A QUARTERLY PUBLICATION OF NUS ENTERPRISE

ENTERPRISE sparks

OCT – DEC 2022 >> ISSUE #35

12 What is Money to You?

NUS Centre for Future Graduates and PlayMoolah explore the importance of cultivating healthy mindsets and relationships towards money in their newly launched Financial Wellbeing Programme for the NUS community.

17 Reaching Our Plates Right

From farm to table, hear how these up-and-coming start-ups are creatively bringing food to our plates sustainably!

NUS Enterprise Summer Programme 2022

An eventful summer of entrepreneurship, innovation and cultural immersion – back in person

04

MCI(P)014/03/2022

Photo was taken according to prevailing COVID regulations.

FEATURES

red hot

SPARKS top news in our start-up and entrepreneur community

trail blazers

SPARKS action from groundbreaking ideas and innovative entrepreneurs

fire starter

SPARKS passion and exciting entrepreneurial prospects

bright ideas

SPARKS ideas with different thoughts and perspectives

fired up

SPARKS partnerships with industry and market leaders

useful tinder

SPARKS food-for-thought

NUS National University of Singapore
Enterprise

ENTERPRISE SPARKS
NUS Enterprise

21 Heng Mui Keng Terrace,
Level 5 Singapore 119613

enterprise@nus.edu.sg
www.enterprise.nus.edu.sg

Company Registration No:
200604346E

All photos used are either file photos, were taken pre-COVID, or were taken in accordance with the prevailing COVID regulations at the time.

Editorial Team:
Megan Ting

Contributors:
Koh Zhao Rong, Teo Hui Qian, Ting Hou Yee, Soh Hui Min, Siti Nurain Binte Abdul Hamid, Natalie Rui Anthony, Qurratu'aini Binti Mohamad Ali, Cho Hui Wen, Anurag Giri, Jayendra Petkar

DEPUTY PRESIDENT'S Message

Warm greetings to all our readers! With a blink of an eye, we are already entering the second half of 2022! The past quarter has been a fruitful one for NUS Enterprise, with more events and activities taking place on-site, it has been great seeing everyone back in person! In July, we held our yearly Summer Programme in Entreprenurial where we saw more than 200 budding entrepreneurs from 13 countries participate. This year, we are honoured to have once again collaborated with our long-time partner, Temasek Foundation to introduce students to the innovative and vibrant entrepreneurial ecosystems here. It was wonderful to see budding entrepreneurs ideate and pitch their ideas during the programme's panel sessions as well as grow from feedback from our mentors. Not forgetting to mention, students also got to try their hand at various cultural and language activities to learn more about ASEAN culture!

This summer we also hosted the inaugural NUS FoodTech Challenge with the NUS Food Science and Technology Society and the NUS Department of Food Science and Technology, in partnership with Nestlé, International Flavours & Fragrances and Perkin Elmer. This year, we incorporated an international track virtually, with teams from China, Malaysia, Indonesia and the UK. We saw impressive creations emerge from the challenge, such as a healthier instant noodle option made from konjac and mock meat made from jackfruit by winner KONJACK! From NUS. Another winning team, Forl!fe from China introduced their idea of a probiotic drink incorporated from nutritious and protein-rich microalgae in freeze-dried powder form to extend its shelf-life.

In August, we wrapped up the NUS Technology Access Programme (TAP) for 2022. The programme has come a long way – from pivoting and embracing the dynamics of the pandemic before it made its launch in May this year. TAP launched in partnership with Stellar Lifestyle, a business arm of SMRT Corporation Ltd. Some of the highlights from the programme include a Discovery workshop conducted by Professor Lawrence Loh, from NUS Business School, on formulating challenge statements to scout for start-ups in our ecosystem. Start-ups in return, were also able to validate their product's readiness through TAP's workshops, lectures and guided mentoring. The pitches even saw several of the participating start-ups receive funding too.

As the school term starts, the SPARKS team also curated a guide to entrepreneurial programmes at NUS, for students looking to hone entrepreneurial skills and meet like-minded friends. At NUS, students can choose from an array of undergraduate modules that range from honing skills in software development and digital innovation. Several of these modules also provide students the opportunity to meet with startup founders from various sectors. We also have various majors, minors and post-graduate opportunities to explore from as well!

In our theme of start-ups making an impact in the community, it is encouraging to hear about our start-ups giving back to the community that they used to be a part of. The launch of The Financial Wellbeing programme in August is one of many initiatives where we see our start-ups returning to work with our community. Developed by NUS Centre for Future Graduates (CFG) in collaboration with PlayMoolah, the module aims to educate students in developing positive money narratives as well as question dysfunctional beliefs about money that may affect financial judgements. PlayMoolah's founder, Audrey Tan, enjoyed returning back to her home university to give back to the community where the seeds for PlayMoolah began. The e-module is available to anyone in the university, students can look forward to a mixture of interactive activities, quizzes, and videos that explore topics like financial emotional resilience, money behaviour, money management and more.

