

# INNOVATION FOR LIFE

*a journey beyond frontiers*



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*The world seen as a level playing field can be intimidating for the uninitiated. One needs to think ahead, and constantly improve to remain competitive. Such is the MIMOS journey – it couldn't have begun without that certain level of insight, vision and leadership. As the journey progresses, the learned captain and adept associates skilfully manoeuvre their machine; wary of the wide open, capricious world – holding on to one single intent: to positively transform human life. Today, we're no longer trailers but equal drivers, and beyond the frontiers we don't only see unmet challenges but abounding opportunities waiting to be explored.*

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“Right from the beginning, MIMOS demonstrated its prescience by identifying the most significant ICT trends. More importantly, this young organisation had the confidence to act on its foresight. There was, so I’ve been told, no *sihir* (magic) involved, no crystal ball. Nevertheless MIMOS seemed to “get it” and get it right.”

**Tun Dr Mahathir Mohamad**

Prime Minister of Malaysia (1981-2003)  
Bukit Jalil, 1999





“...eventually microelectronics only turns out to be a vehicle for translating into reality man’s inner thought and actions. Infinitely more significant is what it has done, and will do to make manifest man’s innate need for information and knowledge, a need which culminates in this age as IT.”

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**Tengku Datuk Dr Mohd Azzman Shariffadeen**

Founder, President and CEO of MIMOS (1985-2005)  
Kuala Lumpur, 1988

**DECADE OF DISCOVERY...** The '80s presented us with disco music, traffic jams, bulky personal computers, automated teller machines, and unprecedented socioeconomic challenges. It soon dawned upon us that technology can affect society in many ways.





# DRIVING THE NATION'S INNOVATION COMPETITIVENESS

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As the nation comes to grips with increasing socioeconomic challenges, the intensity of local innovation is crucial in driving its competitiveness. MIMOS recognises that the nation's competitiveness depends intensely on the vibrancy of the indigenous innovation.

That, in turn, hinges on many factors; the capacity for local innovation – the quality of research undertaken, the collaboration among institutions undertaking the research, the R&D expenditure, and the number of utility patents generated by the local industry, among others.

To take advantage of the time-based windows of opportunity, today's globalisation demands rapid commercialisation. When the marketplace is saturated with comparable solutions, it will be pointless to commercialise just to be another player. The pace of realising R&D outputs then becomes very crucial as it dictates when a product can be commercialised.

At MIMOS, we believe that we have much to offer. As Malaysia's national applied research centre, we establish symbiotic

relationships with universities and the industry to undertake strategic R&D focused at market-driven technologies. Outputs are subsequently channelled towards developing advanced technology platforms in niche areas, upon which local industries can develop products for the world market.

While the Ministry of Science, Technology and Innovation (MOSTI) takes the lead in driving the national innovation agenda, MIMOS as one of its strategic agencies assumes a complementary but critical position in implementing the R&D programme for emerging technologies to support the ministry's national role.

The results of MIMOS' endeavours can already be seen at the international stage, where our increasing patent contributions have helped to improve the country's competitiveness ranking.

Drawing on the ideals of Malaysia's Vision 2020, and MOSTI's deep commitment to science, technology and innovation, MIMOS is poised to address the megatrends that will shape the country's future.



**FROM HUMBLE BEGINNINGS...** MIMOS actively began operations in May 1985, with five senior officials on its payroll, out of a bungalow on Jalan Kolam Air, Kuala Lumpur. It later moved to "a proper office" located at Commerce Square in Jalan Semantan. After its corporatisation in 1996, MIMOS moved to its present site at Technology Park Malaysia in Bukit Jalil, Kuala Lumpur.





## STARTING OUT

In the Malaysian almanac, a number of significant milestones took place in 1985, but the inception of MIMOS is never listed as one of them. We are never dismayed, for the MIMOS history did not begin with the kind of idea everyone would embrace.

Although our birth was accoucheured, so to speak, by none less than Dr Mahathir Mohamad (now Tun), the Prime Minister then; it was an event so mundane that many did not take notice. Of course, Dr Mahathir, being a visionary leader that he was (and still is), was all into this – a RM5 million grant was secured on the spot with this question asked: *“When can you start?”*

Indeed, one cannot talk about the establishment of MIMOS without mentioning Dr Mahathir. And the fact that it was this young, forward-thinking Prime Minister who was instrumental in the birth of MIMOS, was actually a sign that the occasion was, one day, going to make a great impact to the progress of this country. As a matter of fact, Dr Mahathir was involved even before MIMOS was born. He was there right from MIMOS’ conception – from the moment the idea was conceived and later expanded.



**THE IDEA...** *The innocuous-looking, comb-bound concept paper with “University of Malaya Faculty of Engineering” cover that was presented to the Prime Minister in August 1984. The concept paper was prepared by Tengku Azzman with input from Prof Harold “Bud” Lawson Jr, a Swedish-American who was a visiting professor at the university then.*

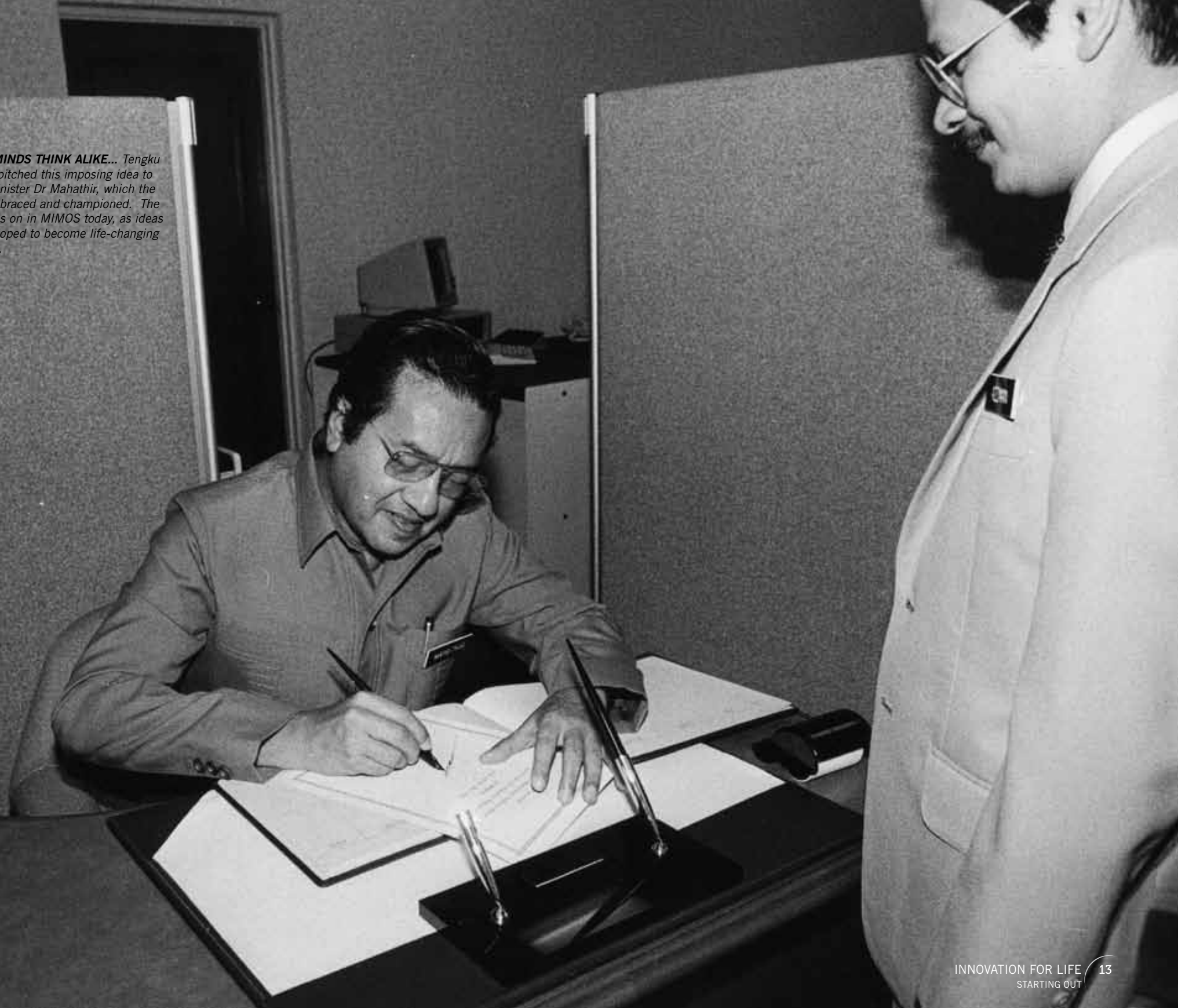
It was August 1984 when MIMOS founder Assoc Prof Dr Tengku Mohd Azzman Shariffadeen (now Datuk) spearheaded a team of academicians in presenting the concept paper to the Prime Minister. The presentation centred on the realisation that Malaysia was a leading country in exporting electronics-based products yet none of the products belonged to Malaysian companies.

The proposal went down well with Dr Mahathir, and the paper on the formation of a research centre, the “Malaysian Institute of Microelectronic Systems”, as MIMOS was initially known as, was subsequently tabled and approved by the cabinet on 17 October 1984. The institute was established as a unit of the Prime Minister’s Department on New Year’s Day, 1985.





**GREAT MINDS THINK ALIKE...** *Tengku Azzman pitched this imposing idea to Prime Minister Dr Mahathir, which the latter embraced and championed. The spirit lives on in MIMOS today, as ideas are developed to become life-changing novelties.*









**HISTOR-ICT DAY...** Prime Minister Dr Mahathir Mohamad officially opening the first MIMOS office. There, he was briefed by MIMOS Chief Tengku Azzman (opposite page). The event was to become the beginning of an important journey in ICT and innovation for the country.



**THE FAB FIVE...** MIMOS pioneers, who were top academicians from the country's premier universities, pose on the day when their dreams finally realised – the launching of MIMOS by then Prime Minister Dr Mahathir Mohamad. From left: Dr Mohd Zawawi Ismail (University of Technology Malaysia), Dr Mohamed Awang Lah (University of Malaya), Dr Muhammad Ghazie Ismail (University of Science Malaysia), Dr Mohd Arif Nun (University of Technology Malaysia) and Dr Tengku Mohd Azzman Shariffadeen (University of Malaya).





***LEADING THE WAY...** Tengku Azzman founded MIMOS and ten years later saw the evolution of a former rubber plantation in Bukit Jalil into the present MIMOS campus.*









opposite page:

**BLUEPRINT FOR INNOVATION...** Then Minister of Science, Technology and the Environment, Datuk Law Hieng Ding (now Tan Sri) (centre) and his deputy Tuan (now Dato' Sri) Peter Chin Fah Kui (in blue shirt) with Tengku Azzman (on the Minister's right) visiting the construction site of MIMOS campus at Technology Park Malaysia in Bukit Jalil in 1994. Construction was completed after 88 weeks.

left:

**ENTER WORLDWIDE WEB...** At a time when the word "Internet" was unheard of even around people in the "computer line", MIMOS introduced RangKom (Rangkaian Komputer Malaysia or Malaysia Computer Network), which four years later in 1991 was turned into an Internet Service Provider that offered services to limited members of the public. In 1992, MIMOS launched the country's first Internet Service Provider, JARING, linking curious Malaysians to computer users around the globe for the first time. Incidentally, JARING is a Malay word for "net".



