NET ZERO JOURNEY 2: WHAT BOARD MEMBERS NEED TO KNOW
DECISION-MAKING IN STRATEGY AND OPERATIONS
Thursday 9th September 2021

#	Question	Answer(s)
1	How ready is the Corporate Sector in Malaysia to embrace net zero and sustainability? What are the high impact programs to engage and link with the supply chain and communities?	Live answered: 0:50:26 ● Need political leadership and a clear credible plan for execution of policies. The government should drive the creation of systems for stakeholder engagement. ● Make public the ambitions to drive the next few years with stakeholder engagement ● There is willingness from the government in Malaysia to support this. ● For businesses the key is to connect the initiatives to P&L and embed sustainable and circular practices into their day-to-day operations. *Manuel*: Readiness varies across different companies, depending on the maturity of their sustainable programs. Key will be for companies to prioritise focus on managing the Scope 1 & 2 emissions that are relatively in their direct control. For supply chain initiatives, dependencies on partners increases though fuel usage in transportation can be a key area to prioritize by better logistics/transportation planning. Govt. incentives, industry-shaping regulations & leadership can play an important role. Businesses need to be able to link up these programs & reflect P&L improvements – that'll help them see the impact & pursue more programs *Aman*: 99 of the top 100 companies in Malaysia publish sustainability reports, just behind Japan (100) and ahead of other regional peers such as India (98), Taiwan (93), and Australia (92), according to a KPMG survey. This active participation from Malaysian top companies is an encouraging sign. However, corporate action on carbon reduction targets remain patchy. Out of more than 1,200 companies that have signed up to the Science-Based Targets initiative (SBTi), only 3 are Malaysian companies.

		Emissions reductions are a whole-of-society effort. We now see signs of whole-of-society coordination, which historically has been slow: ● Businesses: Several large companies have committed to global emissions targets and frameworks ○ E.g., Sarawak Energy is the most prominent of the 3 Malaysian companies that have signed onto Science Based Targets ○ Petronas has declared net-zero aspirations (but no international framework) ● Universities have also led the way with cutting-edge low-carbon research & solutions ○ E.g., Universiti Teknologi Malaysia Center for Low Carbon Transport has partnered with Imperial College to research and test low-carbon urban transport tech ● Municipalities: Subnational entities have also paved the way ○ E.g., notably Melaka and Putrajaya both have green master plans for this decade ○ In particular, Putrajaya has pledged to electrify entire bus fleet by end of this year; federal buildings now have on-site solar systems *Adrienna*: Malaysia should play it safe and head towards zero emissions. While CCUS offsets are a great idea, it may not provide the emission reductions required.
2	One of the biggest issue to move Malaysia from linear to circular economy is mindset, especially the board and shareholders, finding a tricky balance between economic profit and ESG pursuits. For example, Danone UK CEO was fired due to ESG issues and business performance. The ExxonMobil Board was reconstructed to amplify ESG pursuits. What are your	Live answered: 0:54:31 ● Link this with P&L, but start small. Eg. change to LEDs, take people on the learning journey by planting trees, recycling. ● Circular economy: know where the recycled things end up - so it is important to have the infrastructure to deal with these materials - setting up the system is critical, so you can identify what doesn't work and fix it. Eg. Look at waste as a resource *Manuel*: This can be better managed by embedding ESG programs in business' strategy & operations. A key disconnect occurs when many of these ESG initiatives are treated as a standalone exercise & viewed as 'not-so-related' to the business-as-usual. This affects effort & attention. So, for instance, if companies can define these projects, and include them in their budget cycles for implementation with clear ownership and P&L impact (cost down/benefit), it helps in setting up a