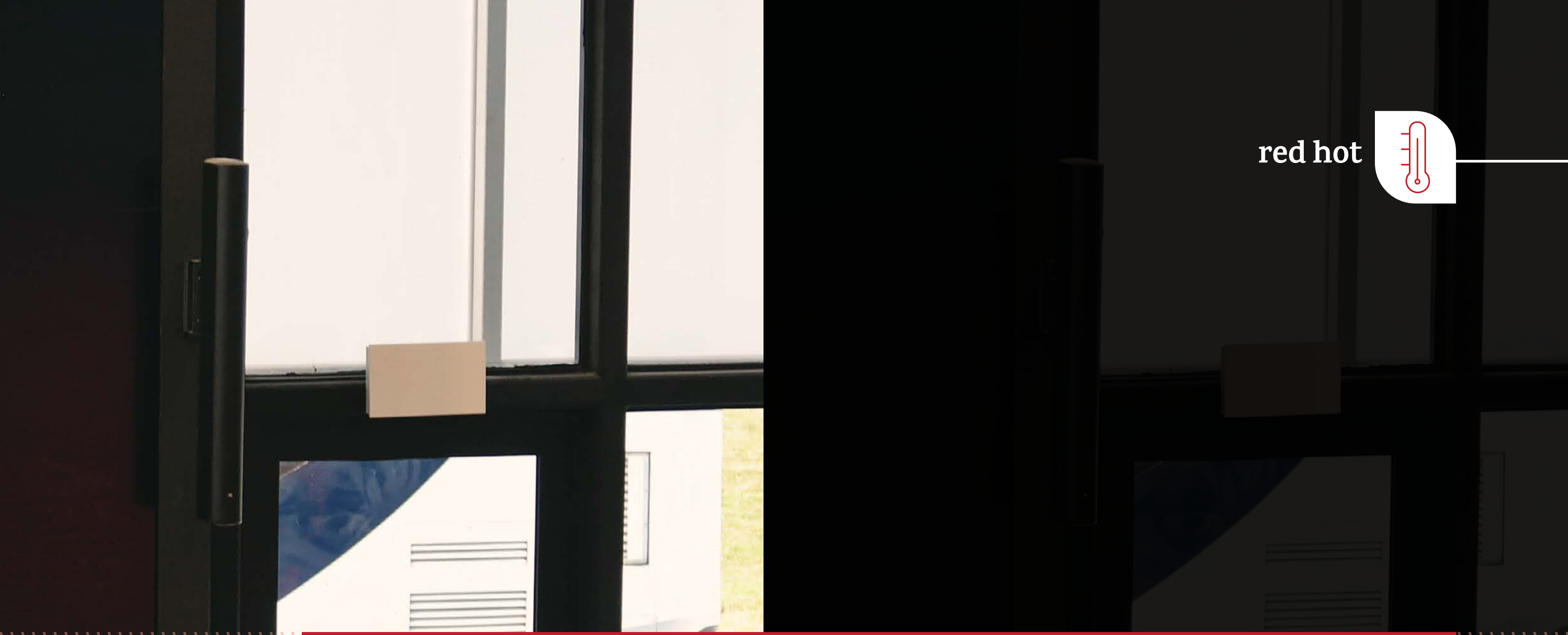
The SPARKS Team also spoke to some of our start-ups focused on food sustainability such as Cornucopia and the moonbeam co. on how they are creatively tackling the issue of food sustainability as well as the challenges they face.

This issue is packed with exciting showcases from our community, we hope you enjoy reading and gain insight from our stories!

Professor Freddy Boey

Deputy President (Innovation & Enterprise)
National University of Singapore (NUS)


SHOP BACK
SH BACK
campus



This summer, more than 200 budding entrepreneurs hailing from 13 countries participated in the NUS Enterprise Summer Programme in Entrepreneurship, hosted in collaboration with Temasek Foundation.

Held in Singapore, participants were introduced to the innovative and vibrant entrepreneurial ecosystems here, on this very little red dot that has birthed various successful home-grown enterprises. Through sharings by industry experts, company visits and more, participants gleaned insights on how they can transform their idea into a successful start-up.

Participants visited CAMPUS, ShopBack's new Singapore headquarters at Pasir Panjang Road. The popular shopping platform was founded by NUS Overseas Colleges (NOC) alumni Mr Henry Chan and Mr Joel Leong in 2014.

Participants were introduced to concepts about entrepreneurship through a series of lectures and workshops held throughout the programme. Through sharings by industry experts, participants gained a greater understanding of the different facets of entrepreneurship, such as technology entrepreneurship, social entrepreneurship, and corporate intrapreneurship. They also learned about the various pitching, branding and go-to-market strategies, as well as concepts paramount to bringing ideas into reality.

To gain a better idea of Singapore's start-up culture, participants visited various locations across the island. This included incubation spaces, such as THE HANGAR by NUS Enterprise and BLOCK71 Singapore, where start-ups can leverage on a global network of resources to support their entrepreneurial journey. Participants also visited social enterprises such as Jaga-Me and Kampung Kampus, where they learned about pressing social issues and how start-ups are tackling them. In addition, participants also had the rare opportunity to visit multiple Singapore-based Tech companies such as Grab and ShopBack.

From left: Mr Mason Tan, Director, Impact Investing at Providentia Wealth Advisory Ltd; Mr Julian Koo, Co-Founder and CEO, JagaMe; Ms Chia Hsin Ee, Founder, Learning Vessels; Mr Alfie Othman, CEO, raiSE; and Mr Russ Neu, Founder and CEO, Social Collider, sharing their insights at a panel discussion themed 'Hard truths about running a Social Enterprise'

An illustrious judging panel for the start-up idea pitches comprised (from left): Mr Julian Pan, Executive Chairman, SEMICAPS; Ms Yanisa Suratpipit, Venture Analyst, Plug and Play Tech Center; Prof Yue Chee Yoon, Director, NUS Enterprise; Ms Dora Deyu Gu, Director, Qifu Capital (Singapore) Pte Ltd; and Mr Kris Childress, Advisor and Mentor-in-Residence, NUS Enterprise

Lunchtime on Finale Day

Participants with their Certificates of Completion

Participants braving the waters during a dragon boat race across the Singapore river

NUS President Prof Tan Eng Chye (right) presenting the NUS LiNUS memento to CEO of Temasek Foundation, Mr Ng Boon Heong

Participants tried their hands at playing the Indonesian Anklung among other cultural immersion activities

To understand Singapore and Southeast Asia better, participants tried their hand at various cultural activities, including an Indonesian Batik workshop, specially-curated to immerse them in the ASEAN culture. More importantly, participants also attained tips about doing business in Southeast Asia through lectures and panel discussions.

The experience would not have been complete without the opportunity for participants to apply the knowledge and skills they had gained into practice. Participants formed teams, brainstormed ideas, and pitched their very own start-up idea to a panel of experienced mentors. This opportunity provided a safe and open environment for teams to learn how to impress potential investors, as mentors provided valuable comments and even assisted in refining the teams' pitches.

