

RETROSPECTIVE 2023



Pioneering Innovations *for a* Digital Future

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EXECUTIVE SUMMARY



Introduction

MIMOS Berhad, operating under the purview of the Ministry of Science, Technology, and Innovation (MOSTI), stands as **Malaysia's premier National Research and Development (R&D) Centre in the field of Semiconductors, Microelectronics, and Communications Technology (ICT).**

Founded to propel Malaysia towards becoming a knowledge-rich, high-income nation through innovation, MIMOS is **instrumental in developing cutting-edge technologies and fostering a vibrant ecosystem of digital innovation and entrepreneurship.**

At its core, MIMOS Berhad's mission is twofold:

- i. **To Spearhead R&D in Emerging Technologies:** MIMOS lead the charge in research and development within critical sectors such as Semiconductor, Advanced Electronics, and Strategic ICT such as in Compound Semiconductors Devices and Materials, Secured Communication and Digital Resilience, Artificial Intelligence (AI), and Data Analytics, among others. By focusing on these key areas, MIMOS creates technologies that are not only innovative but also capable of driving significant economic impact, enhancing Malaysia's competitive edge on the global stage.
- ii. **To Catalyse Malaysia's Digital Transformation via Quadruple Helix Technology Venture and Incubation approaches:** In alignment with national goals, MIMOS plays a crucial role in facilitating Malaysia's digital transformation journey working closely with government agencies, industry partners, academic institutions and Civil Society to translate R&D outputs into practical, scalable solutions that address national priorities and sustainable technology-based business advancement requirements, driven by societal needs. Through various strategic partnerships, technology diffusion and transfer, commercialisation initiatives, and collaborative alliances, MIMOS ensures that the benefits of digital innovation coupled with sustainability assurance via various decarbonisation efforts are widespread and accessible across various sectors of the economy.

MIMOS' activities are guided by a vision of innovation for societal well-being, underpinning every project and partnership with the goal of not just technological advancement, but also sustainable development and inclusive growth. As Malaysia continues to navigate the challenges and opportunities of the 21st Century, MIMOS is a pivotal player in shaping the future of technology and innovation in the country, particularly in the E&E and Strategic ICT segments. MIMOS also plays a crucial role in developing various sustainability solutions such as smart energy technologies with industry partners to support the nation's vision of becoming a zero-carbon nation by 2030, addressing the global energy need through sustainable innovations.



About this Report

This report, themed ‘**Pioneering Innovations for a Digital and Sustainable Future**’, underscores MIMOS Berhad’s pivotal role in steering Malaysia towards a high-tech future, focusing on its commitment to sustainable digital innovation and transformation inclusive decarbonisation efforts for a greener future. MIMOS is at the heart of developing and implementing cutting-edge technologies such as advanced electronics devices, materials and components, AI, IoT, blockchain, and big data analytics, to foster a digital economy that enhances efficiency, inclusivity, and sustainability across key sectors like healthcare, education, agriculture, manufacturing, cybersecurity, e-government, and public administration.

MIMOS is enhancing its operational capabilities through advanced devices and solutions as well as digital tools to improve its operations and serve as a model for digital advancement, guiding the nation towards a tech-savvy future. The theme of this report encapsulates MIMOS’ strategic vision of a Digital Nation, where technology powers economic growth and elevates the quality of life, ensuring a resilient and sustainable future for all. This theme emphasises MIMOS’ commitment to leveraging cutting-edge digital technologies while prioritising environmental sustainability through decarbonisation efforts. MIMOS also develop new smart energy advanced green technologies solutions with industry partners to address the global energy need.



MIMOS in a nutshell

- i. **Leadership in Innovation:** MIMOS is at the forefront of Malaysia’s sustainable digital innovation and transformation inclusive decarbonisation efforts, leading the country into a green high-tech digital era.
- ii. **Technological Advancements:** Through research and development (R&D) in AI, IoT, blockchain, embedded electronics and big data analytics, MIMOS is establishing a robust foundation for a dynamic and thriving digital economy.
- iii. **Sector-Wide Impact:** MIMOS works to foster a digital economy that enhances efficiency, inclusivity, and sustainability across various key sectors like healthcare, education, agriculture, manufacturing, cybersecurity, e-government and public administration.
- iv. **Digital Transformation:** By optimising operations with digital technologies, MIMOS serves as a paradigm for Malaysia’s digital progression.
- v. **Vision for Malaysia:** MIMOS aligns its endeavours with the national vision, intending to transform Malaysia into a thriving digital and sustainable economy, where technology enhances economic growth and quality of life.
- vi. **Model of Excellence:** MIMOS exemplifies innovation and sustainable digital transformation, setting a high standard for other sectors to emulate in pursuit of a technologically savvy Malaysia.
- vii. **Pioneering Sustainability:** MIMOS plays a crucial role in developing smart, green and sustainable digital technologies with industry partners to support the nation’s vision of becoming a zero-carbon nation by 2030, addressing the global need through sustainable innovations.



Year in Review

This year has been remarkable in terms of growth, innovation, and strategic partnerships for MIMOS Berhad. We are proud to present the major achievements and highlights that have marked the past year as one of unprecedented success:



Financial Overview

In 2023, MIMOS continued to improve its financial stability. Over the past two years, the company faced challenges recovering from a capital deficiency situation. Despite a significant increase in utility costs to MIMOS FAB Facility due to the impact of Imbalance Cost Pass-Through (ICPT), major operational revamping activities and cost improvement measures were implemented to streamline operations, enhance processes, and improve manpower efficiency. As a result, MIMOS has successfully returned to a positive financial position.

This improvement has eliminated the need for a letter of financial support from its shareholder to meet auditor requirements. As of 2023, MIMOS Group's equity position stood at RM3.2 million. The Group is diligently working on numerous major programs and activities to further improve its financial situation in the coming years.

Sectoral Impact

The Electronics and Electrical (E&E) sector has seen a significant increase in value addition, contributing an additional RM206 billion to the GDP as per the MATRADE report of December 2023. This underscores our pivotal role in bolstering the national economy through sectoral growth.

Research and Development (R&D) Efficiency

Our Year-To-Date (YTD) efficiency in R&D stands at an impressive 9.8%, based on an R&D revenue of RM3.46 million against R&D Operational Expenditure (Opex) of RM35.20 million. This highlights our commitment to innovation and efficient resource allocation.

Strategic Partnerships

The signing of seven Memorandums of Understanding (MoUs) with prestigious entities such as NITC, Turkey Aerospace, Infinix, HELM, AG & ANCOM, NYLEX Berhad, Cybernetica, Winitex, and NEXPA System marks a milestone in our journey towards global collaboration and technological advancement.

Education and Training

A total of 824 students and industry members have been trained this year, emphasising our dedication to nurturing talent and promoting knowledge transfer within the technology industry.

Innovation Roadmap

The initiation of the MIMOS Semiconductor R&D roadmap, supported by government funds, sets the stage for our official launch at the bi-annual SEMICON SEA event in May 2024. This strategic move is aimed at reinforcing our position in semiconductor research and development.

Expansion of Partnerships

The signing of ten MoUs with various industry partners further extends our network and collaborative potential, driving innovation and growth across multiple sectors.

Revenue Growth

Our group revenue stood at an unaudited RM30.24 million, with significant commercial revenues generated from industry engagements in E&E, ICT, and others, showcasing the financial viability and success of our projects and collaborations.

Organisational Restructuring

The completion of the MIMOS Group restructuring exercise marks a significant milestone in our organisational development, ensuring agility and alignment with our strategic goals.

Community Engagement

Hosting ten MIMOS-wide events has enabled us to engage with the community, share knowledge, and foster a culture of innovation and collaboration.

Support for Academia

We provided RM29,259.00 in credit utilisation to five universities, underlining our commitment to supporting academic research and development.

These achievements reflect our unwavering commitment to driving innovation, fostering strategic partnerships, and contributing significantly to the national economy. We look forward to building on these successes in the coming years and continuing our journey of excellence and innovation.



Key successes, challenges, and a look ahead.

A Conversation with the Acting President & Chief Executive Officer (CEO)

Dr Saat Shukri Embong



Introduction

Can you provide us with an overview of MIMOS' mission and how it has evolved over the past year?

MIMOS has consistently been a beacon of Malaysia's technological innovation. Established as a common platform to provide advisory and advocacy to the government, MIMOS collaborates on R&D with interest groups and provides shared services, equipment, and tools to lower the barrier to entry in the technological arena, especially in the E&E and ICT segments, while enabling various hands-on talent development programmes.

Our mandate to spearhead advancements in semiconductor, microelectronic, and ICT technologies through R&D and localisation has propelled Malaysia into its digital future. Our clear and ambitious aim is to transform Malaysia into a premier hub for smart, intelligent, and sustainable digital technology innovation.

Through cutting-edge research, strategic collaborations, alliances, and partnerships, MIMOS is dedicated to driving transformative change and ensuring Malaysia's global competitiveness. Our advancements in integrated circuit design, wafer fabrication, device testing, material analysis, and reliability assessment have not only kept pace with technological trends but have positioned Malaysia as a key player in the Electronics and Electrical (E&E) market. This sector, abundant with opportunities for growth and innovation, particularly enables local talents, academia, and technopreneurs to partake in the burgeoning sector fuelled by significant FDI investment.

As technology evolves, we emphasise emerging technologies in the ICT segments such as Artificial Intelligence (AI), Internet of Things (IoT), blockchain, data analytics, and data security. By focusing on these areas, we ensure that Malaysia not only participates in but also leads the global digital economy, providing locals with access to technology and aiming to achieve balanced technological sovereignty.

We are dedicated to bringing new technologies and improvements across Malaysia's vital sectors. By focusing on these advanced areas, we aim to prepare Malaysia for a competitive stance in the global arena, ensuring that we are not just participants in the digital age but leaders in our own right, shaping our country's direction towards national security, privacy, and sovereignty.

In alignment with Malaysia's technology roadmap, we emphasise advanced E&E technologies, sustainable green solutions, and the advancement of smart and intelligent technology trends while tapping into the vast potential of the new fusion of integrated multi-disciplinary markets. Ensuring our technological advancements prioritise citizen data security from womb to tomb, we provide identity proofing and protection through initiatives like MyDigital ID. We are committed to growth that is secure, sustainable, and beneficial for all.

At MIMOS, we are dedicated to turning Malaysia's digital aspirations into reality. We are enhancing our capabilities across various technology segments while ensuring the secure use of these technologies, making them easily accessible and lowering entry barriers for new start-ups and SMEs.

In line with an additional mandate from our government, we are committed to intensifying and streamlining technology development towards actual market applications and solutions. Through these efforts, we aim to solidify Malaysia's position as a leader in smart, intelligent, and sustainable digital technological innovation.



Key Successes

What have been the most significant achievements of MIMOS Berhad in 2023?

In 2023, MIMOS achieved remarkable progress, underlined by substantial financial growth, sectoral contributions, and strategic developments, ensuring its pivotal role in Malaysia's technological advancement. Our financial achievements include a significant RM156 billion growth over five years in export revenue of the E&E sector, with a notable annual contribution from domestic sectors. The Electrical and Electronics (E&E) sector's addition of RM206 billion to the GDP exemplifies our impact on the national economy.

Our commitment to innovation is reflected in our R&D efficiency of 9.8% of R&D emoluments generated by contract R&D services to industry and the strategic expansion through seven key Memorandums of Understanding (MoUs) for global collaboration. Educationally, we have advanced knowledge transfer, training 824 students and industry members.

Furthermore, our group revenue growth to RM30.24 million and the completion of organisational restructuring demonstrate our financial viability and operational agility. Our engagement through MIMOS-wide events and support for academia underscores our commitment to community and innovation culture.



mydigitalID



A significant highlight of the year was the nomination by the Prime Minister for MIMOS to be the implementing agency for the MyDigital ID project, underscoring our central role in Malaysia's digital transformation journey. This nomination not only recognises MIMOS' capabilities and achievements but also entrusts us with a critical national project aimed at enhancing Malaysia's digital identity framework. The MyDigital ID project promises to elevate our national digital infrastructure and security. This move aligns with our ongoing efforts to foster a robust ecosystem for technological advancement, further positioning Malaysia as a leader in the digital age, showing our commitment to drive innovation and ensure secure, sustainable growth for the nation.

How has MIMOS contributed to technological innovation and development in Malaysia this past year?

These projects were showcased during the MIMOS Technology Preview (MTP) 2024 held on 29 April 2024. This event highlighted our cutting-edge innovations and demonstrated MIMOS' commitment to driving technological advancements and fostering a dynamic digital economy in Malaysia.

1. Smart Inverter for Mid-Scale Solar Deployment
2. Universal Photovoltaic Management System (PVMS) (Mi-Suria)
3. Autonomous Chiller Control & Efficiency (Mi-ACE)



4. Grid & Home Connected Energy Storage with Advanced Energy Management Systems
5. Reagentless Vital Sign Analyser (REVA)
6. Inline NIR Spectroscopy Analyser (INSPECTRA)
7. UGV Assisted Navigation
8. Edge-based Sensor Fusion
9. Harvest-Ready Tree Detection and FFB Detection & Counting
10. UV-curable Graphene Conductive Ink (Mi-UV GraphPrInk)
11. UV-curable Silver Conductive Ink (Mi-UV AgPrInk)
12. UV-curable Graphene Anti-static Ink (Mi-UV GraphASC)
13. Indoor Tracking System (ITS)
14. Machine Vision-Based Inline Quality Control (QC)
15. MIMOS TraceChain Platform

These projects have not only enhanced operational efficiencies across various sectors but have also laid the groundwork for future innovations.

Can you share a particular success story where MIMOS Berhad's research and development efforts have directly impacted the industry or society?

Additionally, MIMOS established MyDigital ID Sdn Bhd, which is currently introducing MyDigital ID, a secure identity verification system for online transactions, aiming to enhance digital security for the public. MyDigital ID system can be used in various applications such as e-Government, e-Commerce, and financial services, providing a secure and efficient platform for online identity management.

As soon as the YAB Prime Minister announced on November 21, 2023, that MIMOS Berhad had been appointed as the implementing agency for the MyDigital ID programme, apart from allocating a dedicated team of 50 personnel to carry out the project, MIMOS

immediately mobilised a dedicated deployment team starting with the Cabinet Minister and followed up by all ministries in Putrajaya to start onboarding.

MIMOS had also begun providing the required infrastructure for swift implementation including enhancement toward high availability, scalability and security. To entice users, MyDigital ID integrated its login option into the MySejahtera application in December 2023.

Furthermore, MIMOS has deployed Mi-UAP at the Government Online Service Gateway (GOSG), streamlining access to government services.

Malaysia achieved a notable leap in online services, ascending 13 places on the UNEGDI Online Service Index from 40th in 2016 to 27th in 2020. This success was driven by the collaborative work of MIMOS and MAMPU through the Government Online Service Gateway.

As a recognition of that success, MAMPU has been awarded the Malaysia Technology Excellence Award 2021 in the Software - IT Services Category by the Singapore Business Review.



Another significant ongoing project is REVA, an AI-enabled non-intrusive and non-invasive sensor designed to monitor blood haemoglobin count and other health indicators. REVA is expected to greatly improve the public's ability to manage and monitor their health effectively. REVA is targeted to go for its Medical Device Authority approval with the industry this year. The industry partner will take REVA for clinical tests at the healthcare providers.

These projects highlight MIMOS' commitment to leveraging technology for societal benefit.

In terms of partnerships and collaborations, what key alliances have been formed in 2023, and how have they enhanced MIMOS Berhad's objectives?

MIMOS has recently undergone a significant reorganisation. Throughout 2023, we have actively engaged with world-renowned institutions and identified

world-class leaders to enhance MIMOS' capabilities and capacity. This strategic effort aims to position MIMOS as a leading player in the industry by leveraging global expertise and fostering innovation within our organisation.

To date, we have initiated strategic partnerships and collaborations with prestigious institutions such as Phison Electronics Corporation, Foxconn, Tools for Humanity (TFH) Worldcoin, Protean International, China Electronics Technology Group Corporation (CETC), Xiamen University, Centre for Development of Advanced Technologies (CDTA) Algeria, and the Indian Institute of Technology (IIT), and many other renowned organisations. These collaborations are designed to leverage their world-class expertise to enhance our research capabilities, drive innovation, develop talent, increase core competencies and achieve significant advancements in our core areas of focus.





“ In 2023, MIMOS faced several primary challenges, focusing intently on attracting and retaining the right talents for R&D, as well as other operational functions. ”



Challenges

What were the primary challenges MIMOS Berhad faced in 2023, and how were they addressed?

In 2023, MIMOS Berhad faced several primary challenges, focusing intently on attracting and retaining the right talents for R&D, as well as other operational functions.

To attract and retain top talent, MIMOS implemented strategic initiatives to create a supportive and stimulating work environment, offering opportunities for continuous learning and development through specialised training programmes and workshops, competitive compensation packages, and clear career growth pathways. These efforts were aimed at ensuring that MIMOS has the skilled professionals necessary to carry on its mandate effectively.

On the technological front, MIMOS accelerated its R&D efforts, focusing on impactful projects. These innovations showcased MIMOS' commitment to addressing national and public needs.

MIMOS also enhanced its frameworks and invested in advanced security solutions to protect sensitive data and infrastructure, proactively mitigating risks and safeguarding assets.

By addressing the challenges of attracting and retaining talent, advancing technology, and enhancing cybersecurity, MIMOS Berhad effectively navigated the complexities of 2023, reinforcing its position as a leader in technological innovation and ensuring its continued ability to fulfil its mandate.



How has the global economic situation affected MIMOS Berhad, and what measures have been taken to mitigate these impacts?

The global economic landscape in 2023 has brought several challenges for MIMOS Berhad, including budget constraints, supply chain disruptions, and increased competition for talent. Despite these hurdles, we have taken proactive and strategic measures to ensure our continued success and growth.

First, we optimised our resource allocation to focus on high-impact projects aligned with our strategic priorities. By accelerating our R&D efforts in critical areas like blockchain technology, AI, and cybersecurity, we have delivered innovative solutions such as MyDigital ID for secure online transactions and REVA, our AI-enabled health monitoring system.

To tackle supply chain disruptions, we strengthened relationships with key suppliers and diversified our supply base to reduce dependency on any single source. This approach has maintained the stability and continuity of our projects, ensuring that we continue to deliver excellence.

In the face of intensified competition for talent, we have implemented several initiatives to attract and retain skilled professionals. Offering competitive compensation packages, opportunities for continuous learning and development, and fostering a culture of innovation and collaboration have made us a top choice for talent. These efforts have built a resilient and capable workforce dedicated to driving our mission forward.

Additionally, we have embraced digital transformation within our operations to improve efficiency and reduce costs. Leveraging advanced technologies and streamlining processes have enabled us to maintain operational excellence despite economic challenges.

Overall, while the global economic situation has presented difficulties, MIMOS Berhad has responded with resilience and strategic measures. We have mitigated the impacts and positioned ourselves for future growth and innovation. Our commitment to delivering cutting-edge solutions and maintaining leadership in the technology sector remains unwavering. Together, we are turning challenges into opportunities and driving forward into a bright and innovative future.



In the realm of R&D, what are the biggest obstacles to innovation that MIMOS Berhad has encountered, and what strategies are in place to overcome them?

As the Acting President & CEO of MIMOS, I am keenly aware of the challenges we face in the realm of R&D. However, these challenges also present opportunities for growth and transformation. Here are the biggest obstacles to innovation that MIMOS Berhad has encountered and the dynamic strategies we have in place to overcome them, inspired by world best practices:

1. **Resource Limitations:** Ensuring adequate funding and access to cutting-edge technology can be challenging. To overcome this, we have forged strategic partnerships and collaborations with local and international entities. For example, similar to how MIT collaborates with global tech giants to pool resources and share expertise, MIMOS partners with leading universities and industry leaders to enhance our research capabilities and access the latest technologies. This approach allows us to leverage shared resources and drive innovation forward.
2. **Talent Acquisition and Retention:** Attracting and retaining top talent is critical for our success. We have implemented robust talent acquisition, development, and retention programmes, offering competitive incentives to cultivate a thriving and innovative workforce. Inspired by Google's renowned work environment, we focus on creating an engaging and supportive culture. We offer opportunities for continuous learning and development, mentorship programmes, and competitive compensation packages to attract and retain the best minds in the industry.
3. **Regulatory and Compliance Hurdles:** Navigating the regulatory landscape can slow down innovation. To address this, we actively engage with policymakers to streamline processes and ensure our R&D activities align with national and international standards. Similar to how the

European Union's Horizon 2020 programmes collaborate with regulatory bodies to accelerate research projects, MIMOS works closely with government agencies to advocate for regulatory reforms that support innovation and reduce bureaucratic delays.

4. **Market Readiness and Adoption:** Bridging the gap between research and market implementation is often challenging. We enhance our market intelligence capabilities and collaborate with industry stakeholders to ensure our innovations meet market needs and are quickly adopted. Inspired by the approach taken by Stanford University's Technology Ventures Program, we engage with industry partners, conduct market research, and participate in industry forums to align our R&D efforts with real-world demands, ensuring our innovations are market-ready.
5. **Intellectual Property Management:** Protecting our innovations while promoting open collaboration requires a delicate balance. We have strengthened our IP management framework to safeguard our inventions while fostering an environment of knowledge sharing. Inspired by IBM's approach to open innovation, we create partnerships that encourage collaboration while maintaining robust IP protection strategies. This allows us to innovate freely while ensuring our intellectual assets are secure.



By addressing these obstacles head-on with targeted strategies, MIMOS Berhad is well-positioned to continue driving innovation and contributing to the technological advancement of the nation. Despite the unique challenges we face as an R&D institution under the purview of MOSTI, we remain resilient. The current economic climate has impacted our operational capacity, resulting in a nearly 50% reduction in our budget allocation. However, through strategic measures and unwavering commitment, we have successfully navigated these challenges.

We are not profit-driven like commercial enterprises, but our mission to advance technology for the nation remains steadfast. By fostering collaboration, attracting top talent, engaging with policymakers, aligning with market needs, and protecting our intellectual property, we ensure that MIMOS continues to be a beacon of innovation and excellence.

Together, we are turning obstacles into opportunities, driving a bright and innovative future for Malaysia.

Technology and Innovation

Looking at the technological advancements made this year, what emerging technologies do you believe are the most crucial for MIMOS Berhad's future projects?

At MIMOS Berhad, we are excited about the technological advancements made this year and believe that several emerging technologies will be pivotal for our future projects and continued success. Among these, three stand out as particularly transformative: Artificial Intelligence (AI), blockchain technology, and intelligent network security and infrastructure.

Artificial Intelligence (AI)

AI is revolutionising numerous sectors with its capabilities in data analysis, machine learning, and predictive analytics. At MIMOS, AI is integral to groundbreaking projects like REVA, our AI-enabled non-intrusive health monitoring system, and the MIMOS Autonomous Chiller Control & Energy Efficiency (Mi-ACE) system, which integrates AI and IoT to dramatically improve the energy efficiency of cooling systems in large buildings.



AI's potential to enhance healthcare, cybersecurity, and smart city solutions will be pivotal in our future R&D efforts. By harnessing AI, we are not only improving current technologies but also paving the way for smarter, more efficient solutions that will transform lives.

Blockchain Technology

Blockchain's ability to create secure, transparent, and tamper-proof systems has far-reaching implications. Our blockchain-based Vaccine Management System for COVID-19 exemplifies how this technology can ensure traceability and trust in public health initiatives. Looking ahead, we plan to expand our use of blockchain in areas such as supply chain management, digital identity verification with MyDigital ID, and secure government services. By leveraging blockchain, we are ensuring that our systems are not only innovative but also robust and reliable, fostering greater trust and efficiency across various sectors.

Intelligent Network Security and Infrastructure

Secured communication and network resiliency are paramount for national sovereignty. At MIMOS, we are pioneering in developing intelligent network security solutions to protect critical infrastructure from cyber threats. Our focus on secured communication ensures that data transmission across networks is not only fast but also highly secure, safeguarding against potential breaches. Additionally, our efforts in enhancing network resiliency ensure that our infrastructure can withstand and quickly recover from disruptions, maintaining continuity and reliability. By prioritising these areas, we are fortifying Malaysia's technological landscape against emerging threats, ensuring robust national security and sovereignty.

Additional Emerging Technologies

We are also exploring advancements in the Internet of Things (IoT) and edge computing. These technologies are crucial for enhancing connectivity, real-time data processing, and enabling the development of smart infrastructure and services. For instance, IoT will allow for more interconnected and intelligent systems, driving

the future of smart cities and automated environments, while edge computing will bring processing power closer to data sources, reducing latency and improving efficiency.

By focusing on these emerging technologies, MIMOS Berhad is positioning itself to drive innovation and deliver solutions that address the evolving needs of society. We are committed to leveraging these advancements to create a more secure, efficient, and connected future. Our dedication to exploring and implementing cutting-edge technologies ensures that we remain at the forefront of technological innovation, ready to meet the challenges and opportunities of tomorrow.

How does MIMOS Berhad stay ahead in a rapidly evolving tech landscape, and what role does the organisation play in shaping Malaysia's digital future?

