

The Space Protocol of the Cape Town Convention

Special Features

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UNIDROIT International Summer School

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The Cape Town Convention Treaty System

Aircraft Protocol (2001)

[airframes, aircraft engines,
helicopters]

Luxembourg Rail Protocol (2007)

[railway rolling stock: from
speed trains to commuters,
trams, underground ...]]

Space Protocol (2012)

[space assets: satellites and
their components; other space
vehicles]

MAC Protocol (2019)

[Mining, agricultural,
construction equipment]

TWO-TIER STRUCTURE: MAIN CONVENTION/PROTOCOLS

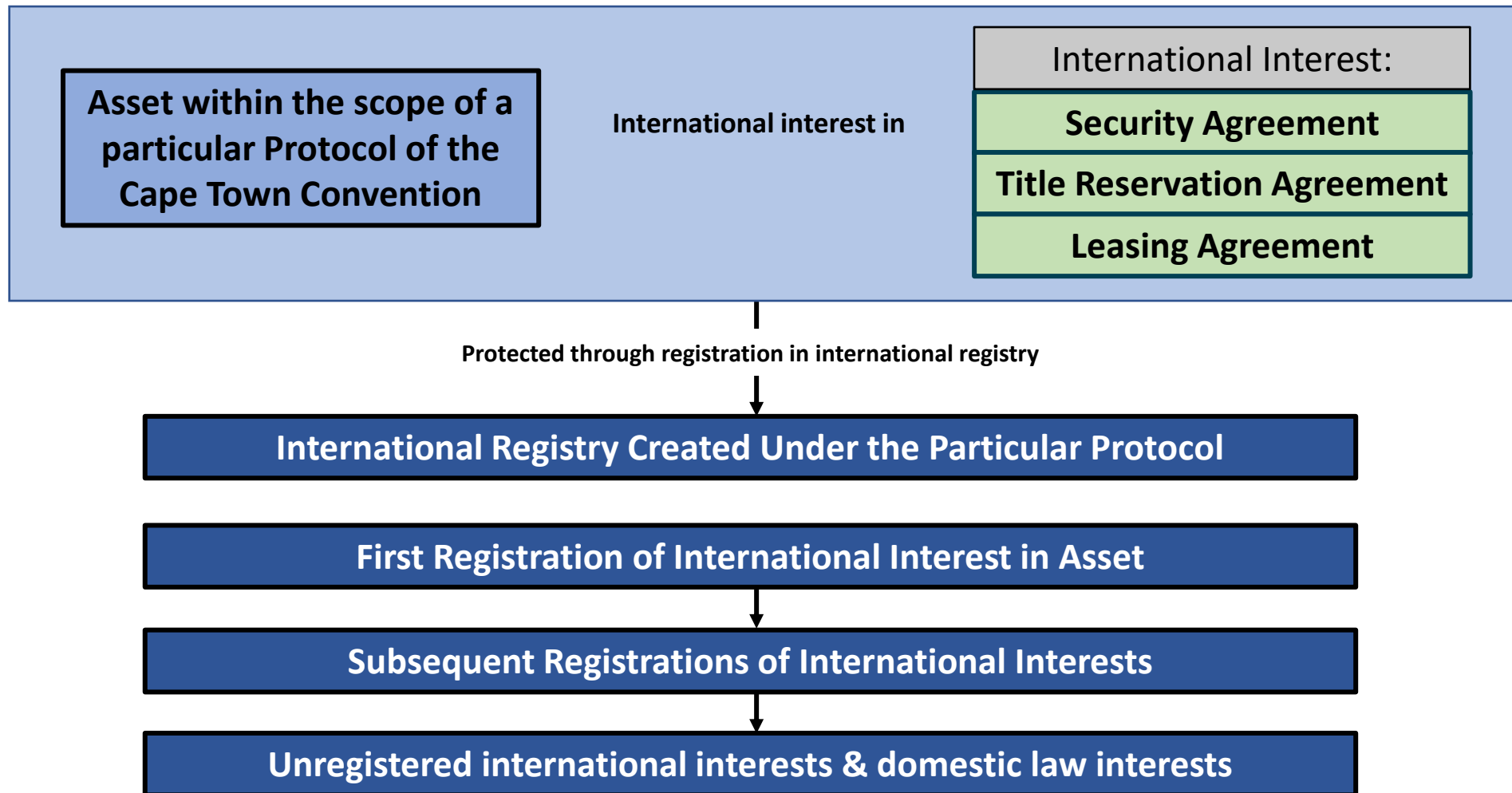
- **Convention provides a common core of rules; Protocols adapt it to the needs of the particular equipment/market**
- **Convention applies only in relation to a specific Protocol**
- **Protocols can derogate from the Convention and they prevail over the Convention**



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System of Priority



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Space Protocol of the Cape Town Convention



