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FORUM FOR INDIAN SCIENCE DIPLOMACY

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NEWS ALERT

Forum for Indian Science Diplomacy

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IN BRIEF

RESOURCES AND EVENTS

GLOBAL

€10B innovation fund launched to support commercialization of green energy

The EU is to put €10 billion levied on Europe’s biggest polluters through its CO2 emissions trading scheme into an innovation fund to back commercialisation of clean energy projects. The first call, will award €1 billion to large scale market-ready projects in clean hydrogen, renewable energy, energy intensive industries, energy storage, and carbon capture, use and storage. The EU aims to invest €1 billion in promising, market-ready projects such as clean hydrogen or other low-carbon solutions for energy intensive industries like steel, cement and chemicals. At the same time, the fund will back the energy storage and grid management projects that are needed to ensure resilient electricity supplies, as dependence on erratic renewable sources increases. A further €8 million is set aside for projects that are still in development and not yet ready to enter the market as part of this first call, which is open until 29 October 2020. The fund is launching just days before the commission is due to publish a strategy outlining plans to accelerate adoption of hydrogen as a green energy source. Although viable, the cost of electrolysis equipment and a lack of scale mean renewable hydrogen is not cost competitive.

New method for nanocluster production enables water purification

Researchers from Swansea University have developed a new environmentally friendly method for removing toxic chemicals such as nitrophenol, from water using nano clusters of silver, produced by a newly invented machine, called the Matrix Assembly

Cluster Source (MACS). The harmful organic molecules are destroyed by a powerful oxidising agent, ozone, which is boosted by the catalyst. The newly invented machine manufactures the catalyst in gram quantities by a vacuum-based and solvent free method. The MACS approach to the nano-scale production of functional materials opens up possible applications across a wide range of disciplines -- from physics and chemistry to biology and engineering. Thus, it has the power to enable radical advances in advanced technology, catalysts, biosensors, materials for renewable energy generation and storage.

Tiny mineral particles improve delivery of gene therapy

University of Wisconsin-Madison researchers have developed a safer and more efficient way to deliver a promising new method for treating cancer and liver disorders and for vaccination. The technology relies on inserting into cells pieces of carefully designed messenger RNA (mRNA). They used mineral-coated microparticles (MCMs) -- which are 5 to 10 micrometers in diameter, about the size of a human cell, and which have pores on their surface that are on the nanometer scale that allow them to pick up and carry molecules like proteins or messenger RNA. Tests were carried out on mice with promising results of lower toxicity, and more sustained performance. The MCMs are made of minerals similar to tooth enamel and bone, but designed to be reabsorbed by the body when they're not useful anymore, and their lifespan can be controlled by adjusting the way they are made, and they dissolve harmlessly.

Breakthrough in the synthesis of graphene nanoribbons

A research team led by Martin Luther University Halle-Wittenberg (MLU), has succeeded in producing graphene for the first time directly on the surface of semiconductors. The new approach also enables scientists to customise the properties of the nanoribbons. Graphene ribbons, which are only nanometres in size, are made up of just a few carbon atoms wide. Their properties are determined by their shape and width. The team simplified the production of the nanoribbons by joining together individual atoms, which enables the properties to be customised and succeeded for the first time in producing the ribbons on the surface of titanium oxide, a non-metallic material. The process is more cost-effective than previous processes. Applications for the nanoribbons include future storage and semiconductor technology and development of quantum computers.

Enhancing the performance of solar cells with 'graphene armor'

A team of researchers, affiliated with UNIST has come up with a novel electrode that could greatly improve the stability of perovskite solar cells (PSCs) for the next generation solar cells. Inserting a protection layer between the metal-based electrode and the perovskite film can prevent metal-induced degradation and graphene, as such a layer, can effectively suppress the diffusion of metals and halide ions. The team developed a flexible metal grid-based hybrid electrode platform by using a Cu grid-embedded polyimide (CEP) film with a graphene sheet as the protection layer (GCEP), which exhibited high electrical conductivity, excellent chemical stability and mechanical durability. This device achieved a high conversion efficiency of 16.4% with high chemical stability and photo-stability. It also maintained over 97.5% of the initial efficiency even after 1,000 hours. In addition, after 5,000 bending tests, it showed

excellent mechanical durability such as maintaining 94% of the initial efficiency, and thus it was applicable to next-generation wearable devices.