MIMOS Berhad thrives in the rapidly evolving tech landscape through visionary leadership, relentless innovation, and strategic partnerships with industry and government stakeholders. Our forward-looking approach ensures that we remain at the forefront of technological advancements, driving Malaysia's digital future.

Pioneering Research and Development (R&D)

We are committed to pushing the boundaries of innovation by investing heavily in R&D across critical areas such as Artificial Intelligence (AI), blockchain, intelligent network security, and advanced microelectronics. Our cutting-edge projects, like MyDigital ID, the Teleprimary Care and Oral Health Clinical Information System (TPC-OHCIS), and the Malaysia Health Data Warehouse (MyHDW), exemplify our ability to deliver transformative solutions that address both current and future needs. By focusing on these emerging technologies, we ensure that MIMOS is not just keeping pace with global advancements but setting new benchmarks in technological innovation.

Fostering a Culture of Continuous Learning

At MIMOS, continuous learning and development are integral to our success. We provide our talent with



opportunities to upskill through specialised training programmes and workshops, ensuring our workforce remains at the forefront of technological expertise. This culture of innovation and learning allows us to rapidly adapt to new technologies and methodologies, fostering an environment where creativity and excellence thrive.

Strategic Collaboration and Ecosystem Building

Collaboration is the cornerstone of our strategy. We work closely with the Malaysian Government, academic institutions, and industry partners to foster a robust ecosystem for technological advancement. These partnerships enable us to align our projects with national priorities and leverage collective expertise to drive progress. Initiatives like MyDigital ID and the Government Online Service Gateway (GOSG) demonstrate how we enhance digital infrastructure and services for the public sector, creating a more connected and efficient society.

Catalyst for Digital Transformation

MIMOS Berhad plays a pivotal role in shaping Malaysia's digital future by acting as a catalyst for digital transformation. We provide thought leadership and technical expertise that guide national policies and strategies. Our initiatives are designed to create a secure, efficient, and inclusive digital environment that supports Malaysia's economic growth and improves the quality of life for its citizens.

Driving Technology Diffusion and Commercialisation

To ensure the impact of our innovations, we focus on technology diffusion, commercialisation, and venture incubation. By bridging the gap between research and market implementation, we enable new start-ups and SMEs to thrive, contributing to the nation's economic development. Our efforts in technology venture and incubation provide a stable foundation for sustainable growth and continuous innovation.

Vision for the Future

Our vision is to position Malaysia as a global leader in digital innovation. We are dedicated to driving the nation

towards this goal with our pioneering technologies, strategic collaborations, and unwavering commitment to excellence. By proactively shaping the future, we respond to the demands of the current tech landscape while preparing for the opportunities and challenges ahead.

Through these efforts, MIMOS Berhad is not just adapting to change; we are leading it. Our forward-thinking approach ensures that we remain a beacon of innovation, guiding Malaysia towards a brighter, more technologically advanced future. Together, we are building a legacy of excellence and driving the nation's digital transformation.

Looking Ahead

What are the main goals and priorities for MIMOS Berhad in 2024?

In 2024, MIMOS Berhad is poised to elevate the local Electronics & Electrical (E&E) sector and spearhead technological advancements through strategic collaborations with global entities such as Phison Electronics Corporation, China Electronics Technology Group Corporation (CETC), Xiamen University, Centre for Development of Advanced Technologies (CDTA) Algeria, and the Indian Institute of Technology (IIT). Our vision is clear and ambitious, reflecting our commitment to innovation, security, privacy, and national sovereignty.

1. Advancing AI and High-Performance Computing (HPC)

We are establishing robust HPC capabilities to propel AI innovations. Leveraging HPC will enable us to perform complex simulations and analyses, driving breakthroughs in AI that will benefit sectors such as healthcare, smart cities, and cybersecurity and seek to solve Malaysia's non-trivial problems such as food security and over-dependence on foreign labour. These advancements will ensure Malaysia remains at the forefront of AI technology while maintaining sovereignty and privacy.





“MIMOS Berhad stays ahead in the rapidly evolving tech landscape through strategic foresight, continuous innovation, and strong collaboration with industry and government stakeholders.”

2. Enhancing Government Efficiency and Security

MIMOS is dedicated to developing advanced systems that enhance the digitalisation of services and the operational efficiency of government ministries while ensuring data security and privacy. Through cutting-edge digital solutions, we will streamline processes, improve public service delivery, and bolster transparency and accountability within the public sector. By integrating robust security measures, we protect sensitive government data and uphold national sovereignty.

3. Empowering Local Companies

MIMOS is committed to boosting the competitiveness and capabilities of local companies by providing essential support and resources. We will help local enterprises innovate and thrive, contributing to Malaysia's economic growth by developing talent, sharing facilities and tools and providing new

technological innovations. Our initiatives will also ensure that local companies adhere to stringent security and privacy standards, safeguarding their innovations.

4. Attracting Investments and Enhancing Security

A key priority is the successful implementation of the Semiconductor Technology Centre (STC) Programme to attract foreign and local semiconductor investors. This initiative has already drawn six global-class wafer fabrication companies to invest in Malaysia, including in FUJI Electric, OSRAM Opto Semiconductors, On Semiconductor, X-Fab Sarawak, Silterra Malaysia, and Infineon Technologies Kulim. By attracting such investments, we are positioning Malaysia as a premier hub for semiconductor technology development ensuring that our technological infrastructure is secure and resilient.



Training and Skill Development

Since 2006, MIMOS has trained 6,248 engineers, researchers, and E&E graduates through the STC Programme, enhancing their skills to meet industry demands. The STC Programme has developed several local wafer fabrication process technology platforms, such as Digital & Analog Mix Signal CMOS, High Voltage MOSFET & Schottky Diodes, and Nano-materials Impregnated Sensors. These platforms are available for industry use, increasing the international competitiveness of local players.

Failure Analysis Laboratory

Our Failure Analysis Laboratory has been a cornerstone of the E&E sector's advancement, serving over 400 customers, including multinational companies, local firms, research institutions, and universities from 2000 to 2023. The lab completes approximately 1,000 technical services annually and plays a crucial role in testing and verifying electronics and Nano-electronic products, contributing to advancements in electric vehicles, battery/energy storage, bio-chips in smart devices, and precision healthcare.

Future Initiatives

Looking ahead, the STC plans to conduct R&D, commercialisation, and industrialisation (R&D&C&I) activities in high-value semiconductors under the High-Value Semiconductor Technology (HVST) programme. This programme will focus on advanced semiconductor packaging, wide bandgap semiconductors, and niche semiconductor technology. Ensuring that our innovations are secure and resilient will fortify Malaysia's position as a leader in semiconductor technology.

Enhancing the IC Design Industry

The STC aims to enhance the local integrated circuit (IC) design eco-system by providing state-of-the-art IC design facilities and supporting local companies in product and IP development. This initiative will empower local IC design companies to compete on the global stage with proprietary IP, moving beyond their current model of

serving multinational corporations to becoming leaders in innovation. MIMOS' collaboration with international partners enables alignment with global technological trends and market requirements.

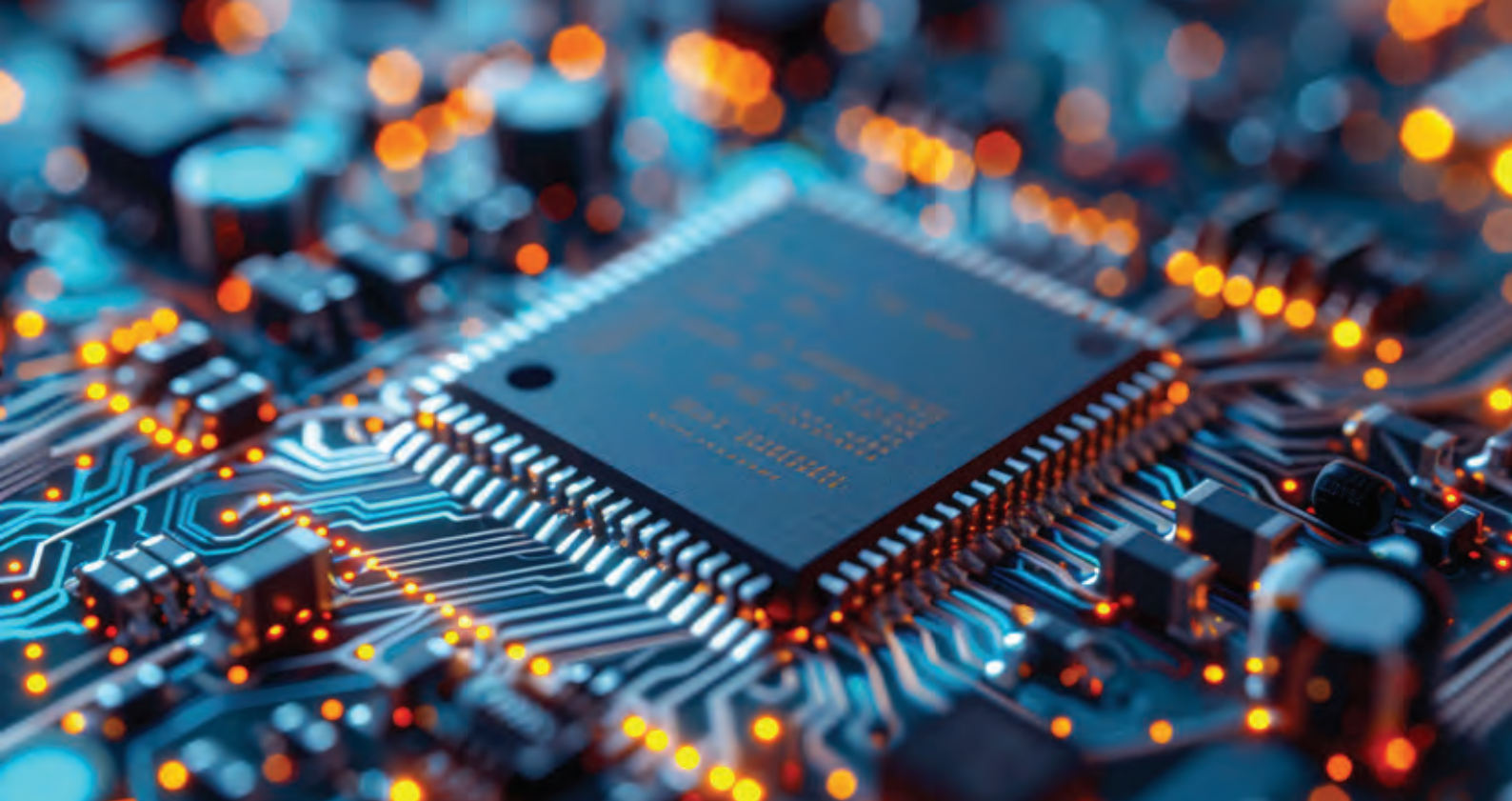
By focusing on these strategic priorities, MIMOS Berhad is not just responding to the demands of the current tech landscape but proactively shaping the future. Our dedication to pioneering technologies, fostering collaborations, and driving innovation ensures that we remain a beacon of technological advancement. We are committed to creating a secure, efficient, and connected digital future for Malaysia, upholding our values of innovation, security, privacy, and sovereignty. Together, we are building a legacy of excellence and driving the nation's digital transformation towards a brighter, more connected, and more prosperous future.

Can you discuss any upcoming projects or areas of research that MIMOS Berhad is particularly excited about?

MIMOS Berhad is thrilled about several upcoming projects and research areas that promise significant advancements in technology and robust support for various sectors, including government ministries. Our focus for 2024 is on transformative and high-impact initiatives that will drive innovation, enhance national security, and ensure Malaysia's technological sovereignty.

- 1. High-Value Semiconductor Technology (HVST) Programme**
 - **Advanced Semiconductor Packaging:** We are developing cutting-edge packaging techniques to improve the performance and reliability of semiconductor devices, positioning Malaysia as a leader in semiconductor technology.
 - **Wide Bandgap Semiconductors:** Our research into materials like silicon carbide (SiC) and gallium nitride (GaN) aims to create more efficient and robust semiconductors for high-power and high-frequency applications.





- **Niche Semiconductor Technologies:** We are focusing on specialised semiconductor technologies to meet specific industry needs, enhancing local expertise and competitiveness.
2. **Integrated Circuit (IC) Design**
 - **Local IC Design Support:** We are enhancing the capabilities of local IC design companies by providing state-of-the-art design facilities and assisting in the development of competitive local products and proprietary intellectual property (IP).
 - **IC Design Leadership:** By fostering innovation and collaboration among local companies and international partners, we are positioning Malaysia as a leader in the IC design industry.
 3. **Nano-Electronics Research:**
 - **Advanced Analytical Testing Laboratory:** We are expanding the lab capabilities to support industries in electric vehicles, batteries and energy storage, bio-chips in smart devices, and precision healthcare. The lab continues to provide critical technical services to a diverse range of clients, ensuring the highest standards of quality and reliability.
 4. **Artificial Intelligence (AI) and High-Performance Computing (HPC)**
 - **AI Innovations:** We are establishing advanced AI research projects leveraging conventional HPC as well as new hardware architectures to develop innovative solutions across various sectors, including healthcare, manufacturing, and government services.
 - **HPC Infrastructure:** Building robust HPC infrastructure to support complex computations and large-scale data processing required for AI research and development ensures we stay at the forefront of technological advancements.
 5. **Collaborative International Projects:**
 - **Global Partnerships:** We are strengthening collaborations with global entities such as Phison Electronics Corporation, China Electronics Technology Group Corporation (CETC), Xiamen University, Centre for Development of Advanced Technologies (CDTA) Algeria, and the Indian Institute of Technology (IIT). These partnerships bring cutting-edge technology and expertise to Malaysia, fostering innovation and growth.





6. Smart Manufacturing and Industry 4.0

- **Advanced Manufacturing Systems:** We are developing smart manufacturing solutions that incorporate IoT, AI, and automation to enhance productivity and efficiency in local industries.
- **Industry 4.0 Adoption:** By promoting the adoption of Industry 4.0 technologies among Malaysian E&E manufacturing companies, we aim to improve their competitiveness in the global market.

7. Government Ministries Research

- **Health Ministry Initiatives:** We are conducting research to support the Health Ministry's efforts in improving healthcare delivery through the use of AI and advanced data analytics. This includes developing predictive models for disease outbreaks, enhancing patient data security, and improving healthcare data management systems.
- **Efficiency Enhancements:** We are developing advanced systems to support the operations of various government ministries, making them more efficient and effective in public administration and their service delivery.

8. RMK-12 and RMK-13 Projects

- **Completion of RMK-12 Projects:** We are completing projects under the 12th Malaysia Plan (RMK-12) that focus on strengthening the foundation of the E&E sector, advancing digital transformation, and improving national technological capabilities.
- **Establishment of RMK-13 Projects:** We are defining and initiating projects under the 13th Malaysia Plan (RMK-13) to build on the achievements of RMK-12, focusing on high-value technologies, sustainable development, and enhancing Malaysia's position in the global tech landscape.

9. Strategic Research Fund (SRF) Projects

- **Innovative Research:** Leveraging the Strategic Research Fund to support high-impact research projects that address national priorities and emerging challenges, including renewable energy, cybersecurity, smart cities, and advanced materials.
- **Industry Collaboration:** Partnering with industry stakeholders to ensure the practical application and commercialization of research outcomes funded by the SRF, thereby driving economic growth and technological advancement.



These ambitious projects and research areas reflect MIMOS Berhad's unwavering commitment to driving technological innovation, supporting the Government's initiatives, and contributing to Malaysia's growth as a hub for high-tech industries and research excellence. Together, we are building a future that is secure, innovative, and prosperous for all Malaysians.

How does MIMOS Berhad plan to expand its impact on both the national and international stages in the coming years?

MIMOS Berhad is dedicated to significantly expanding its impact both nationally and internationally through our 2023-2030 Strategic Transformation Plan. This ambitious plan is built on key initiatives that align with our mandates, roles, responsibilities, vision, and mission:

1. Supporting National Goals

We are aligning our R&D activities with the Malaysian Government's vision of becoming a Digital Nation and achieving Zero-Carbon status by 2030. By developing innovative technology products and solutions, MIMOS will act as a catalyst for the technology industry, driving progress and sustainability.

2. Cutting-Edge Technology Development

Our commitment to producing stable, market-competitive innovations through dedicated research and development is unwavering. We aim to harness the latest advancements in fields such as AI, semiconductor technology, and cybersecurity to create solutions that address both local and global challenges.

3. Technology New Business Venture Exploration (Techno Ventures)

Through Techno Ventures, we are driving the effective and robust commercialisation of our technologies. By transforming groundbreaking ideas into viable business ventures, we will generate revenue, ensure MIMOS' sustainability, and contribute to economic growth and technological advancement.

4. Strong Governance and Efficient Operations

We are cultivating a high-performing, innovative, and trustworthy organisation through strategic human capital management, sound financial management, and other essential strategic functions. Our commitment to strong governance and efficient operations ensures agility, responsiveness, and a forward-thinking approach.

By adhering to these pillars, MIMOS Berhad aims to enhance our technological capabilities, secure financial sustainability, and achieve a leading position on both national and international stages. Our dedication to driving innovation, fostering collaboration, and building a brighter, more connected future for Malaysia is unwavering. Together, we are shaping the future of technology and creating a lasting impact that will resonate for generations to come.

In what ways is MIMOS Berhad working towards sustainability and environmental responsibility in its operations and research initiatives?

MIMOS Berhad is passionately committed to sustainability and environmental responsibility, embedding these principles into every facet of our operations and research initiatives. Our forward-looking strategies and collaborative efforts are designed to create a greener, more sustainable future for Malaysia and beyond. Here are the key ways we are making a significant impact:

1. Leading in Renewable Energy Technologies

We are at the forefront of R&D in renewable energy technologies, such as solar power. Our innovative solutions aim to harness clean energy, reduce carbon footprints, and support Malaysia's goal of achieving Zero-Carbon status by 2030.

2. Creating Energy-Efficient Systems

MIMOS is dedicated to developing energy-efficient systems that minimise environmental impact. By integrating advanced technologies like AI and IoT, we are enhancing the efficiency of various systems, from cooling solutions in large buildings to smart grid applications.





3. Promoting Sustainable Practices

Sustainability is at the heart of our operations. We continuously promote sustainable practices within our organisation and across our projects. This includes optimising resource use, reducing waste, and implementing green technologies in our facilities.

4. Collaborating for a Greener Future

We actively collaborate with industry leaders, academic institutions, and government agencies to develop and implement sustainable technologies. These partnerships enable us to leverage collective expertise and drive impactful environmental initiatives.

5. Focusing on Climate Resilience Technologies

Our R&D efforts are geared towards developing climate resilience technologies. This includes advanced sensors, smart resource management systems, and precision farming techniques that help mitigate the effects of climate change and support sustainable agriculture.

Through these initiatives, MIMOS Berhad is not just contributing to environmental sustainability; we are pioneering the path towards a greener, more resilient future. Our unwavering commitment to innovation and collaboration ensures that we are making meaningful strides in protecting our planet and fostering a sustainable legacy for future generations. Together, we are driving change and inspiring a brighter, eco-friendly future for all.

What challenges do you foresee in 2024, how do you as the leader plan to mitigate them, and what do we as an organisation need to do to support you?

As we look ahead to 2024, MIMOS Berhad anticipates several challenges that must be addressed to remain competitive in the E&E and digital markets. These include rapid technological advancements, intense competition, talent acquisition and retention, economic uncertainties, regulatory changes, and cybersecurity threats. To overcome these hurdles and propel MIMOS towards a prosperous future, we must unite as an organisation and embrace a strategic, innovative approach.



Strategic Initiatives to Address Challenges:

- Fostering Continuous Innovation:** We will make strategic investments in R&D to drive continuous innovation and adaptability. By focusing on niche areas and emerging technologies, we can stay ahead of the curve and set new industry standards.
 - Forming Strategic Global Partnerships:** Building strong partnerships with global tech companies, research institutions, and academia will enhance our competitive edge. These collaborations will bring new insights, technologies, and opportunities, reinforcing our position on the global stage.
 - Attracting and Retaining Top Talent:** To attract and retain the best talent, we will offer competitive benefits, professional development opportunities, and an inclusive work environment. Investing in our people is key to maintaining our innovative and dynamic workforce.
 - Mitigating Economic Uncertainties:** We will diversify revenue streams and optimise operational efficiency to navigate economic fluctuations. By being financially agile and resilient, we can sustain growth and stability.
 - Staying Informed and Compliant:** Keeping abreast of regulatory changes and maintaining robust internal processes will ensure we remain compliant and adaptable. Engaging with stakeholders through open communication and policy discussions will further support this effort.
- Enhancing Cybersecurity:** Addressing cybersecurity threats with advanced security measures and regular training is paramount. We will invest in cutting-edge technologies and cultivate a culture of vigilance to protect our data and infrastructure.

To achieve these goals, the collective effort and support of the entire organisation is crucial. Here's how we can work together:

 - Encourage Continuous Learning and Innovation:** Promote a culture of continuous learning and support technological advancements to stay at the forefront of the industry.
 - Support Strategic Investments:** Allocate resources to key areas such as R&D, talent development, and cybersecurity, ensuring we prioritise initiatives that drive growth and sustainability.
 - Foster Teamwork and Collaboration:** Promote teamwork through cross-functional teams, leveraging diverse perspectives and skills to tackle challenges effectively.
 - Stay Agile and Flexible:** Remain adaptable to market changes and emerging challenges, ensuring we can pivot quickly and seize new opportunities.
 - Empower Leadership:** Provide leadership with the tools and support needed to drive strategic initiatives, ensuring we have the capacity to lead the organisation towards our vision.



By working together proactively, MIMOS can thrive as a leader in the digital sector. Our resilience, innovation, and competitiveness will ensure we not only overcome challenges but also seize new opportunities, shaping a brighter future for our organisation and contributing to Malaysia's technological advancement. Together, we are building a legacy of excellence and innovation that will resonate for generations to come.

Finally, what message would you like to convey to the stakeholders and partners of MIMOS Berhad as we look towards the future?

As we look to the future, we at MIMOS Berhad are filled with a profound sense of purpose and boundless optimism. Our commitment to driving innovation, fostering sustainability, and enhancing the competitiveness of Malaysia's Electronics & Electrical (E&E) and digital sectors remains unwavering.

We envision a future where technology and environmental stewardship go hand in hand. Through cutting-edge research and strategic collaborations, we are creating solutions that address today's challenges while building a sustainable and prosperous tomorrow. Our work in advancing artificial intelligence (AI), high-performance computing, and developing energy-efficient and renewable energy technologies underscores our dedication to this vision.

Our Semiconductor Technology Centre (STC) Programme and our unwavering support for local companies are testament to our goal of positioning Malaysia as a global tech leader. We believe that by fostering innovation and empowering local talents, we can achieve remarkable advancements and contribute significantly to the global tech landscape.

The cornerstone of our success lies in strong partnerships and collaborations. We are immensely grateful for the continued support of our stakeholders and partners. Together, we can drive impactful change, overcome challenges, and create a better future for all.

As we move forward, we invite all stakeholders and partners to join us on this exhilarating journey of innovation and sustainability. Let's work together to seize opportunities and build a brighter, more connected future for Malaysia and the world.

We extend our heartfelt gratitude to our stakeholders, partners, and employees for their unwavering support and invaluable contributions. Your dedication and collaboration are the bedrock of our achievements, and we are excited about the limitless possibilities that lie ahead.

Thank you for being an integral part of our journey. Together, we are shaping a future of excellence, innovation, and sustainability.



Acknowledgement

“ Thanks to employees, partners, and stakeholders for their contributions and support. ”



In 2023, MIMOS Berhad achieved significant milestones, thanks to the unwavering dedication and innovative spirit of our employees, the invaluable collaboration with our industry partners and research institutions, and the steadfast support from our stakeholders, including MOSTI and the Government.

Our employees' hard work and creativity have propelled us to develop groundbreaking solutions that address pressing societal needs and set new benchmarks in technology. Your commitment and passion are the driving forces behind our success, and we are immensely proud of our team's achievements.

The trust and cooperation from our industry and research partners have been instrumental in pushing technological boundaries and delivering impactful projects. Your collaboration has empowered us to explore new frontiers and make meaningful advancements that benefit both Malaysia and the global community.

The steadfast support from MOSTI and the Government has been crucial to our growth and achievements. Your guidance and belief in our vision have enabled us to navigate challenges, seize opportunities, and make significant strides in shaping Malaysia's digital future.

As we move forward, we remain committed to innovating, inspiring, and making a lasting impact. We are confident that our collective efforts will lead to even greater accomplishments. Together, we will continue to drive progress, embrace new challenges, and build a brighter, more connected future for Malaysia and beyond.

Thank you for being an integral part of our journey. Your contributions and support are the bedrock of our success, and we are excited about the limitless possibilities that lie ahead. Together, we are shaping a future of excellence, innovation, and sustainability.

