate for senior high education reaching 89.5 percent in 2019, up 1.2 percent from 2017. By the end of 2019, the proportion of oversized high school classes with over 56 students had declined to 19.39 percent, a drop by 10.97 percent from 2017. Oversized classes have long been a prominent issue in China's education system, as quality education resources are insufficient in some regions. To meet the need of smaller classes, the number of full-time high school teachers totaled 1.86 million in 2019, growing by 85,200 compared to that of 2017, according to the report.

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## Universities Anticipate 100,000 Doctoral Students in 2020

(China Daily, April 15, 2020)

Chinese universities will admit more doctoral students for 2020 to meet a target of 100,000 set by the Ministry of Education (MOE). Admissions policies unveiled by some universities showed that they will expand doctoral programs compared with last year. Shanghai Jiaotong University is expected to enroll around 2,500 doctoral students for 2020, 300 more than that of 2019. Renmin University of China opens around 1,000 slots for 131 doctoral programs this year, compared with 940 slots for 130 doctoral programs last year. The universities with expanded doctoral programs also include Nankai University, Southeast University, Henan University, Guangzhou University and Airforce Medical University.

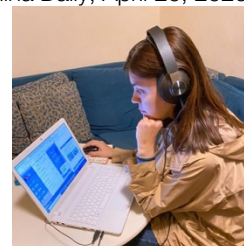
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## Tsinghua Launches International Version of Its Online Education Platform

(China Daily, April 20, 2020)

XuetangX, China's first and largest massive online open course platform initiated by Tsinghua University, launched its international version on 20th April. Ministry of Education said this platform is free for all college students and learners from all over the world during the COVID-19 outbreak. As a major higher education power, Chinese universities should have the ability and responsibility to provide the best online teaching experience and resources to college students and learners from all over the world. The number of online MOOC courses on China's online education platforms increased by



5,000 to 23,000 in the first quarter of this year.

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## Digital Reading Sector Booms

(China Daily, April 24, 2020)

The market size of China's digital reading sector grew 13.5 percent year-on-year to 28.88 billion yuan (\$4.08 billion) in 2019, as more consumers resort to reading online. The report, released on the sidelines of the China Digital Reading Conference Online 2020, showed that writers born in the 1990s have become the mainstream writers of digital books in China, accounting for 58.8 percent of all writers for digital reading. By the end of 2019, China had 470 million users of digital reading services, and on average, they read about 15 digital books a year, said the report released by the China Audio-video and Digital Publishing Association.

[/web/2020/02-200424-d3](#)



## Global Event with UNESCO on Online Education amid COVID-19

(Global Times, April 25, 2020)

China's Tsinghua University held a global online event titled, "The Special Dialogue: Online Education in the COVID-19 Response and Beyond" with 21 universities from 15 countries co-convened with UNESCO to share experiences about online education amid COVID-19 pandemic and calls for cooperation to explore new teaching modes combining online and off-line education. Leaders, scholars and experts, including the presidents of Tsinghua University, Yale University, Waseda University and Vice-chancellor of University of Cambridge, introduced and discussed the new changes brought by the online teaching practices and teaching modes that have evolved since the pandemic hit. They conducted in-depth discussions on the future of cooperation between universities for teaching and scientific research exchanges.

[/web/2020/02-200425-16](#)



## 3. Life Sciences / Health Care

### Progress in Developing Coronavirus Vaccine

(China Daily, April 02, 2020)

An adenovirus vector vaccine and mRNA-based antibody drugs against COVID-19 developed by Tsinghua University have made significant progress and are expected to enter animal trials to test the feasibility and safety at the end of May. Deng Ning, deputy dean of Tsinghua University's Office of Scientific Research & Development, said that a research team of the university, led by Zhang Linqi from the university's medical school, has successfully isolated more than 200 strains of COVID-19 antibodies with high neutralization ability, along with their coding genes from the blood of recovered patients. With the support from the Ministry of Science and Technology, the Ministry of Education and Beijing municipality, the team has launched a partnership with two pharmaceutical companies on research, development, medical trials and production of the vaccine. The vaccine and antibody drugs will be tested on animals by the end of May.

