

**Consideration Guideline for
Companies Operating the Business
in the Prescribed Industries**

July 2023

The Stock Exchange of Thailand (“**SET**”) supports the listing of companies which operate business in the prescribed industries (S-Curve) involving the use of technology or knowledge in order to achieve the development and promotion of innovation or prescribed industries that are crucial to the enhancement of national competitiveness and potential consistent with the promotion by the government sector and the national strategic plan. Moreover, the government policy supports the impetus in the development of Thailand through the BCG economic model, which strives to achieve sustainable development in 3 dimensions i.e. bioeconomy, circular economy and green economy, focuses on the development and application of technology as a tool to enhance national development and the system as a whole, and achieves the transition from production process to the use of resources in non-wasteful manner in order to maintain environmental balance.

In this regard, the SET therefore prepared this guideline for the companies which operate business in the prescribed industries and which are interested in being listed in the SET for the types of business in the prescribed industries as determined by the SET and as may be revised from time to time.

In order for investors to have sufficient information to support their investment decision, an applicant and its financial advisor shall complete the assessment of the operation of business in the prescribed industry (self-assessment) form to demonstrate that the prescribed business is or will, by virtue of policy, become the applicant’s core business and that technology or innovation will be employed as part of the business operation. In case of lack of clarity concerning the operation of business in the prescribed industry including the proportion of benefit to the Thai economy (in case of a foreign company), the SET may arrange consultation and seek opinion from the relevant working group to support the listing consideration. Furthermore, after the listing, the applicant shall disclose the sufficiency of its revolving fund and organize opportunity days within the time period stipulated by the SET, and in an event that the business in the prescribed industry is not yet the applicant’s core business as of the date of the submission of application, the applicant shall disclose the proportion of the income from the operation of business in the prescribed industry and the progress on actions pursuant to the plan as disclosed in the filing together with the submission of the financial statements in each quarter until such industry becomes the applicant’s core business i.e. the majority of the operating income is from the prescribed industry.

Consideration Guideline for the Operation of Business in the Prescribed Industries

1. Advanced agriculture and food

Consideration guideline

A business which involves the design or production using technology to store, analyze or research in order to develop production potential or a business which involves the use of nutrigenomics knowledge including the development and improvement of products from organic material (plants and animals) and the use of technology to enhance the efficiency in the entire production process, reduce the use of fertilizers and chemicals and reduce impact on the environment to achieve consistent volume and quality of the products.

Examples of businesses

1. Advanced agriculture

- System for the traceability of plant products for the purpose of connecting the production data in each chain from upstream to downstream so that the product information can be inspected throughout the process.
- AI and big data digital solution system installed in a farm whereby the data collected can be used for genome editing in order to improve the quality of food, increase the plant products and enhance resistance against plant diseases.
- Development of plant varieties and animal varieties via genetic engineering for the purpose of achieving a high level of nutrients.
- Advanced sensor or data analytics system for the purpose of following up on the level of sugar cane products used in the production of biodiesel, examining the quality of fruit meat, or in LED bulbs used in cultivation.
- Use of precision agricultural technology for the purpose of analyzing the weather conditions, products per rai or examining the functions of plants that respond to the changing environment.
- Establishment of a center for the purpose of developing smart agricultural equipment.

2. Advanced food processing

- Food obtained from plants or animals that is produced using advanced technology.

	<ul style="list-style-type: none"> • Food modified using new production process such as nanotechnology (nano food). • Production of alternative protein, production of meat alternative using advanced technology, plant-based meat, or high-protein beverage made from plants.
2. Biofuel and biochemical	<p><u>Consideration guideline</u></p> <p>A business which involves the use of technology and innovation to efficiently produce biofuel in the form of solid, liquid and gas from waste material, reduce the cost of production, create economy of scale and reduce the impact to the environment thereby leading to sustainable development.</p> <p><u>Examples of businesses</u></p> <p>1. Biochemical or biodegradable such as:</p> <ul style="list-style-type: none"> • Environmentally degradable plastics (EDP) which is compostable. • Plastic-eating enzyme. <p>2. Biofuel from agricultural products (biorefinery) such as:</p> <ul style="list-style-type: none"> • Second-generation biomass such as corncobs, bagasse or saw dust. • Production of ethanol from fermentation, cassava, molasses and cane juice. • Production of biodiesel and electricity from bioenergy.
3. Advanced healthcare service	<p><u>Consideration guideline</u></p> <ul style="list-style-type: none"> • Modern and precision medicine and genomics to accommodate next-generation medicine which aims at achieving prognosis from genetic information and treatment specific to each individual. • Research and production of modern medical equipment on par with international standard. • Comprehensive research and development of herbs starting from the cultivation process, research for registration purpose, development of new products, development of herb varieties, utilization of herbs with active compounds as well as research and production of biological products and vaccines at an industrial level.

