

IPI's Matching Platforms

Supporting your search for innovation partners

15 July 2021



Innovation
Partner for
Impact

We create opportunities for enterprises to grow through innovation

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.



IPI's Innovation Services and Platforms

Enterprises can gain access to a wide spectrum of solutions throughout the stages of your innovation journey.



Open Innovation Services

Technology Scouting
Technology Landscape Study
Innovation Challenges



Innovation Advisors Programme

Innovation Advisory



Innovation Marketplace

Tech Offers
Tech Needs
Tech Experts
Technology Bundles



Network Access

TechInnovation
Technology Brokerage
Events



Knowledge & Insights

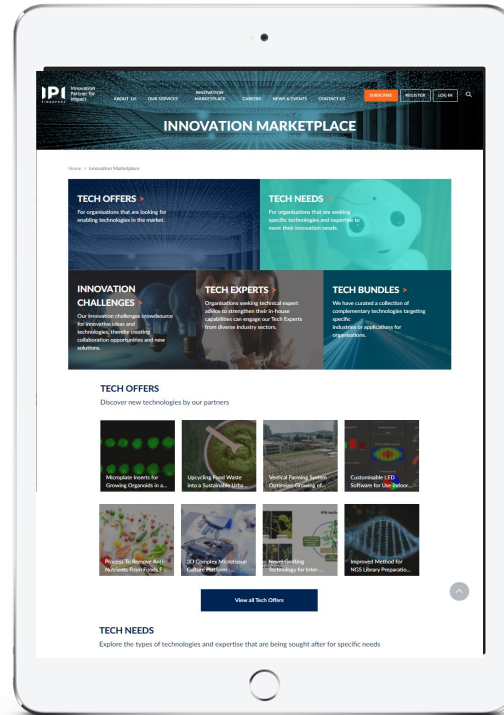
Technology Forums /
Webinars
Innovation Workshops
White Papers

Search/Post your opportunities in IPI's Innovation Marketplace

A self-service online platform that connects technology seekers with technology providers and technical experts to find collaboration opportunities through IPI's global network.

Technology Provider / Tech Expert

- Publish technology offers and expertise available for collaboration
- Search for technology needs of companies and government agencies



Technology Seeker

- Search for technology offers for commercialisation & adoption or tech expertise
- Publish technology needs to crowdsource for solutions

www.ipi-singapore.org/marketplace

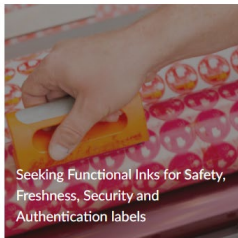
- Infocomm
- Electronics
- Food & Nutrition
- Health & Personal Care
- Manufacturing
- Materials & Chemicals
- Energy
- Environment
- Logistics & Transportation

Expand your outreach to IPI's network with your technology offers/needs

TECH NEEDS

Collaborate with our partners to bridge technology gaps

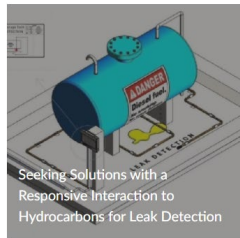
Working hand-in-hand with our partners, we identify the pain points and craft concise problem statements to engage our innovation network. Enterprises can explore the technology needs gleaned from global industry sources, or seek solutions and expertise to accelerate innovation.



Seeking Functional Inks for Safety, Freshness, Security and Authentication labels



Seeking Printable Chemicals for Colorimetric Detection of Hydrogen Sulfide Gas



Seeking Solutions with a Responsive Interaction to Hydrocarbons for Leak Detection

TECH OFFERS

Discover new technologies by our partners

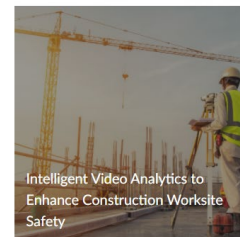
Leveraging our wide network of partners, we have curated numerous enabling technologies available for licensing and commercialisation across different industries and domains. Enterprises interested in these technology offers and collaborating with partners of complementary technological capabilities can reach out for co-innovation opportunities.