New technique could help fight antibiotic resistance

Scientists at the University of Exeter have developed the method, which allows users to see whether a bacterium is likely to respond to antibiotics. The research is currently in early stages of development, and the team hope the miniaturised devices they use for this research could one day be based in clinics, reducing the number of different antibiotics prescribed to patients. The technique works by examining whether the fluorescent qualities of the antibiotics are taken up by bacteria. If so, the bacteria glow brighter under the microscope, revealing that the antibiotic has infiltrated the membrane and could be effective. A new technique could help reduce antibiotic prescribing by predicting which drugs could be effective in fighting bacteria within minutes and also enable the development of more effective antibiotics, to help fight the global threat of antibiotic resistance. The team is now working on expanding the technique, by manipulating the fluorescent qualities of other forms of antibiotics so they can work in the same way.

COVID-19

Covid-19 (World)

Sechenov University completes trials of the vaccine against coronavirus

The clinical trials of the world's first coronavirus vaccine on volunteers at Sechenov Moscow State Medical University has been successfully completed, The clinical trials on the volunteers started on June 18, and the first group will be discharged on July 20. The objective was to assess the safety of the vaccine for human health, which has been successfully confirmed.

New D614G strain of COVID-19 now dominates global cases of virus

Research team led by the University of Sheffield have found that a variation in the viral genome of Covid-19 improved its ability to infect human cells and helped it become the dominant strain circulating around the world today. The variant, named 'D614G', makes a small but effective change in the 'spike' glycoprotein that protrudes from the surface of the virus. The D614G variant of Covid-19 quickly took over as the dominant strain soon after it first appeared, with geographic samples showing a significant shift in viral population from the original, to the new strain of the virus. The new D614G genome mutation variant is also more infectious under laboratory conditions.

Existing drugs can prevent SARS-CoV-2 from hijacking cells

An international team of researchers has analysed how SARS-CoV-2, the virus that causes COVID-19, hijacks the proteins in its target cells. The scientists identified seven clinically approved drugs that could disrupt these mechanisms, and recommend that these drugs are immediately tested in clinical trials. The scientists used mass spectrometry to evaluate all host and viral proteins that showed changes in phosphorylation after SARS-CoV-2 infection. They found that 12% of the host proteins that interact with the virus were modified. The researchers also identified the kinases that

are most likely to regulate these modifications. This data-driven approach for drug discovery has identified a new set of drugs that have great potential to fight COVID-19, either by themselves or in combination with other drugs, and could help control the pandemic.

Oral-Throat secretions may help cut false-negative Covid-19 test results

According to a study from Huazhong University of Science and Technology, China, testing of secretions from the mouth and pharynx of a person may reduce the number of false-negative results from nasal swab tests of patients who have seemingly recovered from the disease. In the study, a small number of patients that had tested negative through nasopharyngeal swabs (NPS) were found to be positive through the testing of oropharyngeal secretions (OS). It included 75 ready-for-discharge Covid-19 patients who tested negative using two consecutive nucleic acid amplification testing (NAAT) of viral samples retrieved with NPS. The NPS test has a risk of sending home more patients who still have the infection while the OS test will make such errors in fewer patients. OS sampling promises to improve the accuracy of SARS-CoV-2 nucleic acid testing and more tests are needed.

Far-UVC Light Efficiently Inactivates Airborne Seasonal Coronaviruses

A team of scientists at Columbia University has demonstrated that low doses of 222-nm far ultraviolet C (far-UVC) light inactivate 99.9% of aerosolized seasonal coronaviruses HCoV-229E and HCoV-OC43. As all human coronaviruses have similar genomic sizes, far-UVC light would be expected to show similar inactivation efficiency against SARS-CoV-2 and other human coronaviruses. Unlike germicidal UV light (254 nm), far-UVC light (207-222 nm) cannot reach or damage living cells in the human skin or the human eye. The researchers found that continuous exposure to far-UVC light at the current regulatory limit would kill 90% of airborne viruses in about 8 minutes, 95% in about 11 minutes, 99% in about 16 minutes, and 99.9% in about 25 minutes. Because it is safe to use in occupied spaces, far-UVC light could be used in combination with other measures, like wearing face masks and washing hands, to limit the transmission of SARS-CoV-2 and other viruses.