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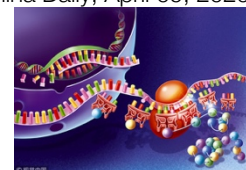


## Discovery in Gene Editing Approach

(China Daily, April 09, 2020)

Shanghai scientists have found in lab tests that a novel gene editing approach could for the first time regenerate retinal ganglion cells and therefore restore sight of mice that suffer from permanent visual impairment. The technology, which converts particular glial cells into neurons, was also found to be able to help mice suffering from Parkinson's disease regain motor functions. The lab results have provided insights into the clinical treatment of various neurodegenerative diseases, such as Parkinson's disease, Alzheimer's disease, muscular dystrophy, frostbite and certain types of blindness, said the research group from the Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences (CAS).

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## Prospective Vaccine in Phase II Trial

(China Daily, April 11, 2020)

A recombinant novel coronavirus vaccine, which is China's first vaccine candidate to enter clinical human testing, began recruiting participants for its Phase II clinical trial. There is a need for 500 volunteers, five times the number used in the Phase I trial conducted in March. Participants will be divided into three groups a moderate dose, a low dose and a control group according to Cansino Biologics Inc, a Tianjin-based company responsible for the vaccine's development. It said 250 participants will be involved in the moderate dose test while the rest will be equally distributed into the low dose and control group. The vaccine candidate is made through recombinant DNA techniques, which typically involve taking a gene from one organism and inserting it into the DNA of another.

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## First One-Stop Center for Parkinson's Disease

(China Daily, April 11, 2020)

China's first one-stop care center and medical training base for Parkinson's disease, built by Shanghai Ruijin Hospital and supported by the Branch of Neurologists of the Chinese Medical Doctor Association, was launched at the hospital. The center boasts cutting-edge technologies and patient-centered services. It features various high-tech facilities specifically used for the evaluation and treatment of such patients. The center also has a strong team consisting of top medical experts in neurology, rehabilitation, imaging, psychology and psychiatry, nutrition and nursing. Once patients are admitted into the center, they will receive multidisciplinary treatment with tailor-made medication and rehabilitation treatment together with nutrition and psychological guidance.

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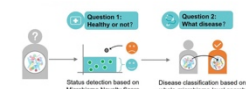


## Microbiome Search Method to Rapidly Detect Diseases

(China Daily, April 12, 2020)

Researchers have developed a disease detection strategy based on a microbiome data search for rapid diagnosis. The strategy can determine whether the microbiome samples being tested are healthy by figuring out the abnormal degree between them and the healthy samples in the database, as well as recognizing specific diseases by comparing the samples with the disease samples in the database. More than 3,000 tests on intestinal flora samples showed that the strategy can detect multiple intestinal diseases with an accuracy above 80 percent. The detection can be completed within half a second.

[/web/2020/03-200412-34](#)



## Virus Mutating Won't Affect Vaccine work

(China Daily, April 18, 2020)

Scientists are now aware that the novel coronavirus is changing its genetic makeup slightly, but the rate of mutation is slow and no evidence of a change in the virus's biology has been found, meaning these minor mutations will not affect current drug and vaccine development, scientists have said. Because the coronavirus tends to mutate slower compared to other ribonucleic acid viruses, so it will need more time for these small, cumulative changes to alter its function. At the same time, current drug and vaccine research against the virus focuses on its key genomes and antigens, which have been stable.

[/web/2020/03-200418-4a](#)



## Alzheimer's Drug wins FDA Approval

(China Daily, April 28, 2020)

A new drug for Alzheimer's disease developed by Chinese researchers has won approval from the US Food and Drug Administration (FDA) to undergo clinical trials on patients overseas. Green Valley Pharmaceutical Co., Ltd, one of the drug's co-developers, put the notice of FDA authorization to administer the drug to humans. The Shanghai Institute of Materia Medica under the Chinese Academy of Sciences confirmed it in a statement. The orally administered drug GV-971 was an achievement of a 22-year study led by researchers from the institute, Ocean University of China and Green Valley. According to an article published in the international journal Cell Research in September 2019, the drug, extracted from brown algae, works by modifying gut bacteria to ultimately reduce brain inflammation in mice that were genetically engineered to have the disease.

