



MALAYSIA INDUSTRY GROUP OF HIGH TECHNOLOGY (MIGHT)

For a special report to be published with *THE INDEPENDENT*

Transcription of the interview with:

Mohd Yusoff Sulaiman

President of MIGHT

WORLD REPORT: Mr Yusoff, thank you very much for receiving us today, it is a pleasure to be here. Malaysia is in the midst of transitioning into a high-income economy – an economy that is based on innovation generation, rather than technology imports. I understand that MIGHT has been around since 1993. Of course 1993 and today are two time periods that differ greatly. How has your role evolved since 1993 up until today?

MOHD YUSOFF SULAIMAN: MIGHT was created to bridge the gap between the Government and the industry as to how they work together and synergise to meet the nation's global objectives. It was formed as partnership organisation and a platform to bring the different key stakeholders together: the government, the industry, academia, NGOs (non-governmental organisations) and whoever had a stake in the discussions. That 1990s model is still the same today.

In fact, when you place the Malaysian approach at the forefront, the partnership becomes the foundation of these kinds of policies. From 1993 to present, we have continued to

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ensure that the relationship between the government and the industry is a mutually benefiting partnership, helping both sides to understand how to do business and develop the economy together, with the support of the academia who do a lot of research. These all interplay to make the nation as one and to make it great. We continue do this, and continue to change the specialisation in the sectors that Malaysia should be championing at different periods of time. While we were talking more about the manufacturing aspect in the 1990s, we are now moving onto more knowledge-based sectors in this new century. In many ways, when we go into a new area, we do not forget the old traditional areas, because they lead to innovation. If you provide the right innovation, these traditional sectors can continue to be key contributors to the country's GDP.

We started aerospace way back in the 1990s, and our intention was to use aerospace as the gateway for technologies to come into the country. Aerospace is seen as a leading high technology sector, and continues to be so. Some of the things that we learnt from aerospace are now being used in other sectors of the industry.

WORLD REPORT: In fact, the DPM (Deputy Prime Minister) was recently in London, actively promoting aerospace specific investment into Malaysia and highlighting some of the opportunities.

MOHD YUSOFF SULAIMAN: That is right.

WORLD REPORT: From your point of view, because our readers are from the investment community, could you tell us about some of the investment opportunities? Where is the aerospace industry most keen to see investment inflow?

MOHD YUSOFF SULAIMAN: It started with the creation of a blueprint for the aerospace industry, which means that there is a continued determination and focus on certain areas

that people all over the world can see through that blueprint. Even before the blueprint was completed, we sent out copies of the draft to BAE Systems, Boeing, Airbus etc so they could give us comments as to whether we had carried out the right analysis and made the right decisions for it. It was a blueprint shared not only by Malaysia, but also by potential collaborators in the development of our aerospace industry. One of the comments made by BAE Systems was that if a country has a blueprint, it shows they are serious about that particular business. That gave us the impetus to continue with this industry. We have been quite blessed in the sense that the government took it up and formed an Aerospace Council which is chaired by the Prime Minister, which means the top Ministries in the country themselves actually have a personal interest and strong support for that particular sector.

Through the Aerospace Council, we refined the decisions related to the blueprint further and focussed on four key areas – maintenance repair and overhaul parts and components manufacturing, training and education, and avionics. That has been the mainstay of the aerospace industry. When we go out with agencies like MIDA to sell the potential to foreign investors, we are able to scrutinise these areas and tell them in which areas they can contribute to the country and their own business. We have been very consistent with that and we find that by identifying these players, it becomes very easy for them and for us to understand where the meeting point is. In the case of Spirit AeroSystems, this was as a result of wanting to bring the parts and components manufacturing to another level, and at the same time put Malaysian companies into the right global supply chain. There are so many global supply chains, but it has to be the right one. Spirit AeroSystems is the main supplier to Airbus and Boeing, so once you get them here, and you get the local players to work together with them, you are creating access to the market as well as obtaining technology or the potential for jobs etc.