Dr Saat Shukri Embong

Acting President & CEO, MIMOS Berhad



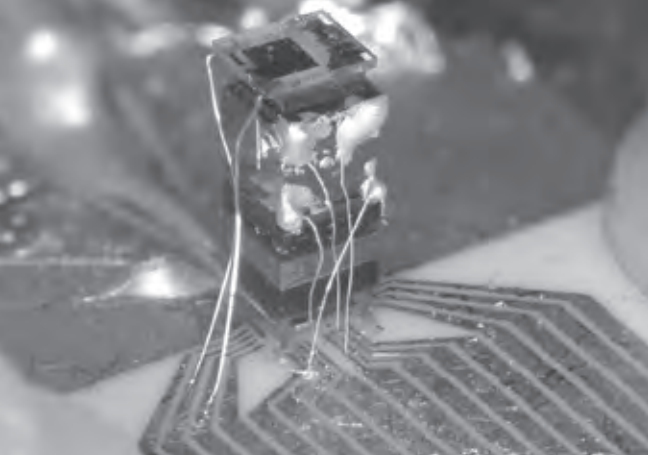


ABOUT MIMOS BERHAD

History and Evolution

Established in 1985 under the Prime Minister's Department, MIMOS began its journey with a singular focus on research and development (R&D) in Microelectronics. Over the decades, MIMOS has transformed into Malaysia's national Applied R&D Centre, becoming a pivotal force in the growth of the electrical and electronic (E&E) industry and advancing the nation's Information and Communications Technology (ICT) vision. This remarkable evolution has been instrumental in positioning Malaysia as a high-technology nation, fostering innovation, and driving socio-economic development.

Operating under the Ministry of Science, Technology and Innovation (MOSTI), MIMOS has emerged as a premier innovation centre with a strong emphasis on Semiconductors, Microelectronics, and ICT technologies. Our role in fuelling Malaysia's socio-economic progress is underscored by the creation of patentable technology platforms, products, and solutions. Since our inception, MIMOS has amassed a portfolio of over 2,000 patents across various technology domains and vital socio-economic sectors, significantly contributing to Malaysia's digital transformation on a global scale.





As a hub of research excellence, MIMOS strategically focuses on key areas: Semiconductors & Thin Film Research, Advanced Electronics & Embedded Systems, Manufacturing Technologies, and Smart Nation Technologies. These focus areas are designed to elevate Malaysia's standing in the global semiconductor market, develop core electronic designs and systems for domestic industries, enhance manufacturing processes through advanced technologies, and establish a foundation of smart technologies crucial for national development and economic growth.

Our R&D efforts in these sectors aim to foster innovation, improve efficiency and productivity, and elevate quality through strategic partnerships and collaborative research initiatives. MIMOS is committed to expanding collaborations with key strategic partners, exploring new alliances, fostering technology ventures, and maintaining a culture of trust, innovation, and high performance.

As we look to the future, MIMOS is dedicated to driving technological advancements and creating solutions that address today's challenges while building a sustainable and prosperous tomorrow. Our unwavering commitment to applied research and global technology entrepreneurship ensures that we continue to inspire, innovate, and impact lives positively. Together, we are shaping the future of technology and creating a lasting legacy for Malaysia and the world.





Vision

To be the frontier applied Research and Development (R&D) Centre in Electrical and Electronics (E&E) and Information Communication Technology (ICT).

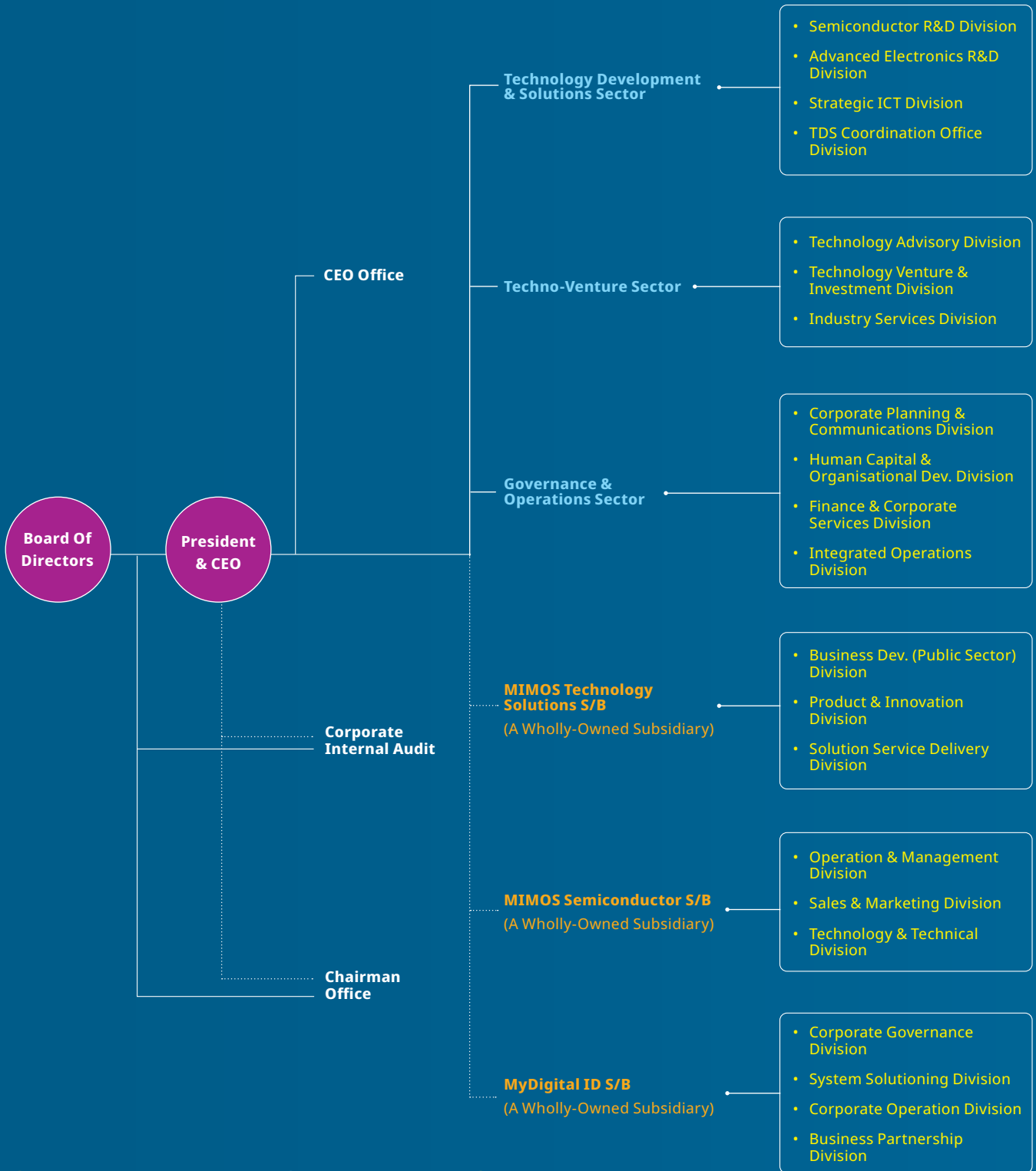
Mission

Pioneering innovation and technology development towards creating a local industry that is globally competitive.





Organisational Structure



● L1 | Head of Subsidiary

● L1 | Sector

● L2 | Division



MIMOS TECHNOLOGY PRODUCTS AND SOLUTIONS



MIMOS research and development (R&D) underscores the government's commitment to fostering innovation and propelling Malaysia towards a green future. These technologies drive economic growth, enhance industry sustainability, and maintain Malaysia's global competitiveness. MIMOS also promotes collaboration among the government, industry, and academia in integrating new technologies into the economy. To date, 43 technologies have been commercialised, generating a revenue of RM209.83 million, indicating strong industry acceptance.

Ongoing R&D Projects

Currently, MIMOS is actively engaged in 29 R&D projects. Some notable projects with a direct impact on the public include:

- i. **Residential Modular Energy Storage:** EPowerPack is a modular system designed to efficiently manage residential energy needs amid the growing use of renewable sources like solar and wind. It offers scalable storage capacity, allowing homeowners to start with a smaller system and expand as needed. Customisable solutions optimise backup power, maximise solar energy usage, and support demand response programmes. Advanced battery management technology ensures efficient energy use with minimal losses, and the system provides reliable backup power during outages. EPowerPack is ideal for time-of-use energy management, backup power, and electric vehicle charging.
- ii. **MIMOS Autonomous Chiller Control & Energy Efficiency (Mi-ACE) System:** Mi-ACE offers notable benefits, including a 12-20% reduction in electricity bills, extended chiller lifespan through soft start and stop, and a digital maintenance system with real-time

data on chillers, pumps, cooling towers, air handling units, and valves. It ensures optimal building climate control, maintains occupant comfort, and reduces carbon footprint by enhancing chiller efficiency and lowering noise and emissions. Mi-ACE is ideal for centralised air conditioning in malls, office buildings, hospitals, airports, and industrial facilities, and is compatible with air-cooled and water-cooled chillers, including reciprocating, centrifugal, screw, and scroll compressors.

- iii. **Reagentless Vital Sign Analyser (REVA):** A portable, non-invasive device for measuring haemoglobin levels, with the potential to add measurements for glucose, urea, vital signs, and creatinine. Key benefits include AI and machine learning for precise spectral processing, a cloud-based platform that processes data 50% faster than current systems, and a compact, lightweight design for easy portability. It is ideal for use by healthcare providers and medical centres.



iv. **Traceability:** TraceChain combines MIMOS' traceability platform (Mi-Trace) with blockchain technology to deliver transparent and immutable data. Successfully used in the National COVID-19 Vaccine Management System and Procter & Gamble's sustainable palm oil compliance system, it offers enhanced transparency with secure, unchangeable transaction records, increased security by minimising fraud and counterfeiting risks, and improved efficiency through the automation of manual processes, resulting in faster processing and reduced costs. It is suitable for traceability, logistics, and supply chain management.

Future Commercialisation Goals

MIMOS has developed 72 unique technology platforms from its R&D initiatives, with 15 Twelfth Malaysia Plan (RMK12) technologies currently available. MIMOS aims to commercialise all 15 solutions presented at MTP 2024, as the industry recognises their potential value and applications. MIMOS anticipates that 12 of these solutions will garner immediate industry interest and be deployed or commercialised by the end of 2024. The goal is to commercialise all current R&D projects, estimating that 20 projects will be commercialised by the end of 2025, with others following in 2026 and 2027.

Widely Used Technologies

MIMOS technologies are extensively utilised in various applications, including:

Mi-ARMC, Mi-BIS, Mi-Clip, Mi-Morphe, Mi-ROSS, Mi-Cloud, Mi-Mocha, Mi-AcLib, Mi-Harmony, and Mi-UAP: Employed in MyHDW to aid the Ministry of Health in managing and analysing public health data.

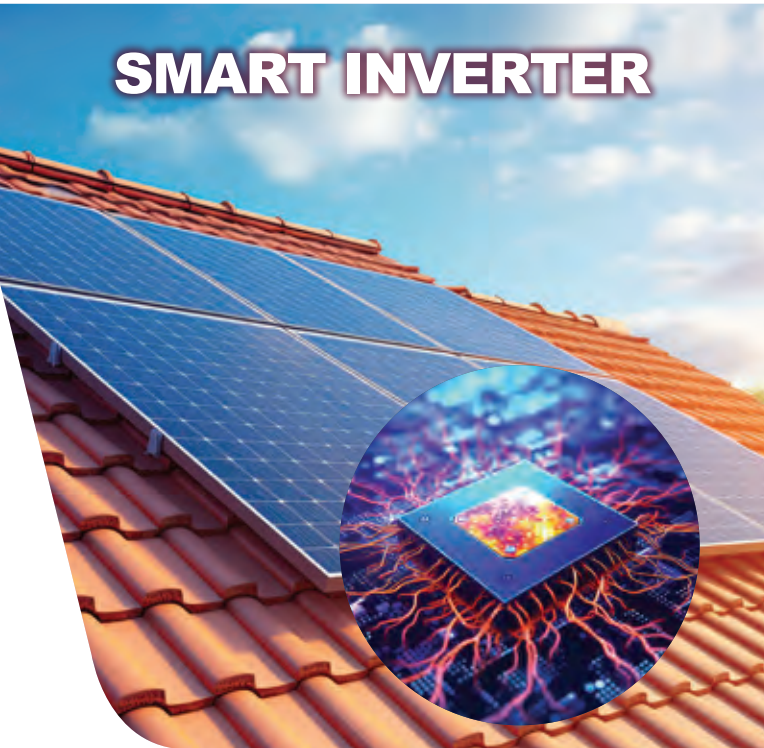
Mi-ARMC, Mi-IDS, Mi-BIS, Mi-Clip, Mi-ESB, Mi-Cloud, Mi-Crypto, and Mi-UAP: Used in TPC-OHCIS to enable patient data management in many health clinics.



OPERATIONAL HIGHLIGHTS



Key Projects and Initiatives:



Smart Inverter for Solar: Enables maximum power point tracking (MPPT) at the module level, optimising overall output by maximising each module's performance. It offers module-level monitoring and diagnostics for remote digital access. Key benefits include multi-module technology supporting 2, 4, and 6 PV modules per inverter, reducing installation costs by requiring fewer inverters and modules while maintaining high efficiency. The cloud connectivity platform provides comprehensive tools for monitoring, managing, and troubleshooting photovoltaic installations, with features like visual energy production data, in-depth analytics, and proactive alerts for component failures. This technology is ideal for residential and small commercial applications.

Residential Modular Energy Storage: EPowerPack is a modular system designed for residential energy storage, addressing the need for efficient energy management with the rise of renewable energy sources like solar and wind. Its main benefits include scalable storage capacity, allowing homeowners to start small and expand as needed; customisable storage solutions to optimise for backup power, maximise solar energy consumption, or participate in demand response programmes; advanced battery management technology for efficient energy use and minimised losses; and enhanced reliability, providing backup power during outages to maintain essential services. EPowerPack is ideal for time-of-use energy management, backup power, and electric vehicle charging.





Mi-Suria

Smart Photovoltaic Monitoring System (PVMS): **Mi-Suria** is a Universal PVMS developed by MIMOS, compatible with multiple brands of string or microinverters, offering greater flexibility than commercial PVMS. It provides a single interface for monitoring and consolidating consistent information across various photovoltaic inverters. Mi-Suria's benefits include insights into environmental impacts like carbon emissions saved and trees planted, a plant portfolio view with drill-down capabilities for each plant's capacity, and value-added statistics such as weather forecasts and real-time revenue data. It is suitable for hybrid power systems, large-scale power plants, and residential or commercial solar systems.



Mi-ACE

MIMOS Autonomous Chiller Control & Energy Efficiency (Mi-ACE) system: Mi-ACE provides significant technology benefits, including reducing electricity bills by 12-20%, extending chiller life expectancy through soft start and stop, and offering a digital maintenance system with real-time data on chillers, pumps, cooling towers, air handling units, and valves. It ensures optimal building climate control, keeps occupants comfortable, and minimises carbon footprint by maintaining chiller efficiency and reducing noise and emissions. Mi-ACE is suitable for centralised air conditioning facilities like malls, office buildings, hospitals, airports, and industrial facilities, and is compatible with air-cooled and water-cooled chillers, including reciprocating, centrifugal, screw, and scroll compressors.





G-Energy



Grid & Home Connected Energy Storage with Advanced Energy Management System: The **G-Energy** system, built with modular lithium-ion battery banks, converters, controllers, and advanced cloud-based energy monitoring and management systems, balances intermittent solar PV sources and performs peak shaving in a distribution grid network. It reduces carbon emissions and serves as a backup power source. Key benefits include a fully integrated energy storage system for maximum demand shaving, carbon emission mitigation, and centralised monitoring and control for operational improvement. G-Energy is suitable for light or heavy industries and manufacturing applications.

REVA



Reagentless Vital Sign Analyser (REVA): A portable, non-invasive haemoglobin meter and vital signs analyser, initially measuring haemoglobin count with the potential to include glucose, urea, vital sign readings, and creatinine. Key benefits include the use of AI and machine learning for accurate spectral processing, an advanced cloud-based platform for faster processing (50% quicker than current platforms), and a compact, lightweight design for ease of use and portability. It is ideal for healthcare providers and medical centres.





INSPECTRA

Inline NIR Spectroscopy Analyser (INSPECTRA): Provides real-time, inline analytical measurement for palm oil quality monitoring using NIR spectroscopy, enabling rapid, non-destructive, and non-chemical measurement of key quality indicators such as free fatty acids (FFA), oil content, water content, and non-oil solids, thereby improving process optimisation and cost-efficiency. Its key benefits include a built-in predictive model algorithm mechanism based on chemometric analysis for calibration and live data visualisation and reporting accessible via Windows, Android, and iOS devices. Applications extend to monitoring quality parameters in palm oil (FFA, oil content, water content, NOS), milk and dairy products (moisture, ethanol, ergot, protein), fruits and vegetables (starch, sugar, fat, acrylamide), brown rice (protein, moisture), grain and grain products (moisture, ethanol, ergot, protein), and meat (fat, moisture, protein).

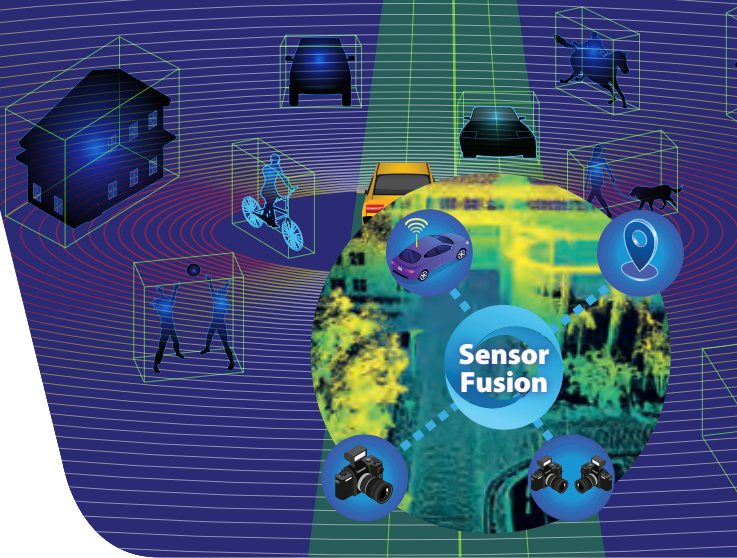


UGV

Unmanned Ground Vehicle (UGV) Assisted Navigation: UGV Assisted Navigation offers an advanced solution for Unmanned Ground Vehicles (UGVs) in off-highway environments like agricultural plantations, construction sites, and mining quarries. This system provides precise and reliable position and orientation data, enabling efficient navigation from the starting point to the intended destination with optimised path and trajectory guidance. Its integrated navigation system ensures accurate UGV positioning and orientation, making it ideal for UGV navigation in agriculture, construction, and mining.



Edge-Based Sensor Fusion



Edge-Based Sensor Fusion: Focuses on Environment Perception technology which enhances cognitive understanding, localisation, and mapping of real environments by processing multiple sensory inputs—such as visual data, LIDAR, and positioning—on an edge device to determine a mobile robot’s position and its perception of the environment. Its main benefits include accurate positioning and localisation in both indoor and outdoor settings and flexible sensor configurations for various sensor types, allowing customisation for diverse applications. It is suitable for site mapping in environments like manufacturing plants, plantations, campuses, and construction sites.

Harvest-Ready Tree Detection



Harvest-Ready Tree Detection: Uses machine learning-based computer vision to identify and classify oil palm trees for harvest readiness. It detects loose fruitlets on the ground near the tree and marks the tree’s location on a semantic map of the plantation. This helps plantation owners efficiently deploy workers to cut fruit bunches, saving time and boosting productivity. Key benefits include improved plantation mapping for efficient harvesting, reducing missed trees and enhancing labour productivity, and seamless integration with various mobility platforms for easy operation with minimal training. It is specifically designed for pre-harvesting in oil palm plantations.

Mi-UV GraphPrInk



UV-curable Graphene Conductive Ink (Mi-UV GraphPrInk): A proprietary graphene-based conductive ink technology designed as a cost-effective alternative to metal-based inks used in the Electrical & Electronics (E&E) industries. It enables the development of next-generation printed electronics, wearable technology, and flexible electronics. Key benefits include an 80% reduction in metal content without sacrificing conductivity, low ink volume requirements due to high jettability, and consistent quality of hybridised graphene. Additionally, being carbon-based, graphene ensures environmental sustainability. The technology supports the creation of new conductive ink products through advanced chemical synthesis, leading to innovations in nanosensing materials, conductive interconnects, coatings, and flexible electronics. It is suitable for E&E industries, SMEs, and government applications.

Mi-UV AgPrInk



UV-curable Silver Conductive Ink (Mi-UV AgPrInk): A proprietary silver-based conductive ink technology designed for the Electrical & Electronics (E&E) industries. It features a water-based formulation with advanced nanomaterials, allowing for the development of next-generation printed electronics, wearable technology, and flexible electronics. Its benefits include a low curing temperature of 40°C, making it suitable for thermal-sensitive substrates like PET or PEN, low cost due to functionalised silver nanoparticles that prevent oxidation and require less ink volume for high conductivity, and enabling rapid prototyping and scalable production for various applications such as nanosensing materials, conductive interconnects, and flexible electronics. It applies to E&E industries, SMEs, and government projects.



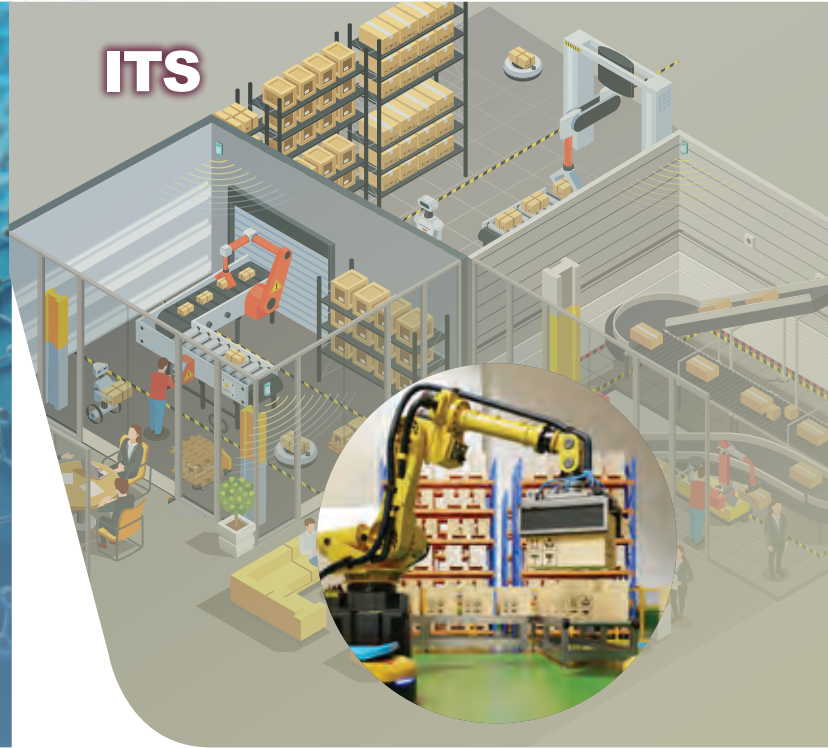


Mi-UV GraphASC

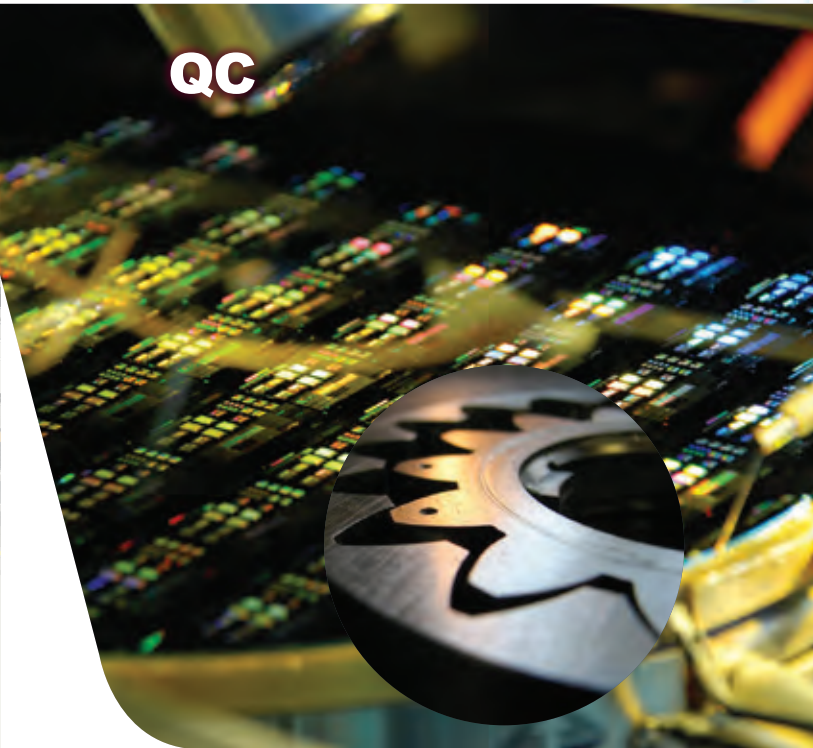


UV-curable Graphene Anti-static Ink (Mi-UV GraphASC): A cost-effective anti-static coating containing advanced alkoxy silane-functionalised graphene nanoplatelets (GNP), designed for flexible surfaces to prevent electrostatic charge build-up. It offers excellent ESD properties with low haze, high transmittance, and good adhesion to flexible polymer substrates. The technology benefits from a low-cost, one-pot preparation technique using non-toxic chemicals, enhancing environmental sustainability with its water-based formulation. It provides high optical transparency and low haze, enabling the development of electronic packaging and other applications through simple, cost-effective processes. It is suitable for the E&E industries, SMEs, and government projects.

