# Foresight into the BCG Model

## Updated: 6 August 2021

## Background

**Introduction:**

In 2021, the Institute for Management Development (IMD) positioned Thailand 28th among 64 economies in the World Competitiveness Ranking, one spot up from the previous year. In addition, scientific infrastructure competitiveness also moved up one place to 38th, reflecting the country's commitment to scientific development. However, Thailand remains in the middle-income trap, and several aspects need improvement for the country to move to a more sophisticated, value-added economy. One of the crucial aspects for bolstering the country's competence is its so-called intangible infrastructure, such as human capability, knowledge, and technological know-how.

In fact, Thailand has significant assets to help it become an innovation-based economy. For instance, the food and agricultural sector makes the country a world leader in the export of several related products. Thailand also has a sizeable research infrastructure, excellent scientists and researchers, knowledgeable talent, and a reasonably well-developed higher education system. Systematic transformation is thus needed to ensure that the country maintains and enhances its competitiveness. Over the medium to long term, such transformation will depend on the effectiveness of implementing a diverse set of well-designed and complementary policies.

The competitiveness of any nation is related to its socio-environmental and economic contexts. The Sustainable Development Goals (SDGs) of the UN have been specifically proposed to address the socio-environmental and economic problems of both developed and developing countries. In this regard, the UK is at the forefront of delivering these SDGs by means of circular economy practices and different national policy tools for a sustainable future. This requires a good understanding of new technological developments, the systemic nature of innovation, and the impact of policy implementation. The UK has a long history of aspiring to improve decision-making and public debate by thinking about longer-term trends and the long-term implications of short-term decisions. **Foresight**[1] is closely tied to priority-setting and the pursuit of policies proposed

---

1. *Ten Years of Foresight in the UK: https://www.nistep.go.jp/IC/ic030227/pdf/p3-1.pdf*
2. *BCG Concept: https://www.nstda.or.th/thaibioeconomy/bcg-concept.html*

by the government, the Research Council, and other bodies it funds. Related UK initiatives include the National Foresight Programme, DEFRA "horizon scanning" and DGRC projects, the Foresight Unit that coordinates horizon scanning across UK government, and the European Commission foresight initiatives delivered by Cranfield University and the European Food Safety Authority (EFSA), European Commission and the Scottish Environmental Protection Agency.

To respond to the global economic challenge and reinforce its commitment to SDGs, Thailand has adopted the **Bio-Circular-Green Economic Model or BCG[2]** as a new economic development model for sustainable growth and inclusiveness, with the aim of capitalising on the country's strengths in biodiversity and cultural richness, employing technology and innovation to transform Thailand into a value-based and innovative-driven economy. Thailand's four strategic areas for the BCG model focus on four s-curve industries: food and agriculture; medical and wellness; energy, biomaterials, and biochemical; and tourism and the creative economy. The BCG model involves close collaboration among the government, industry, communities, academia, and international organisations. In addition, the Thai government has also included the BCG model in its national agenda for boosting economic recovery following the COVID-19 crisis.

It is necessary that government agencies such as National Science and Technology Development Agency (NSTDA), responsible for the promotion of science and research, technology transfer, human resources development, and S&T infrastructure, effectively contribute to policy planning and implementation in the areas key to Thailand's development by engaging with relevant stakeholders including HEIs, policymakers, and industry.

The BCG[2] model provides the Thai food industry with the opportunity for expansion and sustainable growth. Food Innopolis, NSTDA has been gradually building an innovation ecosystem for the Thai food industry with the aim of making it easier for businesses in the private sector to conduct research and innovation, and create a set of knowledge for future skills and capabilities in various fields, including foresight. Understanding foresight tools and being able to utilise them in the strategic planning process helps policymakers, research and knowledge institutes, academia, government, and cooperatives, as well as individuals to systematically develop potential scenarios for an alternative future and adopt innovative solutions by taking a more proactive approach.

The British Council and Food Innopolis, NSTDA collaborated under University-Industry Links from 2018–2020, with the aim of creating a roadmap for the food sector in Thailand through exchanging knowledge on foresight tools with Cranfield University. In 2021, Food Innopolis was appointed by Thailand Science Research and Innovation (TSRI) to lead a study on the development of a strategic direction and innovation roadmap for the Thai food industry. This study will utilise foresight knowledge and tools to create a strategic framework and action plans for national research agendas related to the future food industry. It will also provide policy recommendations to advance research and innovation along Thailand's food chain according to the preferred future scenarios under the BCG model.

## Project objectives:

In 2021, the British Council in partnership with Food Innopolis, NSTDA agreed to work on the **"Foresight into the BCG Model"** project. Drawing upon successful models from the UK and foresight approaches, this project will use the UK's expertise to construct intensive capability building, and develop a framework and strategic roadmap to support policymakers, universities, and research institutions in creating a better-informed higher education and research and innovation policy and improve the implementation of innovation plans in the face of unpredictable changes. The project will also build on the skills of people who have been previously trained to update and work on the roadmap.

The key stakeholders on the Thai side will include:

- Policymakers (i.e., NXPO, TSRI) and national funding agencies.

- Representatives from the BCG Committee and private sector.

- Thai and UK government units (e.g., MHESI, MoFA, and NESDB in Thailand and FCDO, DIT, and BEIS in the UK), universities, and research institutes.

