

FY2023 RESULTS BRIEFING

27 February 2024, 10.00am

Management Panel:	
Gary Ho	Executive Director and Group Chief Executive Officer ("Group CEO")
Kay Lim	Group Chief Financial Officer ("Group CFO")
Gian Yi-Hsen	Group Chief Strategy Officer ("Group CSO") and CEO, Sydrogen
lan Howe	Group Chief Commercial Officer ("Group CCO")

Presentation Transcript

Duane Tan Investor Relations	:	Good morning, ladies and gentlemen. Thanks for joining us this morning for Nanofilm's full year 2023 (" FY2023 ") Results Brief. Thank you for joining us virtually and for onsite participants as well.
		For today's presentation, we have Mr. Gary Ho, our Group CEO presenting on the overview before passing it on to Group CFO, Mr. Kay Lim, who will go through the financial highlights. Mr. Gian Yi-Hsen, our Group CSO and CEO for Sydrogen, will go through the sustainability highlights before passing the time over to Mr. Ian Howe, our Group CCO, on some business updates. Then we have Gary to conclude the session with an overview before we open the time for Q&A.
		So, without further ado, I will pass the time now to Gary, who will bring us through the full year 2023 overview.
Gary Ho : Group CEO	:	Thank you, Duane.
	Good morning, ladies and gentlemen. Thank you for joining us today. I will kick off today's presentation by providing you an overview of our second half and FY2023 results. The second half of 2023 (" 2H2023 ") saw a recovery in business performance. We are halfway to revenue recovery and ongoing cost optimisation is gaining momentum.	
		Despite the tough environment last year, our business has remained profitable with a positive operating cash flow.
		Taking into account the recovery in 2H2023 and the strength of the Group's fundamental business, the Group is proposing a final dividend of 0.33 Singapore cents per ordinary share. Kay will be covering more on the financials in the next section.
		The business climate in FY2023 was challenging. Exacerbated by geopolitical uncertainties and inventory adjustments following the full removal of COVID



restrictions in China, this has impacted end consumer sentiment and the demand for the $3C^1$ business within AMBU² and NFBU³.

Additionally, these external pressures led to cautious capital spending, which negatively impacted IEBU⁴ business. While the first half of 2023 ("**1H2023**") was especially challenging, the narrative began to shift positively in 2H2023 and 2H2023 Group revenue grew 42%, half on half.

The Group witnessed a rebound in business activities in the third quarter of 2023 ("**3Q2023**") and this trend continued into the fourth quarter of 2023 ("**4Q2023**"). Driven by the 3C recovery from improvement in inventory rebalancing and new product launches by its end customer, consumer business narrowed its sales decline to 26% year-on-year in 2H2023 instead of the 42% decline year-on-year in 1H2023.

Industrial business within AMBU continued its revenue growth trajectory with 2H2023 revenue growing 24% year-on-year. Our proactive cost optimisation plan was initiated in 1H2023 and continued into 2H2023, resulting in delivery of tangible results with a notable reduction of S\$2.1 million or 9% year-on-year in admin Opex⁵. Admin Opex would have declined 8% half on half after adjusting for one-offs in 2H2023.

After adjusting for the one-off admin expenses associated with professional fees and loss on disposal of fixed assets, full year admin Opex would have decreased by 6.6%. We will continue to optimise our cost structure, aligning these efforts to support our strategic growth initiatives. On the strategic commercial initiatives, the Group continued to make meaningful progress.

Our strategic global footprint aligns with the China Plus One strategy of our customers, which positions us favourably in a unique first mover position and nanotechnology partner for our global customers. The maiden acquisition of AxynTeC Dünnschichttechnik GmbH ("**AxynTec**") to fast track our entry into the European markets will help us diversify our revenue streams and position us well in these markets familiar with coatings. Sydrogen, on the other hand, is advancing in the energy transition space through progress made in its product development in fuel cell systems alongside its available BPP⁶ coatings product which is gaining market traction and a positive reputation. Aligned with the Group's sustainable innovation pillar and commitment to continuous innovation, the Group has partnered local varsity NTU⁷ to establish the NTI-NTU Corporate Laboratory.

Earlier Technology Readiness Level or TRL projects will be housed, leveraging NTU's expertise and facilities, while high potential projects with higher TRLs,

¹ 3C refers Computer, Communication, and Consumer

² AMBU refers to Advanced Materials Business Unit

³ NFBU refers to Nanofabrication Business Unit

⁴ IEBU refers to Industrial Equipment Business Unit

⁵ Opex refers to Operating Expenditure

⁶ BPP refers to Bipolar Plate

⁷ NTU refers to Nanyang Technological University



which are generally closer to commercialisation, will be housed under the Group's Advanced Technology Research Centre.