[/web/2020/03-200428-0d](#)



## 4. Engineering / IT / Computer Science

### First Inter-provincial Loop Rail Line

(China Daily, April 10, 2020)

The first inter-provincial loop railway line has been put into service in southwestern China, as the country's top railway operator unveiled a new national train operation plan to boost capacity of the country's trunk lines and cargo service. The adjusted operation plan will witness the country's first high-speed loop line cycling three landlocked provincial regions – Sichuan province, Guizhou province and Chongqing municipality, China State Railway Group said. The whole journey will only take about eight hours, which will greatly facilitate travel, especially for those in smaller cities, it added. The new plan will also raise the number of passenger trains in service to 4,970.5 pairs, an increase of 130.5 pairs over the previous operation plan, the company said, adding it will strengthen the country's passenger transport service.

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### World's Largest Rectangular Shield Tunneling Machine

(China Daily, April 13, 2020)

China Railway Engineering Equipment Group Co., Ltd. (CREG) said it had produced the world's largest rectangular shield tunneling machine. The shield tunneling machine, which rolled off the production line at the corporation's Shanghai plant, is 14.82 meters in width and 9.446 meters in height. It will be used to carry out tunneling in an expressway project in the city of Jiaying, East China's Zhejiang Province, according to a source of the CREG, which is based in Zhengzhou, Henan Province. It marks a breakthrough for China in the technology to design and manufacture shield tunneling machinery through solving a series of technical roadblocks in the process of design and manufacturing.

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## Health QR Code for COVID-19 Prevention

(China Daily, April 27, 2020)

Internet tools have played a positive role in China's COVID-19 prevention and control work. Since human-to-human contact is the main transmission channel for the novel coronavirus, health QR codes is widely used in China as a pass for people to travel between different localities. This has safely managed people's movement to some extent. Over 10 provinces and municipalities now recognize each other's health QR codes, which means that people with a green code issued by one of these localities can travel within all these places without having to undergo 14 days of quarantine. The digital economy is real-time, online and easy to be located. These features have enabled it to play a prominent role in the fight against the novel coronavirus. And its application is one of the reasons why East Asian countries have so far better controlled the pandemic than Europe and the United States.

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## World's largest Container Ship starts Maiden Voyage

(China Daily, April 27, 2020)

HMM Algeciras, the largest container vessel on earth with a TEU (20-foot equivalent unit) capacity of 24,000, started its maiden voyage from the port of Qingdao in eastern China's Shandong province. The ship, measures 399.9 meters long and 61.03 meters in beam and has a deck area of more than 24,000 square meters, about the size of three and a half standard soccer fields. The HMM Algeciras can carry some 200 more containers than the previous largest container ship, Zhang added. When fully loaded, all 24,000 containers, if connected end to end, will reach a total length of 150 kilometers.

[/web/2020/04-200427-19](#)



## 5. Energy / Environment

### Campaign for Marine Environment

(China Daily, April 01, 2020)

China will launch an eight-month-long special law enforcement campaign to enhance marine environmental protection, according to the China Coast Guard (CCG). The campaign, coded "Blue Sea 2020," will run from the beginning of April to Nov 30, said a statement jointly issued by the CCG, Ministry of Natural Resources, Ministry of Ecology and Environment and Ministry of Transport. The campaign will target violations of laws and regulations in eight fields including marine and coastal project construction, offshore oil exploration and exploitation, marine dumping and sea sand mining and transportation. Any illegal activity that causes pollution and damage to the marine ecological environment will be harshly cracked down to advance the country's efforts against pollution, said the statement.

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### Solar Industry to Make Full Recovery

(ESI Africa, April 02, 2020)

Following the outbreak of COVID-19 in China in late 2019, solar manufacturing was severely disrupted in Q1 2020 as the Chinese national holiday was extended and restrictions were placed on movement. As restrictions gradually eased, manufacturing in China slowly resumed from late February, and has the potential to reach full capacity by the end of Q2 2020, according to research firm IHS Markit. IHS Markit new solar PV







outlook forecasts 105GW in 2020, a 16% Y-o-Y decline from 2019 global installations. It is assumed that the rapid recovery of demand in H2 2020 will be aided by Government support in order to protect its domestic manufacturing and installation base. If this is the case, China will once again account for more than 40% of global installations in 2020, as it did each year between 2016 and 2018.