	thoughts to solve this tricky balance?	context & argument to communicate the need & impact of ESG initiatives on the business, to the stakeholders. With this kind of narrative, there are better chances of influencing mindset. At MPI, case in point are the investment projects that we have pursued as part of our continuous improvement projects – energy efficient chillers, water recycling programs, infrastructure set up for on-site Nitrogen plants allowing diesel/emissions reduction, etc. *Adrienna*: There appears to be a school of thought that suggests profit is separate from sustainability and circular systems. Thus the desire to find a balance between the two. This is incorrect. Sustainability and circular systems are where your future profits will come from. It's simply a matter of embracing the new and letting go of the old. The market, the survival mechanisms required to maintain a healthy business will change your mind. If your mind does not change, you will go bankrupt.
3	How do you get buy-in from the rest of board members (of small listed co) to support the importance of ESG and sustainability implementation?	See answer for point 2. That approach helps to prepare a solid justification, and hence, increases chances of buy-in from board. *Aman*: Board members would need to be made aware of the upcoming challenges – both from customers and regulators. Many of the small listed companies have large customers – who are making commitments and will soon be asking their suppliers to be more transparent and proactive. Many companies and governments are also institutionalizing Green procurement processes – so smaller companies need to start thinking more as a matter of staying competitive and not losing out on business *Adrienna*: The market will force you to buy into sustainability and circular systems. The cost of capital will go up, insurance premiums will be based on climate mitigation policies and adaptation. Customers will demand more sustainable companies. You can explain this to the Board now and if they refuse and choose to wait, it may be too late.
4	Could the panellists share some of the best practices for the Board to ensure that	*Manuel*: A clear governance structure and process setup to define the type of data to measure (KPIs), how to measure, and subsequent internal audit & review certainly helps. Board can follow below best practices

	Company's ESG-related disclosures are reliable and credible?	• provide direction & guidelines for setting up & improving the governance & processes • mandate trainings for employees at all levels – Directors, Managers, & below Again, the more items are linked to the P&L, the better it will be in terms of getting the true picture on a regular basis.
5	How do the panellists see the roles of independent auditors in ESG reporting for external assurance and confidence?	*Adrienna*: You cannot have a credible ESG report without independent verification.
6	Appreciate if speakers can focus on the how? The need to is accepted but elaborate on successful approaches	Live answered: 1:11:01 • There has to be the commitment first (although the easy way is to engage consultants). Also put the right and best people, and hire them on. • Asian countries have submitted NDCs which state that they cannot meet their commitments without a multi-stakeholder approach; what systems can be put in place to increase chances of success, and what sort of collaboration is required. In Malaysia, for eg, waste management system is important to address flooding issues - engage NGOs, look for neighbourhood communities *Aman*: The first step is assessing your current situation and carbon footprint, and understanding sustainability initiatives that have already been defined. Next is to project the consumption and energy needs of the company in a business as usual situation, grounded in data. And once you have all these mapped, you can start to define the decarbonization targets. The next step is defining and building the pathways to achieve your goals, looking into what are the available solutions – a combination of technical, financing and cultural change solutions – that are specific to your organization's requirements. It is important to take a holistic and road-mapping approach to make sure you have a clear and actionable plan to achieve your goals.

		If a company has limited access to capital, companies should start with looking internally within the organization and defining where the cost savings can be found. Most of the time, decarbonization is actually linked to improved efficiency of the business and therefore improved savings.
7	The world is responding to the rising pressure to embrace the concept of doing well by doing good—and the expectations continue to increase. What are your views on linking executive compensation to ESG goals?	Live answered: 1:18:17 ● *Johan*: Nomination & Remuneration Committees are required to look at this. ● *Manuel*: As is, so many KPIs given to management, giving rise to endless audits and meetings; however at the end of the day, stakeholders want returns, and employees want jobs. Perhaps giving training and education is a better tool to drive this. Additionally, with customers and investors expectations, there is sufficient pressure on CEOs and board to do the right thing, but it does vary by industry. ● *Aman* feels that what gets measured gets managed. Important how metrics are chosen and KPIs are set, particularly need to avoid perverse incentives that push people to game the system through greenwashing.
7.1	My personal experience on remuneration of boards and c-suites being linked to long term sustainability results and goals ----- IT WORKS AND IT IS A REMARKABLY EFFECTIVE LEVER…	
8	Sometimes it is easier said than done or to implement. How can we have a balance of the policy makers in implementing new policies of attaining net zero footprint of climate change and the	CGM, in partnership with the CEO Action Network, has engaged with the government and the public in a series of roundtable discussions to review the viability of a national net zero emissions target by 2050 and to assess the need for a multi stakeholder platform for climate action in the country driven by the net zero target. Highlights of these sessions can be found on CGM's blog, together with links to recordings of the roundtable webinars.