Materials for Printed Electronics: Copper Inks



Enzyme Engineering Platform for Fast and Sustainable Production of Ingredients



Intelligent Video Analytics to Enhance Construction Worksite Safety

[Edit Tech Offer >>](#)

AIoT-based Real-time Monitoring and Behavioural Pattern Recognition for Human Activities

KEY INFORMATION

TECHNOLOGY CATEGORY:
Electronics - Sensors & Instrumentation
Informatics - Video/Image Analysis & Computer Vision
[Show more >](#)

TECHNOLOGY READINESS LEVEL (TRL): TRL7

LOCATION: SINGAPORE

ID NUMBER: TO174239

[Download PDF](#)

TECHNOLOGY OVERVIEW

This technology offer presents an Artificial Intelligence (AI) and existing m elderly autonomy.

With this integrated solution, it provides real-time monitoring via pattern recognition. Thus, the system can also be used for elderly autonomy.

The company is interested in partnering overseas and jointly participate in the following joint innovation projects:

- Singapore-Germany Joint SME Call
- Singapore-France Joint Innovation Call

[Make an Enquiry](#)

[Edit Tech Offer >>](#)

Materials for Printed Electronics: Copper Inks

KEY INFORMATION

TECHNOLOGY CATEGORY:
Electronics - Printed Electronics
Materials - Health & Safety
[Show more >](#)

TECHNOLOGY READINESS LEVEL (TRL): TRL6

LOCATION: SINGAPORE

ID NUMBER: TO084526

TECHNOLOGY OVERVIEW

Copper based inks have been gaining interest as a potentially cheaper alternative for the conventional, market ready conductive silver inks. However, most of the current copper inks in the market have the tendency to oxidize under room conditions, leading to performance issues and thereby limiting their adoption. This technology presents a range of conductive materials, specifically copper inks, targeted at the flexible printed hybrid electronics sector. These functional materials are specifically designed to be printable, cured at low temperatures and flexible, making them ideal for printed electronics. Furthermore, the inks have been formulated to be extremely stable under ambient conditions, providing several advantages over the existing state of the art.

Two variations of copper inks are available: copper complex ink, and copper particle ink. Current methods for for electrodeless plating applications are achieved using palladium seed which is very costly. Copper complex ink can form a good base for such applications where building of circuits or electrodes on 3D images are an issue, providing a good, cost-effective alternative solution for the manufacture of printed electronics.

The company is interested in seeking collaborators from overseas companies, in particular from Germany or France, to jointly participate in the following joint innovation opportunities:

- Germany-Singapore SME Funding Programme (Submission before 7 Dec 2021)
- Singapore-France Joint Innovation Project (Submission before 31 Dec 2021)

[Make an Enquiry](#)

TECHNOLOGY FEATURES & SPECIFICATIONS

The described technology comprises of the following features:

- Stable copper ink formulations which ensure that oxidation is kept to the minimum, thus enhances shelf life, and printed circuitry performance and reliability
- Formulated inks that can be ink-jetted, screen printed, and used in roll-to-roll processes.
- Inks that can be formulated to be sintered at low temperatures and/or through various methods

POTENTIAL APPLICATIONS

This technology is applicable (but not limited) to printed electronics in general. The inks enable the printing of conductive traces on both flexible and rigid substrates. Examples of these are:

- Printed photovoltaic
- Printed lighting Touchscreen
- Printed heaters
- Printed displays
- Printed antennas
- RFID tags
- EMI shielding
- Alternative replacement of silver inks



Tech Alert - 7 July 2021

Tech Offers



Enzyme Engineering Platform for Fast and Sustainable Production of Ingredients

Enzyme-based biocatalysts are increasingly used in various industrial...

[Read more >](#)

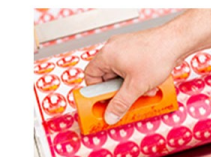


Better, Faster, Greener Phytochemical Extraction Technology and Plant Health Ingredients

This is a sustainable & efficient extraction core...

