Overseas Trends for Open-Source Spatial Data Policy and Their Implications

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Summary

1. As the technological environment in the era of the Fourth Industrial Revolution is changing from "participation" to "sharing," open-source technology is increasingly important as public technological resources.

    - Open sources are public resources that are considered driving forces for technological innovation in the era of participation and sharing.

    - The growth rate of the open-source market is more than two times higher than that of the IT or software industry.

    - The open-source market is expanding fast as even open-source companies join the ranks of leading companies in the global spatial data market.

2. Developed countries including the United States and European countries have implemented the four policies below in cooperation between the government and private sector to have a leading position in and better utilize open-source technologies.

    - R&D on open-source technologies: development of open-source software and related technologies through research projects led by governments

    - Advisory: advising/consulting on cooperation between different ministries and technological issues including compatibility and certification

    - Preference: Guidelines to encourage people to choose open-source software

    - Mandatory measures: requirements by governments to adopt open-source software and abide by its license system

3. Developed countries provide policy support to their companies to help them secure a leading position early in the global open-source market.

    - Developed countries have established a virtuous cycle in which they promote government-led projects or R&D based on open source under their open-source policy and share the deliverables with open-source communities.

    - As a result, companies in advanced nations including the US have led the global open-source market.

Policy Implications

① It is necessary to introduce “open-source spatial data policy” by considering that South Korea has a spatial data act and designated government organization.

② It is necessary to promote policies for technological development and support regarding open-source spatial data such as making the deliverables of national R&D projects public and increasing the ratio of open-source R&D.

③ It is required to nurture core human resources (such as advanced developers) while developing open-source technologies.

It should be mandatory to abide by the open-source license system when new technologies are introduced in the public sector