

## ONE MEAL AT A TIME: TACKLING HUNGER, OBESITY, MICRONUTRIENT DEFICIENCIES AND THE DESTRUCTION OF THE PLANET

Wednesday, 8 May 2019 – KUALA LUMPUR

The efficiency of our food industry today provides more than enough calories to feed our current global population – but our health and the environment pay the price, according to Christoph Langwallner, initiator of the Nutritional Paradox at the NamZ – BRIDGE Partnership Breakthrough Experience Event 2019.

The Southeast Asia focused event, held on 7 to 10 May 2019, gathered local and international senior leaders to collaborate and strategise on resolving the quadruple burden of the Nutritional Paradox: the co-existence of hunger, obesity, micronutrient deficiencies and the destruction of our planet.

“Not only is our current food system feeding us into obesity, type-2 diabetes, cardiovascular diseases and more with calorie-dense but nutrient-poor food, our unsustainable agricultural practices lead to more forests being cleared for agricultural land – destroying regions of ecological importance and biodiversity,” he said.

His views were echoed by Deputy Minister of Energy, Science, Technology, Environment and Climate Change YB Isnaraissah Munirah Majilis who officiated the launch of the 3.5-day event.

Leaders representing farming communities, factories, government, academia, retailers and media personalities came together to devise strategies and test solutions to reviving nutrient-rich crops in the world’s food chain through crop diversification, modern sciences and food technologies, thereby creating a healthier population and planet while maintaining a profitable economy.

Leaders at the event had the powerful experience of interacting with members of society in Malaysia personally affected by the food system, such as farmers and the chronically ill.

The final day features a presentation to key stakeholders on breakthrough strategies and commitments to action to tackle the Nutritional Paradox.

Experts in facilitating societal breakthroughs, BRIDGE Partnership Director Simon McKenzie emphasized the importance of leaders and consumers coming together to face the global challenge caused by our current food system.

The community platform [www.nutritionalparadox.com](http://www.nutritionalparadox.com), launched as an outcome of the event, is designed for people to share ideas, strategise and connect on breakthrough technologies and science.

“We look forward to the day the quadruple burden of the Nutritional Paradox is resolved to our satisfaction. Then, we will take down the platform,” Christoph Langwallner said.

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## About the Nutritional Paradox

The Nutritional Paradox is an initiative of NamZ Pte. Ltd., that aims to bring science, business, government, civil society and consumers together to alleviate sustainably the quadruple burden of hunger, obesity, micronutrient deficiencies and the destruction of our planet. With decades of collective industry experience, the core team at NamZ has had the privilege to appreciate this system's complexity and its interactions. The team is burdened with a responsibility to describe it as well as to highlight the dire consequences on humanity and the planet.

We call these consequences the "Quadruple Burden of the Nutritional Paradox".

More details at [www.nutritionalparadox.com](http://www.nutritionalparadox.com)

Nutritional Paradox: A summary: <https://www.youtube.com/watch?v=9OZBBXKYopg>

## About the Event Co-Organizer: NamZ

As a bio-science based, consumer-focused, innovating incubator, NamZ has, in less than five years, enabled the creation of three differentiated operating companies. Our innovation model led to the emergence of three different platform technologies, embedded in three subsidiaries, each equipped with its own set of competitive strategies.

Moving beyond being an agri, food and bio-science based company, NamZ recognizes the need to resolve the quadruple burden of the Nutritional Paradox by bringing technological approaches and solutions to the table, while advocating crop diversification, and by designing of a food portfolio toward a complete diet.

More details at [www.namz.com.sg](http://www.namz.com.sg)

## About the Event Co-Organizer: BRIDGE Partnership

BRIDGE was started by two undergraduates at the University of Cambridge in 1990. They were focused on the future leaders that they and their fellow undergraduates wanted to become. They also wanted to open their hearts and minds to sides of life that most Cambridge graduates hadn't encountered. They asked their peers to get involved in changing the lives of children and young adults who were living on the edge of society.

Over the years, these experiences have inspired many people to lead powerfully and courageously. Since then BRIDGE has continued to focus on helping transform leaders, businesses, civil society and governments to solve the pressing challenges of our time and become even stronger forces for good in the world.

More details at [www.bridge-partnership.com](http://www.bridge-partnership.com)

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## Fact Sheet (1/4)

### Facts on the Environment (Global)

- The World Resources Institute forecasts that to feed 9.8 billion people by 2050, food production must increase by 56%, involving an additional 68% more animal-based foods.

WRI (2018). Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050. [https://apps.who.int/iris/bitstream/handle/10665/43412/9241594012\\_eng.pdf?ua=1](https://apps.who.int/iris/bitstream/handle/10665/43412/9241594012_eng.pdf?ua=1)

- The Grantham Centre for Sustainable Futures estimates that we have already lost 33% of the world's arable land in the last 40 years.

Grantham Centre for Sustainable Futures (2015). Soil loss: an unfolding global disaster. <http://grantham.sheffield.ac.uk/soil-loss-an-unfolding-global-disaster/>

- To compensate for arable land loss, Global Forest Watch data reported by The Guardian warn we convert an additional one football pitch of forest every second into agricultural land.

