

Rukun Negara and innovation

THE Rukun Negara, Malaysia's blueprint for national unity, was launched on Aug 31, 1970. It comes in two parts: the objectives and the principles. This year, we are celebrating its golden anniversary – but, just as in the past, it is again the principles that are being emphasised while the objectives are always elided. The result is that many Malaysians are unaware of the Rukun Negara's transformational message, which goes beyond national unity and social harmony.

The five objectives are:

1. Achieving a greater unity of the people;
2. Maintaining a democratic way of life;
3. Creating a just society with equitable sharing of prosperity;
4. Ensuring a liberal approach to the country's rich and diverse cultural traditions;
5. Building a progressive society by harnessing modern science and technology.

If we look closely at the five objectives and where we are today, as a nation we are guilty of ignoring them and of not translating them into actionable practices beyond just reciting them.

Take the example of the mutually reinforcing third and fifth objectives. Equitable sharing of prosperity is a function of a robust economy which is dependent on the capacity to harness modern science and technology. In this context, becoming a "high income economy, innovation driven and private-sector led" has been the declared target of successive governments of the day. Yet we are still caught in the middle income trap. It is a reflection that our innovative capacity, our capacity to harness modern science and technology, is suboptimal.

If we look at this from the perspective of total national capacity in science, technology and innova-



tion (STI), enhancement is sorely needed in each of the following components:

- > A government committed to providing physical and soft infrastructure for comprehensive STI;
 - > A scientific and technological community that is ethical and competent and able to contribute to and draw from the global pool of scientific knowledge and technological know-how;
 - > A private sector capable of creating wealth through the application of STI in both traditional and new sectors of the economy;
 - > A society that is at ease with science, literate and imbued with a culture of creativity, innovativeness and entrepreneurship;
 - > An efficient governance system, including an effective science advice sub-system, enabling effective policymaking, planning, and implementation; and public debate and international collaborations that ensure long-term commitment to the development of STI.
- As examples, in terms of the basic and high-tech infrastructure, network cohesion, and global integration, Malaysia is placed in the "catch-up stage" compared with the "frontier stage" that our southern

neighbour is in. We have failed to achieve research and development (R&D) expenditure of 1.5% of the GDP and of 60 R&D personnel per 10,000 head of population, two important targets we set for ourselves for 2010.

It is not that the country has not been alerted about having to optimise our capacity to harness modern science and technology. The Academy of Sciences Malaysia's "Science Outlook" report, published in 2015, identified entrenched weaknesses in six strategic areas: STI governance; research, development and commercialisation; STI talent; engineering industries; STI enculturation; and strategic international alliances.

The report made 16 recommendations for improvement across the STI landscape, including:

- > Empower a centralised inter-ministerial STI coordination and monitoring body to garner stakeholder participation; establish a Parliamentary Select Committee on STI.
- > Empower a centralised body to promote seamless RD&C (research, development and compliance) implementation, management and monitoring to evaluate beyond tra-

ditional return on investment.

- > Bridge the gap between policy and reality through a review of implementation; strategise effective policy measures to retain STI talent.

- > Aggressive and continuous dissemination of the STI agenda among industry players to enhance their understanding and involvement.

- > Establish a strategic long-term plan on STI enculturation.

- > Forge and increase STI-focused international alliances to establish Malaysia's leadership and achieve excellence.

However, "Science Outlook 2017" states in its conclusion that:

"Malaysia's aspiration to be an advanced nation requires all sectors to have the capacity for developing knowledge capital to fuel Malaysia's drive to be an advanced economy. It is unfortunate that most of the recommendations outlined in "Science Outlook 2015" have not been taken up by the relevant stakeholders, thus affecting the momentum of Malaysia's science, technology and innovation endeavours."

Encouragingly, there are reports of new initiatives being put in place, such as the National Technology and Innovation Sandbox. However, such an initiative should be part of a comprehensive national STI agenda, and actions to improve our total national capacity in STI must be a sustained commitment not vulnerable to capricious political agendas. Otherwise, the Rukun Negara's third and fifth objectives will not be achieved, and we will fail to do it justice.

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