Five years on, MIMOS became a department under the Ministry of Science, Technology and Environment (now Ministry of Science, Technology and Innovation - MOSTI) and began assuming role in IT Policy Development. By then MIMOS had already engaged more than 40 staff.

MIMOS brought the Internet to Malaysia in 1992 after having launched Malaysia's first Internet Service Provider, Joint Advanced Research Integrated Networking (JARING). That alone had delivered a profound impact on the Malaysian socioeconomic landscape, albeit in a rather shy way during the first five years or so. By the mid-1990s, communications for business, personal and creative output started to show signs of them being reshaped by ICT, in particular the Internet.

Soon, it was realised that communications were not the only thing that would be redefined by the Internet. The new, "digital commodity" was changing lives at unprecedented pace. The country's journey into the information age had just begun, and MIMOS would continue what it had started.



**NOW AND THEN...** MIMOS campus under construction in 1994 and the campus today (opposite page).









In 1994 MIMOS was appointed as the Secretariat to the National IT Council (NITC), through which it played a key role in the development of the framework for Malaysia's Multimedia Super Corridor (MSC).

That, evidently, was just the beginning of the Malaysian digital boom, thanks to the visionary leadership and the extraordinary individuals who founded MIMOS. This book commemorates MIMOS' transformational journey in our mission to pioneer innovative information and communication technologies for the nation.



**HEART OF ELECTRONICS...** MIMOS began its semiconductor technology programme soon after its inception. Within two years it was able to introduce chip design courses in all universities in the country. Today, MIMOS' two wafer fabrication plants offer wafer fabrication services, Failure Analysis, Multi Project Wafer (MPW) Programme, Wafer Testing, Wafer Fabrication Training, and Full Turnkey Support. The state-of-the-art facilities serve local and international foundry customers in Taiwan, Korea, Singapore and USA for 0.35 micrometre and above technologies.







**THE REPORT...** Dr Mahathir with Tengku Azzman at the launch of NITC's book entitled "The Malaysian IT Interface" in 1998, two years after the successful launch of the Multimedia Super Corridor. NITC was chaired by Dr Mahathir.



# THE FOLLOWING DECADE ~ 1995-2005

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The setting up of MIMOS heralded a new era in the development of ICT in Malaysia. From our earliest days of being a seemingly inconsequential microelectronics research set-up, to helping formulate ICT policies for the country, and later paving the way for Malaysia's premier information superhighway, MIMOS' innovation journey had notched a number of firsts in the country's development history.

The MSC, launched in 1996, is today a successful endeavour looked after by a sister agency as MIMOS shifts its focus on R&D to help local industries.

In November 1996, MIMOS became MIMOS Berhad, a public limited company under the purview of Ministry of Finance, and was tasked with three core functions – R&D, National IT Policy Development and Business Development. The move provided

further thrust for MIMOS to emerge as a premier technology organisation in the country, at the same time strengthened our catalytic role in the development of the Malaysian ICT industry in general.

By the late 1990s MIMOS' leadership of the country's R&D in ICT was manifested with our launch of various technology consulting services which were on par with current world standards and trends, a semiconductor wafer fabrication, and our very own brand of computers. It would also be pertinent to note that MIMOS was a main working arm in pushing the concept "Intelligent City" when the government prepared the blueprint for Malaysia's new administrative centre in Putrajaya. The company was also instrumental in preparing information systems for the new KL International Airport in Sepang.

At the turn of the millennium, MIMOS launched Malaysia's first education portal, *cikgu.net*, which marked the organisation's technology deployment to the nation that not only was well received by Malaysians but had gained a commendable international audience. A year later, MIMOS initiated the country's first computer forensic services.

Sometime in the early part of the millennium, then MIMOS Chief Operating Officer Dr Mohamed Awang Lah pointed out: "Our R&D focus is on technology deployment – with the aim of helping the country adopt new technologies as fast as possible in order to generate economic returns."

In 2003 MIMOS played a leading role in developing and expanding the existing ICT infrastructure throughout the nation, especially to the economically marginalised areas. Called *Titian Digital* (Malay for "Digital Footbridge"), the project under the Bridging Digital Divide programme within the Eighth Malaysia Plan was launched in Kampung Pamah Kulat in Raub, Pahang. It involved, among others, the setting up of a community Internet centre in the village, located some 110 km from Kuala Lumpur and 265 km from Pahang's capital, Kuantan.

The same year saw MIMOS being instructed by the government to focus on R&D activities. Nonetheless, projects in bridging the digital divide continued, fuelling our commitment in fulfilling our corporate responsibility.





far left:

**PRACTICAL MATERIAL...** Villagers in Kampung Gulang-Gulang in Kuala Selangor have benefited from a web-based sewing workshop organised by MIMOS in collaboration with the Community Development Department as part of the MyGfL pilot project, which was launched in April 2005. The sewing workshop used modules presented and transmitted through the MyGfL web portal.



left:

**MIMOS INSIDE...** In 1997 MIMOS commissioned Malaysia's first wafer fabrication plant (Fab 1) for R&D and small-scale production of 1.0 micron digital CMOS technology. It fabricated Malaysia's first locally designed integrated circuit, 16-bit RISC & microprocessor Pesona. Fab 2, completed five years later, is the first Malaysian-owned plant to produce Pesona in eight-inch diameter wafers.

below:

**NEW GUARD...** As ICT became a larger part of Malaysians' life, electronic information security became a grave concern. MIMOS initiated the Malaysian Computer Emergency Response Team (MyCERT) in 1997 to address digital security issues that might affect Malaysian Internet users. The following year, the National ICT Security and Emergency Response Centre (NISER) was born, and MyCERT became a part of NISER, under MIMOS supervision.



As we reached out to the communities, we took the opportunity to inform the people on MIMOS' activities, and the technologies that they could harness to make their lives better. In 2004 MIMOS together with the Agriculture Department launched AgriBazaar – an online portal that served as trading hub for buyers and sellers of agricultural products.

2005 was no less eventful. MIMOS kicked-off the My Grid for Learning (MyGfL), a pilot project in grid computing focusing on integrated lifelong education and online learning. During that same year, JARING became a standalone entity called JARING Communications Sdn Bhd. As a spin-off company under MIMOS, JARING Communications carried on MIMOS' mission in developing and deploying technology for the people. The same year, another one of MIMOS division, NISER, became a separate agency, highlighting MIMOS' direction towards focusing on applied research and development.



“Success in the Information Age involves more than just information. Superficial knowledge that doesn’t even enable you to choose a computer or pick an Internet Service Provider is useless. Real knowledge results in effective action.”

Dr Tengku Mohd Azzman Shariffadeen

Kuching, 2000

right:

**GRASSROOTS EMPOWERMENT...** Then Deputy Prime Minister Datuk Seri Abdullah Ahmad Badawi (now Tun) launching MIMOS’ Mobile Internet Unit in 1999. After a refurbishment in 2007, the cyber coach was known as K-Wheels.

below:

**TAMING IT...** In 2002 as part of business development, MIMOS became part of TIGER Consortium Sdn Bhd, a consortium that provided e-business applications for small and medium enterprises to connect easily to global buyers without huge IT investments.





**ADDRESSING THE TERRITORIES...** An important milestone in 1997 was the establishment of MYNIC to administer the registration of Internet identities; addresses in cyberspace or “domain name” in Internet terms. MIMOS implemented this when the Internet was still alien to the general Malaysian population. MYNIC was under MIMOS’ guardianship until it was corporatised in 2006. Presently it is known as .my domain registry.





## e-Bario

One of Malaysia's most notable ICT development initiatives supported by MIMOS was the e-Bario project. Initiated in 1999, data and voice communication services were implemented for the Bario primary and secondary schools, as well as a community telecentre with satellite access to the Internet. The project was coordinated by Universiti Malaysia Sarawak and financially supported by Canada's International Development Research Centre (IDRC) and the Malaysian government's Demonstrator Application Grants Scheme (DAGS) administered by MIMOS. The project went on to collect a number of local

and international awards including the Top Seven Intelligent Communities 2001 by World Teleport Association in 2001, the Industry Innovators Award for Systems Development and Applications by Society of Satellite Professionals International in Washington DC. (2002) and Special Mention for IT Premier Award at the DAGS Convention (2003). Bario is a district located in the centre of the Kelabit Highlands in the north east interior of Sarawak State, 1000 metres above sea level and only accessible by small planes.



left:

**BETTER TAKINGS...** With the AgriBazaar portal, farmers can increase their income by dealing direct with the traders and suppliers online daily. In turn, competitiveness and productivity of the agriculture industry are also increased.

above:

**HIGH-TECH AGRIBUSINESS...** Then Prime Minister Datuk Seri Abdullah Ahmad Badawi at the launching of AgriBazaar in June 2004. With Abdullah are then Minister of Agriculture and Agro-based Industries Tan Sri Muhyiddin Yassin and then Minister of Science, Technology and Innovation Datuk Seri Jamaludin Jarjis.

Such was MIMOS' colourful adolescence. Watching its "babies" becoming self-reliant grown-ups was a sure sign that MIMOS itself has come of age as it entered its twentieth years as Malaysia's premier ICT and microelectronics research centre. Looking ahead, the only possible phase was further growth. At the end of 2005, MIMOSians realised that they were in for an exciting transformation.



# Previous Leadership



**Tun Dr Mahathir Mohamad**  
Prime Minister of Malaysia  
16 Jul 1981 - 31 Oct 2003



**Tan Sri Law Hieng Ding**  
Minister of Science, Technology  
and the Environment  
26 Oct 1990 - 27 March 2004



**Dato' Sri Dr Jamaludin Jarjis**  
Minister of Science, Technology  
and Innovation  
30 March 2004 - 1 March 2008



**Tan Sri Dato' Azman Hashim**  
Chairman  
1 Nov 96 - 31 Oct 2000



**Dato' Dr. Mohd Ariff Araff**  
Chairman  
1 Nov 2000 - 31 Oct 2004



**Datuk Shahril Shamsuddin**  
Chairman  
16 Jan 2005 - 4 Jul 2008





**LEAVING HIS LEGACY...** *Tengku Azzman with his protégés at his farewell party at MIMOS on 25 November 2005. Many felt he had left a lingering pioneering spirit, and an unmistakable DNA of MIMOS.*

## CONTINUING EXCELLENCE...

*Dato' Abdul Wahab Abdullah (right) with his predecessor Tengku Datuk Dr Mohd Azzman Shariffadeen at a 2008 event to proclaim the MIMOS auditorium as named after the MIMOS founder. Tengku Azzman was Abdul Wahab's professor who supervised the latter's final year thesis when he was doing his Bachelor of Engineering at University of Malaya.*



# REJUVENATING AN INNOVATION CULTURE

## Transformation ~ 2006 and Beyond

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In a statement on September 30, 2004, a year before his retirement, Tengku Azzman had said that MIMOS had “realised its mission in helping Malaysia adopt ICT at a swift pace, at every level of society, industry and government”. Tengku Azzman ended his incomparable tenure as MIMOS President and CEO after 21 years at the helm. His stint will always be remembered as the starting point of the Malaysian ICT boom, the beginning of the country’s momentous journey into a new, digital economy.