Carrington et al. (2018). One football pitch of forest lost every second in 2017, data reveals. <https://www.theguardian.com/environment/ng-interactive/2018/jun/27/one-football-pitch-of-forest-lost-every-second-in-2017-data-reveals>

- The United Nations identifies extreme climate variability as a key driver of food insecurity, which contributes to both overweight/obesity and hunger.

FAO, 2018, The State of Food Security and Nutrition in the World, Pg26. <http://www.fao.org/3/I9553EN/i9553en.pdf>

- Our planet's health plays a big role in our food's nutritional quality. An increasing body of research has demonstrated that rising atmospheric CO2 concentrations can reduce protein, zinc, and iron concentrations in many agricultural crops.

Weyant C, Brandeau ML, Burke M, Lobell DB, Bendavid E, Basu S (2018). Anticipated burden and mitigation of carbon-dioxide-induced nutritional deficiencies and related diseases: A simulation modeling study. PLoS Med 15(7): e1002586. <https://doi.org/10.1371/journal.pmed.1002586>

Loladze I (2014). Hidden shift of the ionome of plants exposed to elevated CO2 depletes minerals at the base of human nutrition. eLife; 3:e02245. <https://doi.org/10.7554/eLife.02245>

Fernando N, Panozzo J, Tausz M, Norton R, Fitzgerald G, Seneweera S (2012). Rising atmospheric CO2 concentration affects mineral nutrient and protein concentration of wheat grain. Food Chem; 133:1307–11. <https://doi.org/10.1016/j.foodchem.2012.01.105>

## Fact Sheet (2/4)

### Facts on Obesity/Being Overweight and Micronutrient Deficiencies (Global)

- The World Health Organisation estimates 2.3 billion consume too much calories and are overweight/obese – triple the rates from 1975.  
WHO (2018). Obesity and overweight. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>
- According to the Food and Agriculture Organization of the United Nations, 821 million consume insufficient calories, just 13% less than the 945 million hungry people in the 70's.  
FAO, IFAD, UNICEF, WFP and WHO (2018). The State of Food Security and Nutrition in the World 2018. Building resilience for peace and food security. Rome, FAO. <http://www.fao.org/3/I9553EN/i9553en.pdf>  
FAO (1999). Food insecurity: When people must live with hunger and fear starvation. <http://www.fao.org/NEWS/1999/img/SO-FI99-E.PDF>
- By eating more food, we feel physiologically full, but because most of the food we eat are calorie-rich and nutrient-deficient, many of us have 'hidden hunger'. At least 2 billion have been identified by the Food and Agriculture Organization of the United Nation and International Food Policy Research Institute to have micronutrient deficiencies already.  
Welt Hunger Hilfe, IFPRI (2014). Global Hunger Index: The Challenge of Hidden Hunger. <https://www.globalhungerindex.org/pdf/en/2014/synopsis.pdf>  
WHO, FAO (2006). Guidelines on Food Fortification with Micronutrients. [https://apps.who.int/iris/bitstream/handle/10665/43412/9241594012\\_eng.pdf?ua=1](https://apps.who.int/iris/bitstream/handle/10665/43412/9241594012_eng.pdf?ua=1)
- Various organisations such as the World Health Organization (WHO), American Health Association (AHA), and the Harvard School of Public Health are in agreement on the key qualities of a healthy diet that can effectively prevent overweight and obesity, heart disease, stroke, cancer, and type 2 diabetes. These are diets high in lean protein, fibre, and micronutrients, as well as low in saturated fat, salt, and refined sugars.

## Fact Sheet (3/4)

### Facts on Obesogenic Environment (Global)

- Being surrounded by inexpensive, rich, tasty, energy-dense, micronutrient deficient and fibre-poor foods make it difficult to buy and eat healthier foods. The 'eat least' category (energy-dense, micronutrient-poor foods and beverages) are among the most heavily marketed products, especially on television.

WHO. Population nutrient intake goals for preventing diet-related chronic diseases. [http://www.who.int/nutrition/topics/5\\_population\\_nutrient/en/index4.html](http://www.who.int/nutrition/topics/5_population_nutrient/en/index4.html)

- Being overweight or obese can put stress on such joints as the knees over time. Increasing risk of Osteoarthritis, the most common form of arthritis and a chronic degenerative joint disease.

Johns Hopkins Medicine, <https://www.hopkinsmedicine.org/health/conditions-and-diseases/arthritis/osteoarthritis>

### Facts on Obesity/Overweight (Malaysia)

- 47.7% of Malaysia is either obese or overweight, a ~55% increase since 1996.

Based on the World Health Organization classification for Malaysia, the prevalence of overweight and obesity among adults (18 years and above) were 30.0% and 17.7% respectively in 2015 (National Health & Morbidity Survey [NHMS] 2015) compared to 16.6% and 4.4% respectively in 1996 (NHMS 1996).