[Read more >](#)

Tech Needs



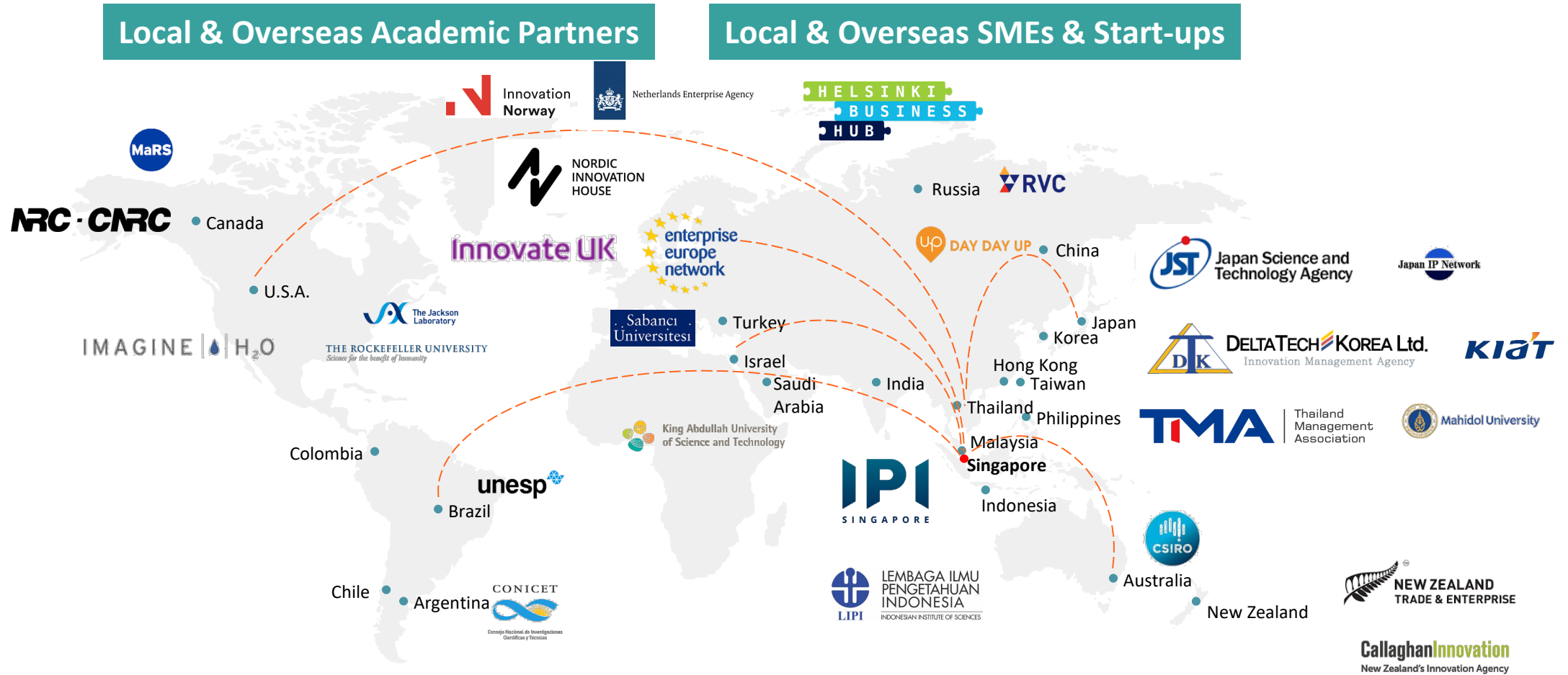
Seeking Functional Inks for Safety, Freshness, Security and Authentication labels

A Singapore based company is seeking materials and/or chemical compounds...

[Read more >](#)

Global Network of Innovation Partners

Our diverse network of technology partners enable us to bring forth the best options available to enterprises in expanding their innovation capacity.



Supporting your search for partners through the Enterprise Europe Network (EEN)



Business Support on Your Doorstep

<https://een.ec.europa.eu>

The screenshot shows the EEN website interface. At the top, there's a search bar and navigation links. Below, a search filter section is visible with options like 'With tech expertise that I need', 'That needs my tech/expertise', and 'To collaborate with research and development'. A 'Country of origin' filter shows counts for various countries: EU (262), NON-EU (208), SPAIN (208), GERMANY (174), ITALY (114), UNITED KINGDOM (111), FRANCE (68), UKRAINE (46), POLAND (41), and SINGAPORE (39). The main content area displays search results for 'liquid glass (fabric) coating technology' and 'bending neutral pressure distribution plate'.