	people of the country to accept these new changes in our world?	
9	There is already a shortage of talent / competence / capability to deliver the overall decarbonization ambition. We will be relying more on the millenials and Gen Z to deliver, own and lead this over the long term. What radical considerations or steps can we take to build the ecosystem (capacity, capability, knowledge, etc..) across the industry, and to achieve this at pace?	Live answered: 1:06:00 ● Some companies are taking bold steps to train ALL their staff on sustainability, and that's where many great ideas emerge. ● It is a step-by-step process because you have to measure what you're doing ● Good talent is a prevalent issue. STEM training is essential to support innovation required for decarbonisation ● Educational institutions need to respond to this to provide an adequate talent pipeline ● People are interested, but they are not properly trained *Manuel*: A few suggestions – ● Identify clear owners to drive sustainability programs and projects in your company – this will help drive the agenda forward, and improve processes bit by bit to make the system mature over time ● Train employees at all levels – from top management to juniors. A lot of questions on what & how to do get answered through learning from others and iterating in your own business. Technical training on these subjects (in-house or through external entities) help a lot in building this know-how. As they say, knowledge is everything! Further, it helps to cascade it to the wider company, and continuously improve capabilities of responsible teams/ individuals. This is where new ideas can come from ● Starting an in-house innovation program can also help to brainstorm & generate ideas. If not a full program, a 'suggestion box' approach can also work to start with. Opt for quick wins, low-hanging fruits that can be implemented practically & quickly to build momentum & pace.
9.1	Good message, Amandeep. Meanwhile, how can	*Aman*: The short term measures are really to bring in external talent (from other industries / countries) or use consultants. While companies can do standalone training – the real learning and

	corporates accelerate capabilities building while waiting for universities to respond with relevant courses?	capability experience happens on the job. So the best approach is to use a combination of external talent / consultants with existing employees in order to build up capabilities and experience.
9.2	On Talent, shouldn't there be a developmental view taken of players in this space (especially those businesses who are on the technical side) so that Talent is readily more available?	*Aman*: it's again a supply demand issue - there needs to be a pull / need . Sometimes it's driven by stakeholder needs e.g. Customers and Investors asking for it
10	Thank you Adrienna. Very interested to learn about the remanufacturing in Malaysia - the report. How would you suggest I go about it?	*Adrienna*: You can email me: adrienna@circulareconomyasia.org and I will send you the report.
11	For Circular Economy: One of the biggest challenges is the existing supply chain which is operating in a linear economy. A controversial issue is that the circular economy is at odds with several manufacturing and marketing principles based on "planned obsolescence and individual ownership".	*Adrienna*: Eventually, manufacturers will be forced to design products that can be repaired, repurposed or made from materials that can be economically recycled. The momentum is gaining traction daily. The cost of primary raw materials will become too high; the issue of waste must be tackled via circular systems. We are all impatient for positive change, but the scale of change required means it will take a very long time.