ITS



Indoor Tracking System (ITS): Uses Ultra-Wideband (UWB) technology to provide high-accuracy location tracking and real-time data collection for IoT applications in Industry 4.0 environments. It includes tracked tags, fixed anchors, communication gateways, and a central server for receiving, storing, and analysing tag positions, with distance measured by time-of-flight for precise positioning. Its benefits include enabling digital twin simulations for enhanced analysis and decision-making in IoT and smart manufacturing and serving as a catalyst for Industry 4.0 innovations. ITS is applicable in manufacturing, retail, healthcare, and tourism.



QC

Machine Vision-Based Inline Quality Control (QC): Utilises AI and machine learning for advanced visual inspection on manufacturing lines. It screens out defective components to ensure high product quality, automatically detecting complex defects that traditional methods might miss. Key benefits include a machine learning algorithm that creates predictive models for defect classification and detection and a platform that offers customised model training, visualisation, and reporting. It is suitable for applications in semiconductor wafer manufacturing, electrical and electronics components, wire bonding, and other areas.



TraceChain

Traceability: TraceChain integrates MIMOS' traceability platform (Mi-Trace) with blockchain technology to provide transparent and immutable data. It has been effectively used in solutions like the National COVID-19 Vaccine Management System and Procter & Gamble's sustainable palm oil compliance system. Key benefits include increased transparency through secure, immutable transaction records, enhanced security by reducing fraud and counterfeiting risks, and improved efficiency by automating manual processes, leading to faster processing and reduced costs. It is applicable in traceability, logistics, and supply chain management.



OPERATIONAL HIGHLIGHTS



Achievements & Recognitions

Gaining recognition is crucial for MIMOS because it validates its expertise and accomplishments in the industry. Acknowledging its achievements helps MIMOS build credibility and trust among stakeholders, attracting potential collaborators and partners who value its capabilities. This recognition also enhances visibility, opening doors to new opportunities for funding, collaborations, and technological advancements. Ultimately, it positions MIMOS as a leader in its field, driving continued growth and impact in innovation and technology.

4 May 2023

MIMOS Industrial Designer Mohd Nizam Najmuddin wins Gold in the Hyundai Elevator Global Idea Contest. 'The Floating Bunga Raya', is one of 6 Gold awards presented to countries; Korea, Malaysia, China, Turkey, Indonesia and Vietnam.



11 & 12 May 2023

MIMOS took part in the ITEX Invention & Design Competition – bagging three gold awards for its inventions: REVA (Reagentless Vital Sign Analyser); Automated Vision System (machine learning-based computer vision analysis for harvests and tree tagging), and Applying Machine Learning Techniques (automated machine learning-based techniques to detect and mitigate complex manufacturing defects). The team also secured silver for MIMOS Artificial Intelligence for Near Infrared Spectroscopy (AINS).



15 May 2023

Nano Malaysia Berhad held a NANOTrust and GRAPHENEVerify Product Certification event, launched by YB Datuk Arthur Joseph Kurup, Deputy Minister of MOSTI, where MIMOS received the Nanoverified Certification for its Mi-GraphASC and Mi-GraphPrink.



STAKEHOLDER ENGAGEMENTS



Engaging with stakeholders across various groups, Government and Ministries, Industry Players, Academia, the Public, and Staff, is integral to MIMOS' success.

Continuous dialogue with Government and Ministries builds regulatory alignment, secures crucial support for initiatives, and facilitates access to funding and policy guidance. Collaboration with industry fosters innovation validation, market relevance, and potential commercialisation of MIMOS technologies, enhancing industry partnerships and economic impact. Engagement with academia promotes knowledge exchange, validates research outcomes, and supports MIMOS technological advancements with cutting-edge research and talent development. Engaging with the public ensures the MIMOS' initiatives address societal needs, enhance public trust, and promote technology adoption through transparency and community involvement. Whereas, internal engagement cultivates a motivated workforce, fosters innovation from within, and aligns organisational goals with employee aspirations, driving sustained organisational success and talent retention.

Government & Ministries

3 & 4 Feb 2023

A two-day Science, Technology, and Innovation (STI) Carnival at the Universiti Pendidikan Sultan Idris (UPSI), Tanjung Malim, Perak. The event was officiated by MOSTI Minister YB Chang Lih Kang, and attended by MOSTI Deputy Minister YB Datuk Arthur Joseph Kurup, and MIMOS President and CEO Dr Iskandar Samad.



15 - 17 Mar 2023

MIMOS partnered with MOSTI, the Ministry of Communications and Digital (K-KOM), and the International Telecommunication Union (ITU) to host the "AI Socialisation: Gender Inclusion & Empowerment". Key addresses were given by YBhg Datuk Ts Dr Mohd Nor Azman Bin Hassan, Deputy Secretary General (Technology Development), MOSTI, and Ms Atsuko Okuda, Regional Director, ITU.



6 Apr 2023

Pn Aidawati Misdar, Secretary, Strategic Technology and S&T Application Division, paid a working visit to MIMOS to understand its role, function, infrastructural needs, and facilities related to science, technology, and innovation (STI) to support the growth of the country's technology industry, as well as MOSTI's STI initiatives.



17 May 2023

MIMOS President and CEO, Dr Iskandar Samad and MIMOS Senior Researcher Ir Dr Nordin Ramli met with the MITI delegation, led by Muhammad Zulhilmi Ahmad, Director of the Industry Development Division, to strengthen collaboration in boosting Malaysia's E&E industry.



25 May 2023

MIMOS Chairman YBhg Dato' Sri Dr Ibrahim Ahmad met with YAB Dato' Seri Anwar Ibrahim, Prime Minister of Malaysia, at the Prime Minister's Office to discuss the future direction of the Electrical and Electronics (E&E) industry in Malaysia and MIMOS' transformation in alignment with the nation's aspirations.



27 Jun 2023

The TVET Madani Portal launch ceremony included the signing and sealing of a memorandum of cooperation between the government, government-linked companies (GLCs), and private companies.



3 Aug 2023

MIMOS was part of the MCY Summit 2023 a platform fostering corporate partnerships to drive growth and innovation. The MIMOS team held a talk titled, "MIMOS: Empowering Industries with Technology Solutions & Services" and MIMOS' booth, which featured cutting-edge research, was visited by Prime Minister, YAB Dato' Seri Anwar Ibrahim, accompanied by Science, Technology, and Innovation Minister, YB Chang Lih Kang and Deputy Minister YB Datuk Arthur Joseph Kurup. MIMOS President and CEO, Dr Iskandar Samad, provided an overview of the displayed innovations.



10 & 11 Oct 2023

The National Nanotechnology Centre (NNC) of the Ministry of Science, Technology, and Innovation (MOSTI) organised the National Nano Programme (NANOkeb) 2023, inaugurated by YB Datuk Arthur Joseph Kurup, Deputy Minister of MOSTI. A technical workshop was conducted discussing Nanofabrication and Nanocharacterisation led by MIMOS' Dr Lee Hing Wah and his team.



19 Oct 2023

Datuk Azman bin Mohd Yusof, Secretary General of the Ministry of National Unity, visited the MIMOS booth at the Digital Exhibition for the Unity Digital Day Programme held at the Ministry of National Unity. The event was designed to provide an interactive platform for ministries and agencies to gain first-hand insight into various digital services.



21 Nov 2023

MIMOS welcomed Malaysia's Prime Minister (PMX), YAB Dato' Seri Anwar Ibrahim, for an official visit to MIMOS Berhad. On that day, PMX also appointed MIMOS to spearhead the National ID project (MyDigital ID). The visit was accompanied by YB Datuk Seri Saifuddin Nasution Bin Ismail, Minister Home Affairs; YB Dr Zaliha Binti Mustafa, Minister of Health, and YM Tengku Datuk Dr Mohd Azzman Shariffadeen, Founder of MIMOS and President of the Science Academy of Malaysia (ASM), who also serves as Malaysia's Adviser on Science, Technology, and Innovation (STI).



Industry Players

17 Feb 2023

MIMOS recently signed an MoU with Dagang Nexchange Bhd (DNeX) to discover opportunities in leveraging government strategic projects and initiatives towards technological and digital development.



21 - 22 Feb 2023

Three MIMOS top researchers attended the AI ASIA EXPO 2023 in Bangkok, Thailand. Led by Dr Hon Hock Woon with Muhammad Hafiz Laili, and Muhammad Syargawi Abdullah, the MIMOS trio showcased cutting-edge AI-based technologies like INSPECTRA, and REVA.



16 Mar 2023

Mr Eric Conrad, Amazon Web Services (AWS) Regional Managing Director met with MIMOS Chairman, Dato' Sri Ibrahim Ahmad, its President/CEO, Dr Iskandar Samad, and CEO of MIMOS Technology Solutions Sdn Bhd, Mr Faisal Ahmad to explore collaboration opportunities in the cloud business.



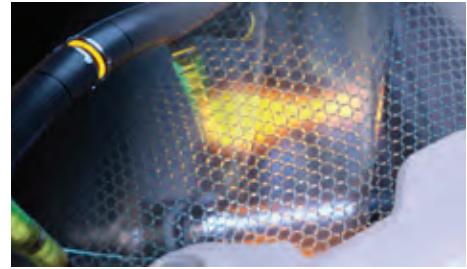
15 Feb 2023

MIMOS Services Sdn Bhd (formerly known as MIMOS Semiconductor Sdn Bhd) a subsidiary of MIMOS, together with Hi-Tech Instruments Sdn Bhd, organised a full-day workshop training technology players and research academics to optimise the use of Raman Spectroscopy technology solutions via the various HORIBA Raman spectrometers.



11 Apr 2023

The National Nanotechnology Centre (NNC) made a courtesy call to MIMOS to further discuss its National Nanotechnology Centre Model, opening an opportunity for collaborative R&D on Nanotechnology.



14 Apr 2023

MIMOS Services Sdn Bhd (formerly known as MIMOS Semiconductor Sdn Bhd), accompanied 40 IEM members to view the MIMOS lab facilities and witness first-hand the state-of-the-art equipment and technology we use in our R&D and industry engagements.



18 Apr 2023

MIMOS Services Sdn Bhd, MSSB (formerly known as MIMOS Semiconductor Sdn Bhd) held a technology expert talk by SOLS Energy Sdn Bhd for fellow MIMOSians on renewable energy.



9 May 2023

A delegation from Sime Darby Plantation Research Sdn Bhd, led by Dr Harikrishna Kulaveerasingam, Chief Research & Development Officer, and joined by Ir Dr Mohd Shiraz Aris, Head, Processing Technology, Encik Mohammed Faisal Mohammed Yunus, Head, Processing & Engineering, and Encik Mohd Shafril Baharudin, Principal Engineer, Process Control & Automation visited MIMOS to update its current R&D collaboration with MIMOS.



8 Jun 2023

Prof Simon Deleonibus, a well-known researcher in the semiconductor field, covers the new routes and paradigms for device engineering in the Nanoelectronics and Nanosystems era.



26 Jun 2023

A Memorandum of Understanding (MoU) exchange took place at the Energy Asia 2023 Conference, witnessed by MIMOS Chairman, Dato' Sri Ibrahim Ahmad. President/CEO of MIMOS, Dr Iskandar Samad, and Faris Mustaffa, Managing Director/CEO of Asia Gas Hub officiated the signing, marking the culmination of a strategic collaboration.



3 Jul 2023

MIMOS CEO hosted a meeting with Accenture Sdn Bhd and a visit to the Inspectra R&D lab with Dato' Lawrence Low, Senior Advisor for Accenture Malaysia.

4 Jul 2023

MIMOS CEO extended a warm welcome to representatives from Tenaga Nasional Berhad during a courtesy visit to the MIMOS premises. This interaction presented an opportunity to engage in productive discussions.



12 Jul 2023

MIMOS held the X-Ray Photoelectron Spectroscopy (XPS) Workshop at its auditorium - a powerful analytical technique used to study the surface chemistry of materials. The workshop welcomed MIMOSians, scientists, engineers, and technology students to explore the core concepts of XPS.



18 Jul 2023

The Würth Electronics EMC Seminar offered a unique opportunity to delve into crucial and contemporary subjects within the electronics industry. The knowledge sharing encompassed both peer-to-peer learning and mentorship from a certified EMC practitioner from Würth Electronics.



21 Jul 2023

A visit by the Southeast Asia Research Centre for Humanities (SEARCH) aimed to explore potential collaborations with MIMOS in the ICT field, covering research, development, and commercialisation.



21 Jul 2023

The CEO's office orchestrated a significant meeting with Tubitak Bilgem from Turkey. The focus of this meeting was to delve into the realms of Cryptology and explore potential collaborative prospects in this specialised area.



26 – 28 Jul 2023

The successful ISO 37001:2016 certification acknowledges our systematic approach to preventing bribery, enhancing accountability, and fostering a culture of ethical excellence. It demonstrates our commitment to upholding the highest standards of integrity in every aspect of our operations.



27 Jul 2023

Tourism Malaysia explored MIMOS' Digital Government Lab, with an emphasis on immersing in the Big Data Analytics (BDA) section, and other pertinent labs. The focus lay on garnering insights to fortify the development of Tourism Malaysia's operational nerve centre, commonly known as the Ops Room.



8 Aug 2023

In conjunction with the National Science Week (Minggu Sains Negara) organised by MOSTI, MIMOS held two webinars, of which the first is on the Industrial Design Workshop, MSN 2023 (Bengkel Reka Bentuk Industri). The session attracted 120 participants led by Mr Saharudin Busri, Senior Staff Engineer, and M. Mohd Nizam Najmuddin, Senior Engineer.



10 Aug 2023

MIMOS Kulim High-Tech Park (KHTP) organised the MIMOS Industrial Talk Series spotlighting the exploration of opportunities and future trends in Data Management within the realm of Industry 4.0. The discussion commenced with Shamsul Anuar Abdul Wahid, Director of Corporate Technology at MIMOS, who leads the software development team at MIMOS KHTP. The conversation then moved to Shaune Lee, the Associate Director of Sales at Vertiv Malaysia (formerly known as Emerson Network Power), who shared insights on 'Market & Technology Trends in Modern Day Data Centres. The final speaker for the day was Anwer Yusoff, presenting on the 'Cybersecurity Empowerment for Small and Medium-Sized Enterprises Encouragement Programme.'



15 Aug 2023

The second webinar for the National Science Week (Minggu Sains Negara) was Energy Monitoring – A Powerful Tool for a Sustainable Future. Dr Roslee Mohd Sabri, recognised for his contributions to wireless communications, IoT, sensor technologies, AI, and neuromorphic computing, took the stage as a MIMOS Speaker. Adding to the depth of the discussion, Mr Lim Say Thean, a representative of SquareCloud Malaysia, provided practical insights into the concrete incorporation of MIMOS Technology within their organisational solutions.



17 Aug 2023

MIMOS and the Advanced Manufacturing Research Centre for Aerospace (AMRACE), co-hosted with NCER, its 'Teh Tarik' Session in Penang. Dr Hari Narayanan (EEPN E&E Ecosystem Pillar 2 Lead) was a guest speaker to members of the audience which included entrepreneurs and investors from the Northern Corridor Economic Region (NCER), the event commenced with MIMOS introducing the Digitised Design to Manufacturing (DDTM) Programme. Additionally, Mr Naquib Mohd Nor, CEO of AMRACE, highlighted opportunities and requisites within the OEM supply chain. Meanwhile, Mr Amir Sharifuddin, Senior Manager of Investment – Ecosystem Development at NCER, shed light on the NCER Technology Innovation Centre (NTIC), a centre on research, product development, and specialised design activities.



22 Aug 2023

DRB-HICOM University of Automotive Malaysia, Pekan, organised the "Malaysian Automotive Industry" subject matter expert talk where Mr Shaharuddin Busri, MIMOS' Head of Industrial Design was the keynote speaker. The talk delved deep into the intricate layers of the Malaysian automotive industry, focusing on its notable industrial designers, the industry's evolution, challenges, and remarkable successes.



23 Aug 2023

MIMOS organised the High-Value Semiconductor Technology (HVST) Seminar focusing on the dynamic ANSYS CAE Solution. Real-world case studies unveiled the tangible impact of CAE simulations on product development, performance optimisation, and cost reduction to industry experts and thought leaders, who have harnessed the power of Ansys CAE Solutions to catalyse innovation and efficiency in their projects.



29 Aug 2023

The Edge engaged MIMOS President and CEO, Dr Iskandar Samad to shed light on MIMOS' pivotal role as the nation's leading applied research centre and a strategic agency operating under MOSTI driving Malaysia's electrical and electronic (E&E) industry.



4 Sep 2023

MIMOS came together with HELM AG, a German crop protection and fertiliser group, and ANCOM Nylex Berhad, a manufacturer of agricultural chemicals to sign a memorandum of understanding (MOU) - to fortify Malaysia's food security by providing local farmers with cutting-edge satellite and artificial intelligence (AI) solutions.



6 Sep 2023

MIMOS held its Tech Talk on 'The Eye Behind Microscopy Solutions for Semiconductor Research and Failure Analysis' at the MIMOS auditorium. The two-session workshop welcomed three speakers to discuss topics related to failure analysis and semiconductor material applications, including MIMOS Failure Analysis Engineer, Mr Wan Mohd; Tasyrif Wan Yaakob, Semiconductor Technology Centre (STC), accompanied by Dr Lim Siang Hui from ZEISS and Mr Royston Teo from GATAN APAC.



18 & 19 Sep 2023

Dr Lee Hing Wah, principal researcher at MIMOS, was the keynote speaker at the 3rd International Conference on Semiconductor Materials and Technology (ICOSEMT2023) 'Catalysing Malaysia's Semiconductor Industry Development with High-Value Semiconductor Technology (HVST) Research & Innovation'.



19 - 21 Sep 2023

The Smart Nation Expo 2023 gathered 20,000 delegates and trade professionals from 54 countries to the Malaysia International Trade and Exhibition Centre (MITEC) to showcase emerging technologies and applications. MIMOS' displayed technologies and innovations such as Mi-Trace, Lock-up, Mi-VAC (LPR), MyDigital ID, as well as devices like Wireless devices (WISP, Mi-SPARK, RHT).



21 Sep 2023

Sarawak Microelectronics Design (SMD) Semiconductor Sdn Bhd and MIMOS exchanged a Letter of Interest (LOI) to explore collaboration in the semiconductor industry through research and development (R&D). The agreement was endorsed by SMD Semiconductor CEO, Mr Shariman Jamil, and MIMOS' Senior Director of Business Partnership and Commercialisation cum Head of Semiconductor Technology Centre, Mr Thiagesh Lingam. Also involved in the signing ceremony was the Minister of Science, Technology, and Innovation (MOSTI), YB Tuan Chang Lih Kang, and SMD Semiconductor Chairman cum Sarawak Minister of Education, Innovation, and Talent Development, Datuk Roland Sagah Wee Inn, who witnessed the newly-formed partnership. Pursuant to this event, Dato' Hj Azmi bin Hj Bujang, Senior Private Secretary to the Chief Minister, Sarawak, visited MIMOS on 27 October 2023.



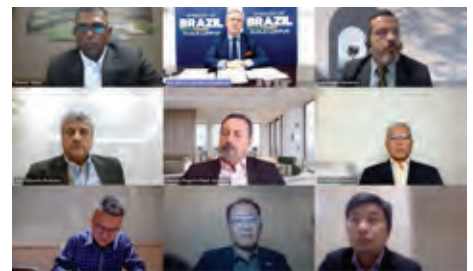
5 Oct 2023

MIMOS was a part of the Integrated World Semiconductor Manufacturing Summit 2023 to connect with industry leaders, explore ways to gain a competitive edge in the global marketplace, and learn about cutting-edge technologies and best practices. MIMOS Director of Manufacturing Technologies Centre, Ts Shamsul Anuar Abdul Wahid, was a guest speaker shedding light on, 'Driving Efficiency and Intelligence at the Edge: Unleashing the Power of AI in Semiconductor Manufacturing'.



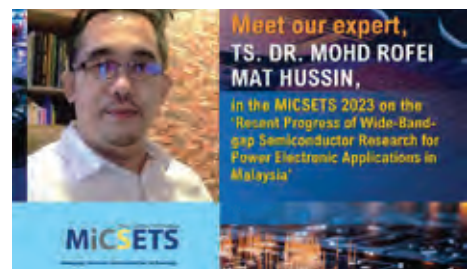
5 Oct 2023

Titled, 'Brazil-ASEAN & Semiconductors: Unveiling Synergies in the Global Youth', eight distinguished local and international speakers shared their views and findings in electrical and electronics (E&E) and semiconductors. Amongst the speakers was MIMOS' principal researcher, Dr Lee Hing Wah, who gave a 10-minute presentation on 'Malaysia: A Dialogue on Research and Development (R&D)'.



29 Nov 2023

Micro System Technology (MiCTEC) hosted an online international symposium on Emerging Trends in Semiconductor Technology. Collaborating with the Faculty of Electronic Engineering, Institute of Nano Electronic Engineering (INEE), IEEE Sensors & Nanotechnology Council Malaysia, and IEEE Electronics Packaging Society. Among the invited speakers was MIMOS' own Ts Dr Mohd Rofei Mat Hussin, speaking on the 'Recent Progress of Wide-Bandgap Semiconductor Research for Power Electronic Applications in Malaysia'.



Academia

9 Feb 2023

MIMOS President/CEO welcomed the UNITEN's Institute of Informatics and Computing in Energy (IICE), delegates comprising of Deputy Vice-Chancellor Prof Dato' Ir Ts Dr Mohd Zamri Yusoff, Prof Dato' Dr Halimah Badioze Zaman, Director of National Energy Centre, Prof Dato' Dr Norashidah Md Din, Director of Institute of Energy Infrastructure, Dr Nora Yusma Mohamed Yusoff, Director of Institute of Energy Policy, and Prof. Madya Ts Dr Norziana Jamil, Director of Informatics and Computing in Energy.



3 Apr 2023

MIMOS President/CEO welcomed the University Malaya (UM) Vice-Chancellor Prof Ir Dato' Dr Mohd Hamdi Abd Shukor, and delegates comprising of Prof Dr Shaliza Ibrahim, Deputy Vice-Chancellor (Research & Innovation), Prof Ir Dr Kaharudin Dimyati, Dean, Faculty of Engineering, Prof Dr Saiful Anuar Karsani, Director, Institute of Management and Research Services (IPPP), and Mr Mahadi Sibon, Vice Chancellor's Special Officer.



Apr - Jun 2023

MIMOS continues to promote the innovative spirit in the youth generation by hosting future researchers and innovators from local universities like Universiti Putra Malaysia (UPM), Universiti Tun Hussein Onn Malaysia (UTHM), Bentong Community College, Multimedia University (MMU), and International Islamic University Malaysia (UIAM).



4 Jul 2023

Prof Amlan Chakrabarti, Professor and Director of the A.K. Choudhury School of Information Technology at the University of Calcutta, shared his expertise on Quantum Machine Learning with MIMOS staff, researchers, and semiconductor industry professionals.



18 Jul 2023

Representatives from Iranian universities paid a visit to the MIMOS Semiconductor Technology Centre (STC). The primary objective of this visit was to embark on an exploratory journey towards potential collaborative efforts in the realm of semiconductor technologies.



28 Jul 2023

MIMOS hosted UTM's Centre for Innovation and Commercialisation to delve into opportunities for synergistic ventures between their institution and MIMOS. This gathering illustrated the shared vision of both parties to pool resources and expertise to propel innovation and technology in Malaysia.



13 Jul 2023

UKM IMEN Graduate Association (Persatuan Siswazah IMEN, UKM) visited Dr Mohd Rofei Mat Hussin's Research Laboratory and MIMOS Wafer Fab.



8 Aug 2023

Distinguished Research Professor and Head of the Research Centre for Nano-Materials and Energy Technology at Sunway University, Professor Saidur Rahman, engaged with Dr Lee Hing Wah and Dr Mohd Rofei Mat Hussin to visit MIMOS STC to exchange insights and expertise in Semiconductor technologies R&D.



9 Aug 2023

The Graduate Research Institute for Professionals (GEA Institute) from Singapore visited MIMOS facilities, aiming to fortify ongoing collaborative efforts in Research programmes.