To summarise, despite the persistent headwinds faced, we have remained steadfast in executing our strategic initiatives, which are meant to position the Group for medium to longer term growth.

With that, I will now pass the term over to Kay to elaborate more on our financial performance. Kay, please.

Kay Lim Group CFO : Thank you, Gary.

In the financial highlights, we will touch on the revenue, the key cost drivers in our cost structure, followed by the flows into the eventual profits, as well as our Capex and cash flow.

On the revenue performance, it is worthwhile to direct your attention to the left bars on the top corner. In terms of the half-on-half growth, we see an uptrend in our revenue recovery in 2H2023, which saw a 42% increase on a half-on-half basis.

Our revenue on a full-year basis declined 25% year-on-year to \$\$177 million, but this rate of decline was not seen in 2H2023, led by the recovery in the consumer business.

We want to highlight that one of the weakest, or in fact the weakest, performance was in our IEBU. On the left bottom table on the BU split, we saw a revenue decline of 41% year-on-year in our IEBU, which serves both our external customers, which are recorded in our sales, as well as for our internal usage within our various BUs⁸.

This is as our IEBU had been impacted by our customers' slowdown, as well as the indecision in Capex⁹ spending in the past one year of uncertain macro environment.

Next, in the core expenses review, our continuous improvement to our cost structure has yielded results as shown in the three charts on the left side. The first chart details our COS¹⁰ and the GP¹¹ margin, followed by the Opex (admin), and lastly the Opex (sales), which then form our cost structure on top of GP, as well as below GP.

⁸ BUs refers to Business Units

⁹ Capex refers to Capital Expenditure

¹⁰ COS refers to Cost of Sales

¹¹ GP refers to Gross Profit



Below GP, we have Opex in the form of R&D¹² and engineering expenses, which is covered in the subsequent slide. Together with the next slide, the slides detail the total cost structure of Nanofilm.

For cost of sales and the GP margin, the GP margin is reflected in the line charts. We have improved our operational performance in 2H2023 to 41%, compared to 32% in 1H2023. On a full year basis, our GP margin was 37%, being 9.9 percentage points lower than our 2022 GP margin of 47%.

Part of the operational cost savings from the ongoing cost optimisations were offset by the following three factors. First, we had a 4.5 percentage point increase when it comes to material content in our automotive contribution, which was a larger portion to our overall revenue in 2023. Second, we had a 4.1 percentage point increase due to the increase in direct depreciation and amortisation. Third, there was a 0.8 percentage point increase due to the increase in our indirect labour, such as workshop leaders, workshop managers and subsection leaders. These are comparative to the amount of our lower revenue and henceforth constitutes a higher percentage of revenue that we recorded.

Next, we go on to the middle portion, which is the Opex (admin) which covers our shared services, our corporate HQ costs, as well as our site management site facility costs – which are mainly manpower costs as well as our other overhead expenses.

For the past three years of trend, we have seen a big increase in our Opex from 2021 to 2022 of 30%, from S\$32.7 million to S\$42.5 million. When focusing on Opex admin, we should look at it from a half-on-half basis because it is a relatively fixed cost. What is more meaningful is to compare this half with the next half, instead of a year-on-year basis, because there will be a fixed element to that.

In 1H2023, we had S\$21.9 million of Opex (admin). Compared to last year's second half, which is the right comparison of S\$24 million, we saw a 9% decrease. You may be wondering why then in our cost savings measures, did 2H2023 not decline in the form of Opex (admin)?

In 2H2023, we recorded S\$21.9 million of Opex (admin), which is flat compared to 1H2023. They were essentially one-off expenses items as shown by the red dotted arrows, where we have S\$1.8 million of costs, in which S\$1.3 million is due to the loss of disposal of assets and S\$0.5 million is due to the incurrence of professional fees related to M&A¹³.

If the one-off item was adjusted for, our Opex (admin) would have declined 8% on half-on-half basis to \$\$20.1 million.

¹² R&D refers to Research & Development

¹³ M&A refers to Mergers & Acquisitions



Including the first point of the indirect depreciation amortisation fixed costs amounting to S\$2.3 million, the increase in depreciation, we would have resulted in a decline of 6.6% on a full-year basis of Opex (admin). We shall continue and relentlessly drive towards looking for ways to optimise our cost structure.

We are not taking things for granted, and it is a continued way of managing the business efficiently and effectively. The last portion will be our sales expenses, which we continue to invest in our sales expenses over time, over the past three years. Particularly for 2H2023, we saw an increase from S\$3.7 million in 1H2023 to S\$4.7 million in 2H2023. In terms of the increase year-on-year, FY2023 saw an increase in sales marketing expenses of 7%.

The message that we want to convey is that we will continue to step up our sales efforts. Over the past two to three years, our sales efforts have enhanced our market presence by way of investing in new markets that we will touch on in our business outlook, in our innovation and R&D, alongside with the recruitment of our BD¹⁴ sales and marketing team to drive the future sales growth.