On its 21st birthday in January 2006, MIMOS made it clear that it had reached full maturity, was all eager to continue the journey it started, and ready to enter a brave new phase as Malaysia marched closer towards Vision 2020.

Former Motorola R&D Chief for Asia-Pacific Abdul Wahab Abdullah assumed duty as the new President and CEO on July 1, 2006\*, bringing to MIMOS fresh energy, buoyant strategies and a promising transformation. With the new mandate given under the auspices of MOSTI, MIMOS was now bent on focussing on R&D towards supporting the indigenous industries to drive the national competitiveness.

MIMOS’ strength has been further buttressed along the way by our collaboration partners, which comprise esteemed names in

the industry and academics, including from abroad. In December 2006, the Ministry of Finance officially takes over JARING Communications from MIMOS, signalling further evolution of MIMOS and the continued success of a MIMOS progeny.

It is impossible to exaggerate the significance of MIMOS’ roles in driving Malaysia’s technological advancement. Today, the noble aim of MIMOS has come to fruition as proven by the many Intellectual Properties filed and patents granted, technology platforms transferred and innovative products developed.

As a research institution that transfers its technologies, the MIMOS branding is often diluted in the background. Nevertheless MIMOS has always been at the forefront of helping the government achieve its missions.

Tengku Azzman and his team of intelligentsia had laid the foundation for MIMOS, on which the visionary Dr Mahathir provided the crucial impetus and sage advice. The current MIMOS leadership commanded by Dato’ Abdul Wahab took over the drawing board to continue pursuing the journey.

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*\* In the interim period after Tengku Azzman left office, MIMOS was led by then Vice President Raja Noor Ainin Badariah Raja Zainal Abidin.*





***THE INDUSTRIALIST...** Armed with flying colours from years of serving at world IT giant Motorola, Abdul Wahab takes MIMOS' flight into adulthood with noticeable knack and infectious gusto.*

## New Captain on Board

In any innovation story, change is inevitable. In the case of MIMOS, the passing of the leadership baton in 2006 marks a key milestone in its journey.

For Tengku Azzman, his retirement at 59 came naturally, as making way for the new generation has been the rite of passage in our society. But for new chaperone Abdul Wahab, taking over from someone – who was Dean at the Faculty of Engineering at his alma mater, and who had founded, developed and led this organisation for more than 20 years – was a medal of honour, a mammoth responsibility yet an exciting challenge that he was eager to accept.

Abdul Wahab, a Motorola scholar and University of Malaya electrical engineering graduate who eventually became Senior Director of R&D Operations, Global Technology Development Group, Government and Enterprise Mobility Solutions Sector at Motorola in Penang, brought with him vast industrial experience and sterling track record including at regional and international levels. For one, he was the first Malaysian to lead Motorola Malaysia's R&D centre in Penang.

Any new captain would bring changes and new rules, and Abdul Wahab was no exception. Predictably, he started with people. Abdul Wahab's focus from the beginning of his tenure has been on developing his people into "mental warriors".

Among his early initiatives included a successful corporate repositioning that placed emphasis on human capital and technology development. All resources and personnel within MIMOS were strategically aligned to meet redefined corporate direction. New departments based on technology strategies were created, taking into consideration all aspects of the innovation value chain such as technology trends, market space and commercialisation. Accomplished individuals from the "pre-transition" team were given the necessary booster and support, while new talent recruits were positioned at strategic places.

An important initiative instituted by the incoming CEO within days after taking office was a set of execution strategies, which became the defining mainstay to the MIMOS transformation. The set of execution strategies, known internally as Strategic Adaptive Tools Realised for Innovation Acceleration (SATRIA) soon became an integral component and bedrock of the MIMOS innovation culture.

Fundamental to the SATRIA execution strategies is Leadership Core Values (also known internally as SATRIA1), which entail, among others; Uncompromising Integrity, Shared Vision among Team Members, and Accountability for All Actions. It is envisioned that these values will build a culture that promotes the highest performance standards.

**NEW WARRIORS...** Transformation comes with changes in the guardianship of strategic posts. Incoming CEO Abdul Wahab made sure his "warriors" are the best possible people for the job.







**BRANCHING OUT...** MIMOS' branch at Kulim Hi-Tech Park, which was officially launched in April 2009, serves as a software centre for all precision agriculture products, providing the full value-chain to the agriculture sector in the northern region. The northern office also offers training opportunities to the indigenous industries and creates entrepreneurs in precision agriculture.

Ethical standards are embodied in the MIMOS Code of Ethics, which sets out guiding principles of ethical behaviour in all work relationships. A compliance programme including a whistle blower scheme has been introduced and action plans have been developed to translate the Leadership Core Values into everyday behaviours across the organisation.

The corporate culture and values programme has since been embedded within the organisation and cascaded down to all MIMOSians. By the end of 2009, with more research projects realised, collaborations with the industry and universities increased and MIMOS intellectual property (IP) building up, it was clear that a crisp, recharged innovation culture was taking shape.



**HIGH ON VALUES...** MIMOS is the first government agency to be fully committed towards embodying integrity and ethics as part of its corporate governance in transforming MIMOS R&D culture. A collaborative partnership was sealed with the Malaysian Institute of Integrity (IIM) on 6 September 2007, witnessed by the then Prime Minister, Dato' Seri Abdullah Ahmad Badawi (now Tun).





## Nurturing Mental Warriors for the K-Economy

MIMOS is proud to affirm that it is highly dependent on its people for its success.

Human capital development is accorded the highest priority as the key enabler to achieving MIMOS' vision of becoming a premier applied research centre in frontier technologies. Key competencies for achieving top-quality performance are identified and competency development programmes are formulated to enhance staff capabilities, knowledge and expertise.

The MIMOS Strategic Training, Advancement and Recognition (M\*STAR) programme is an excellent example. Introduced in 2007, the M\*STAR allows MIMOSians to translate their current work into academic credits, which can be used towards postgraduate programmes or professional qualifications, or to achieve patent recognition in line with the patent reward scheme.



clockwise from right:

**HAPPY FAMILY...** The MIMOS Family Day provides a welcome change from workaday life. It is a day of joy and bonding as MIMOSians of all strata get together as one big, happy family.

**GREAT START...** When parents are at work, little MIMOSians enjoy an equally rewarding time at Tadika MIMOS. MIMOS places great value not only on learning and fun but also on creativity, integrity, friendship and love

**PLAYTIME...** Sports activities, among MIMOSians or otherwise, are a time to show that MIMOS' innovation is not all about technology, but can work in many areas including at play.







**CONDUCTIVE...** *Researchers, scientists and engineers at MIMOS enjoy a nourishing working environment imbued with innovative and entrepreneurial spirit.*

To help MIMOSians maintain a healthy body and a creative mind, a Total Wellness Programme was initiated in 2007. The programme combines health awareness and structured physical exercise conducted by qualified trainers. Alongside with the programme, the vibrant MIMOS campus located in Technology Park Malaysia in Bukit Jalil, Kuala Lumpur is equipped with a multipurpose games court and a soccer field in addition to soothing green landscapes.

The campus also has a purpose-built community wing that houses an air-conditioned cafeteria that can seat 500, a kindergarten, a well-equipped gymnasium and a centralised musollah for Muslim staff to perform their daily prayers in comfort.

The congenial, comfortable and stimulating environment is indeed a perfect setting for nurturing a dynamic, high-performing organisation in the K-economy – characteristics already evident in MIMOS.



“Today, MIMOS has shown us early signs of their transformational success, in the form of innovative ICT and a notable number of world-standard technology platforms for commercialisation by the indigenous industries.”

**Datuk Seri Dr Maximus Ongkili**

Minister of Science, Technology and Innovation  
(19 March 2008 - present).





“As a strategic government agency, we remain committed to our social responsibilities. We believe in creating positive and sustainable socio economic impact in the all communities we operate. In all of our endeavours, we strive to ensure that all economic, environmental and social factors are considered. We believe that this approach, driven by an uncompromising integrity, which forms part of our shared values, has helped us achieve our goals.”

**Dato' Suriah Abdul Rahman**

MIMOS Chairman (24 Oct 2008 - present)

**FUTURE INNOVATORS...** *The creation of an industry-ready pool of talents is part of MIMOS' efforts in growing globally-competitive indigenous industries. In 2009, MIMOS in collaboration with the Ministry of Higher Education launched a one-year apprenticeship programme called CODE8. The programme offers mentoring, coaching and training – and the opportunity to gain hands-on experience working on real projects using the latest high-tech equipment available.*

In 2009, MIMOS in collaboration with the Ministry of Higher Education launched an apprenticeship programme aimed at developing a capable workforce equipped with knowledge in key ICT domain areas and industry-based experience. Called the Centre of Domain Expertise Acceleration in ICT (CODE8), the programme is a mentoring and coaching programme designed to provide workplace experience in MIMOS' technology focus areas to fresh local and foreign graduates.

There is also a sponsorship and industrial attachment programme aimed at seeding talents to become MIMOS researchers and scientists. The programme offers research opportunities to self-funding postgraduate students, graduating doctoral students awaiting their viva as well as university academic staff.





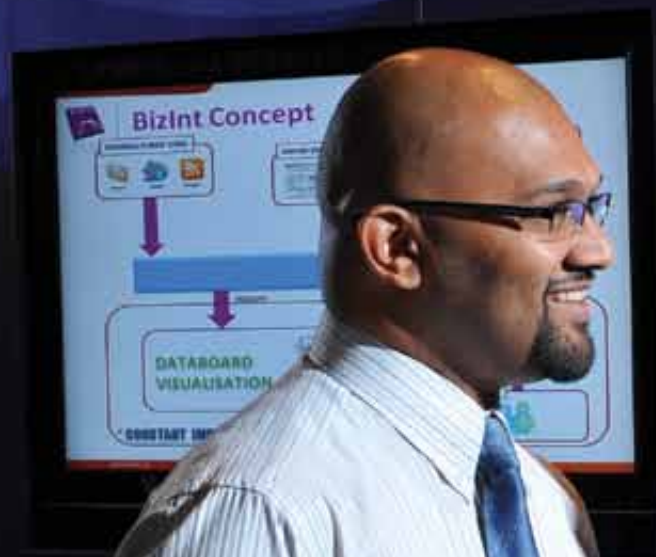




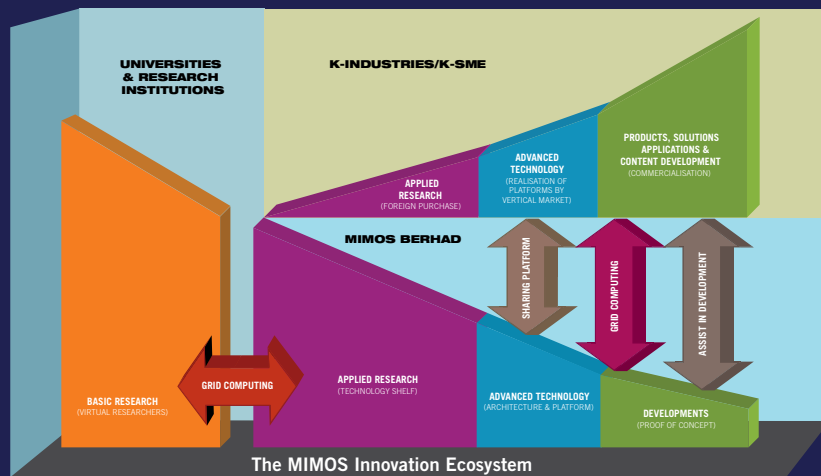


# Business Intelligence Center of Excellence

*Shaping the future*







# BUILDING THE INNOVATION ECOSYSTEM

Innovation cannot take place in a vacuum. In realising innovation, MIMOS works among a network of policy makers, higher learning institutions, research institutions, and the industry.