14 – 27 Sep 2023

Various local and international institutions visited MIMOS grounds including Politeknik Tuanku Sultan Bahiyah, Kulim; SMK Datuk Mohd Yunus Sulaiman, Johor; Pusat Latian Teknologi Tinggi (ADTEC); Universiti Putra Malaysia (UPM); Universiti Tun Hussein Onn Malaysia (UTHM); and Universiti Sains Islam Malaysia (USIM), and National Institute of Information and Communications Technology, Japan (NICT) to name a few.



8 & 16 Nov 2023

Students from IDE UiTM Shah Alam and University Kuala Lumpur Malaysia Italy Design Institute (UNIKL MIDI) participated in a one-day workshop at MIMOS. The session focused on industrial design principles and the practical application of design concepts. Through hands-on learning, students explored how industrial design integrates with technological advancements.



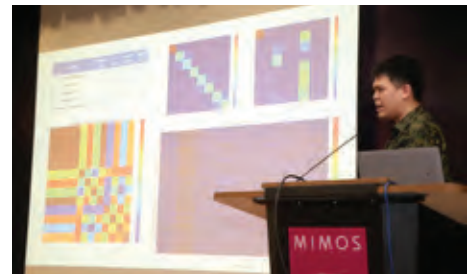
9 Nov 2023

Prof Dr Saad Mekhilef, Swinburne University of Technology, Australia; a fellow of The Institute of Electrical and Electronics Engineers (IEEE) and The Institution of Engineering and Technology (IET), and also the Founder of the Power Electronics and Renewable Energy Research Laboratory (PEARL) at Universiti Malaya held a two-day workshop for MIMOSians and external guests on the advancements in renewable energy integration and power electronics for a sustainable future.



8 Dec 2023

MIMOS organised a Research Colloquium to showcase the work of its young researchers and highlight current projects. Mr. Yap Chin Lok, a MIMOS researcher in High-Tech Development, presented on "Feature Extraction and Signature Classification for Non-intrusive Application Load Monitoring using High-Frequency Data." Subsequently, Ms. Nur Farahi Idris, a MIMOS research officer, shared findings on "Performance Analysis of Hyperledger Fabric on Multiple Infrastructure Setup."



Communities/General public

8 - 10 Dec 2023

The *Setahun Bersama Kerajaan Malaysia Madani* showcase highlighted the achievements of the Malaysia Madani administration. As the implementing agency for MyDigital ID, MIMOS showcased this revolutionary technology to the professionals and public alike. Prime Minister, YAB Dato' Seri Anwar Ibrahim stopped by the MIMOS booth to learn about the cutting-edge technological advancements on display, reinforcing the government's steadfast commitment to the MyDigital ID initiative, fostering innovation and driving Malaysia towards a digitally empowered future.



Staff

31 Jan 2023

MIMOSians came together to welcome the Chinese New Year of the rabbit with lucky draws and a best-dressed competition.



7 Feb 2023

The first town hall set the direction for 2023, focusing on R&D and commercialisation of high-impact technologies, providing services and industry support focusing on the E&E industry, boosting group financials towards long-term sustainability, embarking on strategic milestones and initiatives, as well as improving quality of staff and engagements.



24 Feb 2023

During the practice fire drill, MIMOS employees quickly assembled at the checkpoint under the guidance of the MIMOS Emergency Response Team (ERT). Led by Incident Commander, En Husna; Emergency Leader, En Nasir, and ERT/SEART leader En Zaharin, the 178-member team coordinated the evacuation process successfully.



11 Mar 2023

MOSTI held its inaugural Futsal Piala Pusingan STI at KSL Sports, Puchong. The tournament was opened to all the agencies under MOSTI and launched by YBrS Pn Ruziah Shafei, Deputy Secretary General (Planning and Science Enculturation) MOSTI. Mr Norman Matthieu Vanhaecke, Acting Group CEO of Cradle, presented the STI Cup to the champion, Kimia.



22 Mar 2023

The second town hall reiterated the organisation's directions and strategies. MIMOS President/CEO also shared the progress of the MIMOS Strategic Transformation Plan 2023 – 2030, along with updates on human capital and financial outlook.



11 Apr 2023

MIMOSians welcomed the residents of the Rumah Anak Yatim Darul Taqwa Sg. Besi for Iftar and Tarawih prayers during the blessed month of Ramadan.



12 Apr 2023

Staff at MIMOS Kulim High-Tech Park (KHTP) held a *Majlis Berbuka Puasa*, and recitation of *Surah Yaseen* at its site.

10 – 11 May 2023

MIMOSians participated in clinical data collection to test the newly improved and upgraded REVA RP2 device. New features were added to enhance the REVA algorithm's accuracy and achieve a higher standard of compliance with the non-intrusive method.



19 May 2023

MIMOS opened its doors to industry partners, potential collaborators, and staff to celebrate Hari Raya Aidilfitri with the theme *RayaBersama*, signifying close relationships between us and gratitude.



26 – 28 Jul 2023

MIMOS Corporate Human Resource (CHR) department partnered with a panel clinic, Mega Zahran, bringing the SOCSO Health Screening Programme (HSP) to MIMOS for a three-day health screening for MIMOSians. Eligible employees could carry out free health screening in nine parameters like a full blood count; HBA1c; fasting lipid profile; liver function test; tumour marker; Urine FEME; pap smear (women); cancer screening (liver and colon), and renal function test to promote health screening awareness for early detection of non-communicable diseases (NCDs).



28 Jul 2023

MIMOS launched its inaugural TechCafe event, which stands as a platform dedicated to exchanging knowledge, and where key players within the industry converge to share insights regarding their products and technological offerings. Mr Victor Lee, Business Development and Technical Lead at VIGOR Digital Solution Sdn Bhd shed light on streamlining clients' businesses through its expertise in the Internet of Things (IoT), Edge computing, Big Data Analytics, and Artificial Intelligence (AI) solutions.



11 Aug 2023

MIMOS conveyed appreciation and bid farewell to the Chairman, YBhg Dato' Sri Ibrahim Ahmad in a celebration at the MIMOS auditorium where many MIMOSians celebrated his tenure at MIMOS.



19 Sep 2023

Guest speaker, Dr Nai Shyan Lai, an Associate Professor at Asia Pacific University of Technology and Innovation (APU/APIIT) presented his research on silicon-based quantum dots and the innovative aspirations behind it.



12 Oct 2023

MIMOSians adorned their designated sports houses of Red Dragon, Yellow Tigers, or Blue Jay to inaugurate the annual sports carnival. The event kicked off with Zumba, brisk walking, and a bicycle relay competition on MIMOS grounds. The carnival aims to promote a healthy work-life balance for the welfare of all MIMOSians.



1 Nov 2023

Through its annual blood donation drive, MIMOS provided crucial support to the *Pusat Darah Negara* (PDN), with 88 enthusiastic MIMOSians contributing to the life-saving cause. Veteran and first-time donors echoed the same sentiments in participating in this cause to help others in need.



8 Nov 2023

MIMOS held its first-ever Kolam decorating activity in time for Deepavali celebrations where MIMOSians, in teams of their designated sports houses, were allocated themes to craft their own designs. Each group came together to display their creativity and the results were colourful wonders of artistic expression and cultural heritage.



16 Nov 2023

MIMOS celebrated Integrity Day with performances by their sorted house colours and a short video contest. The event aimed to promote integrity among staff, foster a positive work environment, and solidify MIMOS' position as a research excellence centre driven by ethical values.



19 Nov 2023

MIMOS Kindergarten celebrated its Sports Day with a trip to Zoo Negara. The event aimed to provide a learning experience for preschoolers through animal exploration. Over 50 children and parents participated in the 'Explorace' activity, which promoted curiosity and family bonding.



8 Dec 2023

The 4th Quarter town hall announced that the MIMOS Board of Directors appointed Dr Saat Shukri Embong as the Acting President and Chief Executive Officer. Dr Shukri emphasised unity among MIMOSians, urging collaboration to fulfil mandates, specifically as the appointed implementing agency by the YAB Prime Minister to drive the successful realisation of the MyDigital ID government initiative.



GOVERNANCE AND COMPLIANCE



Corporate Governance Overview

The Board recognises the importance of sound internal controls and risk management practices to good corporate governance. To this end, the Board is committed to maintaining good corporate governance and a sound system of internal control practices in MIMOS Berhad (“Organisation”) to ensure the Organisation remains competitive and sustainable.

MIMOS operations are funded through a combination of government operating grants and revenue generated by billable projects. The board, together with management, are closely monitoring the capital requirements of the Organisation and continues to make prudent decisions on expenditures in delivering Organisation objectives while preserving capital.

Board Responsibility

The Board acknowledges its responsibility for the Organisation to formulate the direction of the company and set the Organisation’s strategic aims, monitor and ensure the implementation of the planned strategies (including economic, environmental and social considerations), provide advisory to the executive management as well as ensuring compliance with the laws and procedures currently in force, risk management and system of internal control (which includes the establishment of an appropriate control environment and framework as well as reviewing its adequacy and integrity).

Risk Management

The Board acknowledges the risks and challenges affecting the ability of the Organisation to achieve its objectives. An Enterprise Risk Management (“ERM”) Framework based on MS ISO 31000:2020 Risk

Management – Principles and Guidelines have been established to guide the risk management activities for the Organisation.

MIMOS ERM Standard Operating Procedures (SOP) are in accordance with MS ISO 31000:2020 to ensure that our Risk Management processes remain sound and are in compliance with internationally recognised standards. Having regard to managing risk as an inherent part of the Organisation’s activities, risk management and the ongoing improvement in corresponding control structures in all significant risk areas remain a key focus of the Board towards the achievement of the Organisation’s objectives and strategies. The necessary actions have been or are being taken to mitigate and continuously monitor risk management exposure. MIMOS Berhad’s efforts to manage Enterprise Risk are via the Strategic Risk Profile and Risk Action Plan, which are deliberated and reviewed by management before tabling to the Board via the Risk Management Committee (RMC).

For the year 2023 and to date, the overall risk control framework remains valid and is operating satisfactorily.

The risk governance structure comprises five lines of defence with clear functional responsibilities and accountabilities for the management of risk.



Line of Responsibility

Description

5th Line
Governance, Risk & Compliance (“GRC”) Framework

Sets the Company’s tone and approach to risk management to enable efficiency and effective lines of responsibility.

4th Line
Oversight of the Board Functions

Oversight of management provided by the ARMC to ensure the risk management and internal control functions are carried out in the best interest of the Company and shareholders.

The ARMC and Board scrutinise the audit report on the organisation’s financial and non-financial (i.e management and performance) and carefully consider whether what is being disclosed is consistent with the director’s own knowledge of the organisation’s affairs.

3rd Line
Assurance Functions

Independent functions report to the ARMC & Board, assessing if Organisation policies and processes are designed adequately and the systems of internal controls are operating effectively.

2nd Line
Support Function and Internal Control

Provides oversight, monitoring and reporting of operational management’s activities to support performance, compliance and prudent risk-taking.

The second line of defence is steered by the Risk Management Committee (“RMC”) comprising Senior Management and personnel responsible for the performance and enterprise risk management. The RMC is responsible for monitoring the risk management activities of the Organisation and ensuring compliance with, as well as effective implementation of risk policies and objectives. The RMC provides directions and has an oversight role in the risk management process. RMC serves as a platform for the Organisation to assist the management in assessing principal risks of the Organisation and providing assurance on effective implementation of risk management on an Organisation-wide basis. This group is also responsible for creating a risk-awareness culture, which will ensure a greater understanding of the importance of risk management and ensure that its principles are embedded in key operational processes and all projects.

1st Line
Front Line Operating Management (Core Business)

The risk owners and operational management execute the day-to-day activities to manage performance and identify, assess and manage risk resulting from business activities, processes and systems for which they are accountable.



Key elements of the Organisation's internal control system

An Organisation structure with clearly defined lines of responsibility and delegation of authority to provide a documented and auditable trail of accountability. The current MIMOS organisational structure was reviewed and endorsed by the Board in a special meeting held on 7th February 2023. MIMOS Wide organisation chart currently approved by the CEO and SLT on 23 January 2024.

Key elements of the Organisation's internal control system include: -

Prescribed authority limits for approval of various transactions are defined in its Limits of Authority ("LOA"), which is subject to review to maintain its relevance.

- Expectations regarding duty and integrity are spelt out in the formal Policies and Procedures Manual which includes the MIMOS Anti-Bribery & Anti-Corruption (ABAC) Policy, Code of Ethics ("MCE") and Anti-Bribery Management System (ABMS) Framework. These policies and procedures are established with reference to International Standards such as inter alia, ISO 9001, ISO 22301, ISO 31000, ISO 37001 and ERM COSO.
- The Operational Policies and Procedures are reviewed periodically to remain effective and relevant to support the MIMOS business activities at all times as it continues to grow and transform locally and across borders. Improvements documented are assessable by all staff via the online Mi-Hub repository. MIMOS Policies facilitate compliance with regulations, listing and governance requirements.
- An internal audit function that performs independent reviews on systems of internal controls, and reports its findings directly to the Audit & Risk Management Committee, and by extension, to the Board. Integrated Assurance Report ("IAR") was first presented and approved by ARMC on 12th July 2018 with the objective to provide an opinion on the adequacy of the governance risk and control

environment derived from assurance activity undertaken across the Organisation. Among key governance practices accomplished through the Integrated Assurance include the institutionalisation of Management Validation & Attestation of internal control systems in supporting the annual SORMIC disclosure practices.

- A comprehensive process for review and approval of budgets and Key Performance Indicators ("KPI") by the Board that includes a statement of corporate objectives to be achieved by the Organisation on an annual basis.
- Health, Safety and Environment ("HSE") Policies are available that specify clear requirements on operational safety, environment and health for consistent and effective Organisation-wide implementation and provide independent assurance via RMC report to the ARMC for matters which require the Board's attention for oversight on a quarterly basis.
- Staffing Policies and Procedures are established to ensure that appropriate persons of calibre are selected to fill available positions. Formal training programmes either face-to-face or through e-learning, semi- and annual performance appraisals, and other relevant procedures are in place to ensure that staff are adequately trained and competent to enable them to discharge their duties and responsibilities effectively.
- Other elements of internal controls include:
 - MIMOSians are requested to sign the Deed of Assignment to further strengthen the protection of Intellectual Property Rights. It is an agreement between the employee and MIMOS on the ownership of the Intellectual Property Rights created under MIMOS employment as part of the regulatory requirement under the Malaysian Patent Act and the Patent Application/ Examination requirement worldwide.





- Our internal control system covers every activity and transaction of our company. MIMOS has formed guidelines, principles and values, through its MIMOS Code of Ethics (“MCE”). The MCE guides the employees to comply with all SATRIA1 Leadership Core Values, applicable laws and regulations, through honest, transparent and ethical business practices. The MCE covers areas such as compliance, integrity, conduct in the workplace, business conduct, protection of the MIMOS assets, confidentiality and conflict of interest disclosures.
- MIMOS is committed to applying the highest standard of ethical conduct and integrity in conducting its business activities by putting in place adequate Policies and Procedures as fundamental for internal control. MIMOS has identified an Anti-Bribery & Anti-Corruption Policy which received full commitment and endorsement from the Board of Directors.
- All employees in MIMOS are expected to uphold a high standard of integrity, probity, transparency and accountability to preserve and protect the Group’s interest and reputation. The Board approved the Whistleblowing Policy and Procedures Revision E on 16 March 2023, which enables employees to whistleblowing in good faith in an official and confidential manner. The Integrity & Ethics Unit (IEU) has the overall responsibility of overseeing the implementation of MIMOS Group.
- Business Continuity Management primarily assists the Organisation in developing a continuity plan to ensure that business operations will have minimal downtime and an appropriate recovery process through any disaster. MIMOS’ Business Continuity Management (“BCM”) Framework serves as the main reference document that governs the overall MIMOS Business Continuity Management initiative. It outlines all the policies, guidelines, rules and necessary documentation that each business unit needs to adhere to in order to fulfil its own readiness. The BCM Framework based on the BCMI/ISO22301 standard was established and approved by the BCM Steering Committee on 20th December 2016. MIMOS planned to enhance our BCM in 2024.
- The PDPA is to regulate the processing of personal data of our employees, agencies, vendors, partners, agents, contractors, and suppliers, and to safeguard the interests of the data subject. In line with the requirement of the Personal Data Protection Act (“PDPA”) 2010, the PDPA procedure was approved on 8th January 2015 to ensure MIMOSians comply with this act. With the enforcement of PDPA, MIMOS will continue to enhance our internal processes policies and system to ensure that personal data remain confidential and protected at all times.



Internal Audit Function

The internal audit function of the Organisation is carried out by the Internal Audit Unit (“IAU”) under the Corporate Integrated Assurance Department (“CIA”) function that reports directly to the ARMC. The principal role of the department is to undertake an independent, regular, and systematic review of the systems of internal controls so as to provide reasonable assurance that such systems continue to operate satisfactorily and effectively. IAU adopts a risk-based approach in the review of the internal controls on key activities of the Organisation based on the annual internal audit plan that had been presented to and approved by the ARMC. Reports on the results of control process reviews are presented to the ARMC on a quarterly basis.

Integrity and Ethics Function

The Integrity and Ethics function is under the Corporate Integrated Assurance Department reporting directly to the Board of Directors. The Board has mandated the ARMC to assist in overseeing the IEU. Our commitment towards zero corruption is viewed through the effectiveness of the four (4) core functions of the Integrity & Ethics Unit (IEU): i) Complaint Management, ii) Detection and Verification, iii) Integrity Enhancement, and iv) Governance. MIMOS also emphasises its commitment through the implementation of the MS ISO 37001:2016 Anti-Bribery Management System (ABMS) and Organisational Anti-Corruption Plan (OACP) which is led by the IEU. There was no record of any breach in the Code of Conduct for FYE 31 December 2023.

Other Risk and Control Processes include:

The role of the Management is to implement the Organisation’s policies, procedures and guidelines on risk and control, thereby identifying and evaluating the risks faced; and designing, applying and monitoring a suitable system of internal controls to manage these risks. Oversight and review of the governance and risk control framework are undertaken by the ARMC which relies on internal auditors and external auditors.



The ARMC reviews the governance, internal control and risk management processes by considering reports from the CIA and the Management, before reporting and making recommendations to the Board in strengthening the governance, internal control and risk management practices. The ARMC also scrutinise financial statements and other financial information to ascertain whether the financial statements are consistent with operational and other information known.

In relation to issues reported by the Laporan Ketua Audit Negara in 2019, the Organisation has taken necessary corrective measures in addressing the identified control issues with an appropriate R&D Governance Framework duly approved by the Board in ensuring a transparent SOP and rigorous governance structure in managing R&D Development Grants. As of 31st Dec 2023, there were no open audit issues arising from the 2019 LKAN Report.

The Nomination & Remuneration Committee of the Board (“NRCB”) reviews and approves the appointment and re-appointment of MIMOS Board and Committee members; appointment and re-appointment of MIMOS CEO and direct reports as well as succession planning of MIMOS

CEO, MIMOS CEO Direct Reports and Head of Subsidiary Companies. NRCB also review and approve policies on remuneration and packages as well as ensuring the overall organisation's remuneration policy is in line with the relevant labour laws and regulations.

Stakeholder monitoring is observed via reporting of key performance measures made to the stakeholders i.e, MIMOS Research & Development Committee of the Board (RDCB), Ministry of Finance ("MOF") and Ministry of Science, Technology and Innovation ("MOSTI") on a periodic basis to ensure stakeholder engagement. The Investment Committee of the Board ("ICB") ensures correct investment that brings value to the company and assesses as well as approves programmes under RMK. MIMOS had completed an external review by MOSTI Internal Audit Department with a report published on 6 April 2022 obtaining satisfactory results.

Oversight on the progress and achievement of the approved R&D projects for MIMOS Group is centralised within the Corporate Programme Management ("CPM") department. CPM updates the management periodically through monthly reports. Project executed by its subsidiary (i.e, MTSSB) is managed by the Project Management team within the subsidiary and quarterly reporting of the project's risks is submitted to CPM for consolidation before it's shared with the Project Risk Management Committee (PRMC), which is then reported to the RMC and finally reported to the ARMC.

Intellectual Properties (IP) of the Organisation are managed and monitored by the IP Management Department (IPMD). The Organisation is also insured for professional indemnity and product liability arising from IP risk exposures. Internal registration of the IP is systematically managed through the Intellectual Property Management System ("IPMS"). To protect the organisation's IP rights of relevant IP, formal registrations/applications with national IP Office ("MyIPO") or international IP offices are executed prior to technology commercialisation. The requirement for all employees to register to protect any IPs created from their employment is stated in the individual employee's Deed of Assignment and is further communicated during the new hire orientation programme by Human Capital (HC).

The procurement function is governed by various committees namely the Tender Board Committees and Sebutharga Committee, whereas procurement planning is reviewed by the MIMOS Procurement Planning Committee. Procurement processes are guided by the Treasury guidelines issued by MOF and MIMOS Limit of Authority. Vendor management guidelines were established for better management and assessment of vendors.

MIMOS is committed to enhancing its business environment by emphasising transparency, integrity and good governance. The strong commitment of the Group





to upholding integrity is evidenced by the introduction to Corporate Liability 17(A) and Anti-Bribery Management System Awareness (ABMS) organised by the Integrity and Ethics Unit in collaboration with the Malaysian Anti-Corruption Commission in 2019. The objectives are to facilitate ABMS practices and ensure its effectiveness towards combatting bribery and corruption. MIMOS was officially certified with the MS ISO 37001:2016 ABMS in July 2023.

Creating a Sustainable Workplace

Our employees are the core of our existence and our greatest asset. We strive to provide a positive working environment by constantly engaging our people, creating opportunities for their growth and development as well as emphasising the practice of a balanced lifestyle. As such, we have put in place policies and guidelines that help our employees navigate through these uncertain times. In line with the relevant labour laws and regulations, they cover issues relating to compensation and dismissal, recruitment and promotion, working hours, leave, career development, and other employee welfare-related matters.

Succession planning is managed by the Human Capital ("HC") under the Organisation's Development

function. HC has implemented ongoing programmes as part of the retention programme initiative to identify successors while narrowing gaps for them to be ready for their succession roles and responsibilities. Leadership competencies and assessments have been developed to identify gaps and discuss interventions via their individual action plans. MIMOS strive to ensure fair remuneration to attract, retain and motivate directors and senior management. Nomination & Remuneration Committee of the Board ("NRCB") provide objectivity and independent judgement of remunerations and incentives package as well as ensuring the remunerations aligned with the business strategy and long-term objectives of the company.

Training and education programme for MIMOS staff is sourced, administered and managed by the Talent Development Unit under Human Capital, guided by the Competency Assessment stated in the Personnel Development Plan ("PDP"), charted by the staff's supervisor.



Health, Safety and Environmental Commitment

MIMOS is also committed to ensuring a safe and healthy working environment for all employees and others involved in or affected by its operation, taking into account statutory requirements and relevant national and international standards and codes of practice. Implementation and effectiveness of the Safety policy is a line management responsibility together with the participation and involvement of all employees and MIMOS ensure that adequate resources, training and time are made available. Occupational Safety and Health (“OSH”) matters are an equal priority with other major business objectives. Safety and Health management systems and programmes are regularly reviewed to ensure continuous improvement.

Among efforts that have been put into OSH and security matters are:

- Compliance with KKM/MKN on COVID-19 under the Prevention and Control of Infectious Diseases Act 1988, especially with regard to COVID-19 prevention at the workplace.
- Compliance with Food Safety Act 1983, under MOH especially on the cleanliness and hygiene of the cafeteria.
- Compliance with the Department of Occupational Safety and Health (DOSH) on OSH management.
- Compliance with the Use of Chemicals Hazardous to Health, USECHH 2000 regulation:
 - a) LEV (Local Exhaust Ventilation) testing on all equipment used in the prevention of chemical exposure to employees.
 - b) Chemical Health Risk Assessment (CHRA) on the risks and control measures of the effect of chemicals hazardous to health.
 - c) Completed the training on the chemical hazards communication to employees exposed to chemicals hazardous to health.
- Compliance with the new Noise Regulation 2019 under DOSH.
- Compliance with the Energy Commission (EC), the following have been completed: -
 - a) The bi-annual electrical servicing and calibration for all protection relays had been completed for electrical safety requirements.
 - b) The monitoring and reporting of efficient electrical energy usage every 6 months.
 - c) Completed the annual inspection by EC competent person on the LPG installation in MIMOS Cafeteria.
 - d) Reappointed the competent persons for energy management, chargeman and visiting electrical engineer to ensure the efficient use of energy and safe operation of the electrical installation.
- Compliance with Fire Service Acts 1988, the following have been completed: -
 - a) Fire Certificate renewal inspection for MIMOS and Wafer FAB Buildings conducted by BOMBA HQ.
 - b) Monthly service maintenance of all firefighting equipment by MIMOS-appointed fire service contractors as required by the act.
- Compliance with Factory and Machinery Act FMA 1967, the following have been completed: -
 - a) Monthly and 3-monthly inspection of all passenger and goods lifts by an appointed competent person
 - b) Annual permit inspection and renewal for the certificate of fitness for listed equipment under FMA 1967 by DOSH inspector for non-fired pressure vessels, lifts and hoisting equipment.
- Compliance with the Department of Environment (DOE)
 - a) Online reporting of scheduled waste inventories.



