

# Executive Summary

## Our Common Future: A Joint Project of Two Maritime Democracies

One of the most important known unknowns in the path to 2045 is that the world, including our two countries, Indonesia and Japan, will undergo dramatic economic, social, political, and cultural transformations. In the 1980s, few of us could have imagined the world in which we now live, where smartphones and the Internet, artificial intelligence, the Internet of things, drones, and advances in biology and medical science have changed our lives fundamentally; where Indonesia is being led by a former mayor and governor turned president elected directly in a full-fledged democracy; and where Japan is no longer an economic superpower or even the largest economy in Asia. We can assume something equally unimaginable awaits us in 2045. And although we do not know what the world will look like by then, we know it will be radically different from the one we now know and that we should prepare for it in every way we can.

Technological advances will present us with major changes in the areas of business, employment, government, education, health, defence, and security. The challenges will be enormous. We therefore need to train people to meet all the challenges that will confront us, so that we can reap the benefits of technological transformation to make the world, as well as our two countries, a better place. Our countries have had their share of ups and downs in our histories. But they achieved, or are in the process of achieving, a life of plenty, freedom, and safety for our peoples thanks to the efforts, wisdom, courage, and commitments of our predecessors. Thus, we should be optimistic about our ability to meet the challenges we will face in the coming years.

The most important questions we should ask are what kind of countries we want to build, what positions we want to occupy in the Indo-Pacific region and the world, and what we can do together to achieve our objectives.

We both want to create a life of plenty, freedom, and safety in a society that is peaceful, stable, democratic, diverse, and tolerant. To achieve this, we need to invest in educating and training people who are not only technologically savvy and competitive, but also compassionate, able to thrive in diversity, and capable of meeting the challenges of the globalising world. Technological advancement without equivalent progress in morality, compassion, and human development could come at the cost of our life of plenty, freedom, and safety. Indonesia is an emerging nation with young population, and Japan is an advanced industrial nation with an ageing population. The two maritime powers and major democracies located strategically in the Indo-Pacific region can forge a joint partnership to achieve the kind of life we cherish and

create a peaceful, stable, free, and open region for the good of all nations in the region and beyond.

Why do we believe a life of plenty, freedom, and safety in a society that is peaceful, stable, democratic, diverse, and tolerant is worth striving for?

It is because we can benefit most from the free flow of goods, ideas, services, and people if we educate and train our people to be technologically savvy and competitive in the global market place. It is also because we believe we benefit most from the increasing diversity if it is combined with tolerance and respect for differences. A life of plenty, freedom, and safety can only be built in a society where people are well-trained and competitive, and therefore confident of their ability to live in the world and where tolerance and respect for differences upholds diversity, stability, and democracy.

Our joint project to achieve these goals contributes not only to the future generations in Indonesia and Japan, but also to supporting the region's resilience against uncertain trends such as isolationism, populism, unilateralism, and violent fundamentalism. Our future depends on whether vibrant internationalism and democracy, which are indispensable for our future prosperity and confronting common challenges such as climate change, will be maintained and revitalised.

By the mid-2040s, Indonesia is forecast to be the world's fifth-largest economy and Japan the fourth, while China, the United States (US) and India will be the largest three economies. This means that the world, especially the Indo-Pacific region, will be far more multipolar than it is today, and Indonesia and Japan – two strategically located democracies – will have important roles to play in creating a peaceful, stable, free, and open region. The Indo-Pacific region is connected by a series of seas and straits from the Indian Ocean to the Malacca, Sunda, and Lombok straits, to the South China and East China seas. As maritime democratic powers, Indonesia and Japan must take the lead in keeping these seas and straits, especially the South China Sea, open and free.

Our two countries, together with the China, India, and the US, and Brazil, Germany, Mexico, and some others, will be the engine of global growth in the coming years. As such, we, together with other economies, share vital interests in maintaining and enhancing global trade that is free, fair, multilateral, and open. Asia's strength and future lies in connectivity and diversity. We must enhance diverse channels and choices of physical, institutional, and human connectivity in the region and beyond for our common security and prosperity.

