

# Igniting

## Asean's R&D revolution

THE Asean region is a powerhouse. With a combined gross domestic product (GDP) of US\$3.8 trillion in 2023, it's currently the world's fifth-largest economy, spelling out significant geopolitical and economic advantages that could bring about substantial global influence.

One of the ways for the region to continue sharpening its strengths is through constant and innovative research and development (R&D).

However, R&D spending for the region lags behind many other individual countries.

As of 2020, R&D spending in the region amounted to US\$34bil. Even though it was an increase from the US\$21bil over a decade ago, it still lags behind many other developed economies.

For context, Singapore alone has committed to investing SG\$25bil in the next five years. China's annual investment has crossed US\$500bil.

The United States is still the leading country that spends on R&D, investing more than US\$1 trillion every year.

The question to ask is, can Asean become a global R&D bloc, overtaking many others by leveraging our own unique strengths?

Diversity, strategic locations, regional cooperation, diplomatic approaches. All these shouts of merit.

More so, as Malaysia takes on the Asean chairmanship, what advantages can we leverage, ones that can shape policies and strategically move our region into greater heights?

Better still, let's dive into what makes this region particularly special.

### Unlocking potential from within

For decades, the region has looked westward for ideas and concepts to fuel its growth.

From free trade agreements across most countries in the region, to financial regulations such as in Singapore, this reliance has shaped the region's economic trajectory.

While it delivered progress, it also fostered a mindset that undervalued Asean's own potential.

The region's 677 million people, a vibrant mix of cultures and talent, represent untapped human capital that could redefine its future, yet this resource remains overshadowed by Western blueprints.

Why is this so, and why are we continuing to be satisfied



**DR SHARLENE THIAGARAJAH**  
TM Research & Development CEO

with this?

I posit that Asean countries boast remarkable strengths.

Indonesia's digital economy is among the fastest growing in the region. This means its workforce is tech-savvy.

Vietnam is becoming increasingly agile, they have a goal to "green" many economic sectors. These assets don't need Western validation – they're rooted in local resilience and ingenuity.

Let's look at some of the solid solutions the region has come up with in the last decade.

The Taxonomy for Sustainable Finance is on par with similar standards from the West but tailored to regional needs. How can this boost neighbouring countries?

What about the promotion of rooftop solar?

Countries within the region have advocated for this, particularly small and medium enterprises, by combining government incentives with accessible green financing options.

Then, we look at healthcare. We face challenges and risks in this part of the world that are so different to the West.

How can R&D transform the sector?

I'm glad the Asean Network for Drugs, Diagnostics, Vaccines and Traditional Medicine Innovation or Asean-NDI already exists because it fosters collaboration and the pooling of resources to tackle shared health issues.

But, much more still needs to be done.

Wishful thinking, some might say but if I could, here would be my other "asks" from the Asean bloc.

Technology and artificial intelligence (AI) – will there be more companies that can develop solutions that not only solve concerns



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■ The region can rival East Asia's innovation hubs, such as Korea or Japan, if it acts now

capable of critical thinking.

These efforts will prepare the region's workforce for Industry 4.0, while addressing automation risks and fostering inclusive growth.

That's great news if you ask me!

The government has come up with a framework, the National Policy on Science, Technology, and Innovation 2021-2030.

This is a roadmap to becoming a high-tech nation.

We also want to increase R&D to 2.5% of our GDP, aiming to reach 3.5% by 2030.

Investing in digital infrastructure should not be taken lightly. Cyberjaya, Malaysia's own Silicon Valley, serves as a hub for tech companies, startups and R&D activities.

The result? AWS announced plans to invest US\$6bil in Malaysia by establishing a new cloud region. So, are we standing at the cusp of all we think is possible?

As Asean builds bridges across borders and ideas, the question isn't if greatness is possible – it's when.

With Malaysia's tech chops and the region's rich diversity, a powerhouse R&D bloc shouldn't be a dream but a solid possibility.

Can the region rival East Asia's innovation hubs if we act now? I believe that is possible for Asean to become like Korea or even Japan.

Malaysia's 2025 chairmanship is more than a seat at the table – it's a launchpad.

The countdown has started. Will Asean press "go"?

I guess we will have to wait and see.

Malaysia has my vote for a yes!

### Malaysia at the helm

In saying all this, Malaysia has the capability to take the lead in R&D.

Our semiconductor industry is a thriving silent giant as Malaysian Investment Development Authority puts it.

With trade wars and supply chain disruptions, Malaysia has managed to keep its hold on the industry while climbing its way up the supply chain.

How do we know this?

Thirteen percent of global chip packaging, assembly and testing services are done in Malaysia.

Names like Intel, GlobalFoundries and Infineon are no strangers to us here.

How do we grab onto this standard and not let go?

R&D needs to be nurtured from the very start, in schools.

We must prioritise STEM (science, technology, engineering and mathematics) education by equipping students to delve into critical emerging fields like AI, genetic engineering, sustainable energy systems and robotics – areas that will define societies of tomorrow.

Unesco Institute for Statistics shows tertiary students in Malaysia are among the most likely to graduate in a STEM field.

but are forward-looking in itself?

For instance, Malaysia has seen significant growth in patent applications for payment and security-related data processing technologies.

Can this grow even bigger?

Agriculture and food security – can R&D be harnessed to create biotech that can develop crops more resilient to droughts and climate change?

What about precision farming? Is there enough R&D being put into this method?

Education and skill training – fostering innovation and incubators based on demographic segments can ensure we are churning out professionals that are