- b) Weekly sampling and monthly reporting of the results of industrial effluent test parameters to comply with the Standard B water stream.
 - c) Maintenance of air pollution control (APC) which includes wet scrubber exhaust systems used in the final treatment of toxic chemical vapours before releasing them into the environment.
 - d) Appointed competent persons under the Environmental Quality Act to oversee the compliance on schedule waste, industrial effluent and scrubber operations.
- Compliance with the Atomic Energy Licensing Board (AELB)
 - a) Appointed the OBTL (Orang Yang Bertanggung Jawab ke atas lesen) for the person responsible for the overall site license to own and operate the radiation equipment.
 - b) Appointed the competent person as Radiation Protection Officer (RPO) as the person responsible for the safe operation of the employees using the radiation equipment.

becomes an integral part of the organisation where our stakeholders' interests are prioritised in our business. While there is gradual improvement in the ongoing global health pandemic caused by COVID-19, MIMOS expects the years ahead to continue to be a challenging transition year for business activities, leading to sizeable immediate and near-term uncertainty to the Group's business strategy and infrastructure. Despite this, MIMOS remains confident that demand for the Organisation's solutions will normalise in the middle and long-term, as supply chains further and business interactions return to normal.

MIMOS endeavours to ensure employees work in a safe and healthy environment. MIMOS continues to be guided and adhere to the SOP set by the Ministry of Health, statutory requirements, national and international standards and codes of practice. Prevention practices as recommended by the Ministry of Health were implemented as part of the norm practices to minimise the risk of the potential spread of COVID-19 among staff should any staff member be inadvertently exposed to the virus.

In the area of cybersecurity, measures to strengthen existing controls include providing secured access for staff to access MIMOS's intranet services (i.e. Mi-ESS & IPMS) from an external network via a Virtual Private Network. This is to sustain a new norm working environment such as working from home and enable access to resources that reside in MIMOS's network in a secure manner. On top of that, various Cyber Security awareness are being shared with all MIMOS staff which further strengthens IT Security controls.

The aim of implementing identified mitigating measures is to reduce the likelihood of interruptions to critical operations. These form new internal control measures to ensure the business resilience of core operations under the new norm.

The Organisation shall continue to monitor and implement relevant measures necessary to address any adverse impact of this pandemic.

Sustaining Business

We acknowledge that there are still areas for improvement with respect to sustainability. As the Organisation continues to establish our strategies to mitigate and recover from the effects of the pandemic, we hold steadfast to our goal of building a sustainable business for the future. We will continue to keep abreast with developments in our operating environments, actively engage our stakeholders and build on our foundation to further promote sustainable practices within our organisation.

MIMOS' strategy revolves around our vision of becoming the frontier applied research centre that contributes to socio-economic growth through innovative technology platforms, products and solutions. As our aspiration propels the country's agenda towards industry revolutions and economic growth, sustainability





Conclusion

The Board has received assurance from the Chief Executive Officer (“CEO”) and Head of Governance that the Organisation’s risk management and system of internal control is operating adequately and effectively, in all material aspects, based on the risk management and internal control system of the Organisation. The Board is of the view that the system of internal control instituted throughout the Group is sound and provides a level of confidence on which the Board relies for assurance. In the year under review, save for the open issues raised in the report by 2020 National Audit Report there was no other significant control failure or weakness that would have resulted in material losses, contingencies or uncertainties requiring separate disclosure in the Financial Statements.

The Board provides for a continuous review of the Organisation’s risk management and internal control system to ensure ongoing adequacy and effectiveness of the system of internal control and risk management practices to meet the post-pandemic changing and challenging operating environment.





FINANCIAL REPORT/STATEMENTS



MIMOS BERHAD

FINANCIAL REPORT 2023

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Directors' report

The directors have the pleasure to present their report together with the audited financial statements of the Group and of the Company for the financial year ended 31 December 2023.

Principal activities

The principal activity of the Company is to undertake research and development in the field of information and communication technologies.

The principal activities of its subsidiaries are as disclosed in Note 11 in the financial statements.

There has been no significant change in the nature of these principal activities during the financial year.

Results

	Group RM	Company RM
Profit for the year	1,563,000	1,685,893

There were no material transfers to or from reserves or provisions during the financial year.

In the opinion of the directors, the results of the operations of the Group and of the Company during the financial year were not substantially affected by any item, transaction or event of a material and unusual nature.

Dividends

No dividend has been paid or declared by the Company since the end of the previous financial year. The directors do not recommend for the payment of any dividend for the current financial year.



Directors

The names of the directors of the Company in office since the beginning of the financial year and at the date of this report are:

Dato' Ts. Dr. Hj. Aminuddin bin Hassim	
Prof. Dr. Mohamad Salmi bin Mohd Sohod	(Appointed on 17 July 2023)
Prof. Ts. Dr. Rayner Alfred	(Tenure ceased on 15 October 2023 and re-appointed on 8 January 2024)
Dr. Nor Mazny binti Abdul Majid	(Appointed on 4 September 2023)
Norliza binti Yusoff	(Appointed on 12 September 2023)
Tan Eng Tong	(Appointed on 15 May 2024)
Azhar bin Abu Bakar	(Appointed on 15 May 2024)
Dato' Sri Ibrahim bin Ahmad	(Resigned on 16 August 2023)
Norhizam bin Abdul Kadir	(Tenure ceased on 15 October 2023)
Dr. Kamarulzaman bin Mohamed Zin	(Tenure ceased on 22 April 2023)
Haji Zairi bin Haji Mat Ali	(Resigned on 22 June 2023)
Aida Mosira binti Mokhtar	(Tenure ceased on 6 April 2024)

The names of the directors of the Company's subsidiary in office since the beginning of the financial year to the date of this report, excluding those who are listed above are:

Tan Sri Datuk Seri Dr. Ismail bin Haji Bakar
Mohamad Rani Dali bin Samsudin
Dato' Dr. Suhazimah binti Dzazali
Dr. Saat Shukri bin Embong
Abdul Rashdee bin Abdul Kadir



Directors' benefits

Neither at the end of the financial year, nor at any time during that year, did there subsist any arrangement to which the Company was a party, whereby the directors might acquire benefits by means of acquisition of shares in or debentures of the Company or any other body corporate.

Since the end of the previous financial year, no director has received or become entitled to receive a benefit (other than benefit included in the aggregate amount of emoluments received or due and receivable by the directors or the fixed salary of a full-time employee of the Company except as shown below) by reason of a contract made by the Company or a related corporation with any director or with a firm of which the director is a member or with a company in which the director has a substantial financial interest.

The directors' remunerations are as follows:

	Note	Group RM	Company RM
Fees and other emoluments		358,666	357,366
Estimated monetary value of benefits-in-kind		41,505	41,505
		<u>400,171</u>	<u>398,871</u>

The Company has agreed to indemnify its directors as part of the terms of their appointment against claims by third parties. No payment has been made to indemnify the directors for the financial year ended 31 December 2023.

Directors' interests

According to the register of directors' shareholdings, none of the directors in office at the end of the financial year had any interest in shares in the Company or its related corporations during the financial year.



Other statutory information

- (a) Before the statements of comprehensive income and statements of financial position of the Group and of the Company were made out, the directors took reasonable steps:
 - (i) to ascertain that proper action had been taken in relation to the writing off of bad debts and the making of provision for doubtful debts and satisfied themselves that there were no known bad debts and that adequate provision had been made for doubtful debts; and
 - (ii) to ensure that any current assets which were unlikely to realise their values as shown in the accounting records in the ordinary course of business have been written down to an amount which they might be expected so to realise.
- (b) At the date of this report, the directors are not aware of any circumstances which would render:
 - (i) it necessary to write off any bad debts or the amount of the allowance for doubtful debts inadequate to any substantial extent; and
 - (ii) the values attributed to current assets in the financial statements of the Group and of the Company are misleading.
- (c) At the date of this report, the directors are not aware of any circumstances which have arisen which would render adherence to the existing method of valuation of assets or liabilities of the Group and of the Company misleading or inappropriate.
- (d) At the date of this report, the directors are not aware of any circumstances not otherwise dealt with in this report or the financial statements of the Group and of the Company which would render any amount stated in the financial statements misleading.
- (e) As of the date of this report, there does not exist:
 - (i) any charge on the assets of the Group or of the Company which has arisen since the end of the financial year which secures the liabilities of any other person; or
 - (ii) any contingent liability of the Group or of the Company which has arisen since the end of the financial year.
- (f) In the opinion of the directors:
 - (i) no contingent or other liability has become enforceable or is likely to become enforceable within the period of twelve months after the end of the financial year which will or may affect the ability of the Group or of the Company to meet their obligations when they fall due; and
 - (ii) no item, transaction or event of a material and unusual nature has arisen in the interval between the end of the financial year and the date of this report which is likely to affect substantially the results of the operations of the Group or of the Company for the financial year in which this report is made.



Auditors

The auditors, Ernst & Young PLT, have expressed their willingness to continue in office.

The auditors' remuneration for the Group and the Company are RM95,000 and RM63,000 respectively.

To the extent permitted by law, the Company has agreed to indemnify its auditors, Ernst & Young PLT, as part of the terms of its audit engagement against claims by third parties arising from the audit (for an unspecified amount). No payment has been made to indemnify Ernst & Young PLT during or since the beginning of the financial year.

Signed on behalf of the Board in accordance with a resolution of the directors on 24 May 2024.



PROF. DR. MOHAMAD SALMI BIN MOHD SOHOD



PROF. TS. DR. RAYNER ALFRED

Statement by Directors

Pursuant to section 251(2) of the Companies Act 2016

We, PROF. DR. MOHAMAD SALMI BIN MOHD SOHOD and PROF. TS. DR. RAYNER ALFRED, being two of the directors of MIMOS Berhad, do hereby state that, in the opinion of the directors, the accompanying financial statements set out on pages 10 to 65 are drawn up in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the Companies Act 2016 in Malaysia so as to give a true and fair view of the financial position of the Group and Company as at 31 December 2023 and of the financial performance and cash flows of the Group and Company for the financial year ended.

Signed on behalf of the Board in accordance with a resolution of the directors on 24 May 2024.



PROF. DR. MOHAMAD SALMI BIN MOHD SOHOD



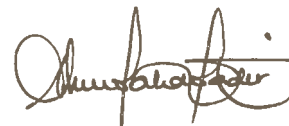
PROF. TS. DR. RAYNER ALFRED

Statutory declaration

Pursuant to section 251(1)(b) of the Companies Act 2016

I, ABDUL RASHDEE BIN ABDUL KADIR, being the officer primarily responsible for the financial management of MIMOS Berhad, do solemnly and sincerely declare that the accompanying financial statements set out on pages 10 to 65 are in my opinion, correct and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared by the abovenamed Abdul Rashdee bin Abdul Kadir at Kuala Lumpur in the Federal Territory on 24 May 2024.



ABDUL RASHDEE BIN ABDUL KADIR

Before me,



No. 48-1st Floor
Jalan Brunei Utara,
Off Changkat Thambi Dollah, Pudu
55100 Kuala Lumpur

Independent Auditor's Report

to the member of MIMOS Berhad

Report on the financial statements

Opinion

We have audited the financial statements of MIMOS Berhad, which comprise the statements of financial position as at 31 December 2023 of the Group and of the Company, and statements of profit or loss and other comprehensive income, statements of changes in equity and statements of cash flows of the Group and of the Company for the year then ended, and notes to the financial statements, including a summary of material accounting policies, as set out on page 10 to 65.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of the Group and of the Company as at 31 December 2023, and of their financial performance and their cash flows for the year then ended in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia.

Basis for opinion

We conducted our audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing. Our responsibilities under those standards are further described in the *Auditors' responsibilities for the audit of the financial statements* section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Independence and other ethical responsibilities

We are independent of the Group and of the Company in accordance with the By-Laws (on Professional Ethics, Conduct and Practice) of the Malaysian Institute of Accountants ("Bylaws") and the International Code of Ethics for Professional Accountants (including International Independence Standards) ("IESBA Code"), and we have fulfilled our other ethical responsibilities in accordance with the By-Laws and the IESBA Code.

Information other than the financial statements and auditors' report thereon

The directors of the Company are responsible for the other information. The other information comprises the Directors' Report, but does not include the financial statements of the Group and of the Company and our auditors' report thereon.

Our opinion on the financial statements of the Group and of the Company does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements of the Group and of the Company, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements of the Group and of the Company or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the financial statements

The directors of the Company are responsible for the preparation of financial statements of the Group and of the Company that give a true and fair view in accordance with Malaysian Financial Reporting Standards, International Financial Reporting Standards and the requirements of the Companies Act 2016 in Malaysia. The directors are also responsible for such internal control as the directors determine is necessary to enable the preparation of financial statements of the Group and of the Company that are free from material misstatement, whether due to fraud or error.



Responsibilities of the directors for the financial statements (cont'd.)

In preparing the financial statements of the Group and of the Company, the directors are responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or the Company or to cease operations, or have no realistic alternative but to do so.

Auditors' responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements of the Group and of the Company as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with approved standards on auditing in Malaysia and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with approved standards on auditing in Malaysia and International Standards on Auditing, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements of the Group and of the Company, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's or the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements of the Group and of the Company or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group or the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements of the Group and of the Company, including the disclosures, and whether the financial statements of the Group and of the Company represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the financial statements of the Group. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.



Auditors' responsibilities for the audit of the financial statements (cont'd.)

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other matters

This report is made solely to the member of the Company, as a body, in accordance with Section 266 of the Companies Act 2016 in Malaysia and for no other purpose. We do not assume responsibility to any other person for the content of this report.

Ernst & Young PL T
202006000003 (LLP0022760-LCA) & AF 0039
Chartered Accountants

Najihah Binti Khalid
No. 03249/10/2024 J
Chartered Accountant

Kuala Lumpur, Malaysia
24 May 2024



Consolidated statement of comprehensive income
For the financial year ended 31 December 2023

	Note	2023 RM	2022 RM
Revenue	3	29,950,913	37,713,891
Cost of sales	4	(20,127,082)	(27,405,664)
Gross profit		9,823,831	10,308,227
Grant income		111,170,802	115,666,518
Other operating income		2,255,386	1,805,591
Administrative expenses		(105,225,125)	(104,799,035)
Other operating expenses		(16,162,264)	(20,212,030)
Profit from operations		1,862,630	2,769,271
Finance costs		(7,816)	(7,912)
Profit before tax	5	1,854,814	2,761,359
Income tax expenses	7	(291,814)	(282,772)
Profit for the year, representing total comprehensive income for the year		1,563,000	2,478,587

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.



Consolidated statement of financial position

As at 31 December 2023

	Note	2023 RM	2022 RM
Assets			
Non-current assets			
Property, plant and equipment	8	32,734,975	36,664,817
Intangible assets	9	51,569	134,957
Right-of-use assets	10	16,195,398	16,753,352
Other investments	12	-	-
		48,981,942	53,553,126
Current assets			
Inventories	13	2,995,631	3,039,125
Trade and other receivables	14	5,513,919	11,035,335
Contract assets	15	2,243,939	5,623,657
Tax recoverable		169,178	339,937
Cash and cash equivalents	16	142,266,214	62,843,577
		153,188,881	82,881,631
Total assets		202,170,823	136,434,757
Equity and liabilities			
Equity attributable to owners of the parent			
Share capital	18	100,000,000	100,000,000
Accumulated losses		(96,834,293)	(98,397,293)
Total equity		3,165,707	1,602,707
Non-current liabilities			
Funds accounts	19	181,930,106	111,823,361
Lease liabilities	10	165,547	167,827
		182,095,653	111,991,188
Current liabilities			
Trade and other payables	17	10,586,484	14,647,395
Contract liabilities	15	6,320,795	8,191,379
Lease liabilities	10	2,184	2,088
		16,909,463	22,840,862
Total liabilities		199,005,116	134,832,050
Total equity and liabilities		202,170,823	136,434,757

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Consolidated statement of changes in equity
For the financial year ended 31 December 2023

	Share capital RM	Accumulated losses RM	Total RM
At 1 January 2023	100,000,000	(98,397,293)	1,602,707
Total comprehensive income for the year	-	1,563,000	1,563,000
At 31 December 2023	<u>100,000,000</u>	<u>(96,834,293)</u>	<u>3,165,707</u>
At 1 January 2022	100,000,000	(100,875,880)	(875,880)
Total comprehensive loss for the year	-	2,478,587	2,478,587
At 31 December 2022	<u>100,000,000</u>	<u>(98,397,293)</u>	<u>1,602,707</u>

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.



Consolidated statement of cash flows

For the financial year ended 31 December 2023

	2023	2022
	RM	RM
Cash flows from operating activities		
Profit before tax	1,854,814	2,761,359
Adjustments for:		
Depreciation of property, plant and equipment	13,936,225	17,898,595
Amortisation of intangible assets	90,884	94,721
Depreciation of right-of-use asset	557,954	557,954
Loss on disposal of property, plant and equipment	208,915	3,926
Inventories written off	-	745,892
Impairment on trade receivables	662,217	1,129,845
Profit sharing from Islamic investments	(1,629,604)	(965,153)
Interest expense	7,816	7,912
Grant income	(111,170,802)	(115,666,518)
Operating loss before working capital changes	(95,481,581)	(93,431,467)
Change in working capital:		
Inventories	43,494	9,842
Receivables	8,238,917	15,703,827
Payables	(5,931,495)	5,657,875
Cash used in operations	(93,130,665)	(72,059,923)
Income tax paid	(121,055)	(127,500)
Net cash used in operating activities	(93,251,720)	(72,187,423)
Cash flows from investing activities		
Acquisition of property, plant and equipment	(10,215,298)	(11,442,214)
Acquisition of intangible assets	(7,496)	(62,008)
Profit sharing from Islamic investments	1,629,604	965,153
Net cash used in investing activities	(8,593,190)	(10,539,069)
Cash flows from financing activities		
Development and operational funds received	194,025,500	105,370,775
Development and operational funds refunded	(12,747,953)	(19,136,555)
Lease repayment	(10,000)	(10,000)
Net cash generated from financing activities	181,267,547	86,224,220
Net movement in cash and cash equivalents	79,422,637	3,497,728
Cash and cash equivalents at beginning of year	62,843,577	59,345,849
Cash and cash equivalents at end of year (Note 16)	142,266,214	62,843,577

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Company statement of comprehensive income

For the financial year ended 31 December 2023

	Note	2023 RM	2022 RM
Revenue	3	14,237,580	27,253,657
Cost of sales	4	(11,927,718)	(23,275,901)
Gross profit		2,309,862	3,977,756
Grant income		111,170,802	115,666,518
Other operating income		2,295,766	1,962,513
Administrative expenses		(98,903,672)	(99,196,931)
Other operating expenses		(14,892,898)	(19,105,784)
Profit from operations		1,979,860	3,304,072
Finance costs		(7,816)	(7,912)
Profit before tax	5	1,972,044	3,296,160
Income tax expenses	7	(286,151)	(282,772)
Profit for the year, representing total comprehensive income for the year		1,685,893	3,013,388

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.



Company statement of financial position

As at 31 December 2023

	Note	2023 RM	2022 RM
Assets			
Non-current assets			
Property, plant and equipment	8	32,730,815	36,664,811
Intangible assets	9	51,569	134,957
Right-of-use asset	10	16,195,398	16,753,352
Investments in subsidiaries	11	2,000,000	2,000,000
Other investments	12	-	-
		50,977,782	55,553,120
Current assets			
Inventories	13	2,995,631	3,039,125
Trade and other receivables	14	32,281,919	41,118,683
Contract assets	15	2,078,614	3,568,197
Tax recoverable		-	82,979
Cash and cash equivalents	16	139,395,271	56,692,683
		176,751,435	104,501,667
Total assets		227,729,217	160,054,787
Equity and liabilities			
Equity attributable to owners of the parent			
Share capital	18	100,000,000	100,000,000
Accumulated losses		(64,306,548)	(65,992,441)
		35,693,452	34,007,559
Non-current liability			
Funds accounts	19	181,930,106	111,823,361
Lease liabilities	10	165,547	167,827
		182,095,653	111,991,188
Current liabilities			
Trade and other payables	17	8,864,706	12,131,455
Contract liabilities	15	978,425	1,922,497
Lease liabilities	10	2,184	2,088
Tax payable		94,797	-
		9,940,112	14,056,040
Total liabilities		192,035,765	126,047,228
Total equity and liabilities		227,729,217	160,054,787

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Company statement of changes in equity
For the financial year ended 31 December 2023

	Share capital RM	Accumulated losses RM	Total RM
At 1 January 2023	100,000,000	(65,992,441)	34,007,559
Total comprehensive income for the year	-	1,685,893	1,685,893
At 31 December 2023	100,000,000	(64,306,548)	35,693,452
At 1 January 2022	100,000,000	(69,005,829)	30,994,171
Total comprehensive income for the year	-	3,013,388	3,013,388
At 31 December 2022	100,000,000	(65,992,441)	34,007,559

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.



Company statement of cash flows

For the financial year ended 31 December 2023

	2023 RM	2022 RM
Cash flows from operating activities		
Profit before tax	1,972,044	3,296,160
Adjustments for:		
Depreciation of property, plant and equipment	13,929,899	17,898,595
Amortisation of intangible assets	90,884	94,721
Depreciation of right-of-use asset	557,954	557,954
Inventories written off	-	745,892
Impairment on trade receivables	640,826	1,249,300
Loss on disposal of property, plant and equipment	16,560	1,963
Profit sharing from Islamic investments	(1,657,519)	(943,437)
Interest expense	7,816	7,912
Grant income	(111,170,802)	(115,666,518)
Operating loss before working capital changes	(95,612,338)	(92,757,458)
Change in working capital:		
Inventories	43,494	9,842
Receivables	9,685,521	16,944,904
Payables	(4,210,821)	1,284,186
Cash used in operations	(90,094,144)	(74,518,526)
Income tax paid	(108,375)	(127,500)
Net cash used in operating activities	(90,202,519)	(74,646,026)
Cash flows from investing activities		
Acquisition of property, plant and equipment	(10,012,463)	(11,442,214)
Acquisition of intangible assets	(7,496)	(62,008)
Profit sharing from Islamic investments	1,657,519	943,437
Net cash used in investing activities	(8,362,440)	(10,560,785)
Cash flows from financing activities		
Development and operational funds received	194,025,500	105,370,775
Development and operational funds refunded	(12,747,953)	(19,136,555)
Lease repayment	(10,000)	(10,000)
Net cash generated from financing activities	181,267,547	86,224,220
Net movement in cash and cash equivalents	82,702,588	1,017,409
Cash and cash equivalents at beginning of year	56,692,683	55,675,274
Cash and cash equivalents at end of year (Note 16)	139,395,271	56,692,683

The accompanying accounting policies and explanatory notes form an integral part of the financial statements.

Notes to the financial statements

For the financial year ended 31 December 2023

1. Corporate information

The principal activity of the Company is to undertake research and development in the field of information and communication technologies.

The Group is engaged in the following principal activities through its subsidiaries:

- i. provision of industry services in the area of semiconductor technology, microelectronics technology, electrical and electronics systems and manufacturing technology; and
- ii. undertaking of technology monetisation and investment activities providing technology-related services and maintenance activities.

There have been no significant changes in the nature of the principal activities during the financial year.

The Company is a public limited liability company, incorporated and domiciled in Malaysia. The registered office and the principal place of business of the Company is located at Technology Park Malaysia, Lebuhraya Puchong-Sg. Besi, Bukit Jalil, 57000 Kuala Lumpur.

The holding company is the Minister of Finance (Incorporated) ("MOF Inc."), a body corporate which was incorporated under the Minister of Finance (Incorporation) Act, 1957.

2. Material Accounting Policies

2.1 Basis of preparation

The financial statements of the Group and of the Company have been prepared in accordance with Malaysian Financial Reporting Standards ("MFRS") and the Companies Act 2016 in Malaysia. The financial statements also comply with the International Financial Reporting Standards ("IFRS") issued by the International Accounting Standards Board.

The financial statements of the Group and of the Company have been prepared on a historical basis and are presented in Ringgit Malaysia (RM).

2.2 Changes in Accounting Policies

On 1 January 2023, the Group and the Company adopted the following amended MFRSs mandatory for annual financial periods beginning on or after 1 January 2023 as listed below:

Descriptions	Effective for annual periods beginning on or after
MFRS 17: Insurance Contracts including Amendments on MFRS 17: Insurance Contracts: Initial Application of MFRS 17 and MFRS 9 - Comparative Information	1 January 2023
Amendments to MFRS 112: Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1 January 2023
Amendments to MFRS 112: Income Taxes - International Tax Reform: Pillar Two Model Rules	1 January 2023
Amendments to MFRS 101: Presentation of Financial Accounting Policies	1 January 2023
Amendments to MFRS 108: Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates	1 January 2023
Annual Improvements to MFRS Standards 2018 - 2021	1 January 2022

The adoption of the above amendments to MFRS did not have any significant impact on the financial statements of the Group and the Company.