Over the last 70 years we have been together through all the ups and downs and have developed very close relations of trust and respect. We share the responsibility to pass the baton of trust to the next generation. Together we must invest in this upcoming generation to encourage and support their joint projects, goals, and dreams. As maritime democracies in

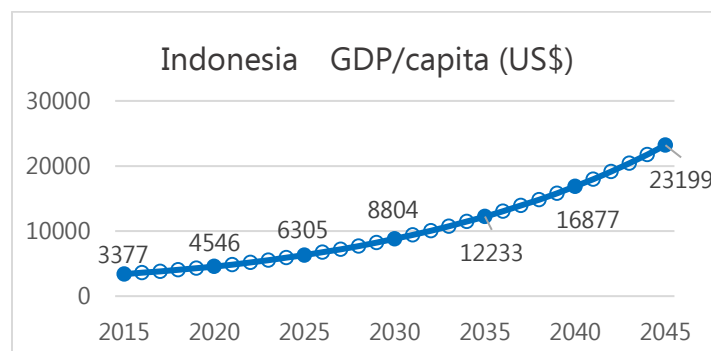
Asia with shared dreams, we must work together to strengthen and enhance our relations of trust and build a life of plenty, freedom, and safety in a society that is peaceful, stable, democratic, diverse, and tolerant.

### Background and Structure of this Report

‘Our Common Future’, the previous section, sets out the key messages of Project 2045. This indicates the direction of Indonesia and Japan towards 2045. The governments of Indonesia and Japan have produced separately some documents for future visions, such as Indonesian Vision 2045. Taking into accounts the existing vision documents of both countries, this report discusses the pathways to these goals and the enabling factors to achieve them. After a brief introduction to the visionary documents of Indonesia and Japan, the report discusses pathways to reach a common vision on Indonesia and Japan, based on 3 targets and 10 challenges identified by the Executive Committee.

### Vision Indonesia 2045

*Visi Indonesia 2045* (Vision Indonesia 2045) is developed by the National Development Planning Agency (BAPPENAS). The vision covers topics such as economic growth projections, demographic change, urbanisation and technology development. According *Visi Indonesia 2045 (Draft Version in October 2018)*, Indonesia’s gross domestic product (GDP) per capita is projected to rise to \$23,199 in 2045 from \$3,377 in 2015. The dependency ratio (the ratio of people aged zero to 14 and those over the age of 65 to the working age population) will start to increase from 2020. The vision has four pillars: human resource development and science and technology advancement, sustainable economic development, equitable development, and strengthening national security and governance.



Source: *Visi Indonesia 2045 (Draft Version in October 2018)*

The human resource development and science and technology advancement pillar states that the gross enrolment ratio in tertiary education will reach 60% during 2036–2045, from 30% in 2015. The strategies to achieve this include achieving equal quality and services in education and transforming learning methods. The section also stresses increasing the contribution to science and technology development. Gross expenditure on research and development will rise from 0.08% in 2015 to 1.5%–2.0% in 2045.

The development of a creative digital economy is highlighted under the sustainable economic development pillar. It states that in 2045, Indonesia will be a world-class creative digital economy centre. Developing the maritime economy is also emphasised. Its contribution to GDP is expected to rise from 6.4% in 2015 to 12.5% in 2045 through the development of efficient and effective marine connectivity, sustainable and competitive fishing practices, and maritime tourism. Energy and water security and environmental protection are also stressed.

The equitable development pillar aims to accelerate poverty eradication, income equality, and equitable regional development. Infrastructure for improving physical and virtual connectivity is seen as a key to such equitable development.

The strengthening national security and governance pillar emphasises improving the quality of democracy, reforming bureaucracy including governance based on information and communication technology, and eradicating corruption. In addition, the country aims to play a greater role at the regional and global levels and in the United Nations.

### Visions in Japan for around 2045

Unlike Indonesia, Japan does not have an integrated national vision document. However, many ministries have made visions or long-term strategies to 2050. Such sector strategies may be useful for Indonesia to consider more detailed actions in line with *Visi Indonesia 2045*.