In technology and innovation, the dark shaded bars in the charts depict the actual expenses in our P&L¹⁵. In FY2023, we had incurred S\$15.9 million of R&D and engineering expenses in P&L. The white coloured dotted bars on top of each respective bars represent the capitalised portion.

We had a capitalised amount of \$\$15.5 million, with a total amount of \$\$31 million versus the FY2022 of \$\$29 million. In terms of P&L impact, we saw expenses in R&D and engineering falling by 13.6% on a year-on-year basis, but we also saw an increase that was largely due to the increase in capitalisation of our expenses, as more R&D and engineering activities are now nearing commercial viability.

The areas of interest are the areas that we invested in and which covers the new equipment platform that will address multiple end markets that we are developing. Closer to commercialisation, we have the hydrogen fuel cell-related products in Sydrogen, as well as the non-fabrication of new products that are entering into some sort of visibility when it comes to market access. Going forward, our establishment of our NTI-NTU Corporate Laboratory will allow us to combine our resources to drive the lower TRL research, to drive our deep tech innovation and achieve these mutual benefits to aggregate our resources.

With us covering the revenues and the costs, it flows naturally into the net profit and EBITDA¹⁶ that we recorded in the 2H2023 PATMI¹⁷ of S\$10.8 million,

¹⁴ BD refers to Business Development

¹⁵ P&L refers to Profit & Loss

¹⁶ EBITDA refers to Earnings Before Interest, Taxes, Depreciation and Amortisation

¹⁷ PATMI refers to Profit After Tax and Minority Interests



and a full year PATMI of S\$3.1 million. EBITDA stands at S\$39 million for FY2023, of which S\$29 million came from 2H2023.

Next, we have our planned property and equipment update.

On the left, the Capex recorded in our balance sheet is S\$57 million which includes our leases, the leases commitment such as the right of use of assets, which are not Capex in nature as this is paid over time, similar to a rental.

After excluding these leases commitment of S\$8 million, we have S\$49 million related to the additions to our PPE¹⁸. Largely, these are the core infrastructure that we built that is supposed to last us for 30, 40, 60 years. These are the investments, the plants in our Vietnam Site 2, which now we have more or less completed the phase one construction and renovations of.

Our sites in Zigong, Huizhou, our renovations done in Tai Seng HQ¹⁹, which have been completed, the renovations on the operational sites on our birthplace in Ayer Rajah, Singapore as well as equipment additions for Zigong and Huizhou have contributed to the change in PPE. In terms of PPE, it is important to note the above because we spent almost S\$250 million for the last three years, which is in our balance sheet.

It is worthwhile to note that when it comes to equipment additions, these are done at cost. As a deep tech company, this has no markup in our equipment, and our cost of plants are recorded on a historical book value, which over time, to a certain degree, have appreciated. These are productive assets that are supposed to drive our returns, so the focus is on enhancing our returns, to raise the returns profile from this quality asset base to drive our future growth.

We are here, with the right capacity, the right infrastructure to drive our strategy going forward, which will be touched on by my colleagues later.

Next, our business resilience has continued to generate positive operating cash flow. Though it is not back to the previous highs, we are definitely in better shape.

We paid for our assets and continue to generate positive cash flow, despite the challenging market. We have the right strategy to move forward, and the resilience is shown in terms of the S\$39 million of operating cash flow after working capital.

We have S\$155 million in ending cash balance, and we did draw down an equivalent loan of S\$58 million in December 2023. This was a loan of RMB 310 million obtained from Industrial and Commercial Bank of China ("**Bank Loan**")

¹⁸ PPE refers to Property, Plant and Equipment

¹⁹ HQ refers to Headquarters



as previously announced²⁰. The rationale of the loan was to lower our cost of capital which is part of our capital agenda planning.

In China, we borrow loans at a rate of 2.8%. The Bank Loan is a long-term loan, better matching the asset liability duration, of 10 years. For the cost of 2.8%, we bring back the Renminbi, convert it back to Singapore Dollars as a form of capital management, and the cash flow consolidation to Singapore forms part of our capital planning.

In Singapore, there is no immediate use for all this cash and it will be put into short-term maturity, short-term capital protected kind of fixed deposits, and that generates more than 3% in terms of interest rates, even though it is a softer trend. That allows us to put the cash to better use and use our surplus cash that we are going to generate out from China, in Renminbi, to repay the Renminbi over these 10 years. That is part of our capital management strategy, and with that, we are definitely in a strong position with S\$155 million in cash, and will continue to build up our capital position.