Australia undertakes first human tests of COVID-19 vaccine

Flinders University with Vaxine Pty Ltd developed a potential COVID-19 vaccine, which will provide initial safety and immune response data on 40 healthy participants aged between 18-55 years who have already been pre-screened. The vaccine has commenced human trials in South Australia. The Phase 1 trials have started at the Royal Adelaide Hospital (RAH) to test a promising new COVID-19 vaccine candidate, called COVAX-19®. The first human trial of COVID-19 vaccine candidate in the southern hemisphere is primarily based on the company's recombinant spike protein approach.

Covid-19 (India)

Government launches Drug Discovery Hackathon

The Union Government launched a Drug Discovery Hackathon. In this initiative, MHRD’s Innovation cell and AICTE will focus on identifying potential drug molecules

through the Hackathon while CSIR will take these identified molecules forward for synthesis and laboratory testing for efficacy, toxicity, sensitivity and specificity. The Hackathon consists of challenges that are posted as problem statements and are based on specific drug discovery topics which are open to the participants to solve. A total of 29 Problem Statements (PS) have been identified. The Hackathon will have three Tracks. Track 1 will primarily deal with drug design for anti-COVID-19 hit/lead generation: this is done using tools such as molecular modelling, pharmacophore optimization, molecular docking, hit/lead optimization, etc. Track 2 will deal with designing/optimizing new tools and algorithms which will have an immense impact on expediting the process of silico drug discovery. There is also a third track called "Moon shot "which allows for working on problems which are 'out of the box' nature.

Coronavirus vaccine trial beginning of pandemic's end: Govt

The CDSCO (The Central Drugs Standard Control Organisation) have approved the conduct of the human trials for theindigenous vaccine candidates COVAXIN by Bharat Biotech and ZyCov-D Vaccine by Zydus Cadila against the coronavirus disease (Covid-19). The Zydus vaccine candidate was developed indigenously at the company's Vaccine Technology Centre in Ahmedabad, Gujarat. Along with the two Indian vaccines, COVAXIN and ZyCov-D, 11 other vaccine candidates have entered human trials. This includes AZD1222, developed by the Jenner Institute of University of Oxford and licenced to AstraZeneca, and MRNA-1273 vaccine developed by Kaiser Permanente Washington Health Research Institute, Washington which is taken up for production by the US-based Moderna pharmaceutical. Both these firms have already signed an agreement with Indian manufacturers for production of the Covid-19 vaccines.

INDIA – SCIENCE & TECHNOLOGY

Science Policy Forum holds consultation on new STI Policy 2020

The Department of Science and Technology (DST), along with the Principal Scientific Advisor (PSA) to the Government of India recently started a new initiative to draft a new 'Science, Technology and Innovation Policy' (STIP), scheduled to be released in 2020. The Science Policy Forum (SPF) is holding a number of events to gather feedback from various stakeholders in the Indian STI ecosystem, before providing a policy draft for public consultation. The stakeholder-driven process is much more inclusive than the traditional top-down mechanism for pushing out policies. The new STI policy should strive towards maximally utilising this human effort, and making sure that frontline workers in the R&D ecosystem spend most of their time on scientific endeavours and not other, administrative tasks. The policy would deal with some of the following issues: reduce paperwork; release funds, timely; provide feedback on proposals; provide mentoring; incorporate feedback from early-career researchers; separate research & paperwork-related responsibilities, etc.

L&T builds cryostat for a nuclear fusion reactor in France for $20 billion

Larsen and Toubro (L&T), India's leading engineering, construction, technology, manufacturing and financial services conglomerate, has started the most complex and final assembly of cryostat, the largest stainless-steel, high-vacuum pressure chamber in

the world. The cryostat is a key part of the world's largest nuclear fusion reactor being built in France. L&T was chosen in 2012 by ITER-India to manufacture and install cryostat, made of 3,850 tonnes of stainless steel. The cryostat assembly weighing 650 tonne is to be installed with other cryostat segments for ITER (International Thermonuclear Experimental Reactor) in a reactor pit in southern France. The company has used innovative and digital manufacturing techniques to ensure uninterrupted supply of high-precision assemblies to ITER.