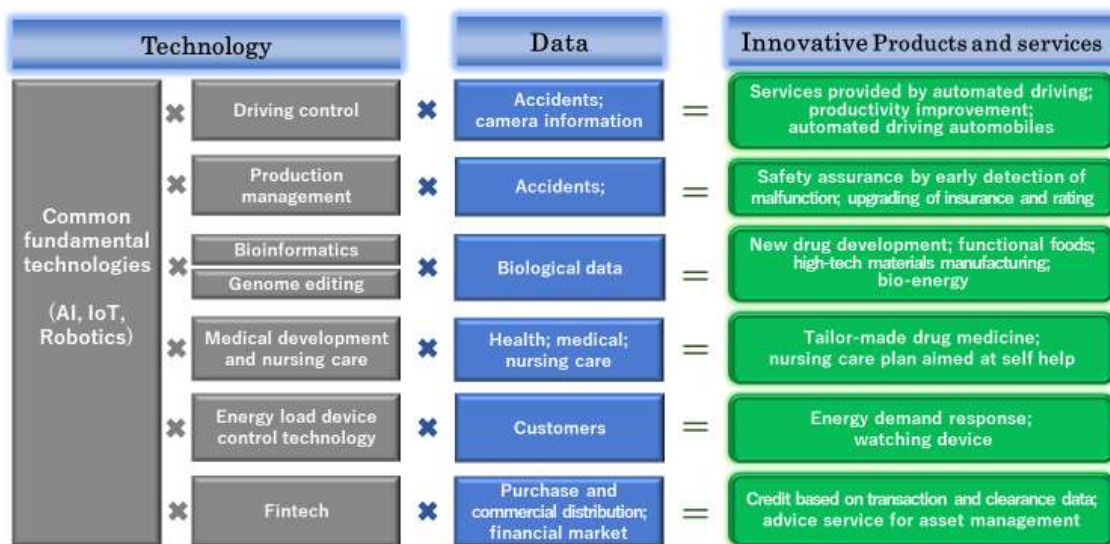
The Cabinet Office of the Government of Japan proposed a vision of ‘Society 5.0’, in which big data collected by the Internet of things will be converted to a new type of intelligence by artificial intelligence and will reach every corner of society. Such technologies are expected to solve challenges such as increased energy and food demand, ageing, international competition, regional inequality, greenhouse gas reduction, and sustainable industrialisation.

The Ministry of Education, Culture, Sports, Science and Technology also formed a committee to consider what kind of education should be provided to facilitate Society 5.0. The committee, which reported in June 2018, proposed using EduTech (educational technology) and big data in elementary school, strengthening education in data science and statistics, revising the teacher licence system, and developing human resources in the humanities and social sciences with artificial intelligence.

The ‘Vision of New Industrial Structure’ compiled by the Ministry of Economy, Trade and Industry also regards artificial intelligence, the Internet of things, and robotics as common fundamental technologies to create innovative products and services in the future. Such technologies will be applied in fields such as driving control, production management, developing new pharmaceuticals, nursing care, energy demand response, and fintech. Such technologies are regarded as solutions for Japan’s major 21st century challenges, including its ageing society. The dependency ratio is expected to rise from 64.5% in 2015 to 90.6% in 2045.

To mitigate the shortage of labour, the number of migrant workers increased to 1.27 million in 2017 from 0.48 million in 2008. Teleworking is also being considered as a policy to help women with young children contribute to the labour force. The migrant workers, technologies, and women’s workforce participation are expected to offset the decrease in Japan’s labour supply.

### Creation of Innovative Products and Services



Source: Ministry of Economy, Trade and Industry of Japan ‘Vision of New Industrial Structure’.

### Three Common Targets and 10 Challenges towards 2045

Taking into account these visions, the Executive Committee argues our common future articulated above, and identify three common targets: (1) to uphold democracy and become maritime global powers; (2) to rank amongst the world’s top five economies; (3) to achieve high quality of life beyond SDGs 2030. These targets are formulated into 10 concrete challenges which will be overcome through cooperation between Indonesia and Japan. The

Economic Research Institute for ASEAN and East Asia, as an implementing organisation, asked experts from Indonesia and Japan to discuss these challenges and corresponding policies as follows.

Challenge 1. Sustaining Democracy and a Diverse Society

Challenge 2. Enhancing Maritime Security and Rule Based International Order

Challenge 3. Strengthening Regional and Global Supply Chains

Challenge 4. Developing Infrastructure

Challenge 5. Strengthening the Economy through Investment

Challenge 6. Developing Human Resources

Challenge 7. Vitalising the Rural Economy

Challenge 8. Towards an Equitable Society

Challenge 9. Digital Technologies to Improve Quality of Life

Challenge 10. Resiliency to Natural Disaster, Tackling Climate Change, and Managing Natural Resources

Challenges 1 and 2 consider political aspects from a domestic and international context. They are rephrased as becoming a maritime and moderate global power based on universal values. In relation to achieving and maintaining a position in the top five economic ranking in the world, Challenges 3 to 7 pointed out pathways to be top 5 economies, such as importance of being a part global supply chains through international trade and foreign direct investment, and necessity of infrastructure development and human resources development. Challenges 8 to 10 focus on how to address social issues to achieve high quality of life, such as by reducing social disparities, strengthening resiliency against natural disasters, and promoting environmental sustainability to achieve sustainable development and beyond, with the aid of digital technology.