[/web/2020/05-200402-33](#)

## World's Largest Solar Modules Production Plant

(Construction Review, April 06, 2020)

World's largest solar module production plant is set to be constructed by China-based solar manufacturer GCL System Integration Technology (GCL-SI). The US \$2.5bn plant which will be built in Hefei province and will have the capacity to manufacture 60GW of solar panels on an annual basis. It will also be equipped to produce 210mm high-efficiency modules. The project which aims to create a super PV intelligent manufacturing base to accommodate cells, backsheet, glass and other supporting supply chain companies, will be capable of manufacturing 166mm and 158.75mm modules. The factory will also feature automatic and intelligent production technology with big data support.

[/web/2020/05-200406-c0](#)



## BYD-Toyota Partnership Heats Up EV Market

(Capital Watch, April 06, 2020)

China's electric vehicle market heated up after Toyota and BYD teamed up to make a car that rivals Nio Inc. BYD and Toyota are setting up a 50-50 joint venture expected to launch operations in May 2020. China-based BYD is a longtime rival of Japan in the rechargeable batteries business and is now one of the world's top makers of cellphone batteries. BYD revealed the Blade Battery, which it claims to be a breakthrough in battery safety. This product, BYD said, has 50% higher energy density than traditional batteries while being less susceptible to catching fire.

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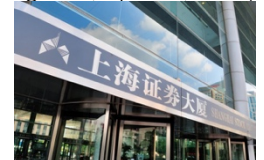


## Three Gorges Dam IPO to Raise \$3.5B

(Investing.com, April 07, 2020)

China's Three Gorges Renewables Group is planning to raise up to \$3.52 billion in what could be the country's second biggest IPO of 2020. Three Gorges looks to sell up to 8.57 billion shares on the Shanghai bourse, according to its prospectus submitted to the China Securities Regulatory Commission. The assets it will list are mostly domestic solar and wind farms and hydropower plants with a total capacity of around 10 gigawatts. The company will use \$2.8 billion of the proceeds to fund seven new offshore wind farms, with the remainder being working capital.

[/web/2020/05-200407-28](#)



## ABB to supply High-Voltage Direct Current Technology

(Renewables Now, April 09, 2020)

ABB has secured several orders to supply advanced high-voltage direct current (HVDC) converter transformers and high-voltage equipment to Chinese state-owned electric utility State Grid Corporation of China (SGCC). The solution, which ABB will provide through its Power Grids business, will be employed in three 800-kV ultrahigh-voltage direct current (UHVDC) transmission links owned by the Chinese giant, ABB said today. The three links will transport up to 8,000 MW of electricity and enable the integration of hydro, wind and solar power. The 1,700-kilometre (1,056.3 miles) Yazhong-Nanchang link will transmit electricity from the hydro-rich Sichuan Province in the south-west to the load centre in Jiangxi Province in east China.

[/web/2020/05-200409-7f](#)



## Global Solar Industry Threatened by Pandemic

(S&P Global, April 13, 2020)

Solar-materials supplier GCL-Poly Energy Holdings Ltd. faces a potential liquidity crisis after its breach of a loan covenant triggered default clauses in hundreds of millions of dollars worth of other bank borrowings. The Hong Kong-headquartered company, which produces the raw material polysilicon and solar wafers for module manufacturers pointing to risks posed by the coronavirus pandemic and new policies in China that could delay some projects, some experts say that 2020 could be the global solar industry's first down year since at least the 1980s.

[/web/2020/05-200413-54](#)



## Renault to Only Produce Electric Cars in China

(Electrek, April 14, 2020)

Renault announced that it would stop making and selling gas-powered cars in China. But the French automaker will retain its interest in three different ventures to produce multiple electric vehicles. Renault launched its K-ZE all-electric city car in China in 2019. The small crossover with a 26.8 kWh battery pack has a remarkably low price of about \$9,000 after incentives. The City K-ZE is manufactured in Shiyan, Hubei. Renault will concentrate on electric vehicles and light commercial vehicles, the two main drivers for future clean mobility. The pandemic-related downturn forced the decision to eliminate its production of gas cars. The move could be a sign of things to come for Nissan, which also reportedly has been looking at ending product lines and unprofitable business operations.

[/web/2020/05-200414-13](#)



## Enhancing Natural Gas Storage Capacity

(China Daily, April 14, 2020)

China has issued a guideline on further beefing up the infrastructure construction and storage capacity of natural gas to promote the stable and sound development of the sector. Efforts should be made to optimize construction layout and strengthen the development of standards in the sector. It encourages existing liquefied natural gas (LNG) receiving stations to expand storage tanks and supports city clusters to jointly build and share storage facilities. The guideline also urged improving operating modes and channels for investment returns of the sector and prompting the inter-connectivity and opening-up of infrastructures, including LNG pipeline networks and receiving stations.