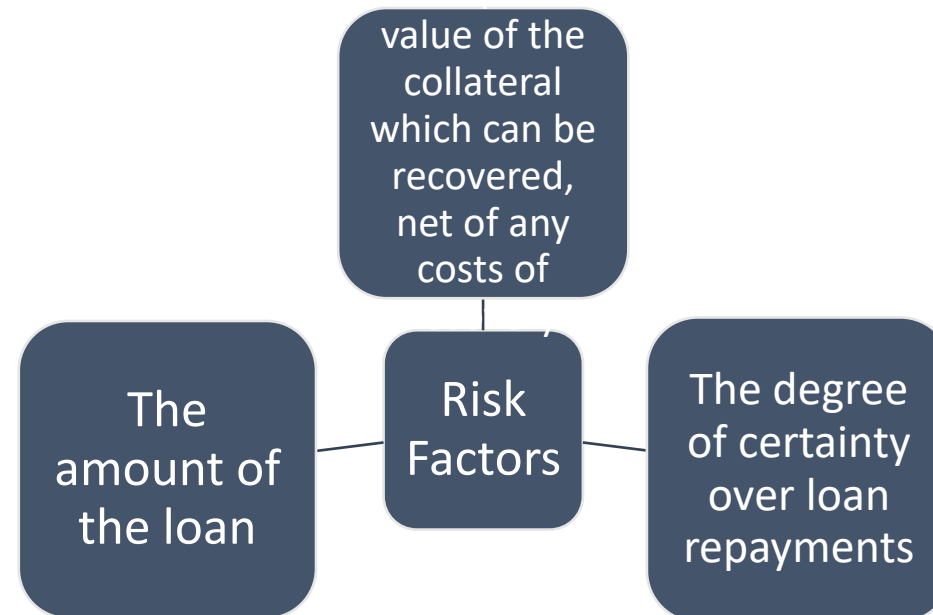
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Risk Reduction

If a loan is granted, secured on a piece of equipment, the risk to the lender depends on a number of factors.

The Space Protocol impacts on the 'collateral value' factor by seeking to increase the expected value of the recovered asset, firstly by **making recovery more certain and quicker** and secondly **by allowing the creditor to realise that asset value by redeploying it wherever there is demand**.



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Space Industry Specific Features

The Space Protocol has many features specific to the space sector which ensure its compatibility with the industry. These include:

- **Scope of the Protocol**
- **Assignability of debtor's rights**
- **TT&C Enforcement mechanism**
- **An exception for Public Services**
- **Clause relating to salvage rights for insurers**
- **Provisions on physically linked assets**
- **Mechanisms for identification of space assets**
- **And many others**



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Scope of the Protocol

Article II(2) as:

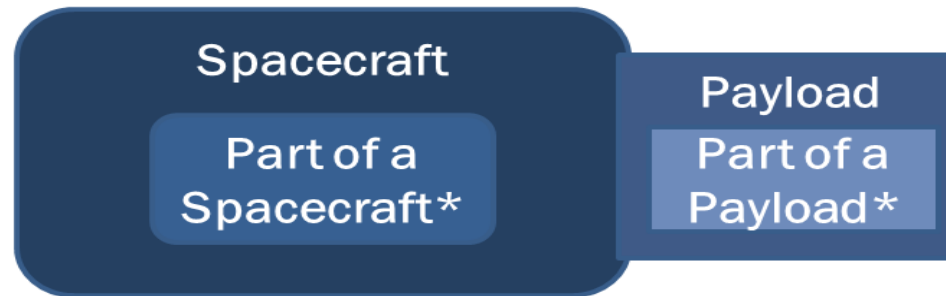
“Any man-made **uniquely identifiable asset in space or designed to be launched into space**, and comprising:

(i) **a spacecraft**, such as a satellite, space station, space module, space capsule, space vehicle or reusable launch vehicle, whether or not including a space asset falling within (ii) or (iii) below;

(ii) **a payload** (whether telecommunications, navigation, observation, scientific or otherwise) in respect of which a separate registration may be effected in accordance with regulations; or

(iii) **a part of a spacecraft or payload** such as a transponder, in respect of which a separate registration may be effected in accordance with the regulations, together with all installed, incorporated or attached accessories, parts and equipment and all data, manuals and records relating thereto.”