2. Significant accounting policies (cont'd.)

2.3 Standards issued but not yet effective

The standards and interpretations that are issued but not yet effective up to the date of issuance of the Group's and Company's financial statements are disclosed below. The Group and the Company intend to adopt these standards, if applicable, when they become effective.

Descriptions	Effective for annual periods beginning on or after
Amendments to MFRS 16: Leases Liability in a Sales and Leaseback	1 January 2024
Amendments to MFRS 101: Presentation of Financial Statements Classification of Liabilities as Current or Non-current	1 January 2024
Amendments to MFRS 107 Statement of Cashflows and MFRS 7 Financial Instrument Disclosure: Disclosures of Supplier Finance Arrangements	1 January 2024
Amendments to MFRS 121 The Effects of Changes in Foreign Exchange Rates: Lack of exchangeability	1 January 2024
Amendments to MFRS 10: Consolidated Financial Statements and MFRS 128: Investments in Associates and Joint Ventures - Sale or Contribution of Assets between an Investor and its Associate or Joint Venture	Deferred

The Group and the Company expect that the adoption of the above amendments to MFRSs will have no material impact to the financial statements in the period of initial application.

2.4 Summary of significant accounting policies

(a) Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as at the reporting date. The financial statements of the subsidiaries used in the preparation of the consolidated financial statements are prepared for the same reporting date as the Company. Consistent accounting policies are applied for like transactions and events in similar circumstances. Rights arising from other contractual arrangements; and The Group's voting rights and potential voting rights.

Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if, and only if, the Group has:

- i. Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- ii. Exposure, or rights, to variable returns from its investment with the investee; and
- iii. The ability to use its power over the investee to affect its returns.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(a) Basis of consolidation (cont'd.)

Generally, there is a presumption that a majority of voting rights results in control. To support this presumption and when the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- i. The contractual arrangement(s) with the other vote holders of the investee;
- ii. Rights arising from other contractual arrangements; and
- iii. The Group's voting rights and potential voting rights.

The Group re-assesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control. Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Profit or loss and each component of OCI are attributed to the equity holders of the parent of the Group and to the non-controlling interests, even if this results in the noncontrolling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises the related assets (including goodwill), liabilities, non-controlling interest and other components of equity, while any resultant gain or loss is recognised in profit or loss. Any investment retained is recognised at fair value.

(b) Business combinations

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, which is measured at the acquisition date fair value, and the amount of any non-controlling interests in the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred and included in administrative expenses.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

Any contingent consideration to be transferred by the acquirer will be recognised at fair value at the acquisition date. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of MFRS 9 Financial Instruments, is measured at fair value with the changes in fair value recognised in the statement of profit or loss in accordance with MFRS 9.



2. Significant accounting policies (contd.)

2.4 Summary of significant accounting policies (cont'd.)

(b) Business combinations (cont'd.)

Other contingent consideration that is not within the scope of MFRS 9 is measured at fair value at each reporting date with changes in fair value recognised in profit or loss.

Goodwill is initially measured at cost (being the excess of the aggregate of the consideration transferred and the amount recognised for non-controlling interests and any previous interest held over the net identifiable assets acquired and liabilities assumed). If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognised at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognised in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill has been allocated to a cash-generating unit (CGU) and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed in these circumstances is measured based on the relative values of the disposed operation and the portion of the cash-generating unit retained.

(c) Current versus non-current classification

The Group and the Company present assets and liabilities in the statement of financial position based on current/non-current classification. An asset is current when it is:

- expected to be realised or intended to be sold or consumed in the normal operating cycle;
- held primarily for the purpose of trading;
- expected to be realised within twelve months after the reporting period; or
- cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is current when:

- it is expected to be settled in the normal operating cycle;
- it is held primarily for the purpose of trading;
- it is due to be settled within twelve months after the reporting period; or
- there is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period.



2. Significant accounting policies (contd.)

2.4 Summary of significant accounting policies (cont'd.)

The Group and the Company classify all other liabilities as non-current.

Deferred tax assets and liabilities are classified as non-current assets and liabilities.

(d) Foreign currencies

(i) Functional and presentation currency

The individual financial statements of each entity in the Group are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in Ringgit Malaysia ("RM"), which is also the Company's functional currency.

(ii) Foreign currency transactions

Exchange differences arising on the settlement of monetary items, and on the translation of monetary items, are included in profit or loss for the period.

(e) Property, plant and equipment

All items of property, plant and equipment are initially recorded at cost. The cost of an item of property, plant and equipment is recognised as an asset if, and only if, it is probable that future economic benefits associated with the item will flow to the Group and the Company and the cost of the item can be measured reliably.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the Company and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Subsequent to recognition, property, plant and equipment except for freehold land are stated at cost less accumulated depreciation and any accumulated impairment losses.

Depreciation of property, plant and equipment is provided for on a straight-line basis to write off the cost of each asset to its residual value over the estimated useful life, at the following annual rates:

Renovations and landscaping	10%
Furniture and fittings	10%
Motor vehicles	20%
Office equipment	10 - 20%
Computer hardware	33.3%
Laboratory and workshop equipment	14.3% - 33.3%

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable.

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable.

The residual value, useful life and depreciation method are reviewed at each financial year-end, and adjusted prospectively, if appropriate.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(e) Property, plant and equipment (cont'd.)

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on the derecognition of the asset is included in profit or loss in the period the asset is derecognised.

(f) Intangible assets

Intangible assets acquired separately are measured initially at cost. Following the initial acquisition, intangible assets are measured at cost less any accumulated amortisation and accumulated impairment losses.

Intangible assets with finite useful lives are amortised using the straight-line method over the estimated useful lives and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method are reviewed at least at each financial year-end. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset is accounted for by changing the amortisation period or method, as appropriate, and are treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in profit or loss.

Computer software costs are capitalised as intangible assets which are measured initially at cost and is amortised on a straight-line basis over its economic life at the following annual rates:

Computer software	20% - 33.3%
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Gains or losses arising from the derecognition of an intangible asset are measured as the difference between the net disposal proceeds and the carrying amount of the asset and are recognised in profit or loss when the asset is derecognised.

(g) Impairment of non-financial assets

The Group and the Company assess at each reporting date whether there is an indication that an asset may be impaired. If any such indication exists, or when an annual impairment assessment for an asset is required, the Group and the Company make an estimate of the asset's recoverable amount.

An asset's recoverable amount is the higher of an asset's fair value less costs to sell and its value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units ("CGU")).

In assessing value in use, the estimated future cash flows expected to be generated by the asset are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

Where the carrying amount of an asset exceeds its recoverable amount, the asset is written down to its recoverable amount. Impairment losses recognised in respect of a CGU or groups of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to those units or groups of units and then, to reduce the carrying amount of the other assets in the unit or groups of units on a pro-rata basis.

Impairment losses are recognised in profit or loss except for assets that are previously revalued where the revaluation was taken to other comprehensive income. In this case the impairment is also recognised in other comprehensive income up to the amount of any previous revaluation.

2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(g) Impairment of non-financial assets (cont'd.)

An assessment is made at each reporting date as to whether there is any indication that previously recognised impairment losses may no longer exist or may have decreased. A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case, the carrying amount of the asset is increased to its recoverable amount. That increase cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised previously. Such reversal is recognised in profit or loss unless the asset is measured at a revalued amount, in which case the reversal is treated as a revaluation increase. Impairment loss on goodwill is not reversed in the subsequent period.

(h) Subsidiaries

A subsidiary is an entity over which the Company has all the following:

- i. Power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
- ii. Exposure, or rights, to variable returns from its investment with the investee; and
- iii. The ability to use its power over the investee to affect its returns.

In the Company's separate financial statements, investments in subsidiaries are accounted for at cost less impairment losses. On disposal of such investments, the difference between net disposal proceeds and their carrying amounts is included in profit or loss.

(i) Financial assets

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income ("OCI"), and fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's and the Company's business model for managing them.

In order for a financial asset to be classified and measured at amortised cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

The Group's and the Company's business model for managing financial assets refer to how they manage their financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognised on the trade date, i.e., the date that the Group and the Company commit to purchase or sell the asset.

The Group and the Company determine the classification of its financial assets as financial assets at amortised cost (debt instruments) at its initial recognition.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(i) Financial assets (cont'd.)

Subsequent measurement

The Group and the Company measure financial assets at amortised cost if both of the following conditions are met:

- i. The financial asset is held within a business model with the objective of holding financial assets in order to collect contractual cash flows;
- ii. The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

The Group's and the Company's financial assets at amortised cost include trade and other receivables (excluding prepayments) and cash and cash equivalents.

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised when:

- i. The rights to receive cash flows from the asset have expired; or
- ii. The Group and the Company have transferred their rights to receive cash flows from the asset or have assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement; and either:
 - a. the Group and the Company have transferred substantially all the risks and rewards of the asset, or
 - b. the Group and the Company have neither transferred nor retained substantially all the risks and rewards of the asset, but have transferred control of the asset.

When the Group and the Company have transferred their rights to receive cash flows from an asset or have entered into a pass-through arrangement, it evaluates if, and to what extent, they have retained the risks and rewards of ownership. When they have neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group and the Company continue to recognise the transferred asset to the extent of its continuing involvement. In that case, the Group and the Company also recognise an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group and the Company have retained.

2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(j) Impairment of financial assets

The Group and the Company assess at each reporting date whether there is any objective evidence that a financial asset is impaired.

To determine whether there is objective evidence that an impairment loss on financial assets has been incurred, the Group and the Company consider factors such as the probability of insolvency or significant financial difficulties of the debtor and default or significant delay in payments. For certain categories of financial assets, such as trade receivables, assets that are assessed not to be impaired individually are subsequently assessed for impairment on a collective basis based on similar risk characteristics. Objective evidence of impairment for a portfolio of receivables could include the Group's and the Company's past experience of collecting payments, an increase in the number of delayed payments in the portfolio past the average credit period and observable changes in national or local economic conditions that correlate with default on receivables.

If any such evidence exists, the amount of impairment loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate.

The impairment loss is recognised in profit or loss. For trade receivables, the Group and the Company apply a simplified approach in calculating ECLs. Therefore, the Group and the Company do not track changes in credit risk, but instead recognise a loss allowance based on lifetime ECLs at each reporting date. The Group and the Company have established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group and the Company consider factors if a financial asset in default such as the probability of insolvency or significant financial difficulties of the debtor and default or significant delay in payments that indicate that the Group and the Company are unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group and the Company. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

(k) Cash and cash equivalents

Cash and cash equivalents comprise cash at the bank and on hand, demand deposits, and short-term, highly liquid investments that are readily convertible to a known amount of cash and which are subject to an insignificant risk of changes in value.

(l) Inventories

Inventories are stated at lower of cost and net realisable value.

Cost is determined using the first in, first out method. The cost of raw materials comprises costs of purchase. The costs of finished goods and work-in-progress comprise costs of raw materials and other direct costs based on normal operating capacity.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(m) Provisions

Provisions are recognised when the Group and the Company have a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of economic resources will be required to settle the obligation and the amount of the obligation can be estimated reliably.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of economic resources will be required to settle the obligation, the provision is reversed. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

(n) Government grants

Government grants are recognised when the grants are received. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the related costs, for which it is intended to compensate, are expensed. When the grant relates to an asset, it is recognised as income in equal amounts over the expected useful life of the related asset.

When the Group and the Company receive grants of non-monetary assets, the asset and the grant are recorded at nominal amounts and released to profit or loss over the expected useful life of the asset, based on the pattern of consumption of the benefits of the underlying asset by equal annual instalments.

o) Financial liabilities

Financial liabilities are classified according to the substance of the contractual arrangements entered into and the definition of a financial liability.

Financial liabilities, within the scope of MFRS 9, are recognised in the statement of financial position when, and only when, the Group and the Company become a party to the contractual provisions of the financial instrument. Financial liabilities are classified as other financial liabilities.

The Group's and the Company's other financial liabilities include trade payables and other payables.

Trade and other payables are recognised initially at fair value plus directly attributable transaction costs and subsequently measured at amortised cost using the Effective Interest Rate (EIR) method.

For other financial liabilities, gains and losses are recognised in profit or loss when the liabilities are derecognised, and through the amortisation process.

A financial liability is derecognised when the obligation under the liability is extinguished. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognised in profit or loss.

2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(p) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, to realise the assets and settle the liabilities simultaneously.

(q) Employee benefits

i. Defined contribution plans

The Group and the Company make contributions to the Employee Provident Fund in Malaysia, a defined contribution pension scheme. Contributions to defined contribution pension schemes are recognised as an expense in the period in which the related service is performed.

ii. Short-term benefits

Wages, salaries, bonuses and social security contributions are recognised as expenses in the financial year in which the associated services are rendered by employees of the Group and the Company. Short-term non-accumulating compensated absences such as sick leave are recognised when the absences occur.

(r) Leases

The Group assesses at contract inception whether a contract is, or contains, a lease. That is if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Group and Company as a lessee

The Group and Company apply a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group and Company recognise lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

The Group and Company recognise right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets.

The right-of-use assets are depreciated on a straight-line basis over its estimated useful life as follows:

Building	2%
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At the commencement date of the lease, the Group and Company recognise lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and the Company and payments of penalties for terminating the lease, if the lease term reflects the Group and Company exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(r) Leases (cont'd.)

In calculating the present value of lease payments, the Group and Company use its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities are remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis over the lease term.

Group and Company as lessors

Leases are classified as finance leases or operating leases. Whenever the lease transfers substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Rental income from operating leases is recognised on a straight-line basis over the lease term. Initial direct costs incurred are added to the carrying amount of the leased asset and recognised on a straight-line basis over the lease term.

(s) Revenue and other income recognition

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Group and Company and the revenue can be reliably measured, regardless of when the payment is received. Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. The Group and Company have concluded that it is the principal in all of its revenue arrangements since it is the primary obligor in all the revenue arrangements, has pricing latitude, and is also exposed to inventory and credit risks. The specific recognition criteria described below must also be met before revenue is recognised.

i. Sale of goods

Revenue from the sale of goods is recognised when control of the goods is transferred to the customer, usually on delivery of the goods. Revenue from the sale of goods is measured at the fair value of the consideration received or receivable, net of returns and allowances, trade discounts and volume rebates.

ii. Rendering of services

Revenue from services rendered is recognised net of service taxes and discounts as and when the services are performed.

iii. Long-term contracts

Where the outcome of a long-term contract can be reliably estimated, contract revenue and contract costs are recognised as revenue and expenses respectively by reference to the stage of completion of the contract activity at the reporting date. The stage of completion is measured by reference to the proportion of contract costs incurred for work performed to date to the estimated total contract costs.

2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(s) Revenue and other income recognition (cont'd.)

iii. Long-term contracts (cont'd.)

Where the outcome of a long-term contract cannot be reliably estimated, contract revenue is recognised to the extent of contract costs incurred that it is probable will be recoverable. Contract costs are recognised as expenses in the year in which they are incurred

When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognised as an expense immediately.

Contract revenue comprises the initial amount of revenue agreed in the contract and variations in contract work and claims to the extent that it is probable that they will result in revenue and are capable of being reliably measured.

When the total of costs incurred on long-term contracts plus recognised profits (less recognised losses) exceeds progress billings, the balance is classified as a contract asset. When progress billings exceed costs incurred plus recognised profits (less recognised losses), the balance is classified as a contract liability.

The Group and Company recognise revenue long-term contracts over time because the customer simultaneously receives and consumes the benefits provided to them. The Group and Company use an input method in measuring progress of the long-term contract because there is a direct relationship between the Group's and Company's effort (i.e. based on the actual costs incurred) and transfer of service to the customer. The Group and Company recognise revenue on the basis of the actual costs incurred relative to the total budgeted cost to complete the project.

iv. Profit sharing from Islamic investments

Profit sharing from Islamic investments is recognised based on the Effective Interest Rate ("EIR") method. The EIR is the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset. Profit sharing from Islamic investments is included in finance income in profit or loss.

v. Revenue from other income

i. Rental income

Rental is accounted for on a straight-line basis over the lease terms. The aggregate costs of incentives provided to lessees are recognised as a reduction of rental income over the lease period on a straight-line basis.

(t) Contract assets and contract liabilities

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(t) Contract assets and contract liabilities (cont'd.)

A contract liability is the obligation to transfer goods or services to a customer for which the entity has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group and Company transfer goods or services to the customer, a contract liability is recognised when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group and Company perform the contract.

(u) Taxes

(i) Current income tax

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the reporting date.

Current income taxes are recognised in profit or loss except to the extent that the tax relates to items recognised outside profit or loss, either in other comprehensive income or directly in equity.

(ii) Deferred tax

Deferred tax is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognised for all temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, carry forward of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry forward of unused tax credits and unused tax losses can be utilised except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognised only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(u) Taxes (cont'd.)

(ii) Deferred tax(cont'd.)

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profit will allow the deferred tax assets to be utilised.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognised outside profit or loss is recognised outside profit or loss. Deferred tax items are recognised in correlation to the underlying transaction either in other comprehensive income or directly in equity and deferred tax arising from a business combination is adjusted against goodwill on acquisition.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

(v) Share capital

An equity instrument is any contract that evidences a residual interest in the assets of the Company after deducting all of its liabilities. Ordinary shares are equity instruments.

Ordinary shares are recorded at the proceeds received, net of directly attributable incremental transaction costs. Ordinary shares are classified as equity. Dividends on ordinary shares are recognised in equity in the period in which they are declared.

(w) Sales and Service Tax ("SST")

Revenue is recognised net of SST charged to customers. Expenses and assets are recognised inclusive of SST. The amount payable to taxation authority is included as payables in the statement of financial position.

Revenue, expenses and assets are recognised net of the amount of SST except:

- where SST incurred in a purchase of the asset or services is not recoverable from the taxation authority, in which case the SST is recognised as part of the cost of acquisition of an asset or as part of the expense item as applicable;
- receivables and payables that are stated with the amount of SST included.

The net amount of SST recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statements of financial position.



2. Significant accounting policies (cont'd.)

2.4 Summary of significant accounting policies (cont'd.)

(x) Fair value measurement

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- in the principal market for the asset or liability; or
- in the absence of a principal market, in the most advantageous market for the asset or liability.

Valuation techniques that are appropriate for which sufficient data are available, are used to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

- Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 - Inputs are unobservable inputs for the asset or liability.

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by re-assessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

2.5. Significant accounting estimates and judgments

The preparation of the Group's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenue, expenses, assets and liabilities, and the disclosure of contingent liabilities at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the asset or liability affected in the future.

(a) Judgments made in applying accounting policies

There are no significant judgements made by management in the application of accounting policies of the Company that have a significant effect on the financial statements.

(b) Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

2. Significant accounting policies (cont'd.)

2.5. Significant accounting estimates and judgments (cont'd.)

(b) Key sources of estimation uncertainty (cont'd.)

(i) Impairment of financial assets

The Group assesses at each reporting date whether there is any objective evidence that a financial asset is impaired. To determine whether there is objective evidence of impairment, the Group considers factors such as the probability of insolvency or significant financial difficulties of the debtor and default or significant delay in payments.

Where there is objective evidence of impairment, the amount and timing of future cash flows are estimated based on historical loss experience for assets with similar credit risk characteristics. Further information on impairment of financial assets is disclosed in Note 14.

(ii) Revenue recognise on long-term contracts

The Group recognises long-term contracts revenue and expenses in the profit or loss over time. The Group recognises revenue over time using the percentage of completion method. The percentage of completion is determined by reference to the proportion of costs incurred for the work performed to date over the estimated total project costs where the outcome of the projects can be reliably estimated.

Significant estimates is required in determining the percentage of completion, the extent of the costs incurred and the estimated total revenue and project costs. Substantial changes in cost estimates, particularly in complex projects have had, and can in future periods have, a significant effect on the Group's profitability. In making the estimation, the Group evaluates based on past experience.

3. Revenue

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Sale of goods	10,898	70,370	-	-
Rendering of services	2,003,709	4,408,295	319,564	1,977,761
Long-term contracts	27,936,306	33,235,226	13,918,016	25,275,896
	<u>29,950,913</u>	<u>37,713,891</u>	<u>14,237,580</u>	<u>27,253,657</u>

Set out below, is the disaggregation of the revenue based on the type of customers:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Government	23,319,634	30,865,246	12,441,309	26,007,137
Non-government	6,631,279	6,848,645	1,796,271	1,246,520
	<u>29,950,913</u>	<u>37,713,891</u>	<u>14,237,580</u>	<u>27,253,657</u>



3. Revenue (cont'd.)

Timing of Recognition for Revenue

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Recognised point in time	23,340,849	21,538,659	9,999,913	13,756,283
Recognised over time	6,610,064	6,175,232	4,237,667	13,497,374
	<u>29,950,913</u>	<u>37,713,891</u>	<u>14,237,580</u>	<u>27,253,657</u>

Sale of goods, licensing and commitment fees, testing services, analysis services, maintenance services and training are recognised when rendered.

System and software developments and R&D developments are deferred and recognised based on the percentage of completion of the projects.

4. Cost of sales

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Cost of goods sold	9,822	22,307	-	-
Cost of rendering services	1,254,784	1,163,059	188,471	157,757
Cost of long-term contracts	18,862,476	26,220,298	11,739,247	23,118,144
	<u>20,127,082</u>	<u>27,405,664</u>	<u>11,927,718</u>	<u>23,275,901</u>

5. (Loss)/profit before tax

Set out below, is the disaggregation of the revenue based on the type of customers:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Grant income	(111,170,802)	(115,666,518)	(115,666,518)	(130,769,220)
Employee benefits expense (Note 6)	67,894,384	68,775,991	55,931,967	53,518,022
Auditors' remuneration				
- statutory audit	95,000	92,000	63,000	60,000
Bank and commission charges	5,103	11,880	3,996	6,566
Interest expenses (Note 10)	7,816	7,912	,816	7,912
Amortisation of intangible assets (Note 9)	90,884	94,721	90,884	94,721
Non-executive directors' remuneration				
- fees	239,406	243,605	239,406	243,605
- other emoluments	119,260	86,024	117,960	84,724
Depreciation of property, plant and equipment (Note 8)	13,936,225	17,898,595	13,929,899	17,898,595
Depreciation of right-of-use asset (Note 10)	557,954	557,954	557,954	557,954
Loss on disposal of property plant and equipment (Note 8)	208,915	3,926	16,560	1,963
Inventories written off	-	745,892	-	745,892
Net impairment on trade receivables (Note 14(a))	662,217	1,129,845	640,826	1,249,300
Profit sharing from Islamic investments	(1,629,604)	(965,153)	(1,657,519)	(943,437)
Realised foreign exchange loss/(gain)	1,559	(591)	236	940



6. Employee benefits expense

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Wages and salaries	52,539,718	54,378,229	42,866,607	41,740,636
Social security costs	445,918	414,179	366,558	308,463
Defined contribution plan	8,049,949	8,218,789	6,592,733	6,262,970
Other staff-related expenses	6,858,799	5,764,794	6,106,069	5,205,953
	<u>67,894,384</u>	<u>68,775,991</u>	<u>55,931,967</u>	<u>53,518,022</u>

The following amounts have been included in employee benefits expense:

	Group/Company	
	2023 RM	2022 RM
Key management personnel's remuneration	757,223	902,922
Contract employees	<u>28,155,566</u>	<u>31,606,235</u>

7. Income tax expense

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Current income tax:				
- Malaysian income tax	450,680	282,772	450,680	282,772
- Overprovision in prior years	(158,866)	-	(164,529)	-
	<u>291,814</u>	<u>282,772</u>	<u>286,151</u>	<u>282,772</u>

Domestic income tax is calculated at the Malaysian statutory tax rate of 24% (2022: 24%) of the estimated assessable profit for the year.

A reconciliation of income tax expense applicable to profit before tax at the statutory income tax rate to income tax expense at the effective income tax rate of the Group and of the Company is as follows:

7. Income tax expense (cont'd.)

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Profit/(loss) before tax	1,854,814	2,761,359	1,972,044	3,296,160
Taxation at the Malaysian statutory tax rate of 24% (2022: 24%)	445,155.6	62,726	473,291	791,078
Grant income not subject to tax	(3,468,957)	(4,402,519)	(3,468,957)	(4,402,519)
Expenses not deductible for tax purposes	3,256,535	4,758,411	3,249,425	4,718,244
Utilisation of previously unrecognised deferred tax assets	(57,737)	(1,092,465)	-	(824,031)
Deferred tax assets not recognised during the year	275,684	356,619	196,921	-
Overprovision of income tax expense in prior years	(158,866)	-	(164,529)	-
Income tax expense for the year	291,814	282,772	286,151	282,772

Deferred tax assets have not been recognised in respect of the following items:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Unutilised tax losses	69,438,076	66,363,457	37,633,014	34,646,005
Unabsorbed capital allowances	-	-	-	-
Other deductible temporary differences	656,528	2,823,034	656,528	2,823,034
	70,094,604	69,186,491	38,289,542	37,469,039

The availability of the unutilised tax losses, unabsorbed capital allowances and other deductible temporary differences for offsetting against future taxable profits of the Group and the Company is subject to no substantial changes in shareholdings of the respective companies under the Income Tax Act, 1967, and guidelines issued by the tax authority. Effective from the year of assessment 2019, unutilised tax losses are allowed to be carried forward for a maximum period of 10 years.

