

Organisers



