

英文摘要

The Smart Nation Plan (2021-2025), passed by the Executive Yuan in May 2021, continues on the foundation and achievements of the Digital Nation and Innovative Economic Development Program (2017-2025) (DIGI+ Program), promoting sustainable development and innovation and enhancing the digital transformation of the nation as a whole. It is the responsible authority for the infrastructure division that promotes ultra-high-speed broadband and digital convergence infrastructure, constructing an environment conducive to the development of the digital economy and a smart nation.

This research project promotes the Smart Nation Plan through three subtasks: Policy Analysis and Management of the Smart Nation Plan, Innovative Regulation and Supervision of Digital Economies, and Exchanges of Digital Policy among Stakeholders. The research project assists in implementing the policy goals of the Smart Nation Program, improving communications infrastructure, enhancing relevant policies and regulations, creating an environment conducive to the development of digital economy, and facilitating Taiwan to become a smart nation.

The key results of this project are as follows:

I. Policy Analysis and Management of the Smart Nation Plan

In order to assist in the implementing the goals of the Smart Nation Plan this year (2022), that is the second year, this sub-item continues to promote general plans through the Maintenance Digital Convergence Project Office (the Project Office), providing advice and implementing the related work of the Project Office in the following three areas: planning and project management, communications policy, and observations and policy analysis of regulatory trends.

In terms of planning and project management, the Project Office assisted in conducting the examinations of eighteen projects of the infrastructure division. According to the annual goals of each project, it followed the progress of each

project and assisted each department in communicating and coordinating with the relevant competent authority. In addition to conducting the examinations of the projects, the Project Office not only assisted in organizing one infrastructure division meeting, but also in the second half of the year, undertook at least two examinations of projects. It assisted the competent authority of the infrastructure division in discussing and coordinating with each department, and kept track of implementation progress management to ensure that the progress of each project was in line with the expected goals of the Executive Yuan.

In terms of communications policy, the Project Office not only shared methods and results of telecommunications policy of Taiwan with students, but also held a conference entitled "Into the Frontier Beyond 2022."

As for professional exchanges among industry, government, and academia, the Project Office assisted Taiwan in drawing up a blueprint for the next stages of development. In addition to holding a large-scale conference, the Project Office also held a conference named "Analysis and Evaluation of Taiwan Digital Innovation Economic Policy" facilitating exchanges of opinions among experts and scholars, deepening understanding of policy benefits of the promotion of Smart Nation Plan, and serving as a reference for the direction of future policy in Taiwan.

Finally, In terms of observations and policy analysis of trends, the Project Office selected the following four issues concerning the promotion of the digital transformation of the communication infrastructure for project-based analysis: "Policy Observation of Promotion of International PSTN IP", "Trend Observation of Recent Policy of Broadband Infrastructure", "Low-earth-orbit Satellite of Industrial Dynamics and Configurable Observation", and "Analysis and Evaluation of Taiwan Digital Innovation Economic Policy Effectiveness." On the one hand, the Project Office summarized international experience and insight through observing international trends in the digital transformation, innovative digital policies, and market development of communications, providing policy

recommendations for Taiwan, while, on the other hand it also selected three specific projects as the main analysis of the DIGI+ program and in the infrastructure division within the Smart Nation Plan in Taiwan. On the basis of econometric analysis, it examined the benefits of the implementation of the plan so as to provide direction for future policy in Taiwan.

II. Innovative Regulation and Supervision of Digital Economies

It is worth noting that a great deal of the digital economy has steadily become controlled by relatively few multinational digital enterprises. Consequently, these exert strong economic influence, causing great change in market dynamics, policy development, and even people's livelihoods.

This section has been divided into two parts to discuss this issue. First, international legal policy experience adopted by the digital market, (2.1) “Innovative Regulation and Case Analysis;” meanwhile, effective regulation depends on an extensive understanding of the latest industrial developments, which have been discussed in (2.2): “Trend analysis of innovation and development of global digital market,” observing development trends of the whole industry of digital markets both at home and abroad. Both parts are complimentary to each other as the Project Office aims to provide valuable reference and guidance for policy formulation in Taiwan.