### Key Messages on Political, Economic, and Social Aspects

**First, common political target: To uphold democracy and become maritime global powers**

Our dream for the people of Indonesia and Japan is to create a life of plenty, freedom, and safety in a society that is peaceful, diverse, and tolerant. To realise this dream, not only is it

crucial to sustain our democracy, but democracy is also necessary to build resilience for the future challenge of the trend towards increasing diversity in Indonesian and Japanese society.

Indonesia is blessed with a strong foundation on the national motto, *Bhinneka Tunggal Ika* (Unity in Diversity), which is now also the motto of the European Union and South Africa. Japan is also one of the most sustained democracy in Asia with a population of more than 100 million. Based on the foundation our predecessors have built, Indonesia and Japan need to develop their joint partnership to jointly tackle the challenges of maintaining democratic, diverse, and united societies.

The challenges to democracy, diversity, and unity are immense. With technological advancement, democracies will face a new style of foreign interference from ‘sharp powers’ that try to exert political influence through cyber-attack from within and outside our society with the intention of undermining our democratic principles and eroding public trust in government.

Tackling economic disparity is another prime challenge that will benefit from cooperation. Economic disparity can easily ignite hostility and trigger false information leading to identity politics, which undermines unity and political tolerance of our social diversity. Our natural advantage of diversity is the foundation of a society where creativity and innovation thrive. Because of these challenges ahead, we would like to preserve our foundation of *Bhinneka Tunggal Ika* and democracy.

The roles of Indonesia and Japan in enhancing democratic principles do not end within our nations. It is also important to play a proactive role in making the regional political environment benign to preserve democracy with the aid of advanced technology. Japan has harmonised its democracy and cultural and social traditions with modernisation. Indonesian leaders have shown leadership, wisdom, and a model – especially of moderate Islam – for a diverse and socially resilient society in times of political and social transition. This history would be the foundation for and a pre-requisite of our dream of a life of plenty, freedom, and safety in a diverse and tolerant society.

Both Indonesia and Japan, as two maritime democracies and archipelago nations, are well-positioned to further co-operate and contribute to sustaining regional security in an era of major shifts and challenges in the global order. Partnerships and joint projects are needed in the field of security, especially in enhancing maritime security and cyber security capacities, to make our maritime zone an arena of prosperity rather than conflict. We would like Asia to remain the engine of global growth in the decades ahead, and this will necessitate a stable and open region and the joint building of our capacity to achieve the goals.

Uncertainty is everywhere. Major powers in the coming decades, such as China, India, and the United States, will naturally seek to assert themselves unilaterally. Thus, we need to strengthen

our ties as two regional powers that share common principles, character, and geopolitical setting. In strengthening our principle of democracy, rules-based society, respect for human rights, and economic growth, we also need to shape the international and regional order to reflect our principles. We will pursue a course based on the established approach of independence, non-intervention, and multilateralism that seeks to build stability and openness rather than to dominate others.

### **Second, economic target: To rank amongst the world's top five economies**

Our economic goal is to be ranked amongst the world's top five economies. According to Vision Indonesia 2045 (Draft in October 2045), Indonesia's GDP will become the fifth-largest in the world, in a 'high scenario', while Japan will become the fourth-largest in the world. The Executive Committee discussed how the two countries can work together to achieve overcome the economic challenges ahead.

**The fourth industrial revolution.** Collaboration between the two countries can help them respond to the economic challenges posed by the fourth industrial revolution, which is expected to make competition tighter and more transparent. Collaboration based on long-established production networks and value chains will help both countries produce high-quality products for global markets, increase demand, and generate customer loyalty. The export-led growth of Indonesia, supported by investment from Japan, will therefore be the basic formula for the common prosperity of both countries. The two governments should conduct a joint study on how to enhance Indonesian exports. Export-led growth will raise manufacturing productivity as global market access expands, and this will stimulate foreign direct investment (FDI) inflows. Free trade and economic partnership agreements will continue to be important drivers of export-led growth and FDI.