	For example, my handphones can be used for 18-20 months only, before I have to buy a new one.	
12	Hi Adrienna, in terms of the systems that you are referring to - where companies can tap into. One of the major causes of GHG are remnant refrigerants that are found in old refrigerators and Air Con units that are being discarded when consumer upgrades. What is your view on this issue in Malaysia? Are you aware of any white goods manufacturers in Malaysia setting up proper collection and recycling or re-manufacturing of such white-goods?	*Adrienna*: As much as I'd like to say I'm not a fan of individual systems for discarded items, so much 'systems theory' for the circular economy has yet to be proven. The project I have on the table 'Waste-as-a-Resource' (or Resource Recovery) is designed to develop a systems approach to some functions of the circular economy. It would be fantastic to run this project here in Malaysia. No, I'm not aware of any white goods manufacturers setting up proper collection systems, but there are plenty of ad hoc collection systems. Unfortunately, many are terribly inefficient and there is limited ability to measure how much secondary raw material value is being generated. Here is a great article about a Product-as-a-Service model for ACs in Africa, recently established by the Japanese company Daikin - "As Tesla eyes entry, Daikin's 'pay-per-day' AC takes off in Africa" This does not mean that SMEs who dismantle white goods will be left out, it just means they will need to fit into a collection system and skill up to maximize raw material usage.
13	Circular Economy and Climate Change: The transition to renewable energy would only address 55% of global greenhouse gas emissions. The remaining 45% of emissions come from industry, agriculture, and land	*Adrienna*: The biggest issue is that some governments acknowledge the circular economy in their NDCs and some do not. The countries that do cite the circular economy do not really seem to know how it can add value to climate change mitigation. There are not enough skilled practitioners providing enough credible plans and ideas for government agencies to embrace. Although the EU is formulating circular economy policy and legislation, there is still a need for professional implementation to reduce risk.

	use, which can be best solved through the circular economy lense. in your view, how best can Corporate Malaysia/ASEAN strike a balance between these 2 strategic pathways?	
14	Linear vs. Circular Economy: The manufacturing industry currently remains anchored in the linear take-make-waste economy. Going forward: One goal is to 'make the circular economics work' by creating economic incentives and setting regulatory requirements that enable Circular Economy business models (such as resale, rental and repair) to become the norm rather than the exception. How can this be achieved in the manufacturing sector? Would love to hear your views.	*Adrienna*: The manufacturing sector is a very broad term for many different businesses. Everything from clothes (textiles) to large machinery, home goods, furniture etc. A one-size-fits-all may not work for every type of manufacturing company and 'we' (circular economy practitioners) must be very careful in how we approach this topic, otherwise we risk alienating manufacturers, especially family owned businesses that are hesitant to change. For example, remanufacturing is more suitable to machinery, automotive and aerospace industries. Repair and repurpose for furniture. Remember, none of this works unless these items are designed to fit into circular systems. Here is where we go back to skills capacity building. **BUT** we can make baby steps with what we have available already. We just need to get out there talking to businesses and getting them started in some aspects of the circular economy. Government policy will help enormously but only if they consider an industry sector-by-sector approach. That approach may seem too long in the making, but remember there is a lot at risk. Managing risk during transition to sustainable and circular practices is vital. Actually I will be giving a talk at the end of this month on circular economy policy suggestions for the Malaysian government to consider where I will have the opportunity to flesh out these ideas in more detail but I will not be focusing on manufacturing.
15	Question to Amandeep, Very concise points. Thank you. What is your view on current	Live answered: 1:03:03 There is a lot of action around this; for hard to decarbonise industries this cannot be neglected.

	CCUS technology? Are you able to name and elaborate on available CCUS technology(ies) that an energy intensive and difficult to carbon abate Malaysian manufacturing company can look into, presently.	
16	Give specific examples of successful remanufacturing industries yielding higher profits	Live answered: 0:59:22 Caterpillar, Tata Motors , reprocessing of printer toners, Boeing engines - from SMEs to large MNCs
17	Manuel, Thank you for your informative presentation. In your sector - semiconductor - are you able to name, say, the top three semiconductor companies that are leading the sector in the area of decarbonisation? Which companies would you consider are the role models in your sector?	Live answered: 1:01:43 Everyone is investing into this to be more efficient, to bring costs down. They are going to new technology and Renewable Energy. But there is still a lot to do. Many Chinese companies are doing a great job. *Manuel*: Many semiconductor players are setting ambitious energy saving/ emission reduction goals that also help them reduce costs & improve their efficiency/ productivity. It's difficult to name the top 3 though some industry leading names are Kyocera, TSMC and Intel who have set clear targets to achieve by 2030. These companies are doing it by combining different green technologies for on-site production, depending on the decarbonization goals: ● Liquefied natural gas (LNG) engine, Solar photovoltaic (PV), Battery energy storage system (BESS), wind, fuel cell, H2 blending (Source: McKinsey)