In terms of Capex, we are not expecting to incur significant Capex. In 2023, we incurred expenses of S\$17 million for share buybacks of our shares, as a form of enhancing our shareholder value and will continue to do so. A final dividend of 0.33 Singapore cents is declared, similarly to our 1H2023, in view of our 2H2023 performance, and our future business outlook.

With that, I will pass on to Yi-Hsen.

Gian Yi-Hsen : Good morning, everyone.

Group CSO

I would like to provide two ESG^{21} updates from our sustainable innovation pillar.

First is about the NTI-NTU corporate laboratory, which Gary and Kay have both touched on. Essentially, it is a S\$66 million programme, with four research pillars, according to our BUs, and we have 10 separate projects, doing long-term research in the lower TRL level. Despite it being low TRL, the alignment with NTI's four BUs is critical to ensure that there will be a pathway for all the innovations that are funded through this program. In particular, from an ESG perspective, there are benefits to NTI-NTU corporate laboratory beyond just what NTI or NTU can gain from the project.

We see this NTI-NTU corporate laboratory as a great platform for training of next-generation deep tech entrepreneurs, which is very aligned with national goals. In addition, we see the NTI-NTU corporate laboratory as a platform that allows greater access to NTI's deep tech capabilities, especially in the vacuum coating space, to allow further innovations by different players in the

²⁰ Please refer to the Company's announcement dated 29 December 2023 for more details.

²¹ ESG refers to Environmental, Social, and Corporate Governance



Singapore RIE²² ecosystem. As such, this is a great contribution from us into the research ecosystem in Singapore.

Moving on, I would like to provide an update on some of the investments we are making in the clean hydrogen space. Firstly, along the lines of investing in our own internal product capabilities, we have continued our innovation in bipolar plate coatings. SydroDIAMOND[®] is now fully qualified by Shanghai Hydrogen Propulsion Technology Limited, a key supplier to Shanghai Auto in China and are using our bipolar plates in their fuel cells, the main flagship product of fuel cell systems. In addition to the partnership on the bipolar plates front, we have also started partnering with them in terms of developing new complete fuel cell systems in other spaces. They are a key partner for us in projects that I will highlight later.

We have continued the investment in the fuel cell research, as mentioned earlier in the NTI-NTU Corporate Laboratory, specifically around catalysts and so on. We are also driving a lot of internal development on air-cooled fuel cells up to 2 kilowatt hours. Beyond just internal capability development and investment, we have also put in a lot of effort in building networks and partnerships in the Singapore hydrogen ecosystem.

Specifically, we have continued our work with ST Telemedia and City Energy to develop proof-of-concepts for hydrogen fuel cells. We are working with Pyxis and Bureau Veritas on a maritime demonstrator project to use hydrogen in a harbour craft setting.

Finally, we have also signed up a strong partner in hydrogen storage and refuelling space. Jiangsu Guofu Hydrogen Energy Equipment Co. Ltd. (GUOFUHEE) is the leader in such solutions in China, bringing them to Singapore for our demonstrator projects.

These are just some of the exciting developments that we have within the clean hydrogen space that I would like to share.

Thank you, handing on to Ian for commercial updates.

Ian Howe : Thanks.

Group CCO

On the commercial outlook, we continue the growth path for this year. On the AMBU side, we continue various strategic expansions both in the 3C part of our business but also in the industrial business. We are positioning ourselves for renewed growth during 2024. Specifically on the consumer side, we are driving the geographical expansions into regions such as Vietnam and India. This is really to ensure that we are well positioned to follow our key customers' 'China Plus One' strategy.

Also on 3C, the pipeline visibility is very much improving compared to last year. We have multiple projects that are entering the new product

²² RIE refers to Research, Innovation and Enterprise



introduction phase and are poised then for mass production and ramp-up. On the industrial side, we see steady business and steady growth in some of the core areas such as China, Southeast Asia. In Europe and Japan, we are expanding.

We do see some challenges in ApexTech's green plating technologies though this is more a question of delayed validation and customer validation on new solutions. However, we still, medium to long term, are confident and committed to the green plating technologies.

Very exciting currently is the latest M&A expansion we have made into the European market where we see a very large, growing and attractive market in Europe that is ready and utilising coatings to a large degree. Here, we will also push on the growth path both organically and inorganically for Europe.

On IEBU, there have been challenging times last year as we have just discussed which are mainly driven by the China market and Capex delays for customers. We expect this to drag on partially into this year. The China market is definitely slower for us. What we do there is also develop other markets outside of Asia for equipment sales and we are rebuilding the project pipeline for various applications and various types of equipment, including launching a new generation of our mould coater, but also looking on hydrogen activities and industrial activities.

Last but not least, I will touch on the new energy sector. We are having new projects, new customer interests in this area as well. The outlook on the equipment is cautious and it is about rebuilding the pipeline and focusing on the new opportunities going forward.

