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## Future Ready:

Navigating Industry 4.0 in Southeast Asia's  
Mid-Sized Enterprises



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### Future Ready: Navigating Industry 4.0 in Southeast Asia's Mid-Sized Enterprises TRANSCRIPT

**[00:00] Tingfeng Ye:** Thank you for joining our podcast to discuss about Industry 4.0 and its impact on Southeast Asian manufacturing companies. Today we have the pleasure to invite Mr. Raimund Klein, CEO and founder of INCIT (International Centre for Industrial Transformation), to offer insights on the latest trends and opportunities in this industry. To set some context, with the advancement of technology, more is being made possible. Leveraging on areas such as RPA (robotic process automation), big data analysis, and Artificial Intelligence to identify new opportunities unlocks value for companies. We have seen rapid growth in the manufacturing sector in recent years, supported by an influx of private equity investments. As the industry landscape continues to evolve, it enables opportunities for businesses to achieve sustainable growth and deliver enhanced value for investors. Well, Raimund, before we get started can you tell us a little bit more about yourself, INCIT and how SIRI (Smart Industry Readiness Index) is being used as a global tool for manufacturing companies?

**[01:24] Raimund Klein:** INCIT is a not-for-profit organization. We are a member of the World Economic Forum, and what we focus on is catalysing the transformation of manufacturers globally, to help them to advance their productivity, development, and growth. We have built and deployed globally referenced frameworks, one is the Smart Industry Readiness Index (SIRI) focusing on productivity. We also have a Consumer Sustainability Industry Readiness Index focusing on reaching the net zero and measuring the ESG establishment in the manufacturing or in the company overall. With these frameworks, we have iterative improvements. So, it's not like let's say for the certification you get where you reach the target state and you relax; you always reach a stage, and our indexes calculate, the next step of your improvement. So, we position the manufacturers for their future success in the next level of productivity and sustainability.

**[02:30] Tingfeng Ye:** And we understand that SIRI has been operational since 2017, and you have measured over 2,000 companies around the entire globe. Based on your experience, what are the latest trends that you have observed?

**[02:48] Raimund Klein:** From the data, when we look at our database of digital transformation in sustainable transformation, we can see that the Industry 4.0 trends start with connectivity and then horizontal integration. What we also see from the trend is that the frontrunners, the best-in-class, focus on asset and equipment efficiency, and planning and scheduling

effectiveness. These best-in-class guys are typically MNCs. If we look at the bottom performers, unfortunately, are very much represented by the SMEs (Small and Medium Enterprises). They primarily focus on, firstly, workforce efficiency and secondly, product quality. So, you can see that the front runner, they have a completely different focus from a data pattern recognition, then those lagging behind, which unfortunately are the SMEs.

[03:59] Tingfeng Ye: I think this is very consistent with what we have seen with our clients. So, we do serve both MNCs as well as SMEs. The mid-sized companies are struggling with, the intelligence part of Industry 4.0. And we are also helping them start by introducing simple automation for some of the repeatable tasks. Case in point, I recently served a MedTech company, and we saw that, they were introducing simple automation for even for visual inspection. Within MNCs, we see that they are trending towards intelligence, starting with a Digital Performance Management, even for big mining operations.

[04:39] Raimund Klein: Now if we look at the pattern recognition in this case, I need even to go one step further. Unfortunately, looking into the data, I found out that automation is not the first step. The first step is job shop connectivity to measure the impact of the automation you put in place. So even before considering automation, you need to have job shop connectivity to measure the impact of the automation you put in place.

[05:10] Tingfeng Ye: Thanks, Raimund. We also see companies struggling to progress to the next level of improvement. From some of the trends that we see, companies tend to get stagnant in terms of adopting Industry 4.0. Looking at some of the data, why do companies tend to struggle when they make this jump, and why does stagnation typically happen during their course of transformation?

[05:32] Raimund Klein: Companies often do not know what their current digital maturity profile is. And when you don't know where you are, you also don't know in which direction to go as a next step. So, the digital maturity assessment, what we provide is establishing the baseline. Then our system gives strategic input; focus on bottom line and the business objectives. Then our system calculates the next step in their transformation, providing guided roadmaps within our framework.

If we look at adoption trends, it's moving from an Industry 4.0 perspective to a sustainability perspective. MNCs intend to reduce Scope 3 emissions upstream of their suppliers, which also has an impact on the manufacturing processes in the future. For example, to reduce Scope 3 emissions, companies may need to insource former outsourced production processes such as, with 3D printing. So here, companies don't maintain assets in stock, but utilise when needed, their own 3D printers – effectively insourcing, formally outsourced processes.

[07:03] Tingfeng Ye: What you say makes sense and is consistent with what we see many of our private equity clients. A lot of our due diligence cases that we support our clients in, considers sustainability factors in their investments. It's also something we typically help our clients with, improving operational efficiency and their sustainability efforts.

Let's shift gears and speak about other industries. From the data that you have seen so far, what are some of the top performing industries in the Southeast Asian market?

[07:39] Raimund Klein: When we examine the top performers, they typically include the electronic, pharmaceutical, aerospace and semiconductor industries. Conversely, lower performance is often in general manufacturing – textiles and precision engineering. These are SME dominated markets. And as we stated before, these SMEs often lack a strategic objective; they have an operational objective – daily survival – as opposed to having a strategic roadmap like larger manufacturers in semiconductor, aerospace, and electronic industries.

**[08:23] Tingfeng Ye:** What are some of those characteristics that you observe, besides the strategic side of things that differentiates the high performing Industries from the low performing ones? Is it purely the size of the companies? Are there SMEs that are outperforming the rest?

**[08:39] Raimund Klein:** That is an interesting question because our correlation analytics in the data and revealed that currently, companies with more employees perform better in terms of productivity and digitalization compared to those that have less employees. If we look into SMEs and the sectors that are performing, then the automotive industry stands out. Here, they assess the suppliers in terms of productivity gains. And this is very prominent in the automotive industry, as compared to the commodity industry.

**[09:24] Tingfeng Ye:** Building on to what you mentioned about private equity investments in mid-sized companies – in lagging sectors, one of the key things that they should do, is to set a longer-term goal and not to look at short-term gains. Secondly, build on workforce development to get the right talents into the organization. Lastly, draw insights on successful characteristics, for example, in the automotive industry.

All right, thank you Raimund. Before we conclude, what are your thoughts on where you see the trajectory for Industry 4.0 in terms of development. What are some of those trends or innovations that's catching your attention?

**[10:12] Raimund Klein:** There are three main pain points worldwide for manufacturers. The first is productivity digital transformation. The second is sustainability, reaching net zero. And the third is establishing a digitalized supply chain to enhance resilience.

If we look to the hot topic in the market, it's sustainability. The sad part of sustainability compared to digitalization is Industry 4.0 is relatively young – around 10, 13 years old. When we aggregate the 12 industry clusters and 59 industry segments, and measure with our SIRI at a global level – Zero is bad. Five is fully digitalized – its 1.55. After thirteen years of Industry 4.0, we are still at the beginning. On the other hand for sustainability, I'm now 62 years old, climate change was discussed, since I left university when I was 23. When we measure with COSIRI the CO2 reduction efforts of manufacturers, it's less than one. So, sustainability is important for survival, while this will merge with Industry 4.0 it needs to be driven in parallel.

**[11:40] Tingfeng Ye:** Thank you so much for being with us today Raimund and wishing you all the best.

[END OF AUDIO]

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