An innovation ecosystem, in MIMOS' perspective, recognises the role of higher learning institutions in conducting **Basic Research**. Ideally, scientific discoveries achieved in the **Basic Research** stage are adopted by researchers in the **Applied Research** stage.

Technology components developed in the **Applied Research** stage are subsequently picked up for platform development by those in the

**Advanced Technology** stage. The platforms serve as foundations for the development of products in the **Development** stage.

To maintain a productive ecosystem, all MIMOS research labs work by applying the 80:20 engagement with the universities and other research institutions.

Since MIMOS is not a profit-oriented entity, the technologies developed are transferred to local recipients for commercialisation. This commercialisation path has resulted in local companies going global with MIMOS-developed technologies.

right:  
**STRIVING FOR EXCELLENCE...** (From left)  
 Universiti Teknologi Malaysia (UTM) Vice  
 Chancellor Prof Dato' Dr Zaini Ujang, MIMOS  
 CEO Dato' Abdul Wahab and MIMOS Wireless  
 Communications Cluster Head Dr Mazlan  
 Abbas. MIMOS and UTM established a Centre of  
 Excellence in Telecommunication Technology in  
 January 2010.

opposite page:  
**BRAIN GAIN...** In June 2007 MIMOS sealed  
 collaborations with 13 local universities that  
 would see the universities undertaking basic  
 research to complement MIMOS' applied research  
 in frontier technologies.



## Tapping Future Einsteins

In an innovation ecosystem, one partnership can present endless opportunities.

MIMOS observes that many Malaysian universities have demonstrated high capabilities in research, but many of their research results have not been extended beyond academic purposes.

As an R&D institution, MIMOS believes that research must always be followed by development. Towards this end, MIMOS has established collaborations with renowned research universities in the country in setting up Centres of Excellence, essentially research laboratories that focus on specific technology areas. The Centres of Excellence can be viewed as hosts for MIMOS' virtual researchers.





**SYMBIOSIS...** Collaborative research agreements are sealed with universities for many reasons, among which are sharing of resources and tapping the analytical minds of the academics. Each university would have its own specialised areas of research.







As at the publication of this book, among other universities which host our Centres of Excellence include International Islamic University Malaysia, which runs a Cyberspace Security Lab, Universiti Malaysia Sarawak (Semantic Augmented Reality), Universiti Malaysia Sabah (Semantic Agents), Universiti Teknologi Malaysia (Wireless Communications) and Universiti Tunku Abdul Rahman (Pattern Recognition and Machine Vision).

Our collaborations with these universities allow us to share financial and intellectual resources, and provide the opportunity to tap into a wealth of expertise towards transforming basic technology seeds into breakthrough technology and technology platforms that are industry-relevant and market-driven.

MIMOS' global  
collaborations







opposite page:

**ACCENTUATING KNOWLEDGE SHARING...** The Asian Centre of Excellence in Networking Technologies (ACENT), located at MIMOS, was established in July 2007 in collaboration with Cisco Malaysia.

**STRATEGIC VENTURES...** Our strategic research collaborations with world class technology partners like Agilent (left) Microsoft (below) have been highly rewarding and are enduring partnerships that would continue to be an important component of our work.



## Sharing Aspirations and Dreams

It is MIMOS' utmost mission to ensure local ICT companies are at a level playing field with their foreign counterparts.

To share expertise and experience with local players towards intensifying Malaysia's ICT industry competitiveness, Centres of Excellence in collaboration with multinational companies are also seen as critical.

The Centres of Excellence set up with the industry serve as testbeds for all parties to conduct application development, experiments and interoperability tests.

Among multinationals that have collaborated with us to set up CoEs to date include Agilent, Altair, Cisco, HP, Microsoft and SGI.





“It is heartening to note that under the recently-tabled 10th Malaysia Plan, the government will support R&D and commercialisation across the value chain in recognition of the need to accelerate the transition from ideas and research to production and market of high-technology products.”

**Dato' Abdul Wahab Abdullah**

June 2010

## INNOVATION FOR LIFE: EMBRACING R&D

MIMOSians' interpretation of the tagline “Innovation for Life” is twofold. First, they understand that MIMOS innovations are dedicated towards improving the quality of life; enhance working, learning, playing and communicating; empower communities, and make possible things that are otherwise beyond reach. Second, innovation is viewed as a lifelong process, rather than a single event. Thus, innovation in MIMOS is our *raison d'être*, at the same time the lifeblood that keeps every MIMOSian going.

Philosophies aside, MIMOS has proven its capacity as the lead agency in turning ideas into technologies, and moving the

technologies that emerge from the laboratory benches out to the marketplace as business opportunities, locally and abroad.

MIMOS' technology thrust areas have been expanding with time. As at 2011, MIMOS is focussing its R&D activities on ten thrust areas namely Advanced Analysis & Modelling, Advanced Computing, Information Security, Intelligent Informatics, Knowledge Technology, Microenergy, Microelectronics, Nanoelectronics, Psychometrics and Wireless Communications. These technology areas reflect the global technology and market trends that have strategic significance to the nation.





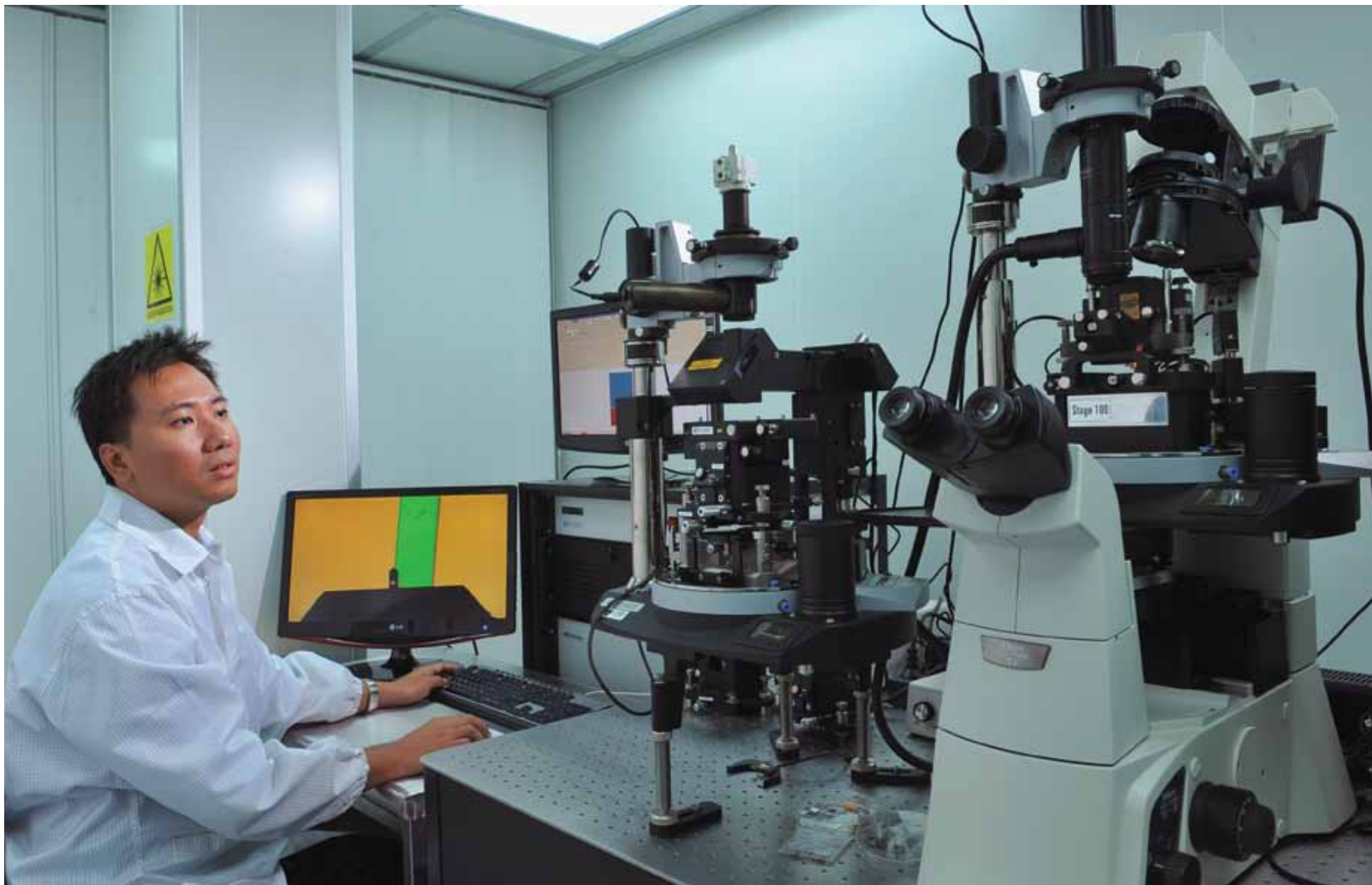


opposite page:

**ADMINISTRATION MADE SIMPLE...** In July 2009, MOSTI through MIMOS presented iDOLA computers to the Cabinet. The portable computers are installed with "Ministers' Dashboard", essentially MIMOS' iSDP, an intelligent software technology which brings desired Internet contents with a single click. Seen here, Prime Minister Dato' Sri Mohd Najib Tun Razak and his deputy Tan Sri Muhyiddin Yassin getting acquainted with the iSDP.