Space Assets in terms of the Space Protocol



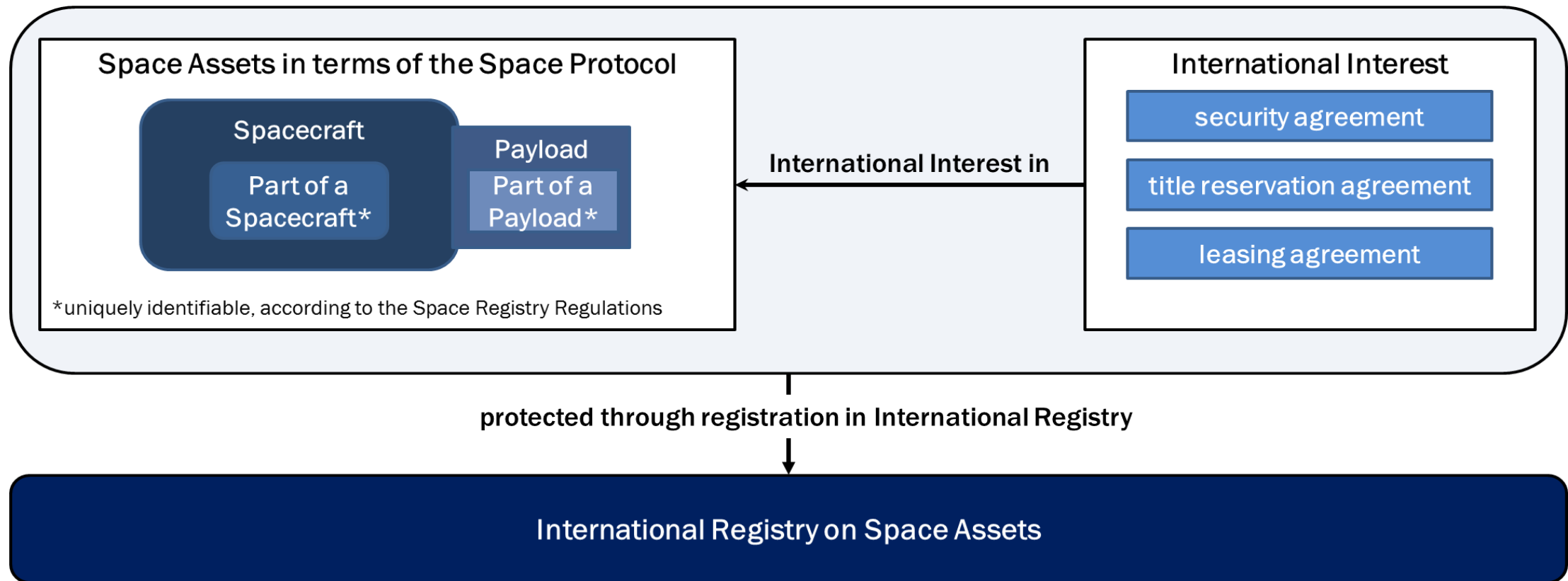
*uniquely identifiable, according to the Space Registry Regulations



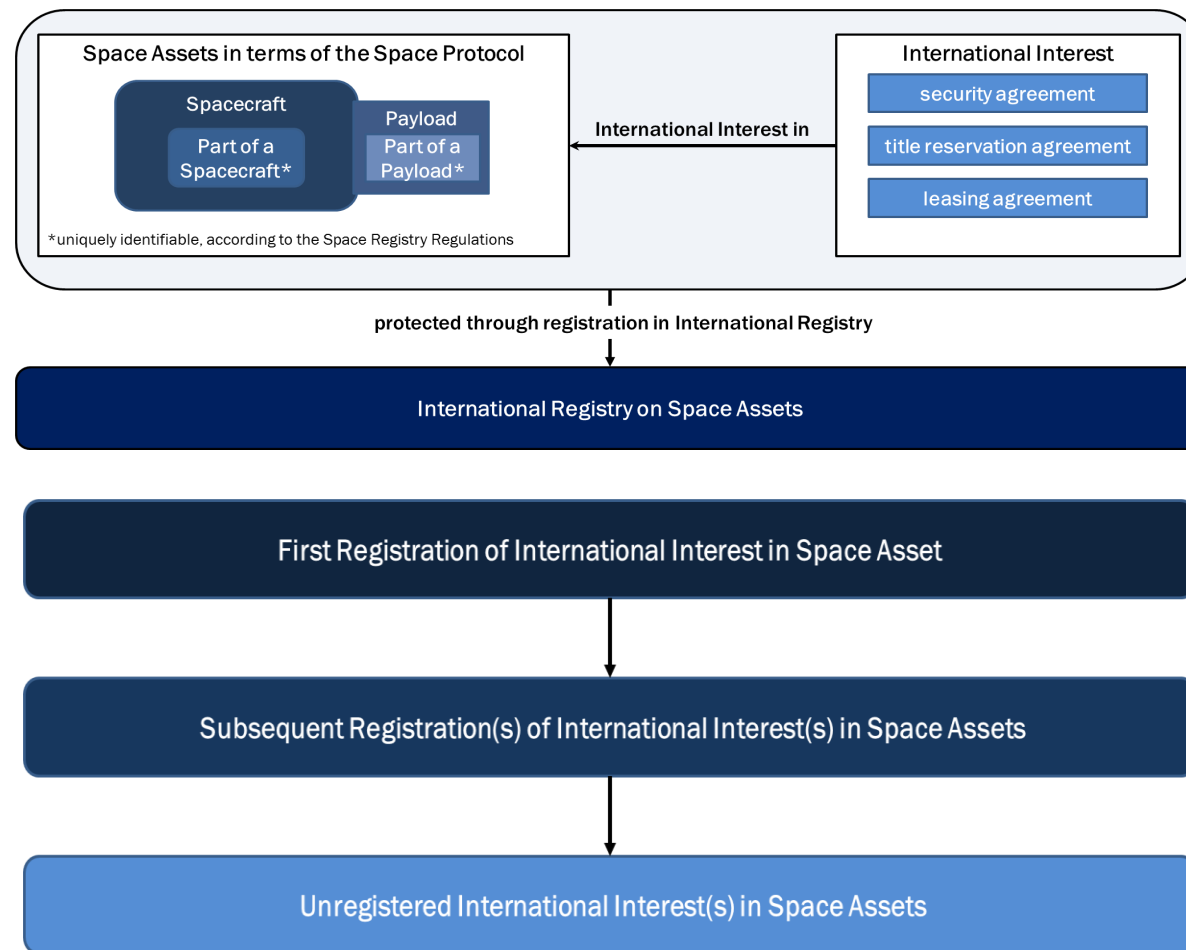
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Legal operation



