

THE LAUNCHING OF A SPECIAL SUPPLEMENT ON MALAYSIA

DAYABUMI COMPLEX, KUALA LUMPUR (KL), 3 June 1993

I thank the organisers for this honour of addressing the captains of industry and commerce and other leaders of the private and public sectors in Malaysia.

2. I support this initiative to publicise worldwide Malaysia's technological capability and capacity which to me seems to be a well-kept secret. At a time when major multinationals are in dire straits in their home countries, their Malaysian operations are prospering. What is the secret behind this success which is counter to worldwide trend? I suspect it has something to do with the overall Malaysian business environment and the high productivity of its labour based on the trainability and technical competence of the workforce.

4. We have a simple but clear vision for Malaysia, namely that by the year 2020, we want to be a developed nation having the following attributes:

- * A united nation with a sense of common and shared destiny;
- * A psychologically-liberated, secure and developed Malaysian society;
- * A mature democratic society;
- * A fully moral and ethical society;
- * A matured, liberal and tolerant society;
- * A scientific and progressive society;
- * A caring society with a caring culture;
- * An economically just society; and
- * A prosperous society.

5. Thus, one of the characteristics of Malaysia in the year 2020 is a society that is scientifically progressive, a society that is innovative and forward looking, one that is not only a consumer of technology but also a contributor to the scientific and technological civilisation. This vision is not a dream. In fact, Malaysia had recognised the importance of science and technology in development since independence in 1957. The role of science and technology has been enshrined in the Rukunegara and incorporated in her educational programme. Thus, the development of primary and secondary schools, universities and polytechnics has been implemented with science as the key discipline in order to produce skilled and competent scientific manpower. This, in fact, has been realised and has borne fruits, as evidenced by the rapid modern technology-based industrialisation of Malaysia.

6. Further steps have been taken to prepare Malaysia not only to be a consumer of technology but also a contributor to new technologies and scientific discoveries. Research has not been

neglected in the universities. In fact, the Government, through its funding programme via the Intensification of Research in Priority Areas (IRPA) mechanism, has provided a substantial fund for research in the universities and research institutes.

7. Since independence, several institutes have been set up for applied research which have contributed to the economic development and industrialisation of the country. Further strengthening of this development is facilitated by the provision of policy guidelines such as the Industrial Master Plan, the Technology Action Plan and Vision 2020. The national R & D allocation is being increased, with an anticipated doubling in the proportion of GDP between 1990 and 2000 (from 0.8 percent to 1.6 percent of GDP). The private sector R & D is being stimulated through several programmes, including direct grants, incentive schemes and fiscal and monetary benefits.

8. Thus, with these developments not only has new knowledge been generated but highly trained personnel have and are being produced to man the high technology-based industries. Concurrent with science and technology development, encouragement is given to Malaysians to be more innovative and inventive and the first step is the passing of the Patent Act in 1986 while the Industrial Design Act is being prepared for Parliament. Thus, the intellectual properties of Malaysians and the foreign investors alike are protected, paving the way for the orderly transfer of technology to Malaysia. Foreign investors can bring in their technology freely with the knowledge that their technology is protected in the country. Both government administration and the NGOs are playing an active role in inculcating the innovative culture through several activities including the annual Inventors' Fair. Recently, Malaysian investors participated at the Geneva Exhibition and five out of six entries won medals, including one gold medal. All these efforts in building up the scientific and technological infrastructure, and competent scientific manpower are directed to the success of science and technology-based industries in the country. These industries reflect the level of Malaysian technological capability.

9. Steps have also been taken to assist in the commercialisation of scientific discoveries so as to nurture the development of indigenous technology which, it is hoped, will play an important role in giving Malaysian industry the extra competitive edge. One of the steps taken is the establishment of the Malaysian Technology Development Corporation (MTDC) which seeks to assist in the commercialisation of research and innovations developed in the country. The Malaysian Invention and Industrial Design

Society, an NGO, also plays a role by recognising or assisting inventors who require its support through providing seed money, the preparation of a business plan for submission to MTDC or the setting up of a venture capital company. It must be noted that some inventors have already been successful in developing commercially-viable products.