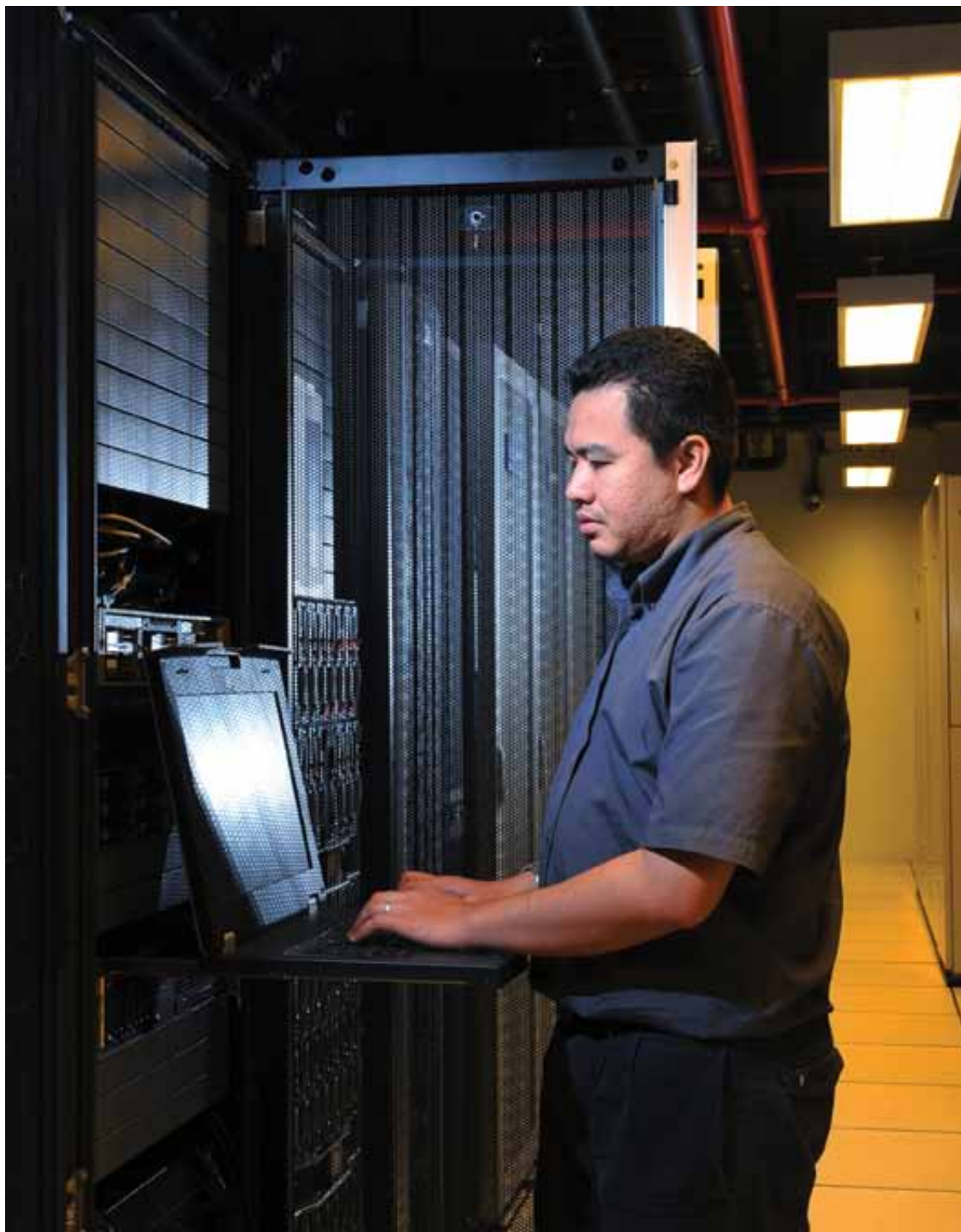
above:

**PROSPERING THE FARMERS...** Through its Microsystems and MEMS technology MIMOS complements the national agenda in promoting and strengthening agriculture and agro-based industry, in turn improving the quality of life among planters and farmers.

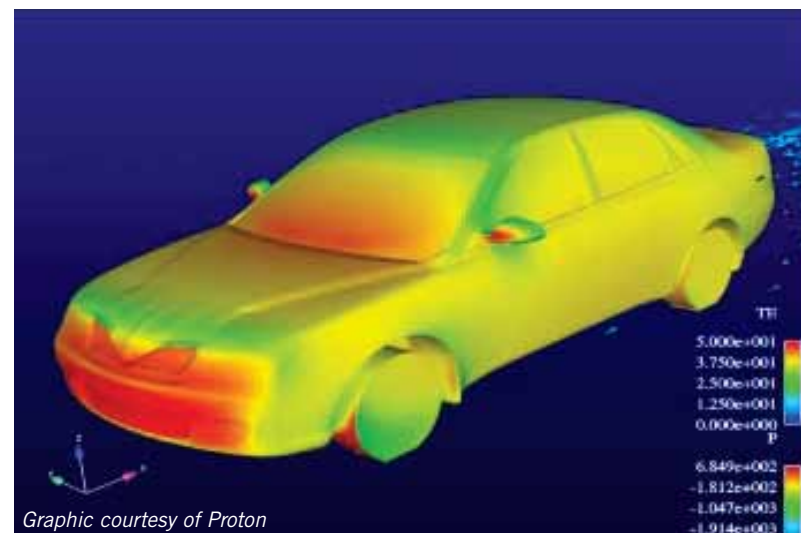


**IMPROVING LIVES...** From microelectronics, MIMOS has moved into the new and exciting next level of technology, nanoelectronics. MIMOS' Nanoelectronics Cluster helps complement the national agenda of venturing into new technology areas that can help improve the quality of life, especially through the creation of new devices and materials.





**RESOURCE INTENSIVE...** MIMOS' grid computing technology addresses the need for a dependable, pervasive, and inexpensive access to high-end computational capabilities. The technology can be of great benefit across all industries including manufacturing, media, creative media, healthcare, education, finance and government.



**RESOURCE SHARING ...** The MIMOS Knowledge Management Unit is a rich repository of ICT and microelectronic resources, including publications by MIMOS researchers, scientists and engineers (foreground). MIMOS has published numerous international papers including journals, IEEE (Engineering) papers and International Conference papers.







**LINKING R&D COMMUNITY...**  
MIMOS developed the Knowledge Resource for Science and Technology Excellence, Malaysia (KRISTE.my), a knowledge-based system that serves as a one-stop-centre for all knowledge artefacts related to Research and Development and Commercialisation activities in the area of Science, Technology and Innovation. KRISTE incorporates intelligent solutions leveraging on Semantic Technology which is the cutting-edge platform in the area of Knowledge Technology.







opposite page:

**FIT FOR A KING...** In July 2008, MOSTI Minister Datuk Dr Maximus Ongkili led a delegation to present the iDOLA to the Yang di-Pertuan Agong Tuanku Mizan Zainal Abidin at Istana Terengganu.

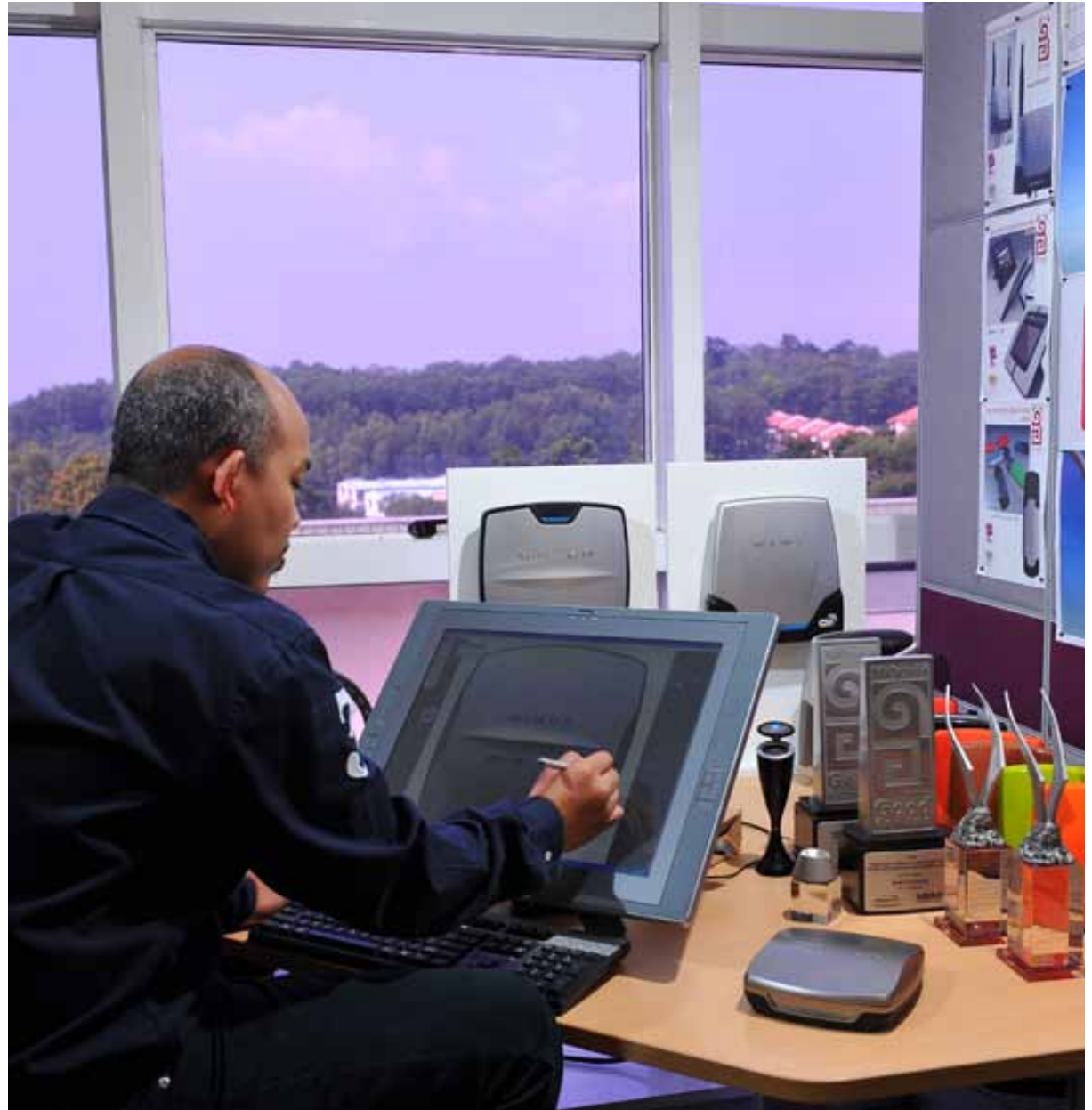
left:

**TUNING IN...** Minister of Science, Technology and Innovation Dato' Seri Dr Maximus Ongkili getting a brief on a MIMOS wireless technology from Senior Director and Head of Wireless Communications Cluster Dr Mazlan Abbas.

## Product Design

Once an idea has completed the research laboratory processes, the next stopovers in the technology development life-cycle include product conceptual studies, design and fabrication, before they are verified for manufacturing. State-of-the art technologies such as CAD and CAE simulations and rapid prototyping help identify improvements required during early conceptualisation stage, which result in significant savings in cost and time. Finished products are tested per International Electrotechnical Commission (IEC) Standards for Information Technology and Military standards.

**TOP-NOTCH PRODUCTS...** *Products are designed using state-of the-art tools to ensure compliance with International Standards in terms of performance, quality and reliability.*







**DREAMS TAKING SHAPE...** From scratch till production, MIMOS industrial designers use sophisticated equipment such as the rapid prototyping machine.

# Product Quality and Reliability Engineering (PQRE) Lab


To ensure world-class deliverables, all technologies are tested at the PQRE Lab. End-to-end testing is conducted, covering all phases of the application and product lifecycle using only the best strategies and techniques.

With strong test project management and methodologies, highly skilled and certified technical and management team, domain expertise, world-class laboratories and extensive automation, the PQRE Lab also provides testing services to clients in various industries. MIMOS Test Engineers are well versed in conducting tests for mobile devices, cloud computing, web applications, desktop applications, system components, computer and telco networks, hardware reliability and compliance; and various other tests in the domains that include telecommunication, finance, logistics, education, agriculture, medical, mobile devices and applications, government systems, advertising, standards and compliance.

Usability testing measures the ease of use of a specific product. The Usability Lab test reveals deficiencies in product designs and provides recommendations to improve the design. MIMOS Usability Laboratory is the first lab in Malaysia to be equipped with an Eye Tracker solution.