With respect to NFBU, we are here investing into the next generation consumer devices and with a big potential. The outlook remains positive and it is driven by mass production projects for the MLA²³ and Fresnel lenses and consumer wearables and smartphones. There are also a lot of developments in customer consumer devices that are utilising the technologies we offer.

For Sydrogen, I also see positive developments. In China, we see a pickup, as Yi-Hsen mentioned earlier, of our first successes last year in bipolar plates, production and delivery that will continue this year. We will also be pushing the coating services for coating of bipolar plates, as well as also activating equipment selling into this market, first of all for R&D activities, but also for mass production.

With that, I will hand over to Gary for his overall outlook.

Gary Ho : Thanks, Ian. Group CEO

²³ MLA refers to Micro Lens Array



As we go into the FY2024, we recognise that the market environment remains uncertain, presenting both challenges and opportunities. Hence, we must remain nimble in adapting our strategies in a dynamic market.

That being said, allow me to run through some key growth drivers for each of our end markets. For the consumer end market, the pipeline visibility has been enhanced by existing projects that slated for mass production, as well as new projects advancing at the NPI²⁴ stages with possibility of entering into mass production.

For the industrial segment, we are anticipating stable business in Singapore, China and Japan with growth prospects coming from our market expansion in Europe. For new energy, Sydrogen BPP coatings product is accelerating production for automotive customers. Beyond our revenue growth drivers, we will continue to review and optimise our cost structure. On Capex, the Group does not expect significant Capex this year, but will instead focus on maximising returns from our current asset base.

The combination of cost optimisation and strategic commercial initiatives are expected to progressively contribute to the Group's financial performance starting in FY2024. Hence, in FY2024, the Group expects to achieve higher revenues and profits contingent upon the essence of major unexpected events.

With this, I will conclude our presentation and move on to Q&A. We will be happy to take on any questions.

Thank you very much.

Q&A Transcript		
Duane Tan Investor Relations	:	Thanks Gary, thanks management team.
		As we proceed to the Q&A portion of our results brief, please feel free to use the raise hand function and unmute yourself to ask your questions. For on- site participants, please do feel free to ask questions as well.
		I believe we have our first question from John. John, would you like to unmute yourself?
John Cheong	:	Thank you for taking my question.
UOB Kay Hian (" UOBKH ")		Congratulations management team for achieving a better set of results.
		I have two questions. First question is, you mentioned about revenue improving and profitability improving. Do you think that there is a chance where you may be able to revert to the 2022 level where the profit will be

Q&A Transcript

²⁴ NPI refers to New Product Introduction



Gary Ho Group CEO above the S\$40 million mark? Or do you think that the recovery may be more gradual? Because when we look at second half, if we do extrapolation from there, it seems like you are still pretty far from the 2022 level.

: John, thank you for your question.

I will take on your first question before we go to the next. Last year was especially a very tough year, not only for us, but for many companies. We started last year at a time with the hope that with China reopening, the situation will improve.

Unfortunately, it went in the reverse direction that also has further impacted consumer demand and has definitely greatly impacted our performance last year. However, as a Group, we have taken all the necessary measures. When we encountered this situation, we really took effort to drive cost optimisation.

As the business progressed to the second half of last year, we did experience, as we have shown in our results, the recovery in the demand, although it has not reached the peak good years. You can clearly see that with this combined effort (*relating to revenue recovery and cost optimisation efforts*), we are already able to show this operating leverage. Our margin has improved, especially for GP to above the 40% range and our net profit has returned to slightly above the 10% level.

Moving into 2024, although the inventory rebalancing has more or less normalised, which is a good thing, the overall economy still remains uncertain. We just want to be cautious to continue to stay focused in terms of executing our commercial, our strategic initiatives. At the same time, we believe that as the volume, as the whole market environment continues to recover, Nanofilm is in a good position to get back to our previous levels, especially at the good years.

Kay Lim: John, just to clarify, on quantifying our profits of \$\$40 million that youGroup CFOmentioned, we cannot provide specific guidance on that part. We apologise
for that.

Although we are seeing in terms of like what Gary said, positive signals, as we enter into 2024, we would like to have even clearer signals to actually offer some sort of more quantifiable guidance for the full year basis, which once we pass 1Q2024, we will have much greater clarity on. We want the positive signals we are receiving now to continue to build up.

John Cheong : The second question is on the share buyback because last year you have UOBKH conducted a lot of share buyback amounting to S\$17 million. Looking at the cash level, it has been coming down and you are taking on debt. What is the thinking behind capital allocation for share buyback? Will you be more conservative on that or you still going to be aggressive on the share buyback?