Examples of businesses

1. Modern healthcare

- Provision of medical services via the internet or smartphone using technology which connects to and analyzes electronic data (internet of things).
- Provision of modern medical services to cater for the aged society such as rehabilitation and prevention.
- Provision of medical services using modern technology such as the use of corneal stem cells to treat patients with defect in the corneal surface, genomic technology and precision medicine.
- The use of terahertz technology for the purpose of medical examination and diagnosis.

2. Research and production of medical equipment

- Production of remote health monitoring devices and modern measuring instruments to monitor and respond to the needs of consumers including patients with chronic disease, elderly persons and any other persons in general who conduct self-diagnosis such as measuring heartbeat and blood pressure.

3. Research on medicine and production of medical supplies and vaccines

- Promotion of research and production of modern medical supplies and vaccines with the focus on the reduction of process and time period for drug trials.
- Promotion of research and production of biopharmaceutical with the focus on the production of biosimilar which is the nonprescription medicine of the prototype biological medicine (biologic), for which there is research and registration patent, albeit the patent has expired.
- Extracts/Products from extracts, compounds, or nutritional products for medical or health that meet export standards.
- Research and development of herbs with advanced technology to improve the quality of Thai herbs to international standard.

	<p>4. Medical & wellness tourism such as:</p> <ul style="list-style-type: none"> • Spa business which utilizes body of knowledge such as physical sciences and medical sciences to build on traditional knowledge. • Nursing home or long-stay treatment that uses medical technology and facilities.
4. Creative tourism	<p><u>Consideration guideline</u></p> <p>Smart tourism which uses modern information technology to systematically develop and manage tourist attractions, facilitate tourists in various manners from trip planning to safely and conveniently bringing them to their destinations, and which involves the presentation of local identities, promotion of tourism experience that meets the needs of travelers, creation of global awareness and promotion of ecotourism and medical tourism.</p> <p><u>Examples of businesses</u></p> <ol style="list-style-type: none"> 1. Use of digital technology to help manage tourism (smart tourism), which is a part of a smart city especially ecotourism in order to further facilitate the search for information on tourism, weather conditions, accommodation and travel. 2. Provision of comprehensive e-tourism using technology to facilitate trip planning such as a platform which offers recommendations and plans trips in a comprehensive manner including the reservation of tickets for visits to tourist attractions and restaurants both in and outside the country.
5. Next-generation automotive	<p><u>Consideration guideline</u></p> <p>Design, development and production of next-generation automotive using technology with high efficiency and precision including the production of parts of next-generation automotive in an efficient manner pursuant to international standard and other relevant equipment in order to enhance the potential in automotive production.</p>

	<p><u>Examples of businesses</u></p> <ol style="list-style-type: none"> 1. Research and production of electronic system used in automotive such as: <ul style="list-style-type: none"> • Electric vehicles (EV). • High-efficiency batteries. • Driving system for electric vehicles including the production of electronic equipment used in electric vehicles. 2. Production of automotive parts in accordance with the global standard <ul style="list-style-type: none"> • Security system parts or transmission system parts. • Electric vehicle charging station including upstream industries.
<p>6. Aviation and logistic total solution</p>	<p><u>Consideration guideline</u></p> <ul style="list-style-type: none"> • Research, design, development and production of aircrafts, spacecrafts and important parts, maintenance and relevant operation system. • Provision of product logistics services using modern system or AI in analyzing and managing logistics services including using modern system in managing distribution centers both in and outside the country. <p><u>Examples of businesses</u></p> <ol style="list-style-type: none"> 1. Aviation business <ul style="list-style-type: none"> • Production of important parts of aircrafts and spacecrafts such as engines, wheelbase sets, electronic equipment, internal equipment, satellite equipment etc. • Maintenance of aircrafts and spacecrafts including parts, tools or equipment within aircrafts. • Research, design and development of aircrafts and spacecrafts including the relevant security system such as rocket propulsion system, electronic and communication equipment in the tracking tools, measurement and navigation in space etc. • Development of unmanned aircraft operation system.