This strategic framework and related tools will also be shared with ASEAN member states through the Thai Ministry's network to ensure best practice and enhance the interaction between policymakers at the ASEAN level. It will encourage ASEAN member states to work together on the strategic roadmap for the region and identify areas of commonality as well as intersectionality.

The Foresight into the BCG Model will focus on the following sectors:

- Food and Agriculture

- Health and Wellbeing

- Environment

- Tourism

- Other BCG-related Industries

## Expected outputs:

- Strategic planners who can utilise foresight tools.

- Foresight toolkits developed by UK consultants.

- Roadmap, implementation strategies, and national strategic recommendations for BCG sectors to support Thai policymakers in making informed decisions, with the results disseminated to key stakeholders through a policy forum.

- A wider BCG network between Thailand and the UK.

## Expected outcomes for the British Council:

- Short-term outcomes:

  o An upskilled higher education workforce with enhanced capabilities to increase the quality of HE systems.

- o Wider reform processes including quality assurance, compliance, relevant tools, framework evaluation, and access.
- o The development and enhancement of external engagement strategies (involving industry, the economy, culture, and society)
- Long-term outcomes:
  - o Policy and system improvements by drawing upon UK expertise.
  - o Increased HMG interest and engagement in the sector and region.

**Expected outcomes for NSTDA:**

- Improving the foresight capability of personnel involved in strategic planning for BCG-related industries.

- Implementing the results of the workshop to create strategies for strengthening the innovation and competitiveness of the sectors identified as being related to the BCG model.

- Food Innopolis, NSTDA is seen as a trusted strategic planning and policy adviser (Think-Tank) for innovation in the food industry and/or other industries at the national and regional level.

- Stronger relations between Thailand, the ASEAN and UK higher education and research institutes.

**Benefits to the UK**

- The UK is seen as the partner of choice for sharing their expertise and know-how with Thai government partners.

- Opportunities for UK sectors to engage with Thai BCG sectors in terms of collaboration or research partnerships.

**Proposed activities and timeline:**

Phase I – UK FY2021/22 (July 2021–March 2022)

| Activity | Date |
|---|---|
| 1. Finalise proposal | End of July |
| 2. MOU between the British Council and NSTDA | End of July: Submit to NSTDA<br><br>Before September: Signing |
| 3. Open call for UK consultants | August–September 2021 |
| 4. Stakeholder meeting and toolkit introduction involving TSRI and NXPO + UK consultants<br><br>• Advise further on priority and focus, needs, and sectors to involve in the workshop, and identify partner organisations for BCG areas (to co-support Food Innopolis and British Council) and roadmap development | **27 October 2021**<br><br>14.00-15.30 TH time Stakeholder meeting and toolkit introduction |

| | |
|---|---|
| • ½ day workshop with key stakeholder representatives to select/screen active partners for the next round | 16.00-18.30 TH time Workshop with key stakeholder representatives |
| 5. Updating Foresight into the BCG Model toolkit by UK consultant | Early–Mid November 2021 |
| 6. Participant selection (by invitation only) | End of November 2021 |
| 7. Pre-orientation (online) with participants and the consultant to learn the tools and prepare for the workshop<br><br>• Overview and intro (warm-up)<br><br>• Preparing participants for the workshop | **13 December 2021**, 15.00-17.00 TH time |
| 8. Foresight into the BCG Model Workshop in Thailand by the UK consultant (F2F)<br><br>• Attended by at least 50 participants from policy, academic, public and private sectors, and a selected number of ASEAN members<br><br>• Duration: 3 days<br><br>• Expected outputs:<br>    o Improved foresight skills<br>    o Development of a draft roadmap<br>    o Identification of M&E activities. Following up on the training results with responsible organisations to move the roadmap development forward for BCG areas | **2-17 February 2022**<br><br>Consultant Quarantine: 3-8 February<br><br>Preparation meeting: 9 February<br><br>Workshop: 10-12 February<br><br>Roadmap summary: 14-15 February |
| 9. Dissemination of the Roadmap<br><br>• Back-to-back (or two–three days) after finishing the workshop<br><br>• Policy roundtable with TSRI, NXPO, and public audiences on the roadmap development results<br><br>• Media interview | 16 February 2022 |

*Announcement of Phase II activities will depend on the British Council and Food Innopolis grant*

**Timeline for Phase I:**

- Open call for consultants: August–September 2021

- Identifying a suitable consultant: September 2021

- Stakeholder meeting and toolkit introduction: 27 October 2021

- Updating Foresight into the BCG Model toolkit by UK consultant: Early–Mid November 2021

- Identify Thai participants to attend the workshop (by invitation): End of November 2021

- Pre-orientation (online): 13 December 2021

- Foresight into the BCG Model Workshop in Thailand by the UK consultant (F2F)

    o Consultant quarantine: 2-8 February 2022

    o Preparation meeting: 9 February

    o Workshop delivery: 10-12 February

    o Roadmap summary: 14-15 February 2022

    o Dissemination or end of Phase I meeting (presentation of the results with key stakeholders): 16 February 2022

**Monitoring and evaluation**

- Measuring the skills of participants

- Roadmap development and utilisation

- Identifying UK partnership opportunities