The unutilised tax losses of the Group and the Company are available for offsetting against future taxable profits as follows:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Utilisation period up to:				
Year of assessment 2029	47,295,747	47,353,480	29,631,351	29,631,351
Year of assessment 2030	9,685,634	9,685,634	4,726,611	4,726,611
Year of assessment 2031	12,574,000	12,574,000	288,043	288,043
Year of assessment 2032	1,605,368	1,605,368	-	-
Year of assessment 2033	4,965,070	-	2,987,009	-
	76,125,819	71,218,482	37,633,014	34,646,005



8. Property, plant and equipment

Group	Furniture and fittings RM	Motor vehicles RM
At 31 December 2023		
Cost		
At 1 January	4,791,534	732,514
Additions	3,450	-
Disposal	-	-
At 31 December	<u>4,794,984</u>	<u>732,514</u>
Accumulated depreciation		
At 1 January	4,593,631	732,510
Charge for the year (Note 5)	44,068	-
Disposal	-	-
At 31 December	<u>4,637,699</u>	<u>732,510</u>
Net carrying amount		
At 31 December	<u>157,285</u>	<u>4</u>

Office equipment RM	Computer hardware RM	Laboratory and workshop equipment RM	Landscaping and renovation RM	Capital work-in- progress RM	Total RM
16,311,738	114,983,387	223,582,710	33,941,653	11,056,375	405,399,911
77,860	699,749	5,458,390	-	3,975,849	10,215,298
(10,945)	(1,270,308)	(558,705)	-	-	(1,839,958)
16,378,653	114,412,828	228,482,395	33,941,653	15,032,224	413,775,251
16,145,239	107,142,637	207,301,632	32,819,445	-	368,735,094
73,286	6,770,269	6,617,078	431,524	-	13,936,225
(6,741)	(1,071,500)	(552,802)	-	-	(1,631,043)
16,211,784	112,841,406	213,365,908	33,250,969	-	381,040,276
166,869	1,571,422	15,116,487	690,684	15,032,224	32,734,975



8. Property, plant and equipment (cont'd.)

Group	Furniture and fittings RM	Motor vehicles RM
At 31 December 2022		
Cost		
Cost		
At 1 January	4,791,534	732,514
Additions	-	-
Disposal	-	-
At 31 December	4,791,534	732,514
Accumulated depreciation		
At 1 January	4,538,980	732,510
Charge for the year (Note 5)	54,651	-
Disposal	-	-
At 31 December	4,593,631	732,510
Net carrying amount		
At 31 December	197,903	4



Office equipment RM	Computer hardware RM	Laboratory and workshop equipment RM	Landscaping and renovation RM	Capital work-in- progress RM	Total RM
16,286,788	114,140,542	213,222,036	33,941,653	10,998,975	394,114,042
24,950	988,594	10,371,270	-	57,400	11,442,214
-	(145,749)	(10,596)	-	-	(156,345)
6,311,738	114,983,387	223,582,710	33,941,653	11,056,375	405,399,911
16,024,017	96,747,762	200,635,975	32,311,637	-	350,990,881
121,222	10,538,665	6,676,249	507,808	-	17,898,595
-	(143,790)	(10,592)	-	-	(154,382)
16,145,239	107,142,637	207,301,632	32,819,445	-	368,735,094
166,499	7,840,750	16,281,078	1,122,208	11,056,375	36,664,817



8. Property, plant and equipment (cont'd.)

Company	Furniture and fittings RM	Motor vehicles RM
At 31 December 2023		
Cost		
At 1 January	4,791,534	732,514
Additions	3,450	-
Disposal	-	-
At 31 December	4,794,984	732,514
Accumulated depreciation		
Accumulated depreciation		
At 1 January	4,593,631	732,510
Charge for the year (Note 5)	44,068	-
Disposal	-	-
At 31 December	4,637,699	732,510
Net carrying amount		
At 31 December	157,285	4

Office equipment RM	Computer hardware RM	Laboratory and workshop equipment RM	Landscaping and renovation RM	Capital work-in- progress RM	Total RM
16,306,964	114,817,991	223,582,710	33,941,653	11,056,375	405,229,741
74,400	500,374	5,458,390	-	3,975,849	10,012,463
(10,945)	(1,072,458)	(558,706)	-	-	(1,642,109)
16,370,419	114,245,907	228,482,394	33,941,653	15,032,224	13,600,095
16,140,921	106,976,792	207,301,632	32,819,444	-	368,564,930
72,709	6,764,520	6,617,078	431,524	-	13,929,899
(6,741)	(1,066,006)	(552,802)	-	-	(1,625,549)
16,206,889	112,675,306	213,365,908	33,250,968	-	380,869,280
163,530	1,570,601	15,116,486	690,685	15,032,224	32,730,815



8. Property, plant and equipment (cont'd.)

Company	Furniture and fittings RM	Motor vehicles RM
At 31 December 2022		
Cost		
At 1 January	4,791,534	732,514
Additions	-	-
Disposal	-	-
At 31 December	4,791,534	732,514
Accumulated depreciation		
At 1 January	4,538,980	732,510
Charge for the year (Note 5)	54,651	-
Disposal	-	-
At 31 December	4,593,631	732,510
Net carrying amount		
At 31 December	197,903	4

Office equipment RM	Computer hardware RM	Laboratory and workshop equipment RM	Landscaping and renovation RM	Capital work-in- progress RM	Total RM
16,282,014	113,975,146	213,222,036	33,941,653	10,998,975	393,943,872
24,950	988,594	10,371,270	-	57,400	11,442,214
-	(145,749)	(10,596)	-	-	(156,345)
<u>16,306,964</u>	<u>114,817,991</u>	<u>223,582,710</u>	<u>33,941,653</u>	<u>11,056,375</u>	<u>405,229,741</u>
16,019,699	96,581,917	200,635,975	32,311,636	-	350,820,717
121,222	10,538,665	6,676,249	507,808	-	17,898,595
-	(143,790)	(10,592)	-	-	(154,382)
<u>16,140,921</u>	<u>106,976,792</u>	<u>207,301,632</u>	<u>32,819,444</u>	<u>-</u>	<u>368,564,930</u>
<u>166,043</u>	<u>7,841,199</u>	<u>16,281,078</u>	<u>1,122,209</u>	<u>11,056,375</u>	<u>36,664,811</u>



9. Intangible assets

	Group/Company Computer software RM
Cost	
At 1 January 2022	104,664,222
Additions	62,008
At 31 December 2022	104,726,230
Additions	7,496
At 31 December 2023	104,733,726
Accumulated amortisation	
At 1 January 2022	104,496,552
Amortisation (Note 5)	94,721
At 31 December 2022	104,591,273
Amortisation (Note 5)	90,884
At 31 December 2023	104,682,157
Net carrying amount	
At 31 December 2023	51,569
At 31 December 2022	134,957

10. Right-of-use assets and lease liabilities

(a) Right-of-use assets

The Group occupies land and buildings owned by the Government of Malaysia at a nominal lease rental of RM10,000 per annum for a period of 60 years based on the Corporatisation Agreement. The remaining lease is for a period of 33 years.

The Company leases a server for a period of 4 years with fixed rents (expired on 30 June 2020) and no option to renew the lease.

Group/Company	Land RM	Building RM	Server RM	Total RM
Cost				
At 31 December 2022/31 December 2023	100,273	27,765,204	1,626,723	29,492,200

10. Right-of-use assets and lease liabilities (cont'd.)

(a) Right-of-use assets (cont'd.)

Group/Company	Land RM	Building RM	Server RM	Total RM
Accumulated depreciation				
At 1 January 2022	7,950	10,546,221	1,626,723	12,180,894
Charge for the year (Note 5)	2,650	555,304	-	557,954
At 31 December 2022	10,600	11,101,525	1,626,723	12,738,848
Charge for the year (Note 5)	2,650	555,304	-	557,954
At 31 December 2023	13,250	11,656,829	1,626,723	13,296,802
Net carrying amount				
At 31 December 2022	89,673	16,663,679	-	16,753,352
At 31 December 2023	87,023	16,108,375	-	16,195,398

(b) Lease liabilities

	2023 RM	2022 RM
At 1 January	169,915	172,003
Interest expense	7,816	7,912
Payments	(10,000)	(10,000)
At 31 December	167,731	169,915
Lease liabilities:		
Non-current	165,547	167,827
Current	2,184	2,088
	167,731	169,915

Below summary of the maturity profile of the lease liabilities based on contractual undiscounted payments:

	On demand or within one year RM	One to five years RM	More than five years RM	Total RM
Lease liabilities				
31 December 2023	10,000	50,000	280,000	340,000
31 December 2022	10,000	50,000	290,000	350,000



11. Investments in subsidiaries

	Company	
	2023 RM	2022 RM
Unquoted shares, at cost	7,000,000	7,000,000
Less: Accumulated impairment losses	(5,000,000)	(5,000,000)
	<u>2,000,000</u>	<u>2,000,000</u>

Details of the subsidiaries are as follows:

Name of subsidiaries	Country of incorporation	Principal activities	Proportion of ownership interest	
			2023 %	2022 %
MIMOS Technology Solutions Sdn. Bhd.	Malaysia	Technology monetisation and investment activities, provide technology related services and maintenance activities	100	100
MIMOS Semiconductor (M) Sdn. Bhd	Malaysia	Provision of industry services in the area of semiconductor, microelectronics, electrical & electronics systems and manufacturing technology	100	100

12. Other investments

	Group/Company	
	2023 RM	2022 RM
Unquoted shares, at cost	380,500	380,500
Less: Accumulated impairment losses	(380,500)	(380,500)
	-	-

Other investments represent mainly preference shares acquired in companies incorporated in the United State of America. These companies are mainly involved in Information Technology (“IT”) related projects.

13. Inventories

	Group/Company	
	2023 RM	2022 RM
Raw materials	732,080	735,974
Spare parts	2,263,551	2,303,151
	2,995,631	3,039,125

During the year, the amount of inventories recognised as an expense in the cost of sales of the Group and Company is RM43,494 (2022: RM22,307).

14. Trade and other receivables

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Current				
Trade receivables:				
Third parties (a)	3,621,825	6,604,599	2,708,684	5,504,508
Less: Allowance for impairment	(677,919)	(15,702)	(656,528)	(15,702)
	2,943,906	6,588,897	2,052,156	5,488,806



14. Trade and other receivables (cont'd.)

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Other receivables:				
Due from related parties (b)	4	4	4	4
Due from subsidiaries (b)	-	-	2 7,275,761	30,792,674
Deposits	150,558	213,000	150,558	213,000
Prepayments	2,036,790	4,391,108	2,036,790	4,350,796
Sundry receivables	3,549,621	3,009,286	3,933,610	3,440,363
Less: Allowance for impairment	(3,166,960)	(3,166,960)	(3,166,960)	(3,166,960)
	<u>2,570,013</u>	<u>4,446,438</u>	<u>30,229,763</u>	<u>35,629,877</u>
Total trade and other receivables	5,513,919	11,035,335	32,281,919	41,118,683
Less: Prepayments	(2,036,790)	(4,391,108)	(2,036,790)	(4,350,796)
Add: Cash and cash equivalents (Note 16)	142,266,214	62,843,577	139,395,271	56,692,683
	<u>145,743,343</u>	<u>69,487,804</u>	<u>169,640,400</u>	<u>93,460,570</u>
Total financial assets carried at amortised cost	145,743,343	69,487,804	169,640,400	93,460,570

(a) Trade receivables

Trade receivables are non-interest bearing and are generally on 30 to 60 days (2022: 30 to 60 days) terms. They are recognised at their original invoice amounts which represent their fair values on initial recognition.

14. Trade and other receivables (cont'd.)

(a) Trade receivables (cont'd.)

Ageing analysis of trade receivables

The ageing analysis of the Group's trade receivables is as follows:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Neither past due nor impaired	2,092,098	1,273,768	1,557,917	1,093,644
1 to 30 days past due not impaired	89,894	592,499	27,500	37,752
31 to 60 days past due not impaired	91,009	3,654,900	33,399	3,616,110
61 to 90 days past due not impaired	511,532	69,319	422,452	6,579
91 to 180 days past due not impaired	26,459	5,879	10,808	19,484
More than 180 days past due not impaired	132,914	902,532	80	715,237
	851,808	5,315,129	494,239	4,395,162
Impaired	677,919	15,702	656,528	15,702
	3,621,825	6,604,599	2,708,684	5,504,508

Receivables that are neither past due nor impaired

Trade receivables that are neither past due nor impaired are creditworthy debtors with good payment records with the Group. Approximately 90% (2022: 90%) of the Group's trade receivables arise from customers with more than one year of experience with the Group.

None of the Group's and the Company's trade receivables that are neither past due nor impaired have been renegotiated during the financial year.

Receivables that are past due but not impaired

The Group and the Company have trade receivables amounting to RM851,808 (2022: RM5,315,129) and RM494,239 (2022: RM4,395,162) respectively that are past due at the reporting date but not impaired. These amounts are expected to be collected in the next 12 months from the reporting date



14. Trade and other receivables (cont'd.)

(a) Trade receivables (cont'd.)

Receivables that are impaired

The movement of the allowance accounts used to record the impairment are as follows:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
At 1 January	15,702	2,941,438	15,702	1,573,726
Addition	662,217	1,129,845	640,826	1,249,300
Written off	-	(4,055,581)	-	(2,807,324)
At 31 December	677,919	15,702	656,528	15,702

Trade receivables that are individually determined to be impaired at the reporting date relate to debtors who are in significant financial difficulties and have defaulted on payments. These receivables are not secured by any collateral or credit enhancements.

(b) Amounts due from related parties and subsidiaries

These amounts are unsecured, non-interest bearing and repayable on demand.

15. Contract assets/(contract liabilities)

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Contract assets	2,243,939	5,623,657	2,078,614	3,568,197
Contract liabilities	(6,320,795)	(8,191,379)	(978,425)	(1,922,497)
(a)	(4,076,856)	(2,567,722)	1,100,189	1,645,700

15. Contract assets/(contract liabilities) (cont'd.)

(a) Contract assets/contract liabilities

The Group issues progress billings to purchasers when billing milestones are attached recognised revenues when performance obligation is satisfied.

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Contract costs incurred to date	246,060,674	219,674,743	177,859,919	166,120,672
Attributable profits	108,130,098	99,120,654	88,526,931	86,348,16
	354,190,772	318,795,397	266,386,850	252,468,836
Less: Progress billings	(358,267,628)	(321,363,119)	(265,286,661)	(250,823,136)
	(4,076,856)	(2,567,722)	1,100,189	1,645,700

The transaction price allocated to the unsatisfied performance obligations as at 31 December 2023 is RM8,191,379 (2022: RM5,399,793). The remaining performance obligations are expected to be recognised within one year.

Set out below is the amount of revenue recognised from:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Amount included in contract liabilities at the beginning of the year	(8,191,379)	(5,399,793)	(1,922,497)	(4,003,012)

16. Cash and cash equivalents

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Cash on hand and at banks	4,413,916	11,634,449	2,608,216	6,663,555
Deposits with licensed banks	137,852,298	51,209,128	136,787,055	50,029,128
Total cash and cash equivalents	142,266,214	62,843,577	139,395,271	56,692,683



16. Cash and cash equivalents (cont'd.)

The weighted average effective profit rates and average maturity of deposits at the year end are as follows:

	Group		Company	
	Weighted average profit rates (per annum)	Average maturity Days	Weighted average profit rates (per annum)	Average maturity Days
Deposits with licensed banks	3.25%	1-38	2.34%	1-31

17. Trade and other payables

		Group		Company	
		2023 RM	2022 RM	2023 RM	2022 RM
Current					
Trade payables:					
Third parties	(a)	993,722	755,191	726,156	304,633
Other payables:					
Accruals		8 83,625	2,624,840	772,095	2,150,189
Sundry payables	(a)	8,709,137	11,267,364	7,366,455	9,676,633
		9,592,762	13,892,204	8,138,550	11,826,822
Total trade and other payables		10,586,484	14,647,395	8,864,706	12,131,455
Lease liabilities		169,915	172,003	169,915	172,003
Total financial liabilities carried at amortised cost		10,754,215	14,817,310	9,032,437	12,301,370

(a) Trade and other payables

These amounts are non-interest bearing. Trade and other payables are normally settled within 90 days (2022: 90 days).

(b) Amount due to a subsidiary

These amounts are unsecured, non-interest bearing and repayable on demand.

18. Share capital

	Number of ordinary shares		Amount	
	2023	2022	2023 RM	2022 RM
Issued and fully paid-up:				
At 1 January/31 December	100,000,000	100,000,000	100,000,000	100,000,000

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled to one vote per share at meetings of the Company. All ordinary shares ranked pari passu with regard to the Company's residual assets.

In accordance with Section 74 of the Companies Act, 2016 in Malaysia, the Company's share no longer have a par or nominal effect.

19. Funds accounts

	Note	Group/Company	
		2023 RM	2022 RM
Development and other grants	(a)	133,461,238	58,920,465
Operational fund	(b)	-	-
Deferred income	(c)	48,468,868	52,902,896
		<u>181,930,106</u>	<u>111,823,361</u>

(a) Development and other grants

This represents unutilised portion of grants received from the Government of Malaysia for approved research and development projects under the various Malaysian Plans, National Key Economic Areas ("NKEA"), science, training and other funds. These grants are recognised in profit or loss in the same period which they are intended to compensate and also can be used to acquire assets.



19. Funds accounts (cont'd.)

(a) Development and other grants (cont'd.)

	Group/Company	
	2023 RM	2022 RM
At 1 January	58,920,465	81,513,155
Add : Grants received from the Government of Malaysia	111,025,500	23,670,775
	169,945,965	105,183,930
Less: Transfer to deferred income	(9,934,580)	(11,479,272)
Transfer to profit or loss	(13,802,194)	(15,647,638)
Grant disbursed/refunded	(12,747,953)	(19,136,555)
At 31 December	133,461,238	58,920,465

(b) Operational fund

This represents unutilised portion of grants received from the Government of Malaysia for the purpose of financing the Group/Company's operations.

The movement of this account is as follows:

	Group/Company	
	2023 RM	2022 RM
At 1 January	-	-
Add : Grants received from the Government of Malaysia	8 3,000,000	81,700,000
	83,000,000	81,700,000
Less: Transfer to deferred income	(85,379)	(24,950)
Transfer to profit or loss	(82,914,621)	(81,675,050)
At 31 December	-	-

(c) Deferred income

This represents development grants received in respect of capital expenditure. An amount equivalent to the assets acquired under the various development and other grants was transferred to a deferred income account upon its acquisition. The grant is recognised in profit or loss as grant income over the life of the assets acquired by the annual transfer of an amount equal to the depreciation charged on the related assets.

19. Funds accounts (cont'd.)

(c) Deferred income (cont'd.)

The movement of this account is as follows:

	Group/Company	
	2023 RM	2022 RM
At 1 January	52,902,896	59,742,503
Add : Transfer from development and other grants	9,934,580	11,479,272
Transfer from operational fund	8,5379	24,950
	<u>62,922,855</u>	<u>71,246,725</u>
Less: Transfer to profit or loss	(14,453,987)	(18,343,829)
At 31 December	<u>48,468,868</u>	<u>52,902,896</u>

20. Compensation of key management personnel

Key management personnel is defined as those having authority and responsibility for planning, directing and controlling the activities of the Group and the Company either directly or indirectly. The key management personnel include all directors of the Group and the Company and certain members of senior management of the Group and the Company.

The Group and the Company regard the following to be the key management of the Group and of the Company:

- (i) President & Chief Executive Officer;
- (ii) Head, Governance Sector;
- (iii) Head, Technology Venture Sector;
- (iv) Chief Executive Officer, MIMOS Technology Solutions Sdn. Bhd.;
- (v) General Manager, MIMOS Semiconductor (M) Sdn. Bhd.

The remuneration of directors and other members of key management during the year is as follows:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Key management personnel's remuneration:				
- salaries and short-term benefits	670,333	780,000	670,333	780,000
- defined contribution plan	86,890	122,922	86,890	122,922
	<u>757,223</u>	<u>902,922</u>	<u>757,223</u>	<u>902,922</u>
Non-executive directors' remuneration:				
- fees	239,406	243,605	239,406	243,605
- other emoluments	119,260	86,024	117,960	84,724
	<u>358,666</u>	<u>329,629</u>	<u>357,366</u>	<u>328,329</u>



20. Compensation of key management personnel (cont'd.)

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Other key management personnels' remuneration				
- salaries and short-term benefits	1,664,529	1,236,966	675,437	1,236,966
- defined contribution plan	221,831	161,245	120,340	161,245
	<u>1,886,360</u>	<u>1,398,211</u>	<u>795,777</u>	<u>1,398,211</u>
	<u>3,002,249</u>	<u>2,630,762</u>	<u>1,910,366</u>	<u>2,629,462</u>

21. Fair value of financial instruments

Determination of fair value

Financial instruments that are not carried at fair value and whose carrying amounts are reasonable approximation of fair value:

	Note
Investments in subsidiaries	11
Other investments	12
Trade and other receivables	14
Cash and cash equivalents	16
Trade and other payables	17

The carrying amounts of these financial assets and liabilities are reasonable approximation of fair values due to their short-term nature.

22. Financial risk management objectives and policies

The Group is exposed to financial risks arising from their operations and the use of financial instruments. The key financial risks include credit risk, liquidity risk, interest rate risk and foreign currency risk. The Board reviews and agrees policies and procedures for the management of these risks and they are summarised below.

The following sections provide details regarding the Group's exposure to the above-mentioned financial risks and the objectives, policies and processes for the management of these risks.

(a) Credit risk

Credit risk is the risk of loss that may arise on outstanding financial instruments should a counterparty default on its obligations. The Group's exposure to credit risk arises primarily from trade receivables and other receivables. For other financial assets including cash and cash equivalents, the Group minimises credit risk by dealing exclusively with high credit rating counterparties.

The Group's objective is to seek continual revenue growth while minimising losses incurred due to increased credit risk exposure. The Group trades only with recognised and creditworthy third parties. The Group seeks to maintain strict control over its outstanding receivables and has a credit control department to minimise credit risk. Overdue balances are reviewed regularly by senior management.

22. Financial risk management objectives and policies (cont'd.)

(a) Credit risk (cont'd.)

Exposure to credit risk

At the reporting date, the Group's maximum exposure to credit risk is represented by the carrying amount of each class of financial assets recognised in the statements of financial position with positive fair value.

Credit risk concentration profile

The Group has no significant concentration of credit risk that may arise from exposures to a single debtor or groups of debtors. Trade receivables are non-interest bearing.

Financial assets that are neither past due nor impaired

Information regarding trade receivables that are neither past due nor impaired is disclosed in Note 14. Deposits with banks and other financial institutions that are neither past due nor impaired are placed with or entered into with reputable financial institutions with high credit ratings and no history of default.

Financial assets that are either past due or impaired

Information regarding financial assets that are either past due or impaired is disclosed in Note 14.

(b) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting financial obligations due to a shortage of funds. The Group's exposure to liquidity risk arises primarily from mismatches of the maturities of financial assets and liabilities. The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of stand-by credit facilities.

The Group is dependent on the holding company to provide continuing financial support to enable it to meet their obligation when they fall due. As part of its overall prudent liquidity management, the Group maintains sufficient level of cash or cash convertible investment to meet its working capital requirements.

(c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the Group's and Company's financial instruments will fluctuate because of changes in market interest rates.

The Group does not have any interest-bearing long-term debt as at the reporting date. The investment in financial assets are mainly short-term in nature and they are not held for speculative purposes but have been mostly placed in fixed deposits which yield better return than cash at bank.



23. Related party disclosures

Significant related party transactions other than those disclosed elsewhere in the financial statements are as follows:

	Group		Company	
	2023 RM	2022 RM	2023 RM	2022 RM
Sales of goods/rendering of services				
Government-related agencies and companies	23,319,634	30,865,246	12,352,059	26,007,137
Profit sharing received from:				
Government-related financial institutions	848,405	536,697	820,490	514,981

The Group is a Government-related entity by virtue of its relationship with the Minister of Finance (Incorporated).

The Group operates in an economic regime dominated by entities directly or indirectly controlled by the Government of Malaysia through its Government authorities, agencies, affiliations and other organisations, collectively referred to as Government-related entities. These transactions are conducted in the ordinary course of business of the Group's business on terms comparable to those with other entities that are not Government-related.

The directors are of the opinion the above transactions are in the normal course of business and at terms mutually agreed between the parties.

24. Capital management

The primary objective of the Group's capital management is to maintain an optimal capital structure in order to support its business and maximise shareholder value. The Group manages its capital structure and makes adjustments to it, in light of changes in economic condition.

The Group's operations and development costs are partially funded via government grants.

25. Authorisation of financial statements for issue

The financial statements for the year ended 31 December 2023 were authorised for issue on 24 May 2024.



Innovation for Life™



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