How does it work & system of priority



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Insolvency Mechanism

Article 11 — Meaning of default

1. The debtor and the creditor may **at any time agree in writing as to the events that constitute a default** or otherwise give rise to the rights and remedies specified in Articles 8 to 10 and 13.
2. Where the debtor and the creditor have not so agreed, “default” for the purposes of Articles 8 to 10 and 13 means **a default which substantially deprives the creditor of what it is entitled to expect** under the agreement.



defaulter



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Insolvency Mechanism

How is it possible for creditors to exercise their remedies under the space protocol?

The Protocol takes into account the physical impossibility of repossession in two ways:

- Assignability of debtor's rights

The Protocol recognises the Importance of revenue streams in relation to the space asset for the creditor, and it contains detailed provisions on the assignment of debtor's rights, broadly defined as “[...] **rights to payment or other performance** due or to become due to a debtor by any person with respect to a space asset”.

- TT&C Enforcement mechanism

Moreover, the remedies section of the Protocol contains a provision on the **Tracking, Telemetry and Control (TT&C)** of space assets which can be found within the command codes associated to it (encryption keys which give control over the satellites).

Article XIX Protocol allows the parties to specifically agree to the placement of command codes and related data and materials with a third party so that the creditor may establish control over, or operate the space asset.

As a safeguard, however, laws and regulations of Contracting States can prohibit, restrict, or attach conditions to the placement of command codes with third parties.



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Public Service Exception

Noting that space assets are often used for the provision of important public services, the drafters of the Space Protocol ensured that such services are not unexpectedly terminated in the case of a default on part of the debtors to a financial agreement. As such, Article XXVII of the Space Protocol contains a provision restricting the remedies available to a creditor with respect to a space asset that provides a public service.

The underlying concept is that the State has a natural interest in ensuring that a creditor exercising its rights does not cause the abrupt termination of a service of public importance (e.g. a satellite system monitoring weather conditions or providing GPS public services). Article XXVII is triggered by the registration of a 'public service notice', which can be done on agreement of the parties to the public service contract and the Contracting State.

The creditor's consent is not required to register a public service notice, however, since the debtor will be party to the public service contract, the creditor will be able to make a contractual provision restricting the debtor's right to consent to the registration of a public service notice.



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Public Service Exception

Upon the registration of a public service notice, a creditor **may not exercise remedies which would make the space asset unavailable during the ‘suspension period’**, which begins with the registration by the creditor of a default notice which states that it will or may exercise default remedies of the debtor does not cure its default within the registration period.

The length of the ‘suspension period’ is confirmed by Contracting States through a mandatory declaration under Article XXVII(4), but it must be between 3-6 months.

Article XXVII(9) provides an exception to suspension of remedies under a public service notice, in the unusual circumstances that:

- (1) the international interest is registered before the public service notice,
- (2) the creditor has no knowledge of the public service contract or the public service notice and
- (3) the public service notice is not registered within 6 months after the initial launch of the space asset.



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Salvage

- ‘Salvage’ is a legal or contractual right or interest in, relating to or derived from a space asset that vests in the insurer upon the payment of a loss relating to the space asset (Article IV(3)).
- Insurance is an important consideration in the financing of space assets, **the Space Protocol seeks to ensure that this aspect of the industry is not significantly affected by the Protocol.**
- Article IV(3) provides that nothing in the Convention or Protocol can affect any legal or contractual rights of an insurer to salvage in accordance with the applicable law. As such, **salvage rights, including rights by subrogation, are not affected by the Convention or Protocol**, so that any priority dispute between salvage rights and creditor rights will be resolved by the applicable law.



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Physically Linked Assets

- Often, spacecraft are comprised of different modules that are physically linked together (e.g. the International Space Station).
 - **Article XVII(3) prescribes a significant restriction on the exercise of remedies related to physically linked assets.** A creditor may not enforce an international interest in a space asset that is physically linked with another space asset so as to impair or interfere with the operation of the other space asset.

Two limitations on the Article XVII(3) rule:

- A creditor or buyer of the physically linked space asset must have **registered its interest in the space asset before the interest of the enforcing creditor was registered.**
- Article XVII(3) only takes effect subject to any agreement to the contrary between the two parties concerned (i.e. its not a mandatory provision).