Kay Lim Group CFO	:	Share buyback will be a combination of our capital management. On one hand, we look at the shares in terms of how we return value and enhance value for our shareholders. On the other hand, we need to balance against our capital needs.
		With today's cash balance and the expected cash flow we will generate, plus also a Capex level that will be tapering downwards, we believe we will have improvement in terms of our financial position as the basis to consider future share buyback.
John Cheong UOBKH	:	Okay, thanks.
		One more question from me. On the new customer on the smartphone side, is that an MNC ²⁵ or a Chinese player? And then probably you can share what is the potential if you go into mass production and the timeline of mass production.
Gary Ho Group CEO	:	John, this is a MNC global player, Asian-based. We have already commenced mass production for their flagship smartphone product. It is a high-end product also using a titanium-based enclosure. We have already commenced production for them out of our new Huizhou factory in southern China and we are seeing that the demand so far has been pretty promising.
		That will contribute to about 5% of our revenue potentially in this year. With this customer given our new multi-BU site that we have just completed, the phase one for Vietnam, it will also potentially bring us a new opportunity over there.
John Cheong UOBKH	:	Thanks, Gary.
Duane Tan Investor Relations	:	Thanks, John.
		We have got some questions in the chat from Se Chai and Onkar. Perhaps, we do Onkar's question first before we take on Se Chai's questions.
		Onkar is asking, what is the revenue that you generated in India and Vietnam last year? And what is the expectation for this year?
Gary Ho Group CEO	:	Thanks for the question.
		As you may recall, our new strategic site, especially going through this 'China Plus One' strategy, the new multi-BU site in Vietnam, and also our new operation in India are already completed in terms of the infrastructure and the facility.

²⁵ MNC refers to Multinational Corporation



		For Vietnam, our new plant has already been approved by our leading end customer. Currently, we have built activities ongoing on for the new products over there. We expect to commence initial production in the second quarter of this year (" 2Q2024 "). The volume will gradually pick up from 2Q2024.
		And for India, our new site is a factory-in-factory set up, partnering with one of the leading metal vendors. In that operation, we remain independent. It Is a 100% owned Nanofilm facility. The progress will be slightly slower than Vietnam. The site will be operational ready by end of the first quarter of 2024 (" 1Q2024 ") and we expect new product qualification to be in 2Q2024. Then, we will start the mass production from the third quarter of 2024 (" 3Q2024 ") onwards.
Kay Lim Group CFO	:	In terms of historical numbers for FY2023 in Vietnam, our nanofabrication contribution, which is from Vietnam, generates about 9% of our total revenue.
		India, like what Gary said, is starting up. We have no contribution from India. Those new product introduction income is coming out of Singapore. On an ongoing basis, definitely this proportion to revenue will be expected to increase, as what the Gary has mentioned.
Duane Tan Investor Relations	:	Bernard, would you like to ask your question first?
Bernard Tan T-Mara Capital	:	I actually have two very short questions, and two which might take a bit longer.
		The short questions are, you mentioned in the presentation that hydrogen achieved quantity production in the second half of 2023. Could you give a bit more detail, like was this in the third quarter or the fourth quarter that it happened?
		Second question on NFBU, can you talk about the progress, if any, going beyond the key customer, Customer Z, that you have been very reliant on so far?
		So those are two short questions.
		Longer questions, IEBU, can you talk a bit about this new mould coater or this new product line to replace the one that has already, I think you used the word, reached saturation. I would like to understand a bit more about what this is?
		And then the other one is for ApexTech. Again, you mentioned that there's a delay in the progress. I'd like a bit more colour into what happened, what's going on and what's likely to come?
Gary Ho Group CEO	:	How about maybe Yi-Hsen, you want to start off?



Gian Yi-Hsen Group CSO	:	On Sydrogen, we started in the fourth quarter of 2023. It is related to the Chinese market, when the Chinese government supported the economy and different types of projects started moving in towards the end of the year. We saw a good surge of interest.
		On the IEBU front, in terms of the new mould coater, what we are looking at is improving on a couple of fronts.
		One is on the coating, the new coater to have coatings that can withstand higher temperature. Traditionally, our coaters tend to tolerate up to about 650 degrees so we are looking to go beyond that in terms of the operating temperature of the moulds, eventually.
		The next thing that we are also exploring is obviously slightly larger sizes to cater for larger moulds for our customers.
		Finally, we will also be looking at improving on the IoT ²⁶ front; better software and connectivity capabilities.
Bernard Tan T-Mara Capital	:	What does being able to withstand higher temperature bring you in terms of capabilities?
Gian Yi-Hsen Group CSO	:	When I say higher temperatures, it is actually with reference to our customers' use of the mould because higher temperatures give them the ability to do more complex and different types of glass lens.
		In the past, certain glass materials required that kind of temperature to do the moulding. Therefore, they have been suffering from shorter lifespans. So, it is expanding our product application use case.
Gary Ho Group CEO	:	The aspherical lens are moulded through really high temperature presses. As the product gets more complex, customers do require higher temperatures in the pressing process.
Bernard Tan T-Mara Capital	:	And larger size for larger mould just to enable higher number of cavities, that kind of thing?
Gian Yi-Hsen Group CSO	:	Yes, some customers do have slightly larger moulds so those are the different things that we are trying to create, a next generation of product.
Bernard Tan T-Mara Capital	:	How long has this development process been?