The Summer Programme culminated with a grand finale featuring performances by the local and international participants. This finale marked the beginning of new friendships, new ideas and possibly new collaborations. NUS Enterprise looks forward to supporting these budding entrepreneurs in their growth journey.

Start-up pitching for a chance to receive up to $30K MVP funding

17 MAY TO 5 AUGUST 2022

NUS Technology Access Programme

August 5th marked the end of the inaugural run of the NUS Technology Access Programme (TAP) for 2022. The programme had come a long way, pivoting and embracing the dynamics of the pandemic, before it finally made its launch in May 2022. And that's what TAP aims to cultivate - an innovative mindset where our participants learn to be open to test and adopt a courageous approach to rethink how things can be done.

Welcoming its many firsts, TAP not only kickstarted a partnership with Stellar Lifestyle, a business arm of SMRT Corporation Ltd, it also pioneered a potential collaboration for NUS Enterprise start-ups with the Corporate, to support the retailers and operations within the SMRT train stations.

As part of the programme process, Professor Lawrence Loh from NUS Business School, conducted a 1-day Discovery workshop for SMRT senior management, to identify a list of challenges to focus on. The challenge statements were later used for outreach to scout for start-ups in our ecosystem, who could offer deep-tech solutions to our partner.

In exchange, the start-ups get to validate their product readiness, through TAP's workshops, lectures and guided mentoring. They

Participants and mentors celebrating their journey on last day of TAP Run 1

Activities taking place during TAP

delivered a compelling presentation, which saw several of the participating start-ups receiving up to $30k award to build their MVP.

The 3-month journey was indeed a transformation for both individuals and start-ups who participated in the programme. All 23 participants agreed that TAP had helped them discover new deep-tech trends and its applications. Some particularly useful knowledge they acquired included the insights of business financials and commercial strategy - an important aspect for business expansion and continuity.

The weekly pulse check with mentors also received positive comments from the participants. The mentors were highly praised for their invaluable experience and support rendered throughout the programme.

We are heartened to see everyone's tremendous growth – from day 1 finding their way to putting together the theory and translating it to real world application. As our start-ups continue to refine their product after the programme, we would like to thank each of them for their contribution and entrusting us in their journey. We can't wait to see their end products being launched in the market!

GUIDE TO **ENTREPRENEURSHIP MODULES** IN NUS

For the uninitiated and non-techies

Ever wished to hone entrepreneurial skills, meet like-minded friends and earn modular credits (MCs) despite lacking the tech competency? Here's your chance! Check out our comprehensive guide to entrepreneurship programmes in NUS.

The Singapore government has been highly motivated to transform the nation towards a knowledge and innovation-based economy. Similarly, NUS has actively rolled out entrepreneurship-related curriculum, in addition to well-known programmes like the NUS Overseas Colleges (NOC), where students are able to study overseas while taking on the role of an entrepreneur at foreign start-ups, or the NUS Social Impact Catalyst club, which aims to change the world through student-driven, entrepreneurial action.

Many local start-up founders from companies such as Carousell, e27 and Augmentus are NUS and NOC alumni who have participated in and benefited from these entrepreneurship programmes and initiatives, which aim to propel students to get ahead of fierce competition for entrepreneurial talents worldwide.

However, most of us who enter university without exposure to entrepreneurship may feel at a loss on where to start and wonder whether non-tech majors can play a role in scaling tech start-ups.

So, what kind of credit-bearing entrepreneurship courses are there in NUS?

TOP TO BOTTOM: Daryl Lim, Econs alumni and co-founder of Augmentus, the "Canva" for code-free robotics. **Felix Tan** (middle), Global Studies and Innovation & Design double major alumni, NOC alumni, founder and CEO of Skilio, an AI-powered soft skills development platform. **Vicknesh Supramaniam**, **Damien Poh**, **Eddie Lim**, **Tan Ye Kai** and **Choy Jia Yu**, NUS alumni and co-founders of Thryft, Singapore's first sustainable bookstore **Ryan Chong** and **Goh See Ting**, NUS and NOC alumni and co-founders of Pitchspot, a smart platform which helps innovators innovate better.

UNDERGRADUATE MODULES

CP2106: Independent Software Development Project

Good news for students who have no skills in software development! As the name suggests, CP2106, more commonly known as the Orbital programme, is a CS/CU module which allows students to pick up software development skills related to the project of their choice over the summer break.

Projects range from web applications, mobile applications, games, to Telegram bots. This is a risk-free, self-directed and independent programme which allows students to pick up software development skills, commercialise their idea, clear doubts, and find out if this is indeed their cup of tea in the long run.

A fun fact revealed by Dr. Zhao Jin, coordinator of NUS Orbital, is that this programme is not exclusive to SoC students. A ratio of around 15% is reserved for students from other faculties. This creates good synergy and combines ideas from differing worlds as students from different faculties share knowledge and skills.

CP2201: Journey of the Innovator

Looking to hone your entrepreneurial skills over the semester? With certain seminars open to members of the public, CP2201 is another CS/CU module worth 2 MCs which introduces uninitiated students to digital innovation.

Consisting of a series of weekly entrepreneurship seminars, CP2201 allows students to meet startup founders from various sectors and equips students to embark on their personal start-up journey.

CS3216: Software Development on Evolving Platforms

Interested to build virtually anything under the sun? CS3216 is another interdisciplinary course by SoC where programming experience is not a prerequisite. More than a decade old, this module promotes working on new platforms – a valuable skill in this ever-changing world.

It also allows students to take on a complementary, reciprocal approach to solve problems, which may include social or sustainability issues.

According to Dr. Soo Yuen Jien, there is a selection process for non-computing students and this module aims to simulate the real world where a team of people with different expertise are required to form a start-up.

MAJORS, MINORS AND POST-GRADUATE OPPORTUNITIES

Innovation & Design Programme (iDP)

A double major including entrepreneurship is another possibility for budding entrepreneurs. iDP is offered as a second major which can be paired with any primary major in any faculty. No extension of candidature is required to complete this 40 MC programme.

It focuses on design thinking for optimal user experience and innovation frameworks in a diverse and vibrant team-based setting.

Students can also access engineering facilities for hands-on experience to create their own products.