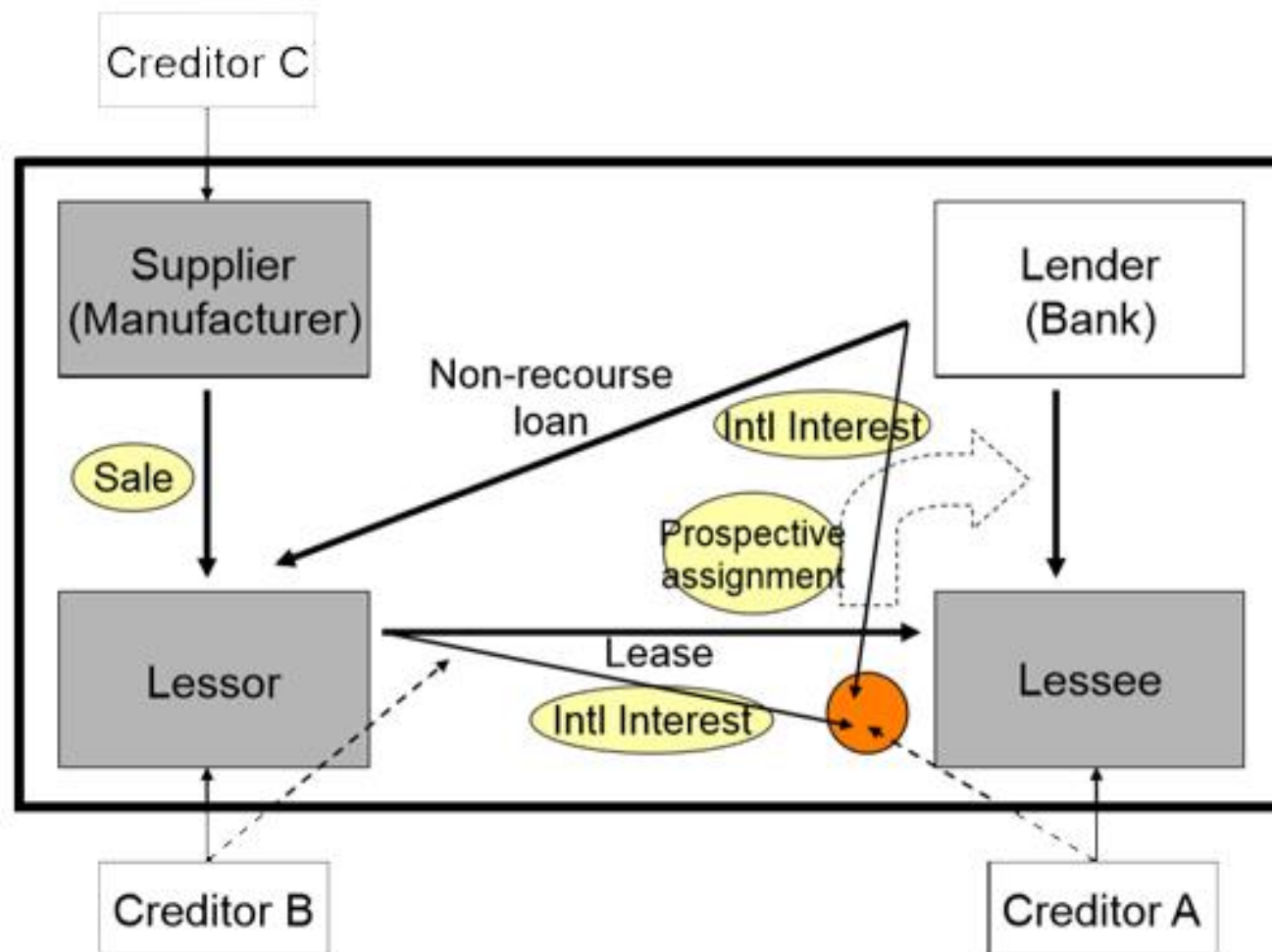
This rule **is not strictly a priority issue**, as the two interests relate to different space assets which are physically linked, rather than two interests in the same asset.



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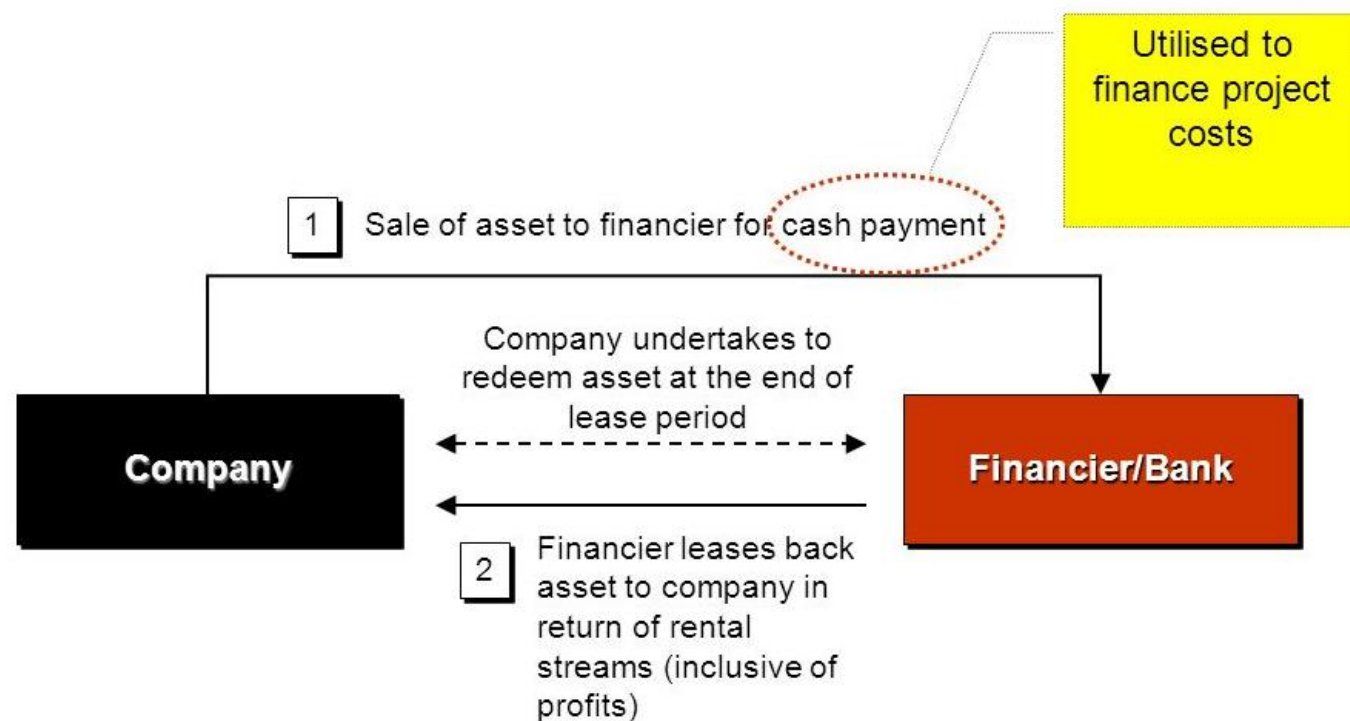
Example transactional structure (1)