	<p>2. Product logistics business with modern system</p> <ul style="list-style-type: none"> • Transportation system with high speed and security using platform and big data and analytics in order to enhance the efficiency of the services • Product warehouse and transportation services managed by modern system such as cold chain logistics
7. Digital and e-commerce	<p><u>Consideration guideline</u></p> <ul style="list-style-type: none"> • Business related to digital transformation platform, design, development and provision of software and hardware services, collection and analysis of in-depth data (analytics and data center), and centers of innovation, research and design for businesses both in and outside the country. • E-commerce business both in and outside the country in order to improve the provision of services via electronic channels. <p><u>Examples of businesses</u></p> <p>1. Digital business such as:</p> <ul style="list-style-type: none"> • Development of software park or platform developer. • Provision of services for the storage of data and online processing (cloud computing). • Cyber security. <p>2. E-commerce business such as:</p> <ul style="list-style-type: none"> • Comprehensive services for the sale and purchase of products online (e-marketplace / e-commerce player). • Sale development using technology such as big data, chatbot or augmented reality (AR) in order to better analyze data and respond to the needs of users.
8. Smart electronics	<p><u>Consideration guideline</u></p> <p>Production of electronic parts for electrical appliances, automotive, home appliances, or complex electronic parts using modern information technology both in the connection to internet network (internet of things) and in the various data.</p>

	<p><u>Examples of businesses</u></p> <ul style="list-style-type: none"> • Production of smart electrical appliances including parts, electrical equipment, or parts or equipment used with smart electrical appliances. • Design and production of wearable electronic equipment such as fitbits. • Design and development of microelectronic circuit and processing system using chips or microprocessors specifically designed to be embedded in electric appliances and electronic gaming devices (embedded systems) and the production of microelectronic sheets or substances.
9. Robotics	<p><u>Consideration guideline</u></p> <p>Production, design and development of robots or automation system (automation system integration) to be used in various industries or for the provision of services with the operation control system managed by artificial intelligence.</p> <p><u>Examples of businesses</u></p> <p>Production of robots and/or automation equipment for use in other industries such as robots used in the manufacturing industries, medical robots or robots used to take care of the elderly.</p>
10. Technology and innovation development i.e. biotechnology, nanotechnology, digital technology, advanced material technology	<p><u>Consideration guideline</u></p> <p>Research, design, production and development of products or services which apply to and improve advance technology in various aspects in order to achieve enhanced potential, keep pace with the technology era, and promote environmental and social awareness thereby leading to sustainable development in various industries.</p>

Examples of businesses

1. Biotechnology

- Production of vaccines and medicine, production of antibody to diagnose and cure diseases, or development of DNA technology to examine abnormality of genetic disorders.
- Smart farming using cutting-edge technology from upstream to downstream such as satellite remote sensing, UAV (unmanned aerial vehicle) surveys, advanced weather forecasting systems, and products ranging from biodegradable products and packaging to nutrients for animals and humans.

2. Nanotechnology

- Development of specialized nano materials with specialized properties such as the use of zinc oxide nano in fiber to prevent the growth of bacteria in textile materials.
- Drug delivery system to targeted areas to reduce side effects from treatment.

3. Digital technology

- Development of platforms for online games and as communication channels for gamers or application serving as online payment and top-up channels.

4. Advanced material technology

- Use of graphene sheets in the production of transistors to enhance the processing speed.
- Production of aluminum composites used in the construction industries such as for covering the surface of tall buildings or decorating the buildings due to their light weight, high flexibility and their ability to easily form curves, prevent heat and sound, and withstand impacts.