[/web/2020/05-200414-52](#)



## 120 MW Solar Aquaculture Plant

(PV magazine, April 17, 2020)

Developer Hangzhou Fengling Electricity Science Technology recently finished building a 120 MW solar plant on the surface of the Changhe and Zhouxiang reservoirs in Cixi, Zhejiang province. The array is the second phase with 120 MW of a 320 MW PV project, following the finalization of the first 200 MW phase in 2017. The plant, which has secured a tariff of \$0.12/kWh has an expected annual generation of 352 million KWH, according to Tammy Tang, Kstar marketing manager. "The annual revenue from the generated electricity for the owner of the plant is about \$45 million, while the annual fishery income can reach nearly \$5 million." The plant's second phase required an overall investment of around \$100 million.

[/web/2020/05-200417-60](#)



## Disposal of 159,000 Tons of Medical Waste

(China Daily, April 17, 2020)

China has disposed of 159,000 tonnes of medical waste since late January amid the fight against the novel coronavirus disease, according to the Ministry of Ecology and Environment. China's medical waste disposal capacity has reached 6,058.8 tonnes per day, up from 4,902.8 tonnes each day before the epidemic outbreak. The disposal capacity of Hubei province rose from 180 tonnes per day before the outbreak to 667.4 tonnes. Further, environmental authorities monitored the country's 17,949 drinking water sources and did not find any impact from the epidemic on the quality of the sources. The MEE also logged improvement in air quality for 337 cities it has monitored, with the share of good air quality days at 85.7 percent from January 20 to March 14, up 10.1 percentage points year on year.

[/web/2020/05-200417-20](#)



## New-Energy Vehicle Tax Exemptions Extended

(Xinhua, April 22, 2020)

Tax exemptions on new-energy vehicle (NEV) purchases will be extended by an additional two years until the end of 2022 to better promote the sector's development and boost car sales. The exemptions are for electric, plug-in hybrid and fuel cell-powered vehicles. The move was decided at a State Council meeting in March, during which the government vowed to roll out a set of fiscal and financial policies to expand domestic demand, assist businesses reopening, sustain employment, and help all types of businesses to weather this difficult time. China's passenger car market recorded a strong month-on-month rebound in March as business resumption gained momentum amid further containment of the COVID-19 epidemic.

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## World-Record Wind Turbine

(China Daily, April 24, 2020)

A wind turbine with a 160-meter rotor diameter was successfully installed in Qinghai on April 21, setting a new record for the largest rotor diameter of an installed onshore wind turbine. Coded 3.xMWD160, the turbine was launched by CRRC Zhuzhou Institute Co Ltd, headquartered in Zhuzhou, Central China's Hunan province. Sources from the company said compared with wind turbines with a diameter of 155 meters and 146 meters, the swept area of this type of wind turbine increases by 6.6 and 20 percent respectively. Under an average annual wind speed of 6.0 meters per second, the generation capacity of the two models can increase by 3 percent and more than 10 percent respectively.

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## Yangtze River's Environmental Research

(China Daily, April 27, 2020)

Designed to address the gap between environmental research and the Yangtze River's actual remediation needs, front-line research conducted by 5,000 experts sent to 58 cities in the river basin is expected to help local governments make better decisions and address "environmental problems facing the public". The people-centered Yangtze conservation campaign is being rolled out under a principle of "allowing nature to restore itself". The campaign aims to address the problem that the results of much environmental research can hardly be applied because the researchers failed to connect their work with actual practices.

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## Xpeng P7 EV challenges Tesla Model 3

(Engadget, April 27, 2020)

Tesla is seeing success in China's electric vehicle market, but native company Xpeng may have a fighting chance to compete. Xpeng's new P7 sedan is the company's second production model and has some impressive benchmark results. It can drive 438 miles on a charge, or 200 miles farther than the Model 3. The P7 starts at \$36,000, while the Model 3 starts at \$48,500. Xpeng's cars are the first to use Nvidia's Drive AGX Xavier system-on-a-chip to run the P7's array of sensors and cameras. Each P7 is equipped with 12 ultrasonic sensors, five millimeter-wave radars and 14 cameras. According to the company, these amount to the only 360-degree "multi-perception" system in an electric vehicle.