Minor in Technopreneurship

If a second major is too heavy a workload, you may try a minor in technopreneurship, worth 24 MCs. Open to all NUS undergraduates, including BBA students, this minor focuses on starting-up in technology-based businesses.

Other than modules in tech innovation, students from other faculties are also able to enroll in BBA modules such as accounting and managerial economics modules to learn business management skills.

Master of Science (MSc) in Venture Creation

If you have already graduated, fret not. The MSc in Venture Creation is an immersive graduate degree which includes a start-up internship and access to elective modules in faculties such as Faculty of Engineering, School of Computing and Yong Loo Lin School of Medicine.

There may also be global field trips to leading entrepreneurial hubs around the globe with NUS Enterprise partners and the BLOCK71 network.

NUS ENTERPRISE ENTREPRENEURIAL PROGRAMMES AND EVENTS

If taking modules at NUS is not possible, you are welcome to check out the various entrepreneurship events and activities here at NUS Enterprise to get a flavour of immersion into the start-up ecosystem. Look out for updates on our NUS Enterprise Summer Programme, Innovfest and Kopi Chats on our Facebook, Linkedin or Instagram page.

- Want to learn practical hackathon skills in developing and pitching startup idea? The NUS Enterprise Summer Programme is a two-week programme worth 4 MCs which allows students to gain a deeper understanding of business and socio-cultural context of Singapore and ASEAN and gain hands on experience in starting up.
- InnovFest, the flagship event of NUS Enterprise, is Asia's largest annual conference, where start-ups, innovators, key leaders, venture capitalists and more connect with others from the ecosystem and explore opportunities in Asian markets.
- Kopi Chat is a series of talks for the start-up community, served specially by NUS Enterprise at BLOCK71 or THE HANGAR. To check out our latest kopi chat catch-ups with tech experts and serial entrepreneurs, follow us on our social media pages.

Want to be listed on our guide? Feel free to ping us at **enterprise@nus.edu.sg** with a short description and link to your entrepreneurial module or programme at NUS.

Money is one of the most pertinent forms of exchange we use in daily life, affecting the decisions we make and the paths we choose to follow. For most of us, money has a complex meaning; it can be a source of empowerment but also a source of stress, a source of security but also a source of corruption. Having a healthy mindset towards money is important, especially for young people, in developing practical skills for money management. Handling money can be a significant source of stress no matter your life stage or economic level. The Financial Wellbeing programme developed by NUS Centre for Future Graduates (CFG) in collaboration with PlayMoolah was created to address these questions for the community at NUS.

WHAT IS MONEY TO YOU?

The question of money and its relationship to students was first brought about between dialogues with NUS President Tan Eng Chye and Audrey Tan, founder of PlayMoolah about young people and wellness. In recent years, CFG has been going beyond traditional career skills programmes to include programmes imparting equally important life skills in order to develop well-rounded NUS graduates empowered to build fulfilling personal and professional lives, and financial wellbeing was identified as one critical life skill. This led to a collaboration between CFG and PlayMoolah, which has for years, focused on educating youths about financial literacy. The Financial Wellbeing programme is the culmination of this partnership, offering NUS students a holistic approach to financial literacy that is not only focused on tools and techniques, but also on addressing the psychological aspects of personal finance management.

Returning back to her home university to work on the module gave Audrey the opportunity to give back to the community where the seeds for PlayMoolah began: "The origins, the vision and the aspiration was always for the person to be free of the pains of financial stress. It was when I was a student, starting my own businesses, that I first saw the impact of money narratives on the dignity of people everywhere. This collaboration is exciting because I get to turn back the clock to look at "what I wish I knew" and make it happen for the next generation!".

SURPRISES, INSIGHTS AND BREAKTHROUGHS ABOUT MONEY

The Financial Wellbeing programme comprises of 2 modules – Financial Wellbeing – Introduction, and Financial Wellbeing – Art and Science of Investing. Financial Wellbeing – Introduction was launched in August this year and is available to anyone in the university – this includes undergraduates, postgraduates and even exchange students. The module aims to develop positive money narratives as well as question dysfunctional beliefs about money that may affect your financial judgement. It offers a new way to look at financial management, that goes beyond developing the hard skills for personal finance management, by uncovering the psychological aspects of financial management. Students can look forward to a mixture of interactive activities, quizzes and videos in the module that explores topics like financial emotional resilience, money behavior and narratives, money management and more. The module aims for students to think about what it means to live a "flourishing life" with core financial management practices that will empower students to achieve their life goals.

> "With the rate of disruption in the working world continuing to accelerate, it is essential that students build the financial and emotional resilience to make decisions that enable them to thrive, even amidst challenging times. Through the module, students will gain a deep understanding of how emotions and mindsets impact their decision-making and develop the financial know-how as well as positive habits and practices related to financial decision-making."

In January 2023, the second module in the programme will be launched; Financial Wellbeing – Art and Science of Investing. By taking this module, **students will gain foundational knowledge of core principles of financial management, investing psychology and investing fundamentals**.

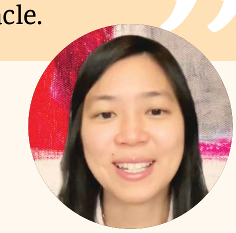
Scan the QR code or click here to find out more about CFG's Financial Wellbeing programme!

ABOUT PLAYMOOLAH

The seed for PlayMoolah was planted in 2008, during the thick of the global financial crisis. Co-founders Audrey Tan and Lee Min Xuan met while on a year-long overseas entrepreneurial internship programme with NUS Overseas College (NOC), they saw what a drastic effect the economic collapse had on the everyday lives of people around the world. Thus, PlayMoolah was founded to address the gap in financial knowledge and positive behavior change. Over the past few years, PlayMoolah has been working with people of all ages and backgrounds on transforming their money narratives and empowering them to better stewards of money.

> "As soon as we are given our first allowance we become either spenders or stewards! Managing our money is a responsibility that grows in complexity through the different life stages. By the time we are earning our first paycheck, there is a need to have Financial knowledge and the Practical skills to manage our earnings. Most importantly, we need a money narrative that lines up with who we are! A money narrative that supports our dreams and goals for the future and not a detour or an obstacle."