The core of “Innovative Regulation and Case Analysis” focuses on research and analysis on the economic control of major international digital enterprises in recent years. At the same time, it also conducts in-depth research on the legal policies of the EU, the UK and the US, as well as the growing influence of certain digital corporations.

Firstly, with view to protecting small and medium-sized enterprises, as well as consumers, we can note that the EU actively adopts hierarchical legal structures on major digital enterprises. This can be observed from the “(EU) 2019/1150, OIS Regulation” that was passed in 2019, and also the “Digital Markets Act,” announced in December 2020 and passed in 2022. These regulations prevent

enterprises becoming a “gatekeeper” and engaging in unfair competition. Moreover, enforcement of the law is through the European High-Level Group of Digital Regulators, whereby violators may be subject to large penalties.

Turning to the situation in the UK, after it left the EU, it has committed to establishing a digital regulatory system to activate the digital economy.

In addition to cross-functional collaboration, the Digital Market Unit (DMU) has been established under the Competition and Markets Authority (CMA) and supervises businesses with Strategic Market Status (SMS); it also conducts market surveys on digital platforms. In particular, it focuses on the influence of the digital advertising of digital platforms, and proposes an asymmetrical regulatory approach as the basis for regulations, as well as a level of intervention with regards to competition.

In contrast, the United States has an advantageous position as most of the largest digital enterprises are native to the US. As such, the government has always adopted laissez-faire regulatory attitude to the digital economic market. However, in recent years, the enforcement of the law of Antitrust Law has been strengthened that has prompted the supervisory authorities to actively strike more of a balance. It should be noted that authorities have begun to sue tech giants, such as Meta, Alphabet, Microsoft, Amazon, and Apple (MAMAA) for anticompetitive practices. A number of draft reforms concerning anticompetitive practices have been proposed in spite of enormous pressure from the lobbying of the tech giants.

On the whole, although their political and economic backgrounds differ, it can be noted that the traditional competition law is limited when dealing with large-scale digital corporations; in response, we can also note a trend of strengthened supervision.

The observation of “Trend analysis of innovation and development of global digital market” focused on distinguishing the two service types of innovative interactive platforms and the innovative audio-visual platforms at both home and abroad. The qualitative-quantitative data has been compiled on development

trends of digital markets in both advanced countries and domestically under the influence of a variety of innovative services, industrial competitive dynamics, market order, and consumers, to understand the impact of the digital environment on traditional industries. Based on the above, consumers in Taiwan like other countries that have shifted to digitization as primary means for obtaining information are deeply influenced by large-scale digital corporations.

Taiwan must proactively face the issues arising from digital platforms or improve the power of the supervision of the regulatory framework of traditional competition, and strengthen the cross-platform communication and collaboration so as to be more aligned to international trends of supervision and ensure a sound environment for the communications sector to flourish.

III. Exchanges of Digital Policy among Stakeholders

In order to gain deeper understanding of the development of international digital convergence, observe trends in the development of the digital transformation, as well as industry innovation of the digital economy, and aligning development in Taiwan with international trends, the Project Office held a conference named "Into the Frontier Beyond 2022" on October 28, 2022. Taiwan must align with international standards because of the rapid development of the global digital economy; hence, gaining understanding of the digital transformation and industrial innovation, as well as the needs of the integration of digital resources are important elements and key to successful future development.

Therefore, the Project Office invited well-known entrepreneurs both home and abroad in the field of communications and innovative application services to take part in the forum, which can help NCC gain understanding of the latest trends of digital convergence and communications, ultimately helping Taiwan create the most effective digital economy.

Aides from the "Into the Frontier Beyond 2022", the Project Office also held the forum "Analysis and Evaluation of Taiwan Digital Innovation Economic Policy Effectiveness" inviting experts and scholars in related fields to exchange

and share opinions on related core issues of analysis economic policy effectiveness evaluation in Taiwan. Doing so can facilitate understanding of the development and the effects of the promotion of digital economic policy in Taiwan, which can serve as a reference for the subsequent planning future digital policy.