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## Swappable Batteries for EVs

(China Daily, April 27, 2020)

China has introduced measures in favor of electric vehicles with swappable batteries, which are expected to help solve the problem of long charging times that distance some people from such cars. In the country's latest subsidy plan, new energy vehicles priced over \$42,362 are not eligible for the stimuli, but those with swappable batteries are exempt of the rule. The move is designed to encourage innovative business models. Slow charging is one of the top reasons that dissuade people from buying electric cars. However, vehicles with swappable batteries can get their empty batteries swapped out for fully-charged ones in minutes. Nio said it has built 125 battery swapping stations in 53 cities in China, with over 400,000 batteries having been swapped so far. The company said it will build more stations in 2020.

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## 6. Physics / Chemistry / Material Science / Nano- & Micro Technology

### FAST Telescope Identifies 114 New Pulsars

(China Daily, April 02, 2020)

China's Aperture Spherical Telescope, known as FAST, the world's largest single-dish radio telescope, has identified 114 new pulsars since its trial operation began in September 2016, according to the FAST Operation and Development Center of the National Astronomical Observatories of China. FAST has carried out nearly 1,000 hours of observation from Jan 1 to March 23, and operated normally during the novel coronavirus epidemic. Located in Pingtang county, Southwest China's Guizhou province, the 500-meter radio telescope passed national evaluation on Jan 11 and officially began operation.

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### Lunar Probe Resumes Work

(China Daily, April 17, 2020)

The Chang'e-4 probe, launched on Dec 8, 2018, made the first-ever soft landing on the Von Karman Crater in the South Pole-Aitken Basin on the far side of the moon on Jan 3, 2019. Carrying scientific instruments such as panoramic camera, lunar penetrating radar, infrared imaging spectrometer and neutral atom detector, the rover will continue to move northwest to conduct scientific detection. The scientific tasks of the Chang'e-4 mission include conducting low-frequency radio astronomical observation, surveying the terrain and landforms, detecting the mineral composition and shallow lunar surface structure and measuring neutron radiation and neutral atoms.

[/web/2020/06-200417-0e](#)



## 7. Economy, Social Sciences & Humanities

### 50 Most Influential Business Leaders 2020

(China Daily, April 13, 2020)

Fortune China released a ranking of China's 50 most influential business leaders in 2020, with Jack Ma Yun, founder of e-commerce heavyweight Alibaba, Ren Zhengfei, founder of telecom giant Huawei and Wang Chuanfu, chairman of automaker BYD's board of directors, rounding out the top 3. The value of leaders on the list is not only reflected in their companies' success, but their leadership of their companies through crisis and ability to find a new direction, Fortune China said. Other Chinese internet magnates on the top 10 list include Pony Ma Huateng, chairman and CEO of Tencent (4th); Zhang Yiming, founder and global CEO of ByteDance (5th).

[/web/2020/07-200413-0d](#)



### Consumption Coupons Distributed in Wuhan

(China Daily, April 21, 2020)

The main shopping areas in Wuhan, Hubei province, continued to enforce strict epidemic control measures over the weekend as the number of shoppers increased after the city government started to distribute discount coupons to stimulate consumption. At noon on 19th April, the Wuhan government distributed 30 million yuan (\$4.23 million) in consumption coupons that can be used in shops, supermarkets, restaurants and tourist and cultural sites citywide via major digital platforms, including Alipay and WeChat. Eventually, the city government will distribute 500 million yuan in such coupons to revive the local economy hit hard by the novel coronavirus outbreak. About 18 million yuan of the vouchers have been designated for the registered low-income people in the city.

[/web/2020/07-200421-c5](#)



## 8. Corporates / Startups / Technology Transfer

### Startup Luckin Shares Down 75% After Fraud Revelations

(China Daily, April 03, 2020)

Luckin Coffee Inc's shares crashed more than 75 percent after the company revealed an internal investigation that alleged its COO was involved in 2.2 billion yuan (\$310 million) in fabricated transactions over the past year. The company, a so-called rival to Starbucks Corp in China, said the internal probe revealed the aggregate sales amount associated with the fabricated transactions from the second quarter of 2019 to the fourth quarter of 2019 amounted to around 2.2 billion yuan. Xiamen-based Luckin Coffee listed on the Nasdaq in May 2019, less than two years since its founding. The news comes about three months after short seller Muddy Waters Research released a report on Luckin that said the company was inflating its numbers. Luckin initially denied the allegations following the release of the report.