AUDREY TAN
Founder of PlayMoolah



NUS FOODTECH CHALLENGE 2022

In this year's iteration of the NUS FoodTech Challenge, 73 teams from various tertiary institutions were pitted against each other in a challenge to put forward innovative food tech ideas that tackle pressing issues confronted by the food industry today. The event, organised by the NUS Food Science and Technology Society, NUS Enterprise and the NUS Department of Food Science and Technology, in partnership with Nestlé, International Flavours & Fragrances (IFF) and Perkin Elmer, also incorporated an international track this year. Held virtually, the international teams comprised of teams from China, Malaysia, Indonesia and the UK.

Participants chose between one of two problem statements. The brief from Nestlé required them to create Southeast Asian consumer products or digital solutions for adults to proactively manage their health by leveraging on sustainably sourced and minimally-processed ingredients. IFF, on the other hand, asked participants to propose new concepts targeted at Asian consumers, with value-added health benefits and an enhanced sensorial experience of taste and texture.

The challenge kicked off with a two-day pre-competition online workshop, where industry experts shared insights on business models and pitching, food safety and quality assurance, and food formulation. Ten local and nine international track teams advanced into the preparation phase, impressing judges with their unique food ideas. The finalists then attended prototyping workshops to refine their ideas under the mentorship of industry experts.

Finalists in the local run had the opportunity for their creations to be tasted by judges. IFF's local track winner, team KONJACK! from NUS, highlighted the need for healthier instant noodle options. By substituting instant noodles with Konjac accompanied by mock meat made from jackfruit, the team wowed judges with their low-sodium, low-calorie, and gluten-free variation.

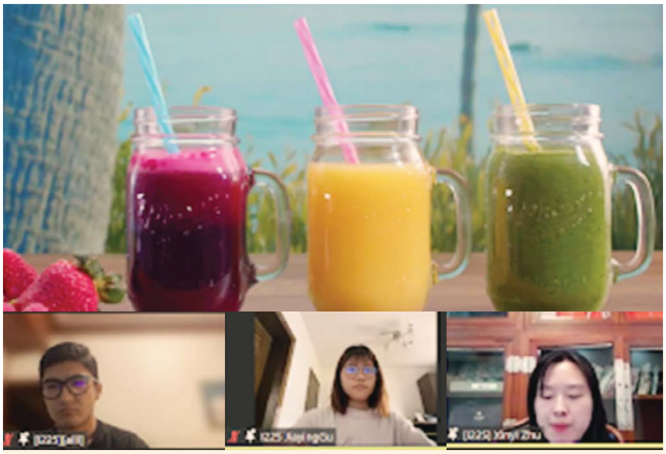
Finalists in the local run had the opportunity for their creations to be tasted by judges. IFF's local track winner, team KONJACK! from NUS, highlighted the need for healthier instant noodle options. By substituting instant noodles with Konjac accompanied by mock meat made from jackfruit, the team wowed judges with their low-sodium, low-calorie, and gluten-free variation.

The KONJACK! team comprising NUS Engineering Year 2 students (from left): Lim Shu Ying, Pujaa Kasivishvanaath and Pillai Divya Manojkumar, created a healthier instant noodle option. (Not in photo: Mridulla Ravi Annuradhaa)

The Yummgel team (from left) comprising NUS Science graduate Kong Qi Herng, NUS Engineering graduate Lim Jia Wei, FST penultimate year student Teo Paulie and NUS Science Year 3 student Varden Toh, came up with a novel idea of making fruit jellies from spent grain. Qi Herng, Jia Wei and Varden are also co-founders of local start-up, the moonbeam co.

Nestlé's local track winner, team Yummgel, also from NUS, introduced their novel idea of fruit jellies made from spent grain, encased in jelly. This masks the grain texture and makes the consumption of fibre more enjoyable and convenient for nutrition on-the-go.

Meanwhile, the international track finalists equally impressed judges with their innovations. IFF's international track winner, team Forl!fe, introduced their idea of a probiotic drink that incorporated nutritious and protein-rich microalgae that is freeze-dried in powder form to extend its shelf-life.



The Forl!fe team from Jiangnan University (China) clinched the IFF international track prize with their probiotic drink.

The Nescrave team comprising students from Justus Liebig Universität Giessen (Germany) and Universitas Gadjah Mada (Indonesia) presented a ready-to-eat, low-carb meal option to cater to consumers with busy lifestyles.

Nestlé's international track winner bowled judges over with Nescrave, a low-carb, sustainable meal packed in sustainable packaging. Ready-to-eat and containing healthier carbohydrate substitutes such as taro flour, it aims to be the go-to for a healthy breakfast.

WHAT IS NEXT FOR **CYBERSECURITY** IN THE **POST-PANDEMIC ERA?**

By **Anurag Giri** and **Jayendra Petkar** **Strobes Security (ICE71)**

Cybersecurity is commonly known as the protection of internet-connected systems such as hardware, software and data from cyberthreats. We started as a cybersecurity company to make it easier for companies to manage their vulnerabilities through our platform, and have been in this space for the last six to seven years. During the initial five years, there were many challenges in managing cybersecurity itself. We started off with doing activities such as security testing and were providing good quality work, but at the same time we had to learn how to balance that when companies engage different vendors.

One of the vulnerabilities is the loss information that they are getting through their own companies, but they are not able to properly manage it, or prioritise the vulnerabilities. That is how we came up with our product to show organisations central vulnerability management. It helps to bring all the information to one place, and we will provide good analytics so that you can take informed action.

Privatisation and dispatching are the unique selling point of our product. We see a lot of privatisation today happen based on the Common Vulnerability Scoring System (CVSS). There are other parameters to take into consideration like vulnerability, intelligence, asset exposure, what the sensitive businesses should be, and so on. You can take those information and prioritise that so that only the top 3% of the vulnerabilites require immediate attention.