10. In support of this development, several critical services have been strengthened. Malaysia's five year plans have concentrated on building up infrastructure for social, economic and industrial growth. These include communications, transport, health and R & D. In the decade between 1981 to 1990, Malaysia spent US\$7.8 billion on telecommunications alone, the biggest spender in South East Asia and second only to Singapore on a per capita basis. Started about ten years ago the Government has successfully implemented an extensive privatisation policy. So far highways, telecoms, railways, postal services, power generation, ports and airports, to name some, have either been corporatised or privatised. Competition is being encouraged in order to stimulate rapid development at the minimum cost to the consumers.

11. Political stability and a well-developed financial mechanisms are among the most important conditions for industrialisation to flourish. In Malaysia, both of these conditions have been accorded high rating by world opinion.

12. All these steps have borne results in the form of successful commercial ventures by both the local as well as foreign entrepreneurs and foreign multinationals. It is heartening to see the transition of Malaysia from a commodity-based exporter to a producer and exporter of manufactured products.

13. The electronics industry growth is probably the most spectacular success that Malaysia has achieved in terms of speed of growth and future potential. Beginning from 1972, the industry has grown from almost nothing to become the largest industrial activity of the country. The industry is also undergoing rapid transformation from almost complete concentration on semi-conductor components to a more balanced mix of sub-assemblies and end products.

14. Several examples may be highlighted to illustrate the success achieved, of which two are given here. Motorola started with one plant in 1972 and is now in the process of building its fifth. Beginning with mostly manual assembly, it has progressed to automated assembly and testing using largely local expertise. It now does wafer fabrication in a specialised plant in Seremban. In another plant making communications equipment, Motorola has an R & D team of about

100 engineers involved in all aspects of communications gear, from electronic circuits to mechanical designs.

15. Intel is another success story that indicates the level of sophistication achieved using local expertise. Nowadays, most of Intel's most advanced microprocessors are assembled and tested in Malaysia using automated equipment and processes designed, fabricated and integrated locally. A Micro-controller Design Centre has been started only a year ago which has achieved several significant milestones with the number of designers expected to reach 100 by the end of 1993.

16. The telecommunications industry era can be considered to have begun with the corporatisation of the Government-owned Jabatan Telekom in 1986, followed by privatisation in 1990. As a result, telecoms services have become more wide-spread and reliable while advanced data communication services are being offered or planned.

17. Competition has been introduced by the Government in the provision of enhanced and advanced services. The rise of the cellular telecommunication industry is a prime example of what can happen. The domestic cellular growth rate is more than 50 percent per annum, far higher than the rate for wired services.

18. In the manufacturing area, Malaysian-owned companies have succeeded in penetrating foreign markets for terminal equipment as well as for infrastructure development.

19. Malaysia decided to undertake the project of producing the country's first national car, the Proton Saga, in 1983. The venture has been an overwhelming success, winning two golds and one silver medal in 1988, and another two gold medals in 1990 at the British International Motor Shows. It obtained the vote of 'the best value for money' car in a British motoring magazine in 1991 and two more gold medals alongside a Manufacturer's Excellence award for the new sleek and aerodynamic Proton Iswara in 1992. It has just introduced another model, the Proton Wira, and technologically, it has progressed further by increasing the number number of car components manufactured locally and establishing comprehensive R & D facilities. Malaysia's automobile industry is expanding and a second national car is in advanced planning. Malaysian-owned assembly plants now design and produce jigs for their own use and for export.

20. You will agree with me that we should tell the world that Malaysia is an attractive centre for high technology-based industries and that Malaysia is a good technological partner for their continued competitiveness. In the true spirit of

Malaysia Incorporated, I hope the corporate sector will play an active role in publicising our positive assets and providing testimony to the actual situation in Malaysia. We must also inform the world that besides Malaysia's scientific and technological capabilities, the country also provides other benefits and incentives, has a skilled and scientifically competent manpower, and a workforce with a positive work culture.

21. There are many fiscal incentives offered to companies for upgrading technical capability of workers and for product development as well as for the more basic-type R & D. The Government is also removing restrictions on the employment of foreign R & D personnel and technical experts, although it pays to employ Malaysians, as they are equally competent and cost less.

22. Finally, I am sure that many of our foreign investors will be able to testify to the fact that Malaysia also provides a peaceful and attractive place to live. Despite having all the amenities of a developed country, the cost of living here is very much lower than in developed countries.

23. I, therefore, strongly urge that you use the medium of the Scientific American in its special supplement on Malaysia to tell the WORLD about our technological capacity and capability which can ensure business competitiveness into the year 2020.