- The Enterprise Europe Network (EEN) is the **world's largest** business and innovation network, involving participation of 60+ countries from both EU and non-EU.
- The EEN offers connection to:
 - 600+ EEN partners. e.g innovation support organisations, research institutes, TACs, etc.
 - More than 2.5 million EU SMEs;
 - Over 16,000 technology and business profiles;
 - 100+ B2B brokerage events per year
- Types of partnerships promoted:
 - Business Partnerships
 - Technology Partnerships
 - R&D Partnerships

Leverage the EEN Partnering Opportunities Database to find your innovation partner:

- **For Technology-Seekers**
 - Search for a technology offer
 - Posting your technology request
- **For Technology-providers**
 - Search for a matching technology request
 - Posting your technology offer



Helping companies innovate and grow internationally

Find innovation partners at TechInnovation!



Crowdsourcing
Seek collaborations and discover technologies through an open innovation platform.

Crowdpitching
Exhibit and pitch technologies for commercialisation or co-development to technology seekers.

Best Practices
Learn from thought leaders and be inspired by successful enterprises in their innovation journeys.

1-to-1 Meetings
Connect with potential collaborators through chat and video meetings.



TechInnovation 2020 in numbers



> 2,000 participants



152 e-Exhibitors



>300 Technologies



60% international participants



45% C-suite and senior management



>1,000 meetings initiated

TechInnovation is IPI's flagship technology brokerage event that focuses on matching industry needs to ready-to-market technologies.

TechInnovation 2021 Theme: A Sustainable & Resilient Future



GREEN & SUSTAINABLE FUTURE

Green Building

Energy Efficiency | Building Automation | Construction Materials | Passive Cooling Materials | Data Analytics | Virtual Environment Simulation | IoT & Sensors | AI for Energy Management | Indoor Air Quality

Towards Zero Waste (Waste to Worth)

Sustainable Packaging | Plastic Recycling | Wastewater Treatment & Recycling

Towards Zero Carbon (Energy Efficiency)

Solar Energy | Hydrogen | Energy Harvesting | Electric Vehicle | EV Fast Charging



SUSTAINABLE FOOD & NUTRITION

Food Protein & Nutrition

New sources | Plant-based proteins | Alternative Ingredients | Whole Egg Substitutes | Future Food | Microbes | Novel Ingredients & Processes | Composting | Food Valorisation

Sustainable Manufacturing & Packaging

Food processing | Edible Packaging | Coatings | Shelf Life Extension

Smarter Food Safety

Blockchain | IoT Sensors | Location Tracker | Predictive Analysis

AgriFood

Plant Quality | Higher Plant Yield | Resource Efficiency | Automation | Agriwaste | Sustainable Agrochemicals

Aquaculture

New Farming Species | Intensification | Feeds & Nutrition | Health & Genetics | Recirculating Aquaculture System (RAS) | Aquafarming Technology



HEALTH & WELLNESS

Manufacturing in Medtech

Wearables | Hearables | Sensors | Assistive Devices | Additive & 3D printing | New Materials

Digital Health

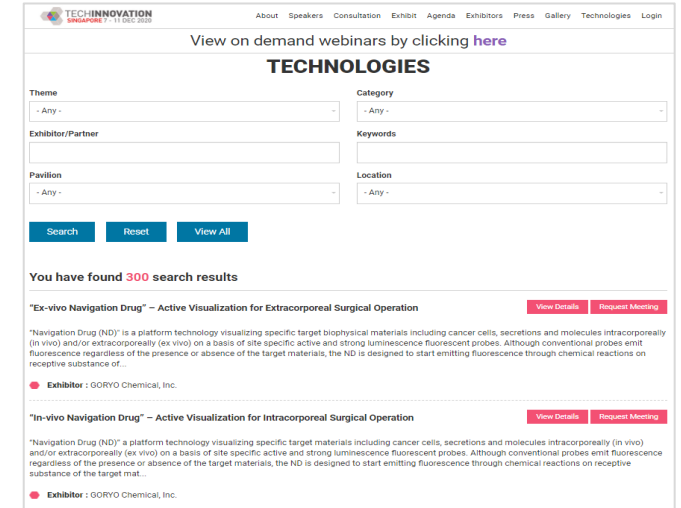
Data Analysis and AI | Monitoring | Telemedicine

Diagnostics

Non-invasive test & imaging | Biochip | Genetics-based

Personal Care

Hygiene | Skin Care | Wellness | Formulations | Nature-Derived Active Ingredients | Personalised Solutions | Gut Health | Pre- & Pro-biotics



For Tech Providers:

➤ Join us as an exhibitor to showcase your technologies and connect with industry partners over 1-1 meetings!