STROBES SECURITY is a risk-centered vulnerability management platform. The platform can be integrated with various vulnerability scanners (opensource and commercial) that will automate all steps of the detection, prioritisation, reporting, and mitigating of security bugs.

By aggregating vulnerabilities from various sources and de-duplicating them automatically, your IT & development teams are presented with a single consolidated view of all the findings.

Using vulnerability intelligence, and exploitation trend analysis, the platform associates real-world risk to every finding and prioritizes the patches to ensure you're closing the top 3% of critical vulnerabilities at the right time.

We went through the Innovation Cybersecurity Ecosystem at BLOCK71 (ICE71) and they have really helped us in connecting with a lot of founders. They are doing really great in supporting innovations related to cybersecurity in healthcare, education, tech, and so on - you can see there are many opportunities there and we are happy to be part of it. It helps us, especially in markets like Southeast Asia. We are fortunate enough to be associated with ICE71 and grow with the ecosystem.

During the Covid-19 pandemic, we observed that many cyber attacks were happening at that point in time. Although that was unfortunate, it was helpful for the cybersecurity industry as with a greater amount of people working from home, people started taking cybersecurity more seriously investing in them.

However, we also faced some challenges during the pandemic despite being in a cybersecurity company where one would expect an industry like this to thrive - we were not able to meet clients physically and explain what we are doing. Now that things have eased up, we attended our first Black Edition, and InnovFest x Elevating Founders. While a virtual meeting helps as a presentation, nothing beats seeing people in-person and talking to them and understand what each of us does. When you meet, you are able to have a deep conversation and understanding of the features.

Looking ahead, now that the general awareness of the public realises that cybersecurity is important for themselves, they are coming up to us to find out how we can solve it. It will be a determining factor for businesses looking to step up their cybersecurity management, and whether they will stay in business.

ICE71 is the region's first cybersecurity entrepreneur hub. Based in Singapore, ICE71 is a partnership between NUS Enterprise and Singtel Innov8, the venture capital arm of the Singtel Group. It aims to strengthen Singapore's growing cybersecurity ecosystem by attracting and developing competencies and deep technologies to help mitigate the rapidly increasing cybersecurity risks in the region. Find out more at **www.ice71.sg**

Reaching Our Plates Right

Food may not always be accessible and affordable in our everyday life, the COVID-19 pandemic in particular, has disrupted global food supply chains and threatened food security. Food security – access to food that is safe and nutritious, doesn't necessarily cross our minds instinctively in our everyday decisions concerning the food we consume. The way we harvest and consume food needs to change to ensure stability in our food security. Many start-ups are finding creative ways to help get food to our plates more sustainably and make sure that no grain of food goes to waste.

THE MOONBEAM CO: FOOD WASTE REBIRTHED

The moonbeam co. was formed by 3 best bros, Lim Jia Wei, Varden Toh Eu Cheng and Kong Qi Herng with the shared vision to reduce food waste and find creative ways to upcycle it. The trio met during their time on the NUS Overseas Colleges Programme (NOC), an entrepreneurship programme students can gain experience working with overseas start-ups and partner universities. "I joined the NOC programme because I am interested in entrepreneurship. I was also interested to immerse myself in German culture as I took German classes at NUS. I was excited to see how 2 of my interests can converge here. However, I didn't manage to go to Germany due to the pandemic. That turned out to be a blessing in disguise because that's how I met my cofounders (NOC Ho Chi Minh) as all of us from different colleges took classes together!" said Kong.

The seeds for the moonbeam were planted when the trio had the opportunity to conduct a previous research project that upcycled rice into beer with the assistance of NUS Enterprise, they also did a final year project module together. After working on it for a year, the moonbeam co. has evolved into today's state. "We used to work and play at one of our places near a street with "Moonbeam" in its name and made fond memories. We went ahead with the name as it represents our history and we thought that the different symbolisms of the moon are pretty apt for us as well." said Kong.

The start-up's signature project is "Brewers' Grains", granola made using brewer's spent grains (BSGs).

BSGs are usually not consumed due to their fibrous texture despite being packed full of protein and fibre. The team found a way modify the texture of BSGs and developed a granola recipe to make the creation that is palatable to consumers. The moonbeam co. also has an upcycled beer called "Extra Rice Pilsner" and a low calorie jelly called "Yummgel" in the pipeline!

Some of the challenges they face in their work on food sustainability is consumers' perception of sustainable products. "There is a preconceived notion that such products are not only expensive but also inferior to their conventional counterparts. However, this calls for a greater need to not only inform others of how and why we are doing, but also demonstrate that sustainable products can be as good or even better than what they are used to in terms of taste and nutrition" said the team. Another challenge they face is scaling the technology they have developed. When using different grains from various brewers to process a larger volume of BSGs, there is a constant need to reoptimise parameters to be able to produce their product up to standard. The team works hard at experimenting and conducting research to constantly optimise their processes.

The moonbeam co. is continuing to scale up their production and you can look forward to seeing a new flavour that is completely plant-based at the end of the year! In the meantime, you might see them in the heartlands during fairs, raising awareness of sustainability and food waste issues.

CORNUCOPIA: A VISION OF A BOUNTIFUL HARVEST

Cornucopia is a young and thriving start-up focused on developing products to help farmers grow their crops in a more healthier, sustainable and productive way. The team is made up of 3 members, Darren Sim (Co-founder, Technical Expertise & Product Development, Nura Wong (Co-founder, Branding & Outreach) and Shruti Pavagadhi (Co-founder, Business Development & Outreach), with unique backgrounds that take on the roles of scientists, entrepreneurs and engineers, to transform lab research about plant growth into commercial products. Cornucopia officially took flight earlier this year as part of Run 8 of the NUS Graduate Research Innovation Programme (GRIP). Still enrolled in the programme, the team has been building their capabilities through the hothousing workshops and finetuning their product. Cornucopia is currently incubating at the NUS Agritech Centre, which provides the space and resources to grow as a company while preparing their products for launch.

