

## **Abstract**

In order to strengthen the supply of 5G spectrum in Taiwan, the plan continues to analyze the international spectrum regulation trend, grasp the regulations and supporting measures of advanced countries in dynamic spectrum allocation that can help achieve a new mechanism of flexible spectrum management, and take into account our national conditions. We conduct in-depth research on industrial technology and socio-economic aspects, and support competent authorities in completing the preparation of the dynamic spectrum sharing mechanism as an available tool for flexible spectrum supervision to further improve the efficiency of spectrum use.

In view of the fact that reference to international standards can bring a wide range of benefits to us in terms of science, technology, economy and society, this plan continues Taiwan's long-term role as a close follower in the development of international mobile communications, while referring to the development experience of the US CBRS hierarchical sharing mechanism. Actively promote mobile operators, spectrum sharing database service providers, and shared frequency equipment suppliers, research and develop specific solutions for effective use of spectrum resources in this frequency band, and develop and guide key technologies and service platforms into the service verification stage in a practical way, and establish a demonstration application field of dynamic smart spectrum management. In the future, it will further integrate the already-established shared frequency access equipment supply chain, which will not only help promote the implementation of a flexible shared frequency management mechanism, but also be able to grasp the spectrum requirements and equipment of the 5G generation in a timely manner.

In addition, in terms of governance, this plan promotes the discussion of flexible spectrum management mechanisms. Through multi-stakeholder discussions and participation mechanisms, multiple positions and perspectives are incorporated into the policy formulation process. At the same time, based on industry demand, through domestic industry-

university-research cross-domain cooperation, the actual measurement and verification of dynamic spectrum sharing access applications under the flexible spectrum management mechanism was carried out, and systematic and quantitative experimental data were provided to support this. Quantitative indicators with more influential system performance will be able to achieve feedback and enhance the effectiveness of supervision practice.