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Example transactional structure (2)



The Space Protocol highly facilitates these types of transactions such that it reduces the riskiness of the extension of credit, by making it more likely that the amount loaned will be repaid if the debtor becomes insolvent; and that the creditor reduces their burden of monitoring the debtor absconding with the credit, because the creditor now only has to monitor the asset securing the loan, and not the overall business and profitability of the debtor's enterprise.



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Possible Benefits to NewSpace Financing

- Asset-based financing allows for actors within the space industry to create a **'new level of risk for financiers'** and the Space Protocol greatly facilitates this. It creates **'a uniform regulatory regime for the recognition and protection of security interests in space assets,'** – this ensures that issues such as those of conflict of laws or differing insolvency remedies, that are normally encountered in asset-based financing, are surpassed.
- Asset financing allows companies to **leverage their assets** and **attain finance by giving creditors' rights in those assets**. The benefit of asset backed financing is that, in the case where the debtor cannot repay its debt to the creditor, **the asset itself, or interests in the asset, may come under the ownership and/or control of the creditor**. In this manner, the creditor will be paid back some of the credit they have extended to the debtor. This is more desirable to a creditor as compared to offering the profits of the enterprise, especially when the enterprise fails and the creditor would therefore receive little or no return on their investment.
- The Space Protocol facilitates these types of transactions such that it **reduces the riskiness of the extension of credit**, by making it more likely that the amount loaned will be repaid if the debtor becomes insolvent; and that the creditor reduces their burden of monitoring the debtor absconding with the credit, because the creditor now **only has to monitor the asset** securing the loan, and not the overall business and profitability of the debtor's enterprise.



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Possible Benefits to NewSpace Financing