Their signature product, Biota, is a functional probiotic, containing millions of microbial partners, that enables growers to cultivate bigger and healthier plants while reducing their environmental footprint. The story of Biota has actually been in the making for a fairly long time, way back before Cornucopia came into ideation. The microbes that make up Biota were originally discovered whilst embarked on a research project to search for environmentally friendly nature-based solutions to tackle the growing food security concerns in Singapore. "This project, that we were a part of, allowed the team to work closely with farmers to understand their pain points while regularly conducting research at their farms, and so we were able to tailor specific solutions based on their practices," says Shruti. "Through this we were able to find ways to boost their productivity in as natural a way as possible, while minimizing their costs".

Cornucopia is continuously striving to make the process of growing food more efficient and yielding: "Whatever we create and give to the farmers, we want them to have the idea that our products can help them create an abundance of fruits and vegetables that are nourishing as well. That's the inspiration behind our name, Cornucopia, which is inspired by the mythical horn of plenty, symbolized by a bountiful basket overflowing with fruits and vegetables." says Nura.

Some challenges the team is currently faced with came to light during the GRIP Hothousing period, such as in one instance where the team had to evaluate their product's = value propositions and tailor them to meet the needs of end-users and consumers. "It's definitely a common challenge faced for a researcher like myself when jumping into the business domain. Despite lab research showing amazing results, at the end of the day, do the consumers really want to buy your product?" says Nura.

On work in the food sustainability industry, the need for a collaborative culture is crucial: "When we talk about the food or agriculture industry, I believe we need to have the mindset that we are all in this together. And this is shown in our collaborative approach, when we listen to and work with the farmers, we also see it as helping the sector grow together" says Darren.

Cornucopia has several milestones ahead that we can look forward to such as the incorporation of the start-up following GRIP Run 8 and potentially, the official launch of Biota as an off-the-shelf product by 2023.

NURA WONG

SHRUTI PAVAGADHI

DARREN SIM

CORNUCOPIA

THIS CHRISTMAS:

GLAM UP YOUR GIFTING IDEAS

The holiday season is coming up and finding the right gifts for your friends and family can be challenging. To make this season a special one for your loved ones, go BIG with these luxurious start-up products that are worth the splurge. These products are uniquely crafted and personalised which makes a perfect gift for this joyful holiday.

Scent Journer Gift Sets

DISCOVERY GIFT SET

FROM $35

With the discovery gift set, there are three scents that are specifically formulated for the different parts of the day – morning, afternoon, night. In the morning, 'The Blooming Jewel' helps to uplift an individual's mood and sets a positive mood as the new day begins. When things intensify throughout the afternoon, the 'Dancing blue bee' resets one's mind to relieve stress and helps one to regain their focus. As the day ends at night, one will be left feeling like 'Clouds in Heaven' as they unwind from the long productive day.

Wraek Keyboard

WRAEK TACTONIC PRO

FROM $119

Described as a gamer's third hand, The Wraek Tactonic Pro is the world's first forcepad and keyboard set that helps a gamer double their reaction speed and increase their mouse efficiency. Getting this gift would probably be a gift from heaven for the pro-gamers out there who are seeking to win a competitive edge in their own game.

Fossa Chocolate

FOSSA CHOCOLATE GIFT SET

FROM $70

For a dark chocolate lover who appreciates delicate flavour profiles, this gift would bring them on a flight of flavour from around the world. Sourced from different parts of the world, the cacao provides a myriad of flavours that will surely pique one's curious tastebuds and bring out one's excitement feelings.

47 Ronin Watch Straps

47RONIN #308 CHOCOLATE BROWN

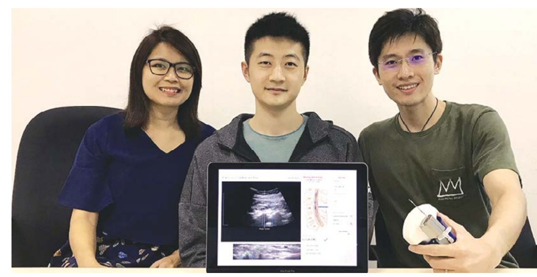
FROM $260

Last on this list is this exquisite leather watch straps that are designed and handcrafted piece by piece using high quality exotic materials such as the Kimono fabric, Japanese print and other interesting materials from Japan. This piece of Japanese art on the wrist is a standalone fashion icon that is sure to give one their own fashion statement especially when it is uniquely customised.

NEWSFEED

On August 18, 2022, we were delighted to welcome **Mr. Hideaki Ohmura**, Governor of Aichi Prefecture and his delegation from Japan. NUS President Prof Tan Eng Chye and Mr. Ohmura had a fruitful discussion on how to deepen our collaboration in supporting the entrepreneur initiatives and start-up ecosystem. Mr. Ohmura and his team also visited BLOCK71 Singapore and spoke to various companies such as Red Dot Drones, Leave a Nest Co., Ltd. and Symphony Creative Solutions.

Congratulations to **HiCura Medical Pte Ltd** (from NUS Graduate Research Innovation Programme (GRIP)) which has made it to Forbes Asia 100 to Watch list! Out of 650 submissions, HiCura was selected as one of the small companies and start-ups across Asia-Pacific region that addresses real-world challenges with fresh thinking and innovative products and services.



Craft Health, current Singapore Science Park incubatee and GRIP alumni, manufacturers 3D printed pharmaceuticals. They announced that it has raised S$1.42 million ($1.03 million) in its latest Pre-Series A. The funds will propel Craft Health's 3D printing platform as it prepares for South-East Asia's first clinical trial on 3D printed pharmaceuticals. Also in the works are various 3D printed nutrition and supplementation initiatives with several nutraceutical companies.

e-Fishery, a former BLOCK71 Bandung incubatee, is one of the businesses Temasek Holdings is interested to expand as part of its strategy for agricultural investments to improve food production. e-Fishery provides farmers with a dispenser that scatters pellets based on data from thousands of users with a monthly fee. The model is profitable and expanding - e-Fishery's $90 million Series C funding round in January valued it at over $400 million. If all goes well, the fish-feeding firm could potentially become a unicorn by next year!

To recap past NUS Enterprise events and stay apprised of those upcoming, please refer to the following QR code.