We are going to talk to the aerospace committee this year at Farnborough, to focus on developing the avionic system further. We are supporting that, and are developing

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competencies in systems integration, so that we know how each function of the aircraft works together etc. That type of competency is very useful in terms of defence for example, such as fighter aircrafts and naval ships - they know what they need to have for the ship to be able to function. It is quite an experiential approach, in the sense that if you do not know how the system works together, you will probably be at mercy of the OEMs (Original Equipment Manufacturers) in terms of what you need to upgrade and what you need to have. We are currently developing those types of competencies based on our developments in the aerospace sector. If you look into other common sectors that have platform technologies like you have in the aerospace, automotive and maritime and railway industries, we are actually talking to some of the people - you have pictures of them in your files, like Dr Aminuddin bin Adnan, who is in charge of the KTM. We are trying to help him, because he is trying to bring the railway organisation to the modern electrical era, but they need a lot of support. It is quite easy to migrate the practices developed in aerospace and shipbuilding into the rail industry. We are helping him, as there are ways to improve maintenance and supply and other areas necessary for railway operation. We put in an offset program, because the railway industry has not been exposed to practices where you purchase equipment from other countries. You can actually make a condition for the supplier to provide you with things that you need – for example the Institute for Maintenance Development, you can make that as a condition, and avoid making large requests to the Government, and create a maintenance competency.

WORLD REPORT: So it is a cost saver as well.

MOHD YUSOFF SULAIMAN: It is a cost-saving approach. These are the things that we learned from the aerospace and defence sector, which is now cascading into other sectors.

WORLD REPORT: That is very interesting. So you are present in the aerospace industry in manufacturing, and you have just mentioned the rail sector. Do you think that given the current trends in the economy and the government's plans to make Malaysia an innovation-based society, at some point Malaysia will be in a position to export technology, not only develop it for its own personal use, but to export it within the region and maybe beyond?

MOHD YUSOFF SULAIMAN: I think that is the objective of moving towards an innovation-based economy approach, to try and be the creator of technology rather than just being a mere consumer or user. When you move into that phase, you will be closer to developing more of your own products and exports. We know that it is not going to be easy, because it is a combination of many factors. For example, if you look at the background of our industry, it has always been manufacturing-based. Like you said, 70% are manufacturing activities which have always been based on what you call 'production by form' – which is what you mean by OBMs (Own Brand Manufacturers). If you are manufacturing televisions, you will probably be manufacturing for a brand name somewhere else. What you want to do is start moving into manufacturing by design, which means that we will be slowly manufacturing based on our own design, but for a particular customer.

We are moving into that area, so that we do not build a design competency in isolation, but we build a design capability for innovation based on the market that has already been defined, so you have a better chance of developing your own design slowly. At the end of the day, we would like to have our own OBM, but that is the step we are taking towards moving to that point. I think that the opportunities are always there, and therefore, we are trying to get the government to focus on certain areas which are closer and have more potential for us to be a world leader. You cannot be good at everything, so we do that. MIGHT is contributing to that through an activity which we call "Foresight" – which looks at the potential scenarios in the next five years or so, and tries to use our own strength to

see the areas which we are going to be involved in. The Foresight activity will bring the three major policies of the country – economic, science and technology and the industrial policies to a point where we agree the potential areas in which Malaysia can be strong in the global market. This is what we are trying to do, however due to the recession, the country does not have a lot of money at the moment, and this money should be spent intelligently and used where we can make a lot of impact.

WORLD REPORT: Speaking of foresight, a very important aspect of our report is the future, and a future outlook. You mentioned that there are five areas that you have identified as potential strengths for Malaysia in the future. What are these areas?

MOHD YUSOFF SULAIMAN: I think we need to have a proper methodology for all these areas of focus. However, through our experience in doing technology road mapping etc, five areas have been defined: one is related to advance material, which is to move beyond composites. Malaysia has showed that it is a good developer and manufacturer of composite parts through aerospace and maritime shipbuilding activities. We have one company, which is one of only two in the world that manufacture composite domes – the ones that you have on top of the mosques. This is a structure which is very popular when building museums for example, and these composites make long-lasting domes and are very light, which means that you can build them into your structure very easily. These aspects are spin offs from the aerospace industry.