IIT Kanpur gets Rs 1.96 billion from Centre to fight cyberthreats

Government of India has approved Rs 1.96 billion for setting-up a national technical centre at IIT Kanpur to counter growing cyber threats. The institute will also roll out an MTech degree in cybersecurity from the next academic year. Known as C3ihub - Cybersecurity and Cybersecurity of Cyberphysical systems Innovation Hub, the centre will include foreign faculty from countries such as Israel and the US. Indian Institute of Science (IISc) and IIT Kharagpur will be part of the R&D team. The centre will handle cyber threats to organisations working across three systems - critical infrastructure security, automotive security, and unmanned aerial vehicle (UAV) security. It will be enhancing the response of the Computer Emergency Response Team (CERT). C3ihub will be equipped to provide solutions to attacks on onboard controllers, jamming or snooping of GPS data, manipulation of captured images and data, malicious hardware and software attackers like trojans and unauthenticated patches, replay attacks and eavesdropping on communication systems.

SERB Launches Accelerate 'Vigyan' To Promote R&D in India

The Science and Engineering Research Board (SERB) has launched Accelerate Vigyan, to strengthen the scientific research base. As part of the scheme, 200 high-end workshops (dedicated to certain themes) will be held to provide opportunities to about 5000 Postgraduate and Doctoral level students every year. Mission 'Abhyaas' a skill development initiative will help to boost research by enabling and grooming potential PG/PhD level students. Mission 'Samoohan' will consolidate all scientific interactions in the country under one roof. 'Sayonjika' will catalogue the capacity building activities in Science and Technology. 'Sangoshthi' will reshape and renovate SERB's erstwhile program "Seminar and Symposia" which will provide partial financial support up to Rs. 500 thousand for scientific events.

Genetics could help diagnose type-1 diabetes in Indians: study reveals

Researchers at the KEM Hospital and Research Centre, Pune; CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad; and the University of Exeter in the UK have found that a genetic risk score is effective in diagnosing type-1 diabetes in Indians. The genetic risk score takes into account detailed genetic information that is known to increase the chance of developing type-1 diabetes. The score may be used at the time of diabetes diagnosis to help decide if someone has type-1 diabetes. Although based on European data, the researchers found that the test is effective in diagnosing the right type of diabetes in Indians, even in its current form. They have also found genetic differences between the populations, indicating that the test could be further improved to enhance outcomes for Indian populations. Genetic risk score is an effective tool for Indians, and

can help get people on the treatment they need to avoid life-threatening complications such as diabetic ketoacidosis and to achieve the best health outcomes.

Top leaders of industries participate in consultation for the new STIP 2020

Top leaders of industries from CII, Principal Scientific Advisor to the Government of India and Dr K Vijay Raghavan and DST Secretary Dr. Ashutosh Sharma participated in a 2 day high-level Industry consultation for the formulation of the new Science, Technology & Innovation Policy STIP 2020. Dr K Vijay Raghavan stressed that the regulatory system need to be reformed and the CSR mechanism broadened to leverage it in R&D activities. The meeting highlighted the need for more collaboration between industry & academia and to increase spending on R&D as a percentage of GDP. The roundtable meeting discussed how to create an R&D ecosystem in a sustainable way to solve social problems and to pave the way towards a knowledge-based economy. Industry leaders stressed the importance of public funded research in academic system, focused R&D programmes, unlocking entrepreneurial ecosystem, IP valuation, cross-collaboration, and effective translational research amongst others.

IN BRIEF

Extreme warming of the South Pole

The South Pole has been warming at more than three times the global average over the past 30 years. This warming period was mainly driven by natural tropical climate variability and was likely intensified by increases in greenhouse gases. The study shows that Antarctic and Southern Hemisphere climate, specifically how West Antarctica was warming and its ice sheet was thinning and contributing to global sea-level rise. Between 1989 and 2018, the South Pole had warmed by about 1.8 degrees Celsius at a rate of +0.6 degrees Celsius per decade -- three times the global average. The study also found that the strong warming over the Antarctic interior in the last 30 years was mainly driven by the tropics, especially warm ocean temperatures in the western tropical Pacific Ocean that changed the winds in the South Atlantic near Antarctica and increased the delivery of warm air to the South Pole.

Scientists make a cheap, simple reactor for silica particle synthesis

Researchers in Australia and China have found a new method for creating silica beads, which have a number of key uses, ranging from nanomedicine and bio-imaging to the production of paper and polished concrete. They constructed a flow synthesis device using a polytetrafluoroethylene (PTFE) or 'Teflon' pipe wound around a rod and connected to two syringes. The key to the success of this approach is a spiral channel which promotes vortex flow characteristics, and this type of fluid flow encourages extremely efficient mixing of the precursor fluids. While this new mechanism could well rival the microfluidic approach used in synthesising silica nanoparticles for specialised, niche applications, such as silica particles 'doped' with colourful dyes or encapsulating quantum dots for fluorescence. This flow synthesis method could have wider applications.