RECENTLY REPORTED FUNDING & ACQUISITIONS IN OUR START-UP COMMUNITY:

- Nkarta - Series B; US $114 million
- 99.co - Series C; US $52 million
- Biofourmis – Series D (extension); US $320 million
- FathomX – Seed; $2.24 million
- Singrow – Seed; US $900,000
- NEU Battery Materials – Seed; US $800,000
- Glints – Series D – US $50 million
- Mindfi – Seed - $2 million

All info based on public news sources.

LESS IS MORE – FASHION REIMAGINED

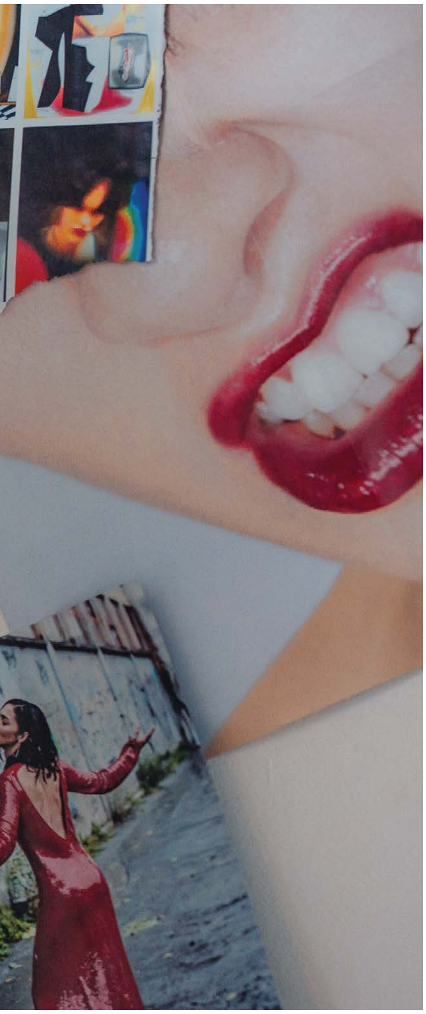
The fashion industry accounts for about 2% of the global Gross Domestic Product (GDP) and while that has been a positive contribution, it has also become one of the biggest polluters in the world. How did this happen?

FAST FASHION

Fast fashion refers to garments that are produced and typically sourced from forced or cheap labour in order to meet the rising demands of affordable clothing that requires mass quantities. The trend in fast fashion has grown exponentially thus, altering the fashion landscape and encouraging mass production and fast distribution which leads to people buying more excessively.

As a result of the mass consumption, fast fashion has become detrimental to the environment causing excessive water usage and polluted water due to the irresponsible act of dumping wastewater in local rivers instead of collecting and processing it. Additionally, the traces of microplastics and synthetic fibres found in these fast fashion garments may be found in the water which can be ingested by marine species. Besides, the reliance on burning of fossil fuels to power manufacturing facilities causes the release of greenhouse gases and these emissions creates a ripple effect on ecological degradation.

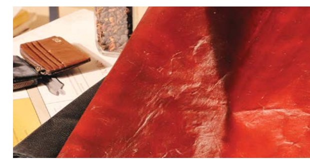
If these negative impacts are left without being addressed, serious consequences may ensue. Fortunately, this matter has raised many concerns among consumers and as a result, we are seeing more innovative solutions to address this issue. Check out some of the creative ways our start-ups are tackling the issue of sustainability in the fashion industry!



THE POWER OF BACTERIA

BELL SOCIETY

Based in Indonesia, Bell society is a start-up focused on converting agricultural waste into wearable fashion with the help of bacteria. Each of their products are made by utilising the power of bacteria to convert organic waste into a sustainable material called Misel-tex. Misel-tex is biodegradable and has been tested to have strength comparable to leather. The start-up has partnered with local coffee farmers to collect their waste and convert it into sustainable material. Some of their products they have created include bags, wallets, shoes, belts, and more! Bell Society is continuing to collaborate with local brands in Indonesia to incorporate this technology into the fashion industry.



CO-CREATING WITH NATURE

MYCOTECH

Mycotech is also based in Indonesia and creates high-performance and sustainable material through biotechnology for global markets. They believe in co-creating with nature - fabricating their materials with myco-technology. They created Mylea ™, a leather that is strong, sustainable, and eco-friendly made from the interlacing network of mycelium, inspired by Tempeh. The start-up has collaborated with various companies and businesses to incorporate their technology in art, fashion, furniture, housing, and sculptures!

LOVE DELIVERED BY LINENS

LINENS N LOVE

Based in the United States, Linens N Love is a non-profit organisation that upcycles pillows, bedsheets, towels, blankets and more from franchise hotels. Linens such as these are often discarded to landfills due to slight imperfections that do not meet the business standards. The company collects these linens and delivers them to local homeless families, animal shelters, women's homes and children's shelters. Linens N Love also has an upcycling wing that gives linens a second life as tote bags, coasters, and stuffed animals, these are handmade by their partner charities who employ underprivileged populations of single moms and senior citizens. In 2020, Linens N Love expanded to Singapore, spearheading efforts to help the vulnerable during the peak of the COVID-19 pandemic.

NUS
National University of Singapore

Invites you to a

GALA DINNER

In celebration of the 20th Anniversary of NUS Overseas Colleges and 10th Anniversary of BLOCK71

Theme

OUT OF THIS WORLD

26.10.2022 | 6.30PM

Shangri-La Hotel, Island Ballroom
22 Orange Grove Rd, Singapore 258350

RSVP via QRcode or
https://bit.ly/nusetpgala

For enquiries, reach out to
gala@nus.edu.sg

Organised by: NUS National University of Singapore | Enterprise

NUS OVERSEAS COLLEGES | CELEBRATING 20 YEARS OF GROOMING SINGAPORE'S BIGGEST START-UP FOUNDERS

BLOCK71 COMMUNITY By NUS Enterprise In partnership with global innovators | CELEBRATING 10 YEARS OF ASIA'S MOST DYNAMIC ECOSYSTEM