### Facts on Obesogenic Environment (Malaysia)

- Some of Malaysia's obesity drivers are common to many nations passing through a period of rapid economic change. For instance, its GDP per capita (PPP at 2005 prices) increased from US\$7,101 in 1980 to US\$23,267 in 2015, and this has had a knock-on effect on obesity and overweight, with rising incomes fuelling increased food consumption (particularly of processed foods).

Real GDP – PPP US\$ at 2005 prices, Economist Intelligence Unit Data Cited in <https://foodindustry.asia/documentdownload.axd?documentresourceid=30157>

## Fact Sheet (4/4)

- The economic costs of obesity are considerable.

The total (direct and indirect) costs of obesity of Malaysia are the highest in ASEAN, accounting for 10-19% of national health-care spending in 2017 according to The Economist Intelligence Unit in Tackling obesity in ASEAN report.

- Among Malaysian obese males, obesity-linked diseases reduce productive years by six to 11 years, next to the Philippines. Malaysia also has the largest number of productive years lost in obese females i.e. seven to 12 years.

Tackling obesity in ASEAN. The Economist Intelligence Unit. November 2017, pages 25-27. <https://foodindustry.asia/documentdownload.axd?documentresourceid=30157>

- Dietary quality is low in Malaysia. The Malaysian National Health and Morbidity Survey finding that 92.5% of adults aged 18 and above (16.4m) consume less than five portions of fruit or vegetables per day.

Academy of Sciences Malaysia. Prioritising food policy options to reduce obesity in Malaysia. Malaysia: Author; 2013. Cited in <https://foodindustry.asia/documentdownload.axd?documentresourceid=30157>

- Datuk Seri Dzulkefly Ahmad, from the Health Ministry of Malaysia, is reported by Malay Mail to make reducing non-communicable diseases in the country its 2019 resolution as it seeks to keep Malaysia's fitness levels from sliding further compared to regional peers.

<https://www.malaymail.com/news/malaysia/2019/01/11/in-2019-health-ministry-resolves-to-cut-smoking-hypertension-obesity-and-mo/1711486>

## Biography



## Christoph (Chris) Langwallner

Initiator of Nutritional Paradox  
Co-organiser of Breakthrough Experience Event 2019 &  
CEO and Co-founder, NamZ Pte. Ltd.

After two decades working for some of the biggest names in the agriculture and food industry and a successful entrepreneurial career as the founder of one of the leading food ingredients businesses in Asia, Chris co-founded NamZ five years ago with world renowned food and cosmetic ingredients innovator, Dr. Peter S. J. Cheetham.

Singapore-headquartered NamZ Pte. Ltd. is a bio-science based, consumer-focused, innovation incubator. He is responsible for its three differentiated subsidiaries that use bioscience and new technology to create natural foods, beverages and cosmetics ingredients sustainably.

Enthusiastically, he brings fair and inclusive business strategies, sciences, and remarkable people together to create nutritious products for a profoundly healthier planet, humanity and economy.

Inspired to alleviate sustainably the Nutritional Paradox, NamZ uses science, technology, consumer insights and climate change resilient Future-Fit crops that grow economically on marginalized, degraded arable land and thus protecting areas of significant ecological importance.

NamZ's innovation strategy has led to several breakthroughs. For example, a healthy, non-fried instant noodle patented technology that disrupts the global US\$30 billion market (100 billion portions), producing noodles that taste and smell exactly like fried instant noodles. After years of research, piloting and scale-up work, and together with a Southeast Asia based partner, NamZ is on its way to install a first of its kind NoodleZ processing line capable of making 350 million portions in the first half of 2019.

Chris is passionate about changing the world one meal at the time.

[Chris Langwallner on LinkedIn](#)

## Biography



### Simon (Mac) McKenzie

Inspiration behind Breakthrough Experience Event (BEevent) 2019  
Co-organiser of BEevent 2019 & Director of Bridge Partnerships,  
Expert in facilitating Societal Breakthroughs

Instrumental in the initiation of the Nutritional Paradox idea and Breakthrough Experience Event 2019, Mac inspired Christoph Langwallner with the words: "The work you are doing is too good not to be shared with the world. Life starts on the edge of one's comfort zone. Let's bring 50 influential people together in one room to work collectively on strategies that will move the needle. Chris - are you up for it?"

Mac has worked with CEOs, government leaders and senior civil leaders across more than fifteen sectors, including financial services, agriculture, security, education, sustainable food, climate change, logistics, aerospace, construction and water.

He has led and shaped many strategic commissions over the years – these strategic commissions bring government, business and civil leaders together to solve pressing societal challenges.

Recent challenges have included economic growth policy, education reform, peacebuilding, safety, reconciliation, water security and youth development.

A dedicated sportsman and mountaineer, Mac is passionate about the role of sport in developing young pioneering leaders. He has also been a mountain guide for Raleigh International.

Mac graduated from Oxford University with a Masters in Engineering, Economics and Management. He is trained and qualified in Neuro Linguistic Programming, Transactional Analysis, Myers Briggs, Strengthscope, Leadership Development Framework and Systems Theory.

He is married and the father of a daughter and son, lives in Singapore and works mainly across the Asia-Pacific region.

[Simon \(Mac\) McKenzie on LinkedIn](#)