18	Besides solar, what other forms of renewable energy are commercially available & affordable?	*Aman*: Solar continues to be competitive in the region and in Malaysia. Solar PV (0.82GW installed capacity). Biomass (0.81GW installed capacity). Biomass makes for an attractive option in Malaysia owing to the abundance of feed-stock availability. *Adrienna*: Wind, thermal energy, hydro power. Here is where I disagree with Aman, I'm not keen on biomass as a renewable energy source.
19	Any comments from the panelists on Malaysia's carbon pricing prospective	*Aman*: I think it's something to consider to spur innovation and investments in decarbonisation. Singapore already has a Carbon tax and is looking to update it 2023 onwards.
20	How to set a net zero target: based on data or revenue? Which one is better?	*Adrienna*: Emission reduction targets are based on data. *Aman*: 1. The starting point of setting a target is to first assess your emissions footprint covering Scope 1, 2 and 3. For Scope 1 and 2, one needs data on energy usage while Scope 3 needs a combination of spend and activity. 2. Once the emissions data is assessed and reviewed – one can identify and assess solutions to evaluate the reduction potential. 3. Target setting should follow once these steps are concluded – since the business needs to be clear re: the investments and timelines to Net Zero.
21	Elaborate on carbon offsets	*Aman*: Offsetting is a valid strategic tool for companies that are serious and committed to the Race to Zero. It can unlock ambitious, near-term action. But it is even more important as a lever in a longer-term decarbonization strategy. However, the recommendation is to try and implement onsite measures in abating emissions before using offsets. But realizing the full potential of offsetting – and speeding your transition to Net Zero – requires a disciplined, strategic approach. There are three areas you need to focus on and get right:

		1. Timing: It's important to determine when to integrate offsets into your Net Zero strategy. In general, you want to follow the mitigation hierarchy that prioritizes or does not compromise internal reductions. 2. Quality: To avoid reputational risk, it's advantageous to utilize high-quality avoided emissions and removals in your carbon neutrality strategy. 3. Procurement Strategy: Recognize that offsetting is not a tactical credit purchase; it's a strategic approach that is aligned with your corporate vision and values. You can read more on carbon offsets here: https://www.engieimpact.com/insights/carbon-offsets-net-zero
22	How do you define net zero? Is there a definition on this worldwide or much depends on the organisation in defining this?	*Aman*: An organization has reached a state of Net Zero when it reduces its emissions by following science-based pathways and fully neutralizes remaining emissions by like-for-like removals either within its value chain or through the purchase of valid carbon offset credits. *Adrienna*: Here is a great article from the World Resources Institute titled "What Does "Net-Zero Emissions" Mean? 8 Common Questions, Answered" with good graphics and videos.

Poll Results

Do you think Malaysia should move to net zero in absolute carbon emissions by 2050?

A. We won't do that, Malaysia is still a developing economy and needs to rely on its natural resources.	4%
B. No choice, Malaysia needs to find a just transition path from reliance on fossil fuel based income, to be able to be part of the "club" of the global value chain.	47%
C. Cannot, the people of Malaysia are not ready for the short term pain, even for the long term future and sustainability of the economy.	2%
D. Yes! Malaysia must stop deforestation, overdevelopment of hill slopes, degazetting of forest reserves, coal and fossil fuel reliance completely, within the next 10 years.	40%
E. All of the above	7%
	100%