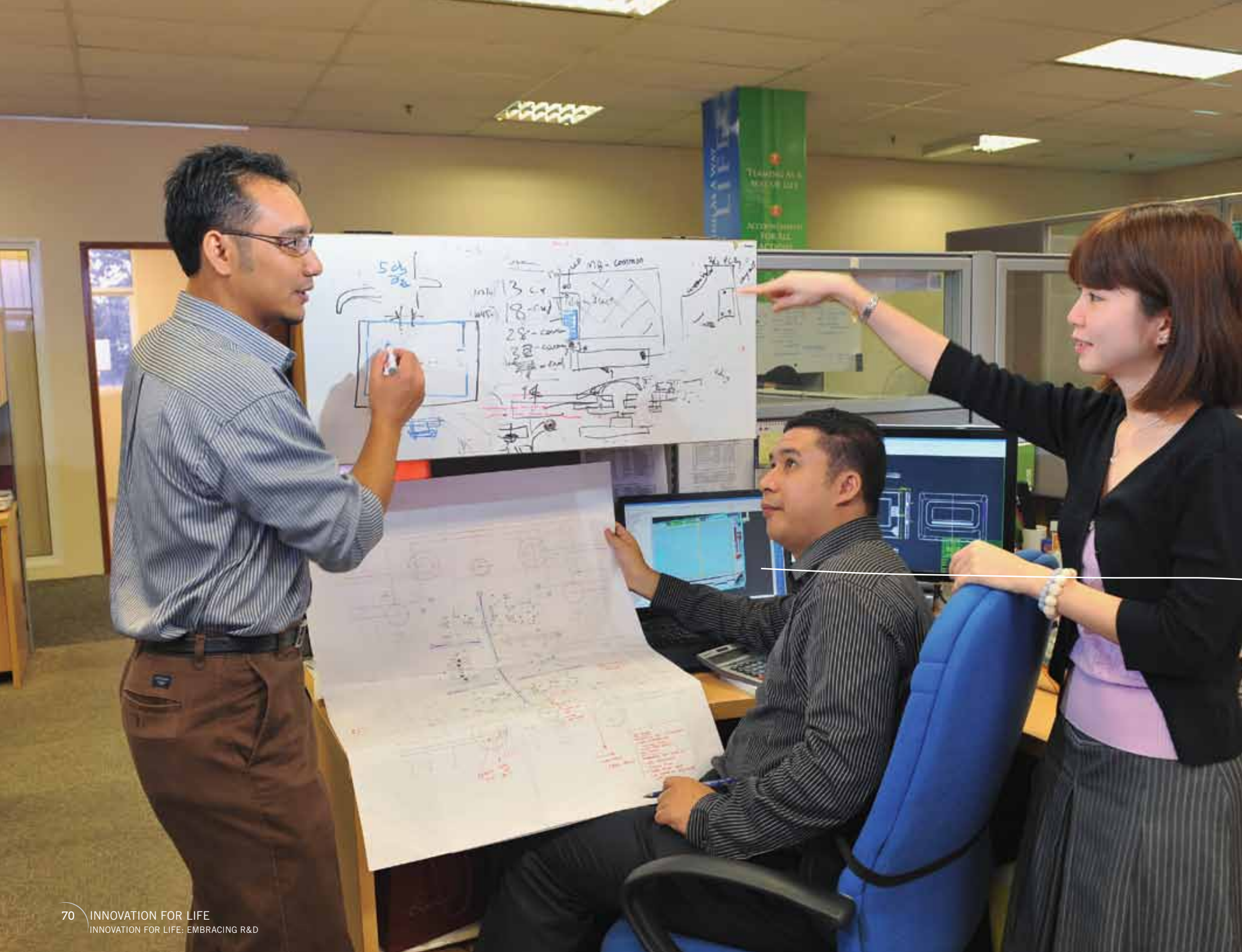






**VIGOROUS...** All MIMOS products undergo vigorous assessment to ensure durability and robustness such as the environmental testing at the PQRE Lab.







# INNOVATION LEADERSHIP

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MIMOS' strength lies in the synergies derived from its transformational leadership who has a combined wealth of experience and expertise, its diverse and innovative people, and dynamic collaborations with great minds in the learning institutions and the industry. These are reinforced by continuous world-class industry practices in process improvement and change.

The company began its process improvement journey in December 2006. Having understood the importance and strategic intent of this initiative, an organisation-wide process improvement strategy was formulated to drive three key initiatives; namely Capability Maturity Model Integration (CMMI), People-Capability Maturity Model (P-CMM) and Six Sigma. Along

the CMMI journey, MIMOS attained CMMI Maturity Level 3 in September 2007 and subsequently achieved the SEI CMMI Maturity Level 5 in Oct 2009.

With this distinguished award, MIMOS is now among the top 100 elite corporations worldwide that meet the highest software quality standards. MIMOS is also the first Malaysian government agency to achieve Maturity Level 5 and fifth in the world to put in place the P-CMM. This world class industry practice has brought about tangible performance improvements and subsequent favourable transformation in the MIMOS work culture – which gives MIMOS the edge in developing technology platforms for the industry,



**TRENDY TECHNOLOGY...** MIMOS' WristPC won the prestigious Red Dot Design Award for Best Design Concept in 2010.

Our commitment and cooperation with local and international bodies in high maturity practices were rewarded with award-winning R&D projects, continuing accolades and awards received previously for projects such as AgriBazaar, Malaysian Grid for Learning (MyGfL), Certification Authority for MyKad and Forensic Investigation and Recovery Systems.

In 2010 MIMOS received the prestigious German-based Red Dot Design Award, for Best Design Concept. Back on the home front, MIMOS bagged the Malaysia Good Design Mark Award 2010 for design and quality excellence in Industrial Product category. The company was also the recipient of five International, Invention, Innovation and Technology (ITEX) Award in 2010.





**AWARD-WINNING...** Year after year, many of MIMOS products have won various awards for their excellence in design and quality.









Left and below:

**EXCELLENCE IN RESEARCH...** MIMOS' researchers have won awards at national and international levels with their innovations.



In 2009 MIMOS received two National Intellectual Property Award 2009 under the 'Trademark' and 'Industrial Design Award' categories, and three Malaysia Good Design Mark Awards 2008 under the 'Media and Home Electronics' category.

The organisation also won the Asia HRD Congress 2008 Award under the 'Contribution to the Organisation' category for outstanding contribution to the field of Human Resource Development; and the Frost & Sullivan's Growth Excellence Award 2007 for Industry Innovation & Advancement (Precision Agriculture) for its application and development of Micro Electro Mechanical System (MEMS).

The awards are recognitions for MIMOS' comprehensive participation in the industry and our contributions to the advancement of the local industry.



**TECHNOLOGY BREEDS TECHNOLOGY...** In March 2011 MIMOS Technology Recipient, Perfisio Solutions launched MIMOS e-learning system, Tutor Intelligent Learning Management System for commercialisation. The event was witnessed by Minister of Education Tan Sri Muhyiddin Yassin and Deputy Minister of Science, Technology and Innovation Datuk Haji Fadillah Yusof.



“With the IP that MIMOS has generated, we would be able to reposition Malaysia’s indigenous industries to play in niche markets globally. This means, without having to invest in research, which has a long gestation period and high market uncertainty, the local industries are able to focus on building the brand and marketing channels.”

**Dato’ Abdul Wahab Abdullah**

MIMOS President & CEO

# MEASURING INNOVATION

## Intellectual Assets: Generating Value

Innovation is a product of a knowledge-based economy. And innovation is only meaningful when it generates value. When senior citizens in the kampung are able to enquire on their gratuity payout with unprecedented ease using a handheld computer, that’s “innovation value”. Correspondingly, when an aquafarming entrepreneur reaps more profits as a result of reduced operating costs attributed to a wireless device, that’s value.

As a government applied R&D centre in frontier technologies, MIMOS is accountable for bringing forth innovation that generates

value for the people. Entering the second phase of our innovation journey, we soon recognise that the country’s capacity for innovation is seated not only in the intensity of our researchers in the workforce, but more importantly in the advocacy and protection of intellectual property (IP). Today, with renewed mandate and continued support from the government, MIMOS’ IP activities are escalating significantly. As at early 2011, MIMOS has produced 1001 IP disclosures, and counting; and have filed 492 patents, six of which have already been granted.

**GROWING SOLUTIONS...** MIMOS' award-winning wireless sensor technology offers an end-to-end solution for the agriculture and food industries, such as in oil palm plantation and aqua farming. The technology helps farmers to increase their profit through better monitoring of their crops, which results in cost reduction and yield increment, quality improvement and higher productivity.

At MIMOS, where a culture of innovation has already begun to set in, generating IPs comes naturally – creative ideas go through a transformation process where knowledge, experiences, and more ideas are input and infused. The critical stage occurs at the end of the process, where we make certain that all outputs carry values that can generate useful commercial and social outcomes.

With a global approach, keen insight of the local market needs and sound IP management, MIMOS' R&D work has been paying dividends – and it's only appropriate that the rakyat enjoy the value from the innovation that we generate.







“The technology transfer process is critical for the country as it will excite the private sectors, especially the small and medium scale enterprises, to join hands with the government to promote the knowledge economy towards commercialisation of home grown technologies.”

**Dato' Abdul Wahab Abdullah**

MIMOS President & CEO

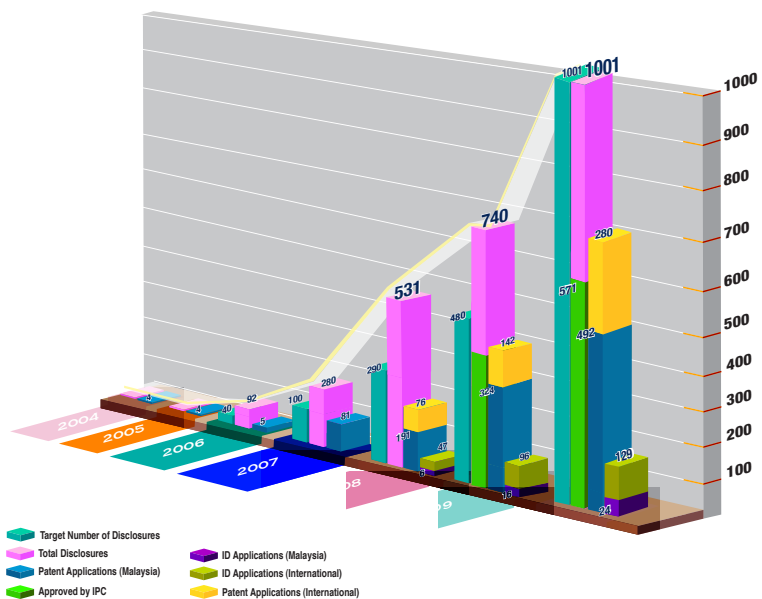
## Commercialisation: Taking Innovation to Market, Profitably

As in any R&D institution, the last and most important hurdle in the innovation process is commercialisation – getting the market to understand and adopt the innovation. In the case of MIMOS, the nurturing of capable Malaysian companies to take them to a higher level is a paramount agenda and is one of our most important deliverables.