Light flexible shielding material against electromagnetic interference

Shielding from electromagnetic fields for electronic components requires conductive shells closed on all sides. Researchers produced a composite of cellulose nanofibers and silver nanowires, which has excellent shielding against electromagnetic radiation. With a density of only 1.7 milligrams per cubic centimeter, the silver-reinforced cellulose aerogel achieves more than 40 dB shielding in the frequency range of high-resolution radar radiation (8 to 12 GHz).The shielding effect can even be specified in different spatial directions. Shielding structures cast in this way are highly flexible: even after being bent back and forth a thousand times, the shielding effect is practically the same as with the original material. In another experiment, the researchers made cellulose nanofibres with two-dimensional nanoplates of titanium carbide, which were produced using a special etching process. The titanium carbide nanocellulose aerogel is by far the lightest electromagnetic shielding material in the world.

Multifunctional nanofiber protects against explosions and temperature

Harvard University researchers, in collaboration with the U.S. Army have developed a lightweight, multifunctional nanofiber material that can protect wearers from both extreme temperatures and ballistic threats. The research team used immersion Rotary Jet-Spinning (iRJS), to manufacture the fibers to spin long, aligned nanofibers into porous sheets -- to protect against projectiles but also protect against heat. In about 10 minutes, the team could spin sheets about 10 by 30 centimeters in size. Tests showed that protection given by spun nanofibers was the same as Twaron, and that the nanofibers provided 20 times the heat insulation capability of commercial Twaron and Kevlar. Harvard's Office of Technology Development has filed a patent application for the technology and is actively seeking commercialization opportunities.

Leap in lidar could improve safety, security of new technology

The University of Colorado Boulder researchers have developed a new silicon chip with no moving parts or electronics that improves the resolution and scanning speed needed for a lidar system which could replace big, bulky, heavy lidar systems with just a flat, little chip. The researchers have been working on a new way of steering laser beams called wavelength steering -- where each wavelength, or "color," of the laser is pointed to a unique angle. They have developed a way to do this along two dimensions simultaneously, and with color, using a "rainbow" pattern to take 3-D images. Autonomous vehicle industry will need lidar which remain the most expensive part of self-driving cars by far as much as $70,000 each. This new finding is an important advancement in silicon chip technology for use in lidar systems.

RESOURCES & EVENTS

Sustainable Development Report (SDR) 2020 released

SDR 2020 written by lead author Jeffrey Sachs and a team of independent experts stresses that the Sustainable Development Goals are needed more than ever. Their bedrock principles of social inclusion, universal access to public services, and global cooperation are the guideposts for fighting Covid-19 as well as for the investment-led recovery that the world should adopt to overcome the economic crisis caused by the pandemic. This year’s report focuses on the short-term fight to stop Covid-19 –

emphasizing the importance of public health strategies -- and on the long-term transformations to guide the recovery phase. The report shows there was clear SDG progress before this year's pandemic. Among OECD countries, South Korea was best able to address the health impacts of Covid-19 while mitigating impacts on the economy. The SDG Index is topped by three Nordic countries – Sweden, Denmark and Finland.

High Level Political Forum on Sustainable Development kicks off virtually

The meeting of the high-level political forum on sustainable development in 2020 (7-16 July) under the auspices of the Economic and Social Council started on 7 July. The theme was "Accelerated action and transformative pathways: realizing the decade of action and delivery for sustainable development ". HLPF annual meeting is the core United Nations platform for follow-up and review of the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. In the 2020 HLPF, participants will review progress on the SDGs in light of the impact of the COVID-19 pandemic and the response of the international community to achieve the SDGs and accelerate progress. Voluntary national reviews (VNRs) of 47 countries including India will examine their implementation of the 2030 Agenda. The HLPF will hold a Ministerial meeting (14-16 July) and adopt a Ministerial Declaration as the outcome of its session. The President of ECOSOC will also prepare a summary to capture the key messages of the discussions. All meetings will be held virtually, including all side and special events. For video coverage see http://webtv.un.org/meetings-events/watch/2020-high-level-political-forum-on-sustainable-development-hlpf-2020-1st-meeting/6169968759001