However, we now want to move beyond composites and look into other materials, especially those related to biodiversity. These are the things that we have more knowledge of, and we may not be confronted with supply or raw materials issues, because composite raw materials are being closely guarded with a quota system, where only certain countries can import a specific amount of products. That will be a very costly affair when it comes to that. However we are looking at other sources like NUFF, and

other plants that can be the raw materials to develop some of the advanced materials' properties. We are currently working with the industry regarding this.

I think the European Union is also funding some of the research, so we can look into this. They are very curious, and very encouraged to find sustainable resources. When you talk about plants, you can always replant them and obtain the materials over and over again. We need to do more research in terms of their properties and what kinds of materials can come from them. We are going to invest our time in advanced materials, because the application in the market is very strong, and these are the things that we are closer to, so we can make more of an effort into these kinds of areas.

The second area that we are looking into is sensor technology. This is an issue that is very close to us, because we have a subsidiary company that owns the patent for a microchip, which was built together with the Japanese in 2004/2005. That microchip was the smallest chip at the time, which is very useful for documentation,

WORLD REPORT: Is this IRIS Cooperation?

MOHD YUSOFF SULAIMAN: No it is not, it is called Senstech. It now actually owns this technology, and two years ago I think they used it to replace the hologram sticker on DVD and CD covers. Now you see a round sticker with a chip embedded in it. It is very useful for vendors as they can check the inventory quickly using a reader and I think that for the enforcement people, they can easily determine if it is counterfeit or original product. Around 20 million of these chips are issued per year, and we are thinking about issuing 40 million to break even. We are also looking into applications in terms of our stream because the European Union has placed a lot of conditions with regards imports of locks and timber products. They want to know where this has come from. We can use a master chip and break down the subchips to the final piece. If you buy furniture from Malaysia, you probably know which trees have been used.

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WORLD REPORT: That is a fantastic tool against illegal deforestation.

MOHD YUSOFF SULAIMAN: Last year during the Hajj season, we used around 5,000 chips as a pilot project, to determine the locations of the pilgrims when they are in Mecca and Medina and also to match them with their baggage. The problem is when three million people come into a system which is normally 10,000 or 20,000 people at one time, you will have these types of issues and Malaysians have actually lost their way, and you understand the pilgrim cycle, you have to be at a certain place at a certain time, or you miss the whole session. You can actually detect where the loss occurred, and link baggage at Medina Airport for example, which is not used to that. You have people losing their baggage every year, but with this you can trace it back to the owner to their hotel for example, so you know where they are and you can handle public transportation much more easily. We are also negotiating with the Saudi government to fully implement it for the Hajj programme, so we can supply around three million or so to them. That should make things easier.

However that is just one aspect of sensor technology – but this technology can be applied to our own health or plants as well, so we can find out about our health and also how to grow plants better, and increase the productivity yield, to improve these technologies. This is the technology that we feel that we need to have. These applications are becoming widespread. For now, they are still very much government applications, the retail sector and the K-Marts in the US embrace it, but here they are still waiting for the volume and economies of scale evidence before they actually go ahead and commercialise.

WORLD REPORT: You brought up the EU and sustainability in your answer. At the end of the day, we are an EU publication - we are British, but we are circulated throughout the EU. In that sense, our readers are very interested in sustainability,

green initiatives and high technology. Could you address our readers, the European public and perhaps mention some of the opportunities that Malaysia has to offer for the European investment community?