²⁶ IoT refers to Internet of Things



Kay Lim Group CFO	:	It is already developed. We have sold one of these new versions in December 2023 which will be delivered in September this year.
		Equipment business is a long gestation period. We just want to caution that.
Gary Ho Group CEO	:	I will take on the question on Nanofab before Ian can touch on ApexTech. For NFBU, we are very encouraged with the progress we have made so far. Firstly, from it being a new player in this space and then getting into Customer Z's supply chain. That was really a major breakthrough.
		Then, we introduced our unique replication process. Since the commencement of the production over a year ago, we started off as a challenger - trying to bring in new things and new capabilities - since then, our position has improved from a challenger to a leading player in this space.
		Having said that, for the MLA production, in terms of the allocation, we have improved since the second half of last year.
		This leading position will continue as we are right now in the NPI build status for the next generation wearable device that will be a key mass production project for 2024. At the same time, for Fresnel lenses used in smartphones, we continue to be a key player in that space that is through this injection moulding process and that will continue to evolve in every new generation.
		Besides customer Z, there are also some other leading tech players. Moving forward, we do have a good pipeline of projects.
		Our replication technology has really gained traction and our customer is trying to design in to adopt more of these unique solutions for their next generation device. We do have a good engagement in these new projects, which mostly will commence production from 2025 onwards.
		All in all, the technology has been well recognised by our key customers and that will proliferate into a new opportunity as we move along.
		But, we are not stopping here. We are trying to also involve ourselves in trade shows, bidding efforts, sales and marketing efforts to try to bring this unique technology to other industries and applications as well; but, that will take a slightly longer period of time.
Bernard Tan T-Mara Capital	:	Will it be fair to say that in 2023 NFBU's customer is essential Customer Z?
Gary Ho Group CEO	:	I would say, just for NFBU alone, it will make up about 85% of NFBU's business.



Bernard Tan T-Mara Capital	:	With the new projects that you have in 2025 commencement, where would that percentage go, you think? Just a guess.
Gary Ho Group CEO	:	Customer Z will still be a major customer in the 80% contribution range because of the sheer volume. As you know, this customer is always pushing the innovation or technology envelope, which is our unique capability to satisfy their requirements.
lan Howe Group CCO	:	On ApexTech, the medium, long-term belief and potential confidence is still absolutely there, there is no question on that.
		As for the challenges and why things take longer in this area, first of all, it is a safety critical application that we are working on, so charging and connectors of the battery systems inherently takes longer to complete so we have technologies we are replacing that have been established for many years.
		It is about working with the engineers of each OEM ²⁷ and each customer to create the awareness of what we are bringing and answering all the technical questions and safety questions that have to be answered along the way. Then, we have to generate data to back up works, application by application, and this is then a key reason why it takes longer than we expected.
		Definitely, we underestimated these matters as a company a couple of years ago, but that is what we are working on now. It does not mean we have zero success, there are success cases there in a smaller scale already, so projects are running, but the big ramp-ups we are looking and planning on will take longer than expected and this is the situation we currently face.
Bernard Tan T-Mara Capital	:	Two questions from there.
		First, you are working with a busbar maker, that is your joint venture partner, so this busbar goes to a battery maker, and the battery maker then goes to an EV^{28} .
		So, then, my question is, where is all this test and safety issues of backing up, at what part of this chain is it, backing up, and to what extent does the timeline, can you give us an idea of how much the timeline has shifted?
		The impression given last year or when the project was announced is that maybe sometime in the late 2024, that mass production will take place, but where does that look like now?

 $^{^{\}rm 27}$ OEM refers to Original Equipment Manufacturer $^{\rm 28}$ EV refers to Electric Vehicle