Tighter competition in the era of the fourth industrial revolution makes the supply-side role important for both countries. Necessary and sufficient conditions are in place for supporting supply side. The necessary conditions include infrastructure of sufficient quantity and quality (roads, ports, warehousing, and industrial parks); utilities (electricity, water access, gas, and internet connectivity); and an educated, skilled, and healthy workforce. Structural reform; regulatory review; transparent and fair taxation; and research, development, and design (RDD) are the sufficient conditions. Both need to be met to optimise economic development in the two countries.

A report released in 2014 by the Ministry of Industry, Indonesia that showed incentives for RDD rated most important by entrepreneurs. But the proportion of research and development expenditure to GDP in Indonesia (0.08%) lags that of its neighbours Singapore (2.2%), Malaysia (1.3%), Thailand (0.6%). Indonesia needs to considerably increase its budget



allocation for RDD activities under the triple helix model of university–industry–government cooperation. The country also needs to increase the number of skilled engineers and upscale their RDD skills and abilities.

The use of communication technology must be massively increased to reduce transport costs, support entry into the global production networks of the fourth industrial revolution, and achieve sustained and inclusive economic development. In developing infrastructure, Indonesia needs to enhance the role of the private sector in collaboration with the government.

**The regional sphere.** Indonesia and Japan are members of the Regional Comprehensive Economic Partnership (RCEP) negotiations, together with other members of the Association of Southeast Asian Nations (ASEAN) – Australia, China, India, the Republic of Korea, and New Zealand. Indonesia has played very significant role in ASEAN as the most democratic country that promotes pluralism. However, its infrastructure and physical capacity readiness is behind that of Brunei, Malaysia, and Singapore. Japan could support Indonesia in the RCEP negotiations as Indonesia strives to enable its small and medium-sized enterprises to leverage the agreement and cope with challenges arising from globalisation and trade liberalisation. Japan believes that Indonesia’s indigenous development is a key to achieving the long-term goal of sustained economic advancement.

**Investment.** Indonesia expects to attract a higher proportion of manufacturing investment in a wider range of sectors as it upscales its technological level. Investment with a large role for RDD and innovation will be the priority for both the home and host countries. Indonesia must consistently reform and simplify its regulations to provide an attractive investment climate for all investors. In the fourth industrial revolution and beyond, Indonesia and Japan must strengthen their economic cooperation in innovation and RDD in support of manufacturing. This will require both increasing the quality of human capital (labour-augmenting technological progress) and upscaling the technology component (labour-saving and capital-augmenting technological progress). Indonesia must therefore enhance its human capital skills and educational level in line with future technological advancements. Japan is the right partner to assist Indonesia in enhancing the quality of its human capital and infrastructure. Vocational training in close collaboration with Japanese companies (including work experience in Japan) should be further accelerated. Human resource development for engineering and manufacturing industries in Indonesia will remain an important agenda for both governments and companies. Economic cooperation between Indonesia and Japan in the global production network, as well as in infrastructure development, investment, manufacturing enhancement, and human capital empowerment, will help reduce poverty and income inequality between Java and other parts of the country. It must improve rural development, particularly in the areas of education and health, and increase both agriculture productivity and farmers’ welfare.

### **Third, social target: To achieve high quality of life beyond SDGs 2030**

**Mitigating disparities.** To tackle social disparities, Indonesia should capitalise on the opportunities provided by its demographic dividend. Improving the quality of human resources will optimise this dividend. There is a wide disparity in the education achievement of children from households with incomes in the bottom 20% and those in the top 20%. Access to quality health care has yet to be provided for all Indonesians. To mitigate social disparities, it is proposed to enhance Japan's FDI and its links to micro, small, and medium-sized enterprises; provide vocational education and training linked to industry; and develop infrastructure in rural areas.

The use of digital technology, especially communication technology, offers scope for reducing social disparities. Communication technology can enable children living in remote areas and in low-income families to access high-quality education. It can also promote free or low-cost long-distance learning, both in regular and vocational schools, enabling educational needs to be served in an equitable manner regardless of location and social status. Many healthcare services can be provided through telemedicine. Such technology could also be used to create jobs in remote area. It is therefore important that the infrastructure to use communication technology is provided equally and the education to use digital technology is strengthened.

The 'smart city' concept will be extended and implemented throughout most Indonesian provinces to cope with the anticipated scale of urbanisation. According to the United Nations (2018), more than 55% of the world's population lives in urban areas, and this figure is set to rise to 68% by 2050. The smart city concept is about using technology to optimise city operations and urban flows, and/or about introducing smart governance, in which policymaking is more flexible, practical, and closer to citizens.