The Technology Ventures Division is a strategic and crucial department responsible in strengthening MIMOS' commercialisation efforts. Made up of experienced professionals from the academia and industry who have deep understanding and insight of the market, the team spearheads the development of MIMOS technology ecosystem. Motivated by national aspirations, the team addresses market needs and demands through the transfer and licensing of frontier technologies to deserving technology recipients.

With MIMOS' robust technology platforms, the indigenous industry is able to focus on building and marketing their own brand without having to invest a fortune in research – which can take a long gestation period, involves high cost and often encumbered by uncertainties. Technology recipients also benefit from training and advisory services and marketing support in the course of technology migration process.

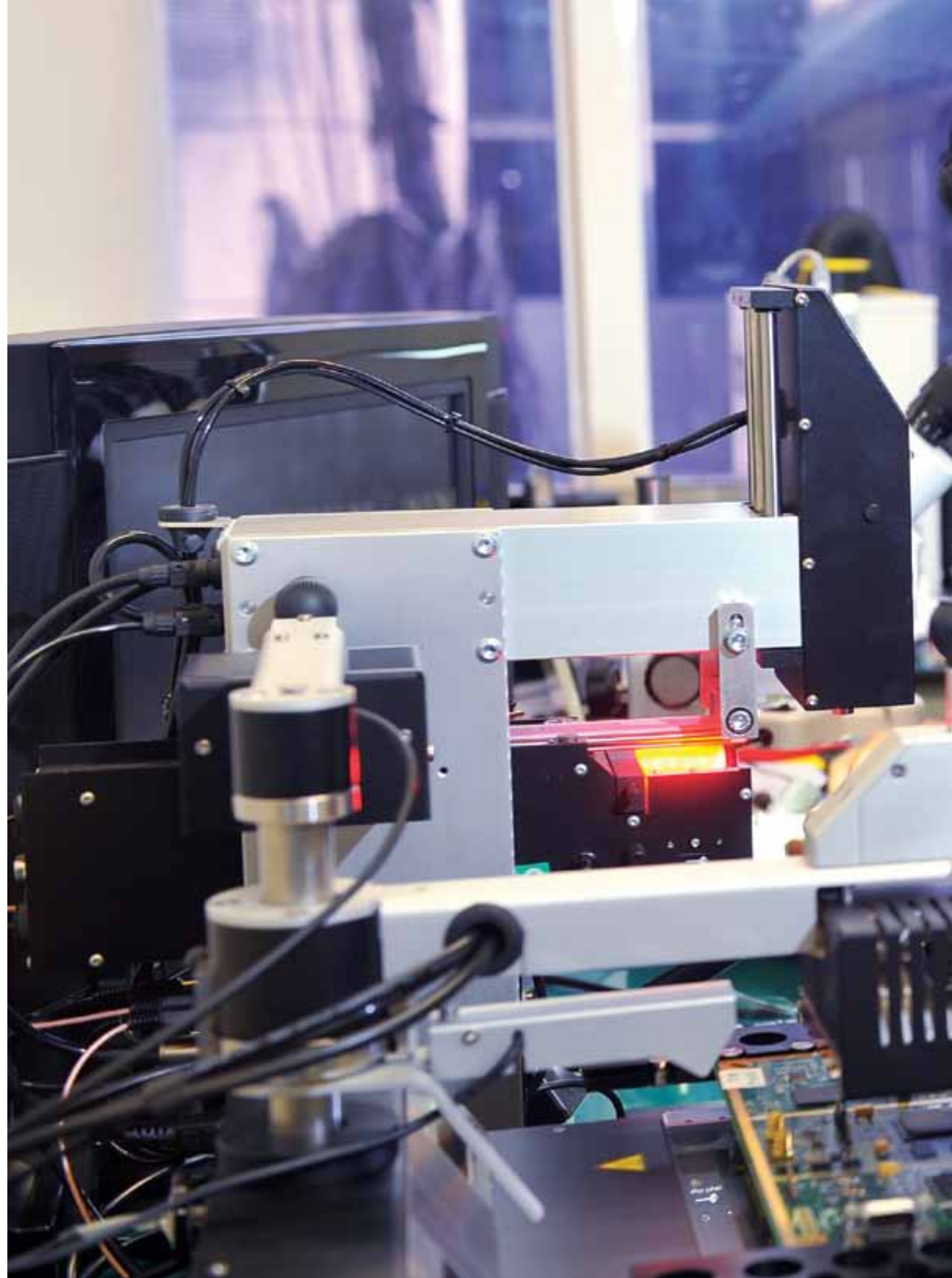




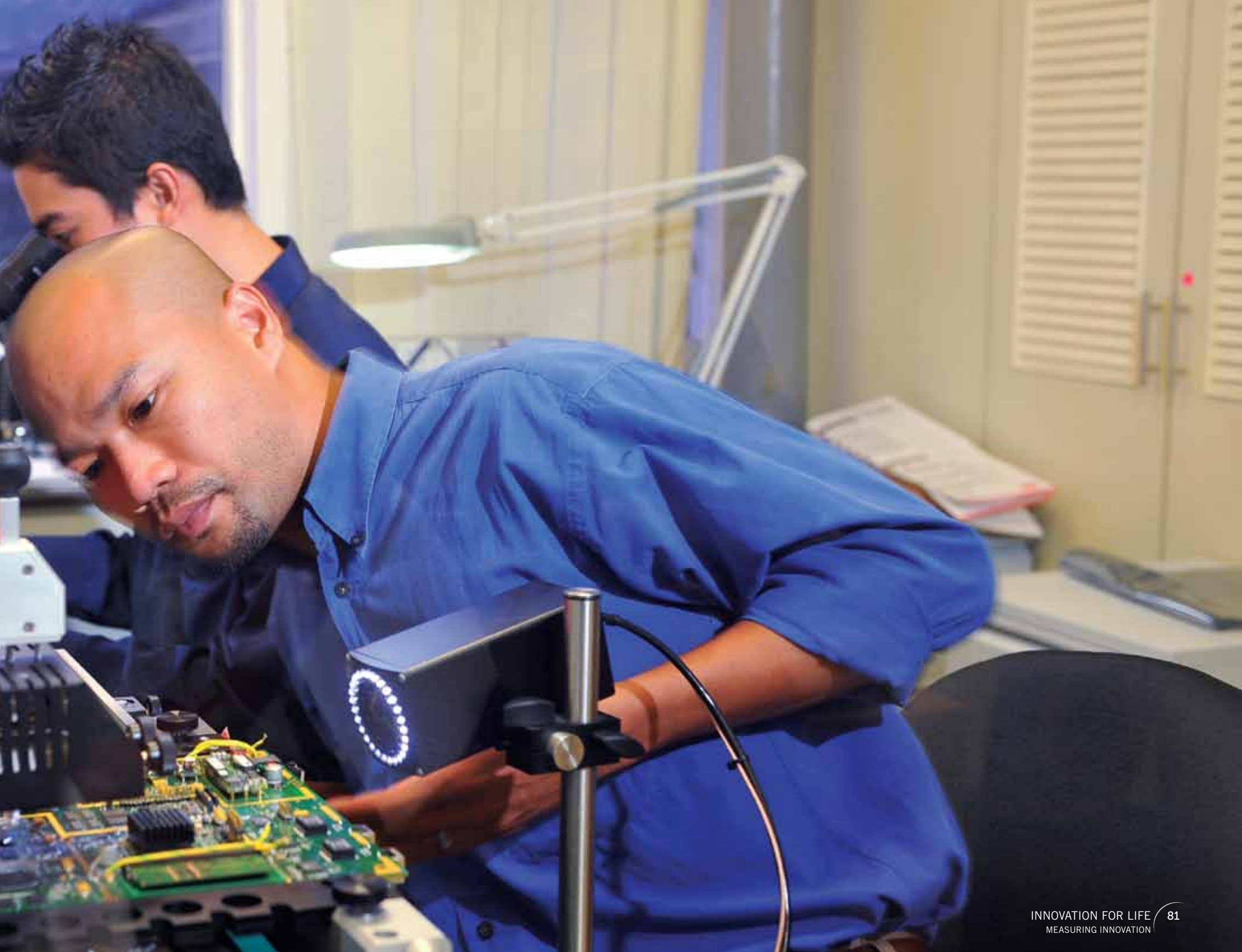
*In 2010, MIMOS contributed 40.4% to Malaysia's total filed applications at the Patent Cooperation Treaty (PCT), positioning Malaysia at the 25th country ranking at the global level. MIMOS is the only Malaysian applicant in the Top 500 PCT Application List.*

As at the publication of this book, MIMOS has developed more than 20 technology prototypes, recruited more than 25 leading local ICT companies to be our technology recipients, and transferred our technology platforms spanning all MIMOS technology areas to more than 10 companies.

Among MIMOS' technology platforms that have been commercialised include MIMOS WiWi – the world's first WiMAX-WiFi wireless hybrid solution; MIMOS wireless sensors for precision agriculture; the MIMOS Intelligent Service Delivery Platform – a user-friendly web-based software to make Internet easy to use, the MIMOS semantic-based technology platform -- for use by the medical, education and financial services, and the Intelligent Learning Management System – an e-Learning solution built on semantic technology platform.









**REACHING OUT...** Our mobile Internet unit, the K-Wheels, never fails to become the centre of attraction at events in the small towns and big cities alike.





# EMPOWERING THE COMMUNITY WITH SUSTAINABLE INNOVATION

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Assisting the government in bridging the digital divide has been one of MIMOS' key accountabilities since the very early years. The approaches, methods and tools may evolve with time, but the key objectives remain the same – to create a better tomorrow for Malaysians through sustainable innovation in ICT.

Today, as a strategic agency of MOSTI, MIMOS is tasked with implementing several ICT projects at the community level. Three of the projects under MOSTI's Technology Applications Programme (TAPMOSTI@COMMUNITY) spearheaded by MIMOS are the K-Wheels, K-School and K-Masjid. For all projects,

MIMOS plays the role of technology and expertise provider as well as project manager, including assisting in fund application and budget coordination.

As we reach out and touch the community at the grassroots level, perhaps the most popular of our marque is the mobile exhibition unit, the K-Wheels. The MIU – Mobile Internet Unit, as it was previously called, first hit the roads in 1999, reaching out to practically 10,000 people in the first year alone, witnessing many tangible and intangible changes in the people as revealed in a comprehensive evaluation conducted.



**EMPOWERED COMMUNITY...** Two senior citizens browsing for current news and religious contents at the K-Centre of Masjid Jamek Penaga in Kepala Batas.





left:

**CATCHING ON...** Village ladies in Chini, Pahang, getting a feel of MIMOS' JEN-ii, a simple and affordable yet powerful computing and communication device intended mainly for the lower-income group and rural folk.

below:

**CONNECTING THE UNCONNECTED...** The Kampung WiFi (WiFi Village) in Sibul, Sarawak is an example of MIMOS' effort in helping the government accelerate the bridging of digital divide in line with its National Broadband Initiative.



Based on the model of smart-partnership, the K-Wheels is a self-contained mobile multimedia learning station complete with the works – books, courseware, software, ICT peripherals audio-visual aids, and a facilitator. In March 2007, the coach, after a complete refurbishment to incorporate more interactive and multimedia showcases, went on a road tour to eight states in Peninsular Malaysia. Throughout the month-long journey, the mobile exhibition attracted more than 50,000 visitors on board including senior citizens and the less privileged.