lan Howe : Group CCO	On the first question, I would not call it issues today, so there are no sort of product issues or setbacks. It is more a question of proactively answering the questions that are raised.
	With those, you have to generate data to demonstrate your claim on the technology. In terms of timing, we have to look at it project by project, customer by customer, and there are several of those in the pipeline. The questions have to be answered throughout the whole supply chain, so in the end it is the design responsible for the safety of the system that has the ultimate question where we need to address and satisfy all the data points that are required.
	In terms of timing, we do not see huge ramp-ups this year, I think that is clear, and we continue project by project for this year and next year to push as quickly as we can.
Gian Yi-Hsen : Group CSO	Maybe just to add a little bit of colour to lan's comments, in terms of our partner, although the busbar maker has qualified the technology, there remains the qualification at the battery and EV levels, but it also depends on which brand, or the different brands that have different parts of the value chain being responsible for the technical evaluation.
	As you can imagine, some new players that are not as capable will push it down to the battery managers to be responsible and those that have full capability qualification themselves. So, there is slight nuance in the different projects that we have.
	Thanks Bernard and management team for taking responses.
Investor Relations	We are about on the hour, but I think we can take Se Chai's questions before we end the session.
	Se Chai, you did ask an overlapping question on ApexTech, which I believe management team has answered, but adding on that, he wanted to know on ApexTech specifically, what are the other options potential customers have given highly pollutive electroplating is no longer an option?
lan Howe : Group CCO	Our view is we have the leading solution. We have current solutions and we will develop variations of that. This is what we are doing on some of these specific projects, developing add-on to that but thin film coating technology is the leading solution or alternative.
Gary Ho : Group CEO	Maybe I can also add a bit more to Ian's feedback. This green plating solution as an application and opportunity is very wide. It is not just limited to this busbar. We do have some ongoing development but it may take longer than what we anticipated.



	There are so many connectors and this space is always using gold plating and that is also one very promising application that also requires huge volume. We also have success in terms of replacing electroplating especially for some metal alloys like a zinc substrate.
	We have demonstrated that our environmentally friendly coating solutions are able to replace plating even for corrosion prone substrate materials. That will have a good opportunity over there.
	With our fast-track entrance in the European market, this will give us a new avenue of approaching some of these opportunities and we still remain optimistic about this green plating solution.
	I believe this will be really a game changer. However, it is going to take a bit of a longer time. Once there is a good successful pickup in volume, that will build a lot of confidence for many of these major players to really adopt this solution.
Duane Tan	Thanks, Gary, Ian.
Investor Relations	Adding on that, Se Chai has three more questions, but before we move on to that, I think he is also asking in the same vein, what do you see in AxynTec and how does it help you?
lan Howe : Group CCO	There are a couple of strategic reasons why we chose AxynTec. First of all, customer access and market access provide a very solid platform.
	It is a relatively small company, however, also very professional with a very knowledgeable team of around 30 people in the south of Germany. Definitely, it is a very strong platform for Nanofilm to build on. For the European market, Germany is about 50% of the market, so that is the reason to also start in Germany.
	In addition, they also have some unique capabilities on their diamond-like coating technologies (" DLC "). So, there we will also look to develop together advanced solutions on carbon-based coatings, and there are definitely some synergies there where we can work together on the technology and the equipment side.
	Last but not least, we see big potential in the industrial and automotive markets together, bringing Nanofilm's equipment technologies over there.
	In addition, there is a very large high-end decorative market outside of the normal 3C market in consumer electronics and luxury and automotive interiors, et cetera, which we will also address. Hence, there is very big potential and currently, we are reviewing the strategy and deciding which areas to focus on to drive the growth in the next three to five years.



Duane Tan Investor Relations	:	Thanks, Ian.
		Last two questions from Se Chai. Regarding the new smartphone customer, what are the parts that you coat for them?
Gary Ho Group CEO	:	For the new smartphone customer, we are coating the big parts that consist of the mainframe enclosure of the newly launched smartphone, which is an Al ²⁹ -enabled smart device.
Duane Tan Investor Relations	:	Thanks, Gary.
		On the last question, when you speak about multi-BU in Vietnam, what are the opportunities that it enables that was previously unreachable?
Gian Yi-Hsen Group CSO	:	Maybe the way to think about the multi-BU site in Vietnam is enhancing our 'China Plus One' strategy. Previously, our Vietnam site was entirely focused on NFBU, the micro lens business, and given the strategic shift of supply chains of all kinds of different products out of China, we have decided that we want to add to our footprint in Vietnam, which will take on business from the coating site.
		There is potential for us to do equipment related activities as well as even different site regions as time comes along when the demand is there, which is why we call this a strategic move and a mega-campus for NFBU. We believe that it is not about the market in Vietnam per se. It can be a good global site for us as well. Just the way Shanghai is right now that addresses everything from China and outside of China.
Duane Tan Investor Relations	:	Thanks Yi-Hsen.
		Just one quick clarification from Se Chai on the new smart phone customer, for the enclosure he is asking whether it is mainly for cosmetic purposes.
Gary Ho Group CEO	:	Yes, it is a decorative coating on the titanium substrate, but it also provides a good level of wear resistance as well.
Duane Tan Investor Relations	:	Thanks, Se Chai, for your questions and management team.
		We would like to end the session this morning. If you do have any other follow-up questions, please feel free to reach out to us directly. With that, we end today's session and thank you once again for joining us this morning. Thank you, everyone.

²⁹ AI refers to Artificial Intelligence