Strengthened cooperation in science, technology, innovation key to SDGs

Scientific Secretary, Office of the Principal Scientific Adviser to the Indian government Dr Arabinda Mitra, delivered a joint statement on behalf of India and Japan, at a virtual session on Science, Technology and Innovation (STI) on 10 July, at the 2020 High-Level Political Forum session. He said that strengthened STI cooperation is a key to accelerating collective response to Covid-19, as well as to achieving human security, by building on the foundations for inclusive and sustainable development. As members of the global pilot programme on STI for Sustainable Development Goals (SDGs) roadmaps, the two countries organised meetings last month. Japan and India offer to extend their collaboration in applying frontier technologies in several SDG areas, including collaborating with the UN Interagency Task Team on STI in supporting pilot countries. The global pilot programme on STI for SDGs roadmaps launched in 2019 covers five pilot countries: Ghana, Ethiopia, Kenya, India and Serbia.

DST releases White paper on 'Focused Interventions for 'Make in India'

Dr. Harsh Vardhan, Union Minister for Science & Technology, Health and Family Welfare and Earth Sciences released a white paper on "Focused Interventions for 'Make in India': Post COVID 19" and "Active Pharmaceutical Ingredients: Status, Issues, Technology Readiness and Challenges", prepared by Technology Information, Forecasting and Assessment Council (TIFAC). This White Paper captures sector-specific strengths, market trends, and opportunities in five sectors, critical from the country's perspective, includes healthcare, machinery, ICT, agriculture, manufacturing, and electronics with reference to supply and demand, self-sufficiency and mass-scale

production capacity. It has identified policy options primarily in the areas of Public health system, MSME sector, Global relations: FDI, recalibrated trade alignments, new-age technologies, etc.

DST calls for proposals under ASEAN-India & BRICS STI Programme

The International Cooperation Division of the Department of Science and Technology which aims at negotiating, concluding and implementing S&T agreements between India and other countries has called for proposals under two schemes vis-a-vis, the ASEAN-India Collaborative R&D Scheme and BRICS STI Framework Programme. The research areas for the ASEAN-India Collaborative R&D Scheme should be ASEAN centric and be aligned with the ASEAN Plan of Action on Science, Technology and Innovation. The priority areas of cooperation include Bio-medical devices related to COVID-19 pandemic, Nano-Technology and Advance Material, and Cyber physical systems, Artificial Intelligence and ICT. The last date of submission of project proposals under this scheme is 31st October 2020. The BRICS STI Framework Programme aims to support excellent research on priority areas which can best be addressed by a multinational approach. The initiative should facilitate cooperation among the researchers and institutions in the consortia which consist of partners from at least three of the BRICS countries. The themes are mainly focused on research and development, tools/technologies for combating COVID-19. The call is open until 18th August 2020.

NRDC Funds Scaling up and Validation of 16 Covid related Technologies

The National Research Development Corporation (NRDC) had invited proposals for development of technologies for commercialization and up-scaling of Covid-19 related technologies. Financial support is given in the areas such as process scale up, pilot plant studies, validation/authentication and registration of the product, field trials, bridging the gap between the lab scale development and industrial requirement, etc. 16 projects have been selected or funding including for Test Kits, Sanitizers, Ventilators, PPEs, Masks and Covid hospital effluents treatment. Dr. H. Purushotham, Chairman & Managing Director NRDC said that there is a huge gap in availability of grant funds for scale up and prototyping of innovative technologies and the scheme by NRDC would help the innovators and start-ups in accelerating the technology development process and bring the innovative technologies to the market place within the next one year. NRDC has brought out a Compendium of Indian Technologies which has listed about 200 technologies developed by Indian institutions and start-ups and NRDC has transferred 9 technologies to start-ups and MSMEs useful in combating Covid-19 in the country.

India presents second voluntary National Review at UN Political Forum

NITI Aayog presented India's second Voluntary National Review (VNR) at the United Nations High-level Political Forum (HLPF) on Sustainable Development, 2020. India's latest VNR was prepared after a consultative process which saw more than 50 national and sub-national consultations with over 1000 CSOs from fourteen population groups. Leveraging science, technology and innovation for SDGs, and costing and financing of SDGs are the two levers of strengthening means of implementation which have been introduced this year. In line with the theme of Taking SDGs from Global to Local, the goal-wise account of progress on the SDGs has been appended with examples of a range

of diverse good practices and success stories of interventions from the States, especially Aspirational Districts. The India VNR 2020 represents NITI Aayog's efforts in embodying the whole-of-society approach and its commitment towards localisation of the Sustainable Development Goals.

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