K-School, on the other hand, is geared towards more effective teaching and learning. The programme seeks to improve education delivery and school administration through ICT-based systems and tools, enabling the teachers to focus more on their role as educators.

Last but not of least significance, we collaborate with people in state constituents to carry out K-Masjid, a programme aimed at building the capacity of the Muslim community, especially those in the rural areas, by equipping targeted mosques with ICT facilities. More than just installing computers at the mosques, K-Masjid allows Muslim folks in every home to access information and knowledge including Friday sermons and daily lectures from the mosque using custom-designed software and other web communications tools. Selected mosques are given the opportunity and assistance to set up and run their own cybercafe to attract local youth to more productive activities, expose the elders to the benefits of ICT, encourage better communication among communities, and generate income at the same time.

**BOLD TARGET...** Abdul Wahab reiterates that by the RM1 billion target he is not talking about revenue for MIMOS but rather for MIMOS technology partners – Malaysian companies that will have RM1 billion in purchase orders in hand by end of December 2010.





“One is only limited by the boundaries and limits set by oneself.”

**Dato' Abdul Wahab Abdullah**

MIMOS President & CEO

## BEYOND THE FRONTIERS

Just as the MIMOS story would become partial without the mention of our key architects, an account about Malaysia's ICT development would only be complete with a chapter, or a book, on MIMOS – such as one you are reading now.

We may not be the ones who introduced computers, telephones or electronics to Malaysians, but we built on the inventions to bring new applications that had an impact on Malaysians, if not the world. Our innovation is about prospecting, refining and adding value to the good inventions.

We are proud to have brought some of the most notable breakthroughs that had helped the country make the quantum leap forward into the information era, and remain competitive in the years that follow.

The beginning of MIMOS was one marked with great humility. Nonetheless, the resolute men who were there must have had the gift of foresight that this research centre would one day be driving leading-edge ICT in the country.

Today, our vibrant innovation life-cycle and growing number of IPs are pointers that we are well positioned for the future. As we celebrate our accomplishments, we never forget to take stock; learn, unlearn and relearn from our experiences before moving further.

At MIMOS, we take the exponential growth of world ICT development as an exciting challenge. Guided by the country's dynamic leadership and fuelled by our own unending desire to innovate, we will move forward to explore new opportunities and more challenging frontiers for ICT research.

MIMOS scientists, researchers and engineers are sought-after resource persons including at top institutions abroad. Our people have also become representations in International Standards Committees such as the International Mobile Telecommunications Advanced Working Group, European Telecommunication Standards Institute Quantum Information (Application Interface), World Wide Web Consortium (W3C), STI-International Semantic Technology Technical Working Group, Network Working Group & Certification - Working Group for WiMAX Forum and Asia-Pacific Advanced Network Forum.

below:

**GOING GLOBAL...** Stanford University's Prof Richard Dasher (left) with MIMOS Chief Technology Officer Thillai Raj in a Q&A session with the faculty and students of the university in 2009. Raj had presented a lecture on "ICT strategy for Malaysia going global".

opposite page, top:

**GOOGLED IN...** MIMOS Head of Product Quality and Reliability Engineering Lab, Redzuan Abdullah speaking on "Automated Usability Testing" at the 5th Annual Google Test Automation Conference (GTAC) 2010 in Hyderabad in October 2010.

opposite page, below:

**ITALIAN JOB...** MIMOS Chief Research Director of Advanced Analysis and Modeling, Prof Mohamed Ridza Wahiddin delivering a talk at University of Camerino, Italy, circa 2007.







Rather than work against the world technology giants, we want to harness the work they are doing and complement them. We have before us a robust and expanding innovation pipeline addressing technology areas that represent unmet ICT needs. And our rigorous pipeline management system ensures that our research activities are not only aligned with global trends but are also supported by strong commercialisation potential.

We have established an increasing number of strategic collaborations with partners in Malaysia and across the globe, and we will continue to look for opportunities for symbiotic alliances beyond our existing research areas.

In the spirit of interdependence, we thank our partners and affiliates for trusting us to come on board their missions, allowing us to share their hopes and dreams.

The years ahead will find us actively pursuing our innovation strategy – nurturing the ecosystem, intensifying technology transfer and commercialisation; and charting further roadmaps while continuing to develop our people. The ultimate goal now is to drive technology from a tool to an enabler integrating multiple technologies and domain knowledge, and subsequently as a sector, pushing for technology to be adopted as standard.

With a cadre of forward-looking leaders and a battalion of innovating minds, the future looks luminous!









# TURNING DREAMS INTO REALITY

“Many people think that MIMOS isn’t interested in profit. That is nonsense. MIMOS is vitally interested in profit - but not for itself. As a mission-driven R&D institution, MIMOS’ mandate embraces nothing less than the “profitability” of an entire nation: the achievement of Vision 2020 through the social and economic opportunities of ICT.”

**Tun Dr Mahathir Mohamad**

Prime Minister of Malaysia (1981-2003)  
Bukit Jalil, 1999

# MILESTONES

## RESEARCH AND DEVELOPMENT

(1985-present)

<b>1985</b> Inception of MIMOS under PM's Department	<b>1989</b> COMIL launched	<b>1991</b> RangKom became an ISP with selected clientele	<b>1992</b> JARING launched to replace RangKom	<b>1997</b> T3/45 Mbps line introduced by JARING  Commissioned Malaysia's first wafer fabrication plant (Fab 1)  Pesona chip introduced  MyCERT established  MYNIC established	<b>1998</b> NISER established
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## ACRONYMS

<b>BDD</b>	: Bridging the Digital Divide
<b>COMIL</b>	: Computer Integrated Learning System – Malaysia's first education authoring tool
<b>DAGS</b>	: Demonstrator Application Grants Scheme
<b>ISDN</b>	: Integrated Services Digital Network
<b>ISDP</b>	: Intelligent Service Delivery Platform
<b>iVEST</b>	: Virtual Environment for Secure Transactions
<b>JARING</b>	: Joint Advanced Research Integrated Networking – Malaysia's first Internet Service Provider
<b>MEMS</b>	: Micro Electro Mechanical System
<b>MOSTE</b>	: Ministry of Science, Technology and Environment. Assumed the name MOSTI after a restructuring following the cabinet decision in 2004.
<b>MOSTI</b>	: Ministry of Science, Technology and Innovation
<b>MyCERT</b>	: Malaysian Computer Emergency Response Team
<b>MYNIC</b>	: Malaysia Network Information Centre. Now known as .my DOMAIN REGISTRY
<b>NISER</b>	: National ICT Security & Emergency Response Centre. Now known as CyberSecurity Malaysia
<b>NITA</b>	: National IT Agenda
<b>NITC</b>	: National IT Council
<b>RangKom</b>	: Rangkaian Komputer Malaysia (Malaysia Computer Network)

## NATIONAL IT POLICY DEVELOPMENT

(1990-2003)

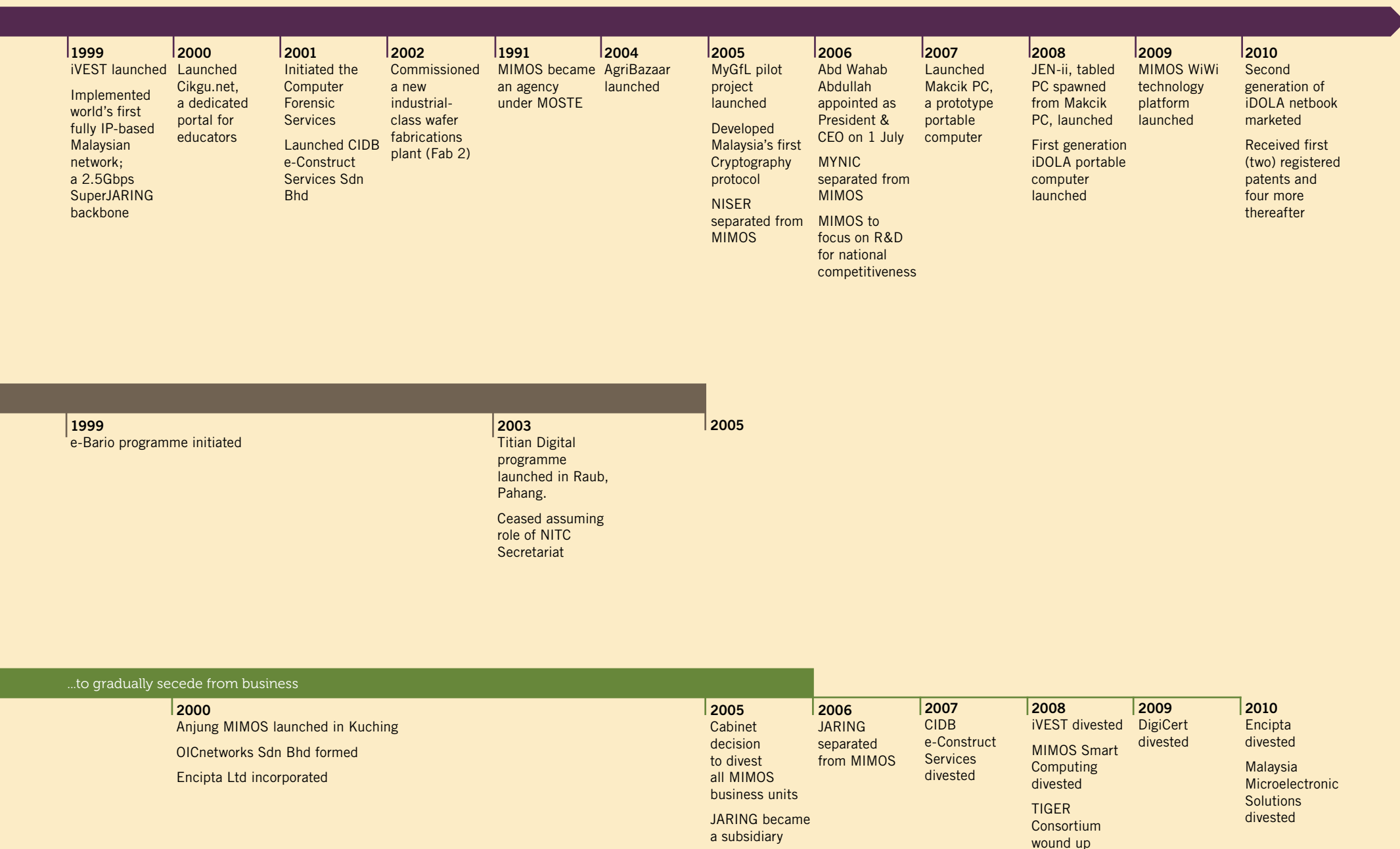
<b>1990</b> Setting up of NITC	<b>1991</b> MIMOS became an agency under MOSTE	<b>1994</b> MIMOS appointed as secretariat to NITC	<b>1996</b> NITA launched	<b>1998</b> Cabinet approval of DAGS, to be managed by NITC. Initiated the ICT in Development programme with more than 80 projects approved
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## BUSINESS DEVELOPMENT

(1997-2003)

<b>1996</b> MIMOS Berhad corporatised under Ministry of Finance	<b>1998</b> MIMOS Smart Computing and Digicert established
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Innovation for Life™