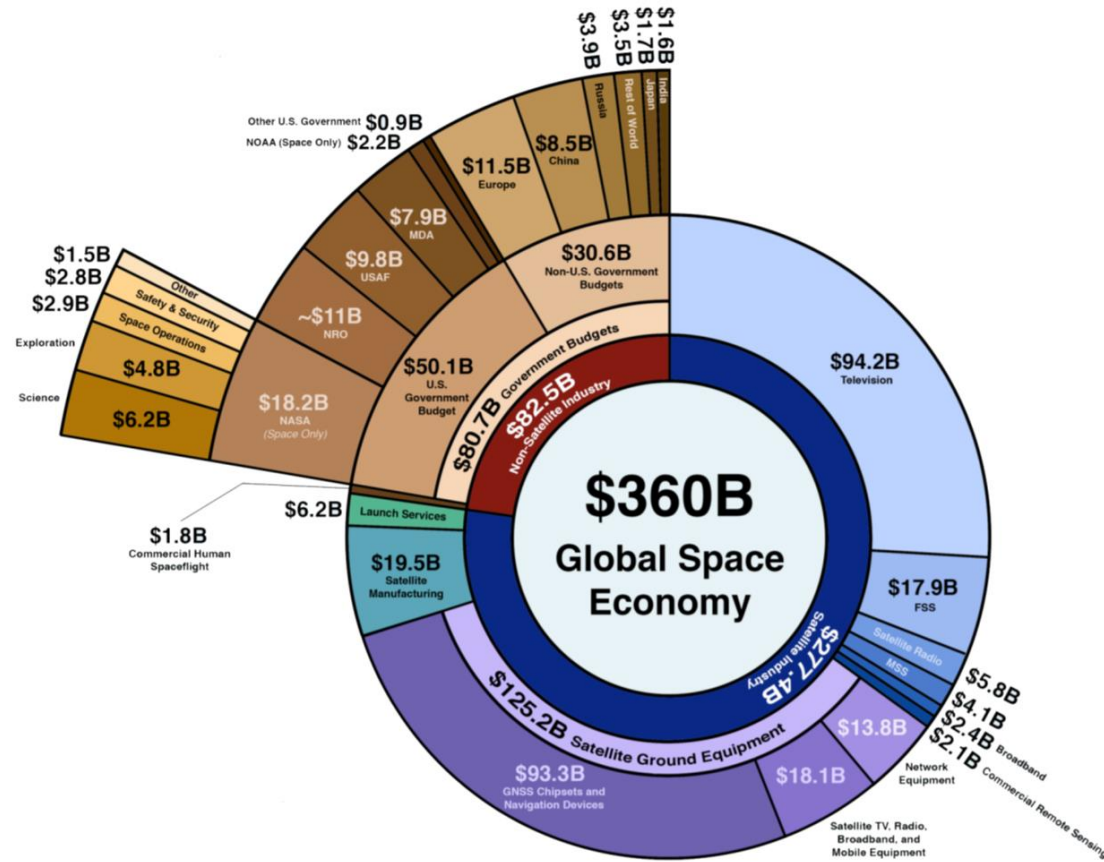
- By creating an international registry where interests in space assets can be recorded and perfected, the Space Protocol offers **increased security and confidence to lenders** to invest in the space industry. The fact that the Space Protocol additionally introduces a strong set of remedies in the case of a default further secures the investment and allows the creditors from across the world to invest capital in space assets.
- The Space Protocol ensures that **a standard set of international rules apply to such secured transactions**. This ensures that the creditors do not have to vary of a multiplicity of rules when internationally investing in space industry projects. Moreover, this also ensures that the presence of the asset in space has no substantial legal bearing on the financing contract.
- The primacy and safety of their interests in space assets, alongside the application of a strong system of remedies makes asset financing an attractive option for investors looking to contribute capital to the space industry. Moreover, the provisions also ensure that **future creditors within the same asset can also easily search the online registry to ensure that their investments are free of already existing third party interests**.



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The Space Economy and the increasing number of satellite launches

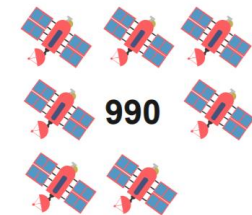


Source: Bryce Space Report on: 2019 State of Satellite Industry

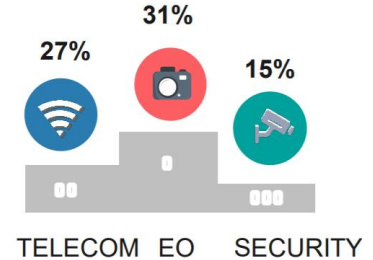
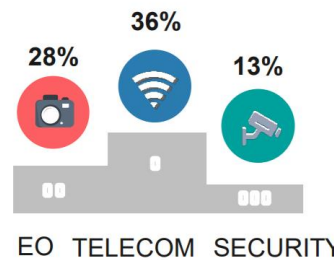
2009 -----> 2018

2019 -----> 2028

Average number of satellites launched per year



Top 3 applications (satellite manufacturing and launch value)



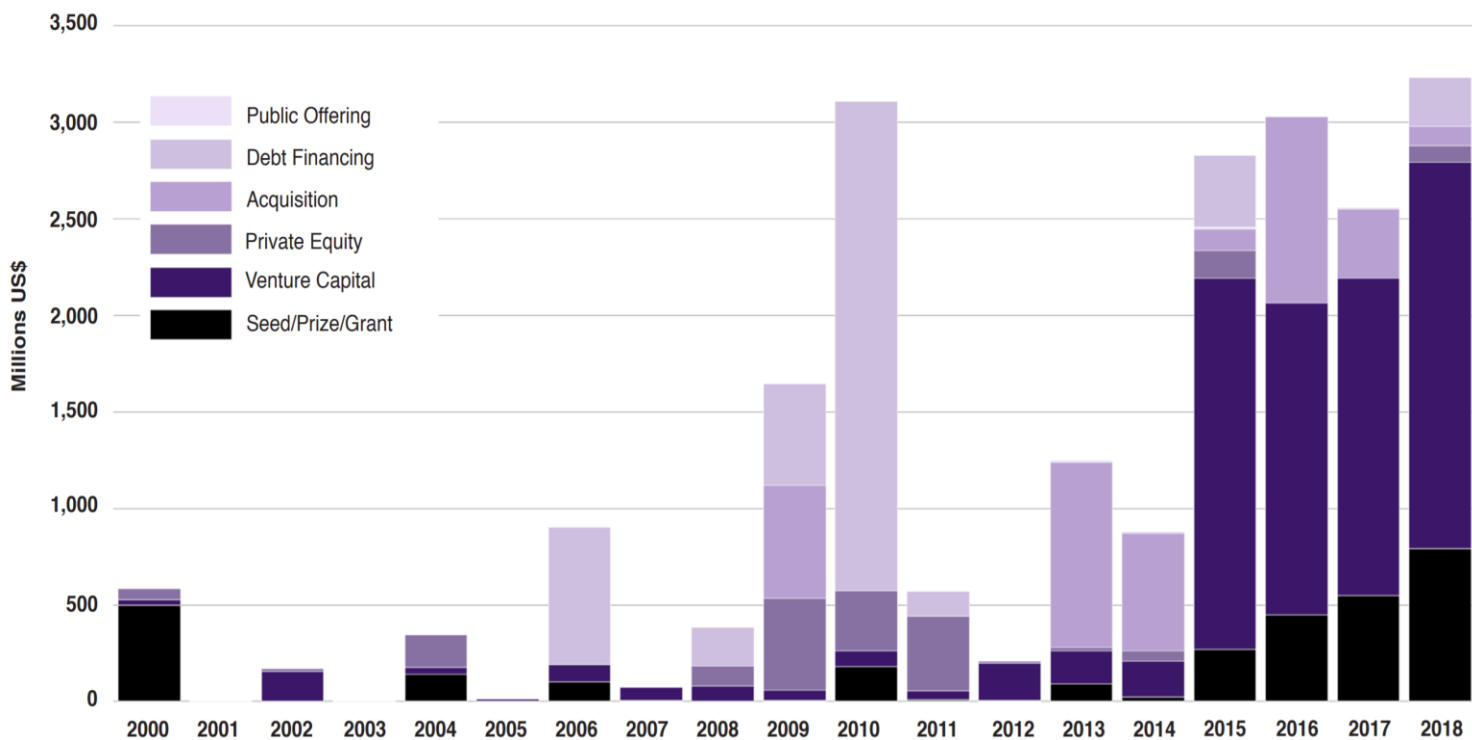
Source: Euroconsult: 2019 Research Report on analysis & forecast of satellite manufacturing & launch services