For Tech Seekers:

➤ Attend the event FREE to check out the latest technologies and connect with providers!

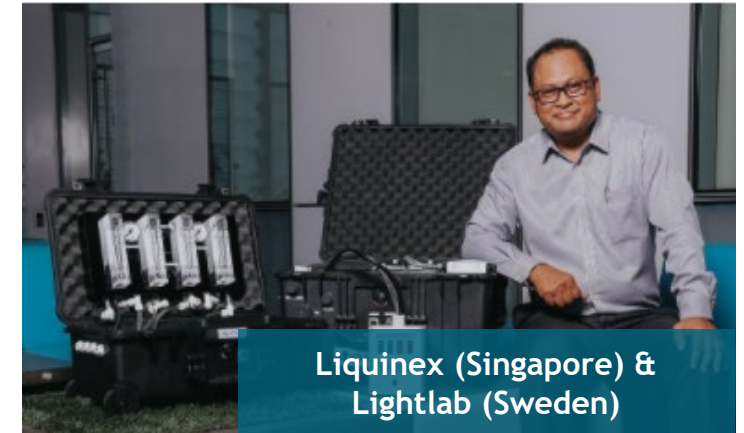
Success Stories



External Human-Machine Interfaces (eHMI) of Autonomous Vehicles



Robotic Bin Picking with 3D Vision



Portable Water Treatment and Purification System

View all success stories at
<https://www.ipi-singapore.org/success-stories>

Immediate project partnership opportunities under the Singapore-France Joint Innovation Call

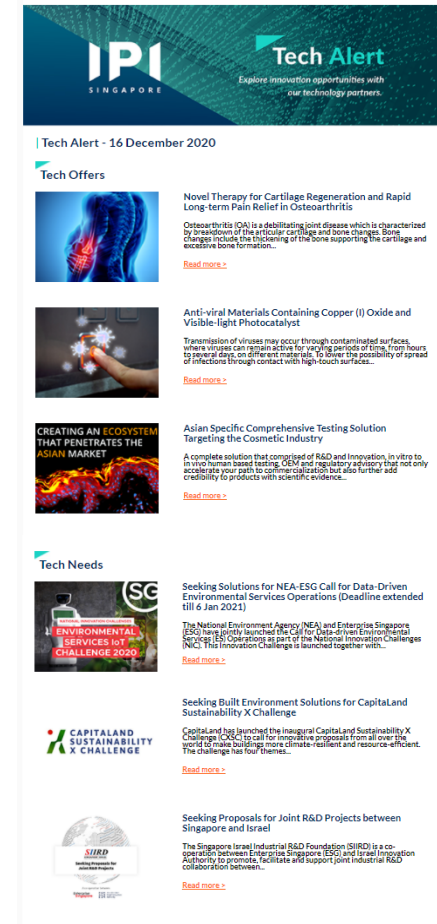
Source	Partnership Opportunity	Remarks
Singapore	<u>AIoT-based Real-time Monitoring and Behavioural Pattern Recognition for Human Activities</u>	Looking for French partner
Singapore	<u>Materials for Printed Electronics: Copper Inks</u>	Looking for French partner
Singapore	<u>Silver Nanowire (AgNW) for Transparent Conductive Films</u>	Looking for French partner
Singapore	<u>Solid-state drive with embedded artificial intelligence (AI) for real-time protection against cyber-attacks</u>	Looking for French Partner
Singapore	CO2 Capture from Waste/Biomass to Energy Plant to reduce fossil fuel-based CO2 emission	Looking for French Partner
France	Novel therapies to prevent and treat ear disorders	Looking for Singapore Partner
France	Novel Nanomedicine for oncology/cancer (solid tumours) treatment	Looking for Singapore Partner



Get in touch with us at services@ipi-singapore.org

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<https://www.ipi-singapore.org/publications#white-papers>

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