MOHD YUSOFF SULAIMAN: This is something that companies in Malaysia have not been able to embrace immediately. It is in a kind of dilemma, where they are not sure whether they should look at it as an investment, or a cost expenditure item. They are trying to 'green' their operations. An example can be taken from the aviation sector. By 2012, they are doing much to ensure that all aircraft operating in the EU meet certain green requirements – from the catering equipment that you use, to fuel emissions. When you talk to companies who are dealing with these types of operations, they are still not sure how to go about it. I think the opportunity coming from the EU is the experience in transforming companies to be green qualified companies. It is about how you go about it, because there is no experience here yet. Those services are very critical for helping Malaysian companies meet these requirements.

Secondly, the project we were working on with the EU is focussed on biomass – that means how we get rid of plantation leftovers, and how to transform them into fertilisers, in particular palm oil from palm trees for example. That is taking its toll on the Malaysian waste disposal system. It has not been translated into something useful at all, so they are actually funding us to do research in this area, and what kind of operations or plants do you actually need for this kind of activity. Malaysia has always focussed on household waste as being a key issue, because the nature of our waste is a bit different to overseas, so we are getting a lot of mixed signals in terms of the best way to handle this kind of waste. This is being taken care of by the local authorities, but the waste that is coming from the plantations is a big issue.

The other thing we are looking at in terms of the EU collaboration is biofuel. Biofuel is a fluctuating business in the sense that whenever the price of fuel goes down, everyone

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starts to lose interest in it and people start to look at the viability of the programme. People are losing money because of this venture. However, when the price of oil goes up, it suddenly becomes a very profitable operation. Biofuel has an extreme business cycle, because many of the companies who have already invested in biofuel are still losing money. That is something that we need to look into, as it starts from the supply of raw materials up to how you process and distribute it. People are not looking at the whole issue at that time, because everyone was jumping into it and saying that they are going to provide a solution to the world with alternative fuels. These are the areas that we are going to look at.

The opportunity for EU companies relates to plant construction, and the processing and distribution elements. Malaysia is focussing more on the production of biofuel, rather than the opposite. We have interest from airlines to use biofuel. We are working together with them but it depends on the regularity of supply, because they need the confidence and assurance that there will be supply. These are some of the areas that can be offered to EU organisations that are interested in coming to Malaysia. As you can see from some of the investment in technology areas in Malaysia, there is already interest and investment in developing solar panels. US, German and Japanese companies are already developing it here, and funds are being invested by Chinese companies. We are trying to create a cluster around that activity, so that the global chain can be taken care of. That may be something that the EU may be interested in. I think we have been led by Germany in many ways, because they have implemented it in their country quite well. But for now, the focus is still on manufacturing output; making it into a proper system in Malaysia has not been well developed. There are many examples of how we have pushed activities into households and use the surplus electricity generated by households into the central grid. People have been compensated for that, and as a result they can earn something from this activity.

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2nd WORLD REPORT INTERVIEWER: I think you have been quite comprehensive in your comments, and we have touched on quite a number of areas. Perhaps we can have a final comment from you for our readers of *The Independent*.

MOHD YUSSOFF SULAIMAN: I think when it comes to bringing Malaysia forward, we are emphasising and reemphasising the role of doing things in partnership. I think we are trying to reduce overlapping as much as possible, and because of the limited resources that Malaysia is going to face in the next few years, it makes a lot of sense for organisations in Malaysia to work together and work in tandem with each other. We also know that there are a lot of things that we need to learn from our counterparts around the world; therefore networking is vital in terms of embracing an innovation-based economy and creating champions for Malaysia in certain areas. We have been promoting this “Foresight” idea for some time. We think that the country also needs to look at the possibilities in the future, and try not to be taken by surprise when meetings occur, and when new technologies and businesses are created. We are there at the forefront rather than being a follower. That gives us a better opportunity to become a leader in certain areas and create a niche formulation for global competition. I think that is the last message.

2nd WORLD REPORT INTERVIEWER: I think that is a great final message to end on and wrap up everything. You were talking about doing things in partnership and I think that is exactly what MIGHT is doing – you are helping everyone to work together, from NGOs, public and private entities and to work hand-in-hand to grow and develop. You are certainly playing a very important role. Thank you very much for your comments.