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**TechInnovation 2021 Virtual Exhibition to Showcase Sustainable Energy, Food, and Healthcare Solutions**

*IPI’s flagship technology brokerage event will spotlight the latest global sustainability solutions from 28 to 30 September 2021.*

**21 September 2021, Singapore** -- Climate change is greatly impacting cities, creating challenges in terms of infrastructure, carbon footprint, food production, and health. It is crucial that we harness technology to make the transformational changes we need to overcome the impact of climate change for future generations, and to make cities sustainable and resilient in the face of these challenges.

As such, [IPI](http://www.ipi-singapore.org) presents [TechInnovation 2021](https://www.techinnovation.com.sg/) as a showcase of today’s innovative technologies that seek to sustainably use our earth’s resources, improve food production, and secure citizens’ health.

The TechInnovation virtual exhibition will be held between 28 and 30 September. Over 160 exhibitors from 20 countries will showcase more than 400 solutions that tackle key challenges that exist today – to produce clean energy and reduce environmental waste, address the issue of excessive food waste, and enable better healthcare.

**Recovery of Precious Materials from Electronic Waste**

Globally, electronic waste is rapidly becoming a [major issue](https://time.com/5594380/world-electronic-waste-problem/). For instance, the batteries used in electric vehicles could become an environmental waste hazard by 2030, because it is estimated that some 2 million metric tons per year of the lithium-ion batteries that power these vehicles end up in landfill.

New solutions are needed for proper disposal of these batteries so they do not end up as hazardous waste; along with cost-effective solutions for the recovery of useful materials within the batteries.

To this end, the **NUS Liaison Office** will showcase a [solution to produce clean and sustainable lithium through recycling](https://www.techinnovation.com.sg/website/29812/producing-clean-and-sustainable-lithium-through-recycling-5/). Using an electrochemical process, lithium iron phosphate (LFP) batteries can be recycled into its components, iron phosphate and lithium hydroxide. The benefits will translate into cost savings, reduction of wastewater generation and pollution, and less waste to landfill.

Italian IP platform, **Knowledge Share – Netval**, will present an [energy and water-efficient recycling process](https://www.techinnovation.com.sg/website/29815/precious-materials-recovery-from-electronic-waste/) that efficiently recovers more than 90% of high-purity Indium and glass in liquid crystal display (LCD) panels. The process may be used in existing electronic waste recycling facilities as well as a variety of industries. It is seeking industry or research partners to license their technology and to co-develop solutions to enable the recycling of photovoltaic panels such as thin film solar panel made of copper indium gallium selenide (CIGS) cells, as well as smartphone screens.

**Building Sustainable Food Systems**

According to the United Nations Food and Agriculture Organisation (FAO), we will have to produce 60 percent more food to feed a global population of 9.3 billion by 2050. However, current farming practices means that we will not be able to meet the requirement. Alternative proteins present a solution.

At the TechInnovation 2021 exhibition, visitors can discover various alternative protein solutions. Food technology company **Mosa Meat** exhibiting under the Netherlands Innovation Pavilion is pioneering [technology for cultivating meat](https://www.techinnovation.com.sg/website/30288/) and is open to licensing their technology across the production process.  
  
Indonesia’s **National Research and Innovation Agency (BRIN)** will demonstrate its solution to [turn fish waste into protein hydrolysate](https://www.techinnovation.com.sg/website/29747/making-protein-hydrolysate-using-papain-enzymes-and-fish-wastes-2/), a high value ingredient that can be made into peptone suitable for microbial growth media industry. As a food ingredient, protein hydrolysate is suitable for consumption by toddlers and seniors as it is easily digestible.

Humans are not the only ones that will need to eat. Sustainable insect protein solutions are also explored for livestock feed and more. An exhibitor, **Nutrition Technologies**, is using Black Soldier Fly Larvae (BSFL) to convert organic waste and byproducts into protein, oil, and frass (insect manure). The proteins and oil are used as high value animal feed ingredients. Other uses of the byproducts include purifying the insect cuticle containing chitin into chitosan, which has a range of applications in the pharmaceutical industry.

**Delivering healthcare through smarter systems**

According to the [World Health Organization](https://www.euro.who.int/en/health-topics/Health-systems/health-workforce/data-and-statistics), the global economy could create 40 million new health-sector jobs by 2030. The Workforce 2030 report suggests that there could be a shortfall of 9.9 million physicians, nurses, and midwives globally, so unless there is major structural and transformational change in the healthcare system, the industry will struggle to be sustainable. One solution could be the applied use of technology.

**RetinaRisk** will showcase a [software solution that could revolutionise diabetic eye care](https://www.techinnovation.com.sg/website/30266/) for instance. Centered on a clinically-validated algorithm, the solution accurately calculates the risk of sight-threatening diabetic retinopathy, which is one of the leading causes of blindness in the world. The solution facilitates early detection of the eye disease and allows for personalised care to enhance patients’ clinical safety. It can be used by healthcare institutions to improve patient clinical outcomes and optimise cost of care.

Another exhibitor, **AlgoDx** aims to improve patient outcomes and reduce healthcare costs by providing accurate prediction, diagnosis, and treatment support through their machine-learning [algorithm for autonomous sepsis prediction](https://www.techinnovation.com.sg/website/30270/) of intensive care unit (ICU) patients. The solution predicts sepsis onset in adult ICU patients and can alert clinicians about patients at risk of sepsis development for early clinical intervention.

**160 global exhibitors are open for collaboration**

TechInnovation 2021 will run for 24 hours a day from 28 to 30 September, enabling exhibitors and attendees across all time zones to tune into the conference, explore technologies and network with each other.

Playing technology matchmaker, IPI – an innovation catalyst and the organiser of TechInnovation, will facilitate meetings between technology seekers and providers that are seeking open innovation collaborations.

To view the international exhibitors and technology offers available for licensing and commercialisation, please visit <https://www.techinnovation.com.sg/website/26009/exhibitors/>.

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**Notes to Editors**

1. To learn more about TechInnovation, we welcome you to interview Dr Sze Tiam Lin, Head, Innovation and Technology.
2. Please register for media accreditation to attend TechInnovation 2021 [here](https://forms.gle/FhvSCLPMSCSQ4VQq9).
3. Please see the full agenda for the Conference with speaker information [here](https://www.techinnovation.com.sg/website/26009/agenda/).
4. Download logos [here](https://drive.google.com/drive/u/2/folders/11Sjpdrz0xn7GdtzEl7K8ipsEzGXkMUIF).

**About IPI**

IPI is an innovation catalyst that creates opportunities for enterprises to grow beyond boundaries. As a subsidiary of Enterprise Singapore, IPI accelerates the innovation process of enterprises through access to its global innovation ecosystem and advisory services. For more information, visit [www.ipi-singapore.org](http://www.ipi-singapore.org/).

**About TechInnovation**

TechInnovation is the leading technology brokerage event in Southeast Asia. Founded in 2012 by IPI, the event brings together international technology seekers and providers to accelerate the commercialisation of emerging technologies, seed licensing opportunities and foster open innovation collaborations. For more information, visit [www.techinnovation.com.sg](http://www.techinnovation.com.sg).

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