

Study Group on Development of IP Strategy for the Space Sector

- Based on the Implementation Plan of the Basic Plan on Space Policy, the Study Group was established in FY2018 to define issues and points of attention for space sector businesses in Japan in their development of IP strategies. The Study Group published the Report on Direction of IP Strategy and Support in the Space Sector.

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[Examples of challenges specifically faced by the Japanese space sector]

- (i) Difficulty in detecting infringement relating to spacecraft launched into space.
- (ii) The necessity to protect businesses by patents is not so high, as the sector is led by government projects and the number of industry players is limited.
- (iii) Insufficiency of professionals with expertise in the space sector, such as patent attorneys
- (iv) Some devices and technologies take a significantly long time from the R&D stage to commercialization.

⇒ Necessity for businesses to develop an Open & Close Strategy to respond to these challenges to establish their technologies and businesses so as to expand to overseas markets

Changes in Environment of Japanese Space Sector

- In relation to the space sector, the necessity to file patent applications was considered to be limited as there was less risk of technology leakage and IP infringement compared to other sectors.
- Recently, with the advancement of constellation business, the space sector has experienced significant environmental changes including increase in demands for small-sized spacecraft and launch vehicles and a trend towards cost-cutting. Considering these situations, it is important to reconsider the necessity of patent application.

[Former business environment]

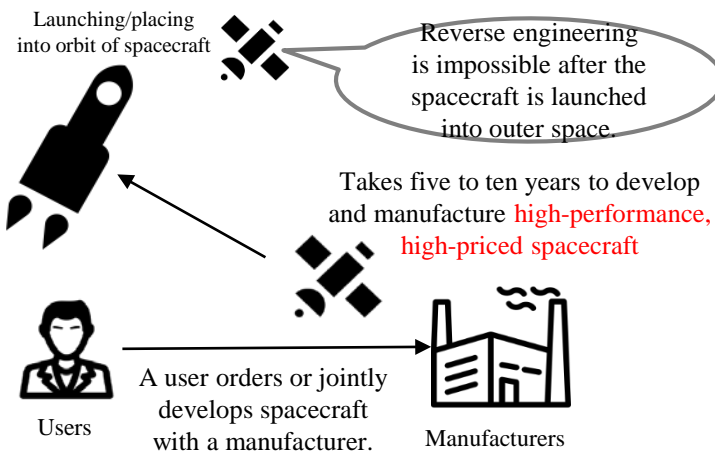
- (1) There was only a limited number of industry players in Japan and other countries and they dealt with each other based on mutual trust.
- (2) Space equipment was expensive and difficult to procure on the market, and less vulnerable to reverse engineering.
- (3) Major users of space equipment were government entities.

[Changing business environment with emerging new business models]

- (1) Components and parts are readily available in the market, making reverse engineering possible.
- (2) Market globalization has boosted the import/export of components and products.
- (3) A growing number of applications by non-Japanese applicants for a conceptual patent that provides the patentee with a wide scope of patent protection

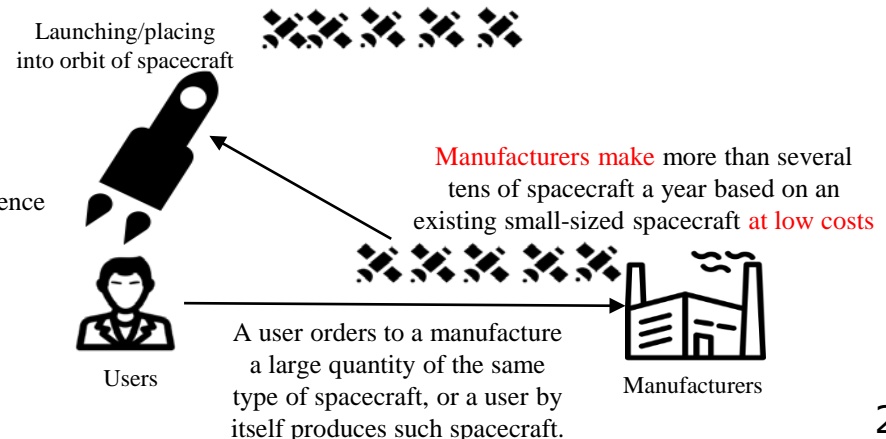
⇒ The growing necessity to respond to patent infringement and other issues due to the commoditization of products and the increase in business model patents

Past trend in space sector
(large-sized devices, limited production number)



Change in the business environment due to the emergence of new business models

Space sector in the future
(mass production of commoditized products)



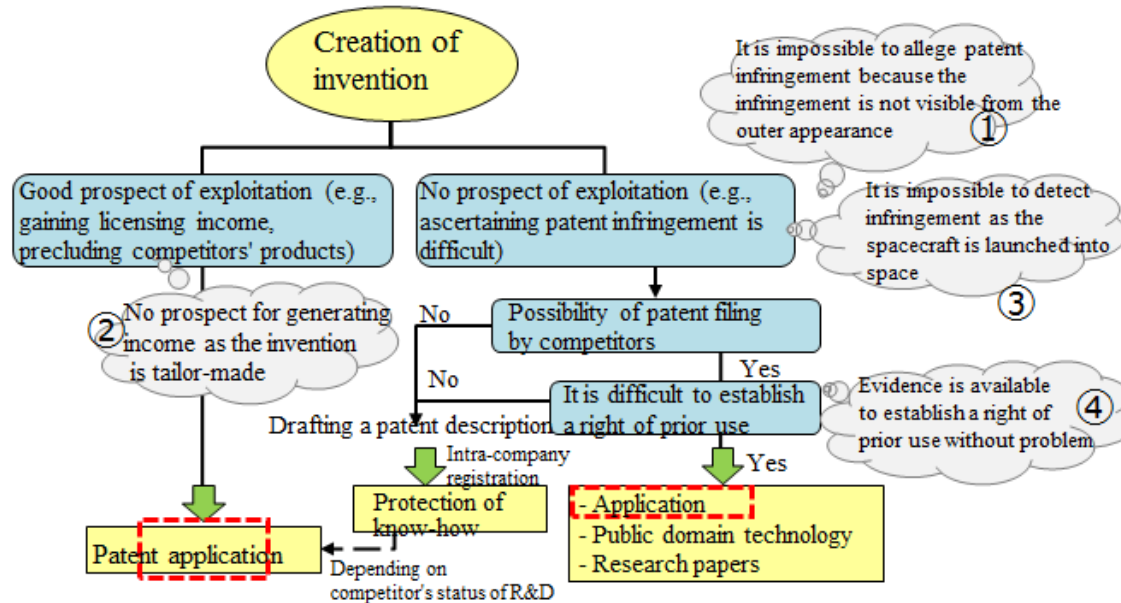
Direction of IP Strategy and Support in the Space Sector

- Considering the environmental change in the space sector, the report describes the measures to be taken by companies and other organizations in the Japanese space sector, appropriate ways to protect inventions generated by R&D projects of government and other organizations and IP-related assistance to the space sector.

○ Appropriate space-related IP strategies for companies

- Prior patent search (freedom to operate search, prior art search, technology trend search)
- Discussion on whether to file an application based on an Open & Close Strategy (distinguishing inventions to be protected by patents and inventions to be kept confidential as know-how)
- Understanding the risk of not filing patent applications and establishing measures (measures against technology leakage, research on patent applications by competitors, third party submission/objection with JPO, patent invalidation trial and right of prior use)

< Example of discussing whether to file an application based on Open & Close strategy >



Direction of IP Strategy and Support in the Space Sector

○Appropriate IP protection for space-related R&D activities by government and other organizations

- Research on trends in patent applications and patent grant
- Treatment of IP generated from R&D activities
- Assistance to startups

○Direction of IP-related support in the space sector

- Disseminating information and raising public awareness towards IP measures through patent application assistance program and seminars
- Establishing a mechanism to gather and provide space-related patent information on a regular basis
- Direction of assistance relating to experts

<Use of seminars provided by JPO and other organizations>



<Web-based space expert matching service platform (S-expert)>