[/web/2020/08-200403-81](#)



### Alibaba to Help SMEs

(China Daily, April 07, 2020)

Alibaba Group Holding Ltd announced on 7th April a package of 16 measures to boost small and medium-sized enterprises who are feeling the biggest pinch of economic disruption by the novel coronavirus. From customer acquisition to digitalization to financing, support in five aspects of business operations aims to "help SMEs triumph



over this economic winter", according to company chairman and CEO Daniel Zhang, who recognized SMEs as the "lifeblood of the economy". "I am formally announcing the launch of the 2020 Spring Thunder Initiative," Zhang said in a public letter, referring to the project which debuted in 2009, right after the global financial crisis.

[/web/2020/08-200407-d4](#)

## Shanghai still Hotbed for Talent

(China Daily, April 29, 2020)

Shanghai was once again considered the most attractive city for talents in 2019, according to a ranking published by Evergrande Research Institute and hiring platform Zhaopin. This is the third consecutive year that Shanghai has been ranked first. The ranking, which is based on data submitted by job applicants on Zhaopin, shows Shenzhen, Beijing and Guangzhou in the second, third and fourth places respectively. The ranking also shows that 24.5 percent of domestic students and 28.7 percent of those who graduated from overseas universities apply for jobs in these four cities, the report of the ranking said.

[/web/2020/08-200429-82](#)



## MegEngine Deep Learning Platform now Open Source

(China Daily, March 25, 2020)

Chinese artificial intelligence pioneer Megvii Technology Ltd announced that it would open source its proprietary deep learning framework, MegEngine, to allow global developers to create AI solutions for industrial and commercial scenarios. The move also is tended to foster an ecosystem around its new generation AI productivity platform Brain, which the company said will build better new infrastructure for the development of AI in the country. Initially developed in 2014 and now in its eighth edition, MegEngine is one of three primary components of the Brain architecture that Megvii built from scratch to train computer vision algorithms at scale.

[/web/2020/08-200325-86](#)



## 9. Call for Grants/Awards

### Startup Farasis Energy aims \$479 Million IPO

(Reuters, April 01, 2020)

Chinese electric vehicle battery maker Farasis Energy has received regulatory approval to raise around \$479 million in an initial public offering on China's Nasdaq-like STAR board, according to a statement by the Shanghai Stock Exchange. Farasis, is expected to be valued at around \$4.23 billion after the IPO, said two sources with direct knowledge of the matter. Farasis, whose main products are nickel-cobalt-manganese batteries for electric vehicles, aimed to list in the second quarter 2020, they added, declining to be named as they were not authorized to speak to media. Farasis Energy counts China's BAIC BluePark and Great Wall as major customers. It is also building a factory in Germany to help Daimler's Mercedes-Benz ramp up electric vehicle production.

[/web/2020/10-200401-db](#)

### Quantum Physicist receives ZEISS Research Award

(Xinhuanet, April 29, 2020)

Renowned Chinese quantum physicist Pan Jianwei is this year's ZEISS Research Award for his contributions to the field of optical quantum information, according to the University of Science and Technology of China where he works as a professor. One of the most remarkable results of Pan's research is the distribution of entangled photons over a distance of 1,200 km, by far the longest distance ever reached, ZEISS said in an



announcement on its website, noting that he has also contributed significantly to the development of optical quantum computing. The award will be presented to Pan in 2021 due to the worldwide coronavirus pandemic, ZEISS said.

[/web/2020/10-200429-71](#)

## Upcoming Science and Technology Related Events

### [webinar] Art x Science Dialogues: Design x Materials Science

May 12, 2020

<https://is.gd/4VGoai>

Design, Material Science  
Shanghai, Switzerland

### [webinar] Future of Money: Neobanking

May 20, 2020

<https://is.gd/JHl4sA>

Fintech  
Shanghai, Switzerland

### [webinar] Medical & Pharma OnlineMeetX

May 28, 2020

<https://is.gd/KzJfFH>

Medicine, Pharma, Networking  
Online

### China Robot Show

June 4th – 6th, 2020

<https://is.gd/UjLvFI>

Robot, VR and AI  
Beijing

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