**Preparing for disasters.** Both Indonesia and Japan are prone to natural disasters such as earthquakes, tsunamis, volcanic eruptions, and flooding. We cannot prevent such disasters, but we can reduce their risks by conducting evacuation drills and rescue exercises, preparing emergency food supplies and temporary housing, and drawing up disaster management plans. Digital technology should be utilised to improve disaster resiliency. Early warning systems for earthquakes, tsunamis, flooding, and other disasters should be put in place soon in Indonesia. Japan is a leader in the use of such technologies.

Spurred by the most recent disasters and the subsequent reconstruction of earthquake-affected parts of Lombok and rebuilding of the tsunami-affected areas in Palu and Donggala in Central Sulawesi, disaster management is becoming one of the issues of priority for the Government of Indonesia. Japan has supported early warning systems by providing high-technology equipment for the early detection of tsunamis and equipment for monitoring the movements of earth's tectonic plates. In addition, there is scope for experts and researchers

from Japan to co-operate more widely with researchers and geologists from Indonesia in mapping disaster-prone areas. This information could help ensure central and district governments are more prepared when disasters strike so the death toll and impact can be minimised.

**Ensuring environmental sustainability.** Indonesia has ratified the Paris Agreement through Law No. 16/2016, showing commitment to strengthen the response to climate change, which has become an urgent threat to the nation. Mitigation and adaptation measures should be implemented through policy regulation and the institutional setting. The national commitment towards a low-carbon and climate-resilient development path are consistent with the Nine Priority Agendas (*Nawa Cita*) Framework determined by President Joko Widodo. Indonesia has pledged to reduce greenhouse gas emissions by 26% through its own efforts and by up to 41% with international support. Indonesia's projected economic and population growth will increase energy consumption. The use of renewable energy, such as replacing the development of new coal-fired power plants with clean and renewable energy sources, is therefore an important element. Renewable resources such as fisheries and forests should be used sustainably too. To improve air and water quality and to preserve ecosystem on land and in ocean, cleaner technologies should be promoted in various sectors, including the small and medium-sized enterprise sector. Digital technology should be used for monitoring resource stocks and pollution levels.

#### Proposal to Establish Follow-up Committee

The Executive Committee of Project 2045 agrees on the need to set up a joint follow-up committee to facilitate the realisation of joint projects based on the proposals through the discussion of executive committees (See Annex), to review the progress of cooperation between Indonesia and Japan and make further recommendations.

#### References

BAPPENAS (2018), *Vision 2045*. Jakarta: National Development Planning Agency.

United Nations (2018), *World Urbanization Prospects: The 2018 Revision*.

#### ✂ Sustainable Development Goals and recommendations proposed in Project 2045

The Challenges relate to several of the Sustainable Development Goals (SDGs) adopted by the United Nations in September 2015.

Challenges 1 and 2 are closely related to Goal 16, which aims to ‘promote just, peaceful and inclusive societies’, and Goal 17 to revitalise the global partnership for sustainable development’.

Challenges 3 to 7 contribute to Goal 1 – end poverty in all its forms everywhere, Goal 2 – zero hunger, and Goal 8 – promote inclusive and sustainable economic growth, employment and decent work for all. Challenges 3 and 5 focusing on global supply chains and investment address policy related to industrialisation, which is dealt with in Goal 9 – build resilient infrastructure, promote sustainable industrialisation and foster innovation. Challenge 4, on infrastructure, relates to Goal 9, Goal 6 – ensure access to water and sanitation for all, and Goal 7 – ensure access to sustainable, reliable, sustainable and modern energy. Challenge 6 on human resource development is also related to Goal 9 and Goal 4 – quality education. Challenge 7, on vitalising the rural economy, relates to goals 2, 5 – achieve gender equality and empower all women and girls, and 10 – reduce inequality within and amongst countries. Challenge 8, focusing on social disparity, contributes to goals 4, 5, and 10. Challenge 9 stresses the application of digital technology to education (Goal 4) health care (Goal 3 – ensure healthy lives and promote well-being for all at all ages). Challenge 10 deals with resiliency to disasters and environmental sustainability, which are addressed in various goals, including goals 7, 11 – make cities inclusive, safe, resilient and sustainable, 12 – ensure sustainable consumption and production patterns, 13 – take urgent action to combat climate change and its impacts, 14 – conserve and sustainably use the oceans, seas and marine resources, and 15 – sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.