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Present Private Investments in Space Activities



Investment Type	2000-2006 (millions)	2007-2012 (millions)	2013-2018 (millions)	Total 2000-2018 (millions)
Seed/Prize/Grant	\$742.0	\$201.9	\$2,170.3	\$3,114.2
Venture Capital	\$327.9	\$519.6	\$7,543.5	\$8,390.9
Private Equity	\$234.2	\$1,300.8	\$301.0	\$1,835.9
Acquisition	\$0.0	\$584.0	\$3,098.3	\$3,682.3
Public Offering	\$0.0	\$0.0	\$23.4	\$23.4
Total Investment	\$1,304.1	\$2,606.3	\$13,136.4	\$17,046.8
Debt Financing	\$710.0	\$3,388.4	\$637.8	\$4,736.2
Total with Debt	\$2,014.1	\$5,994.6	\$13,774.2	\$21,782.9

Source: Bryce Space Report on Start-Up Space: Update on Investment in Commercial Space Ventures 2019



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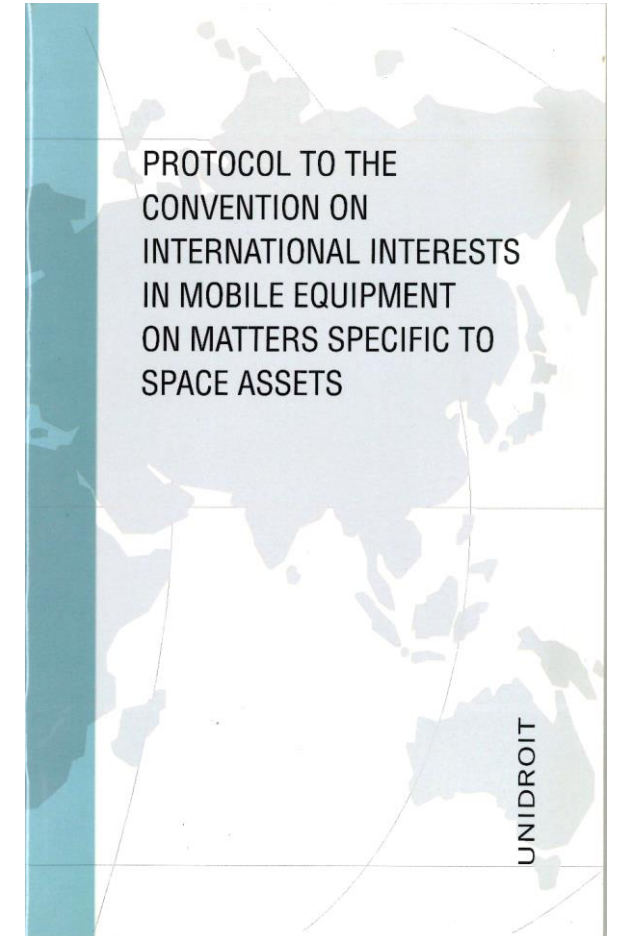
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Conclusion and Global Cooperation

At present, UNIDROIT is working towards finalisation of the framework for the operation of the International Registry.

We are closely working with Governments, International Organisations, Experts, and Industry to increase the understanding, and use of asset-based financing in the space industry.

Ratification by States, and greater involvement by industry will allow the Space Protocol to start benefitting the global space economy, and creating a more inclusive space industry, as it was originally drafted to do so.



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**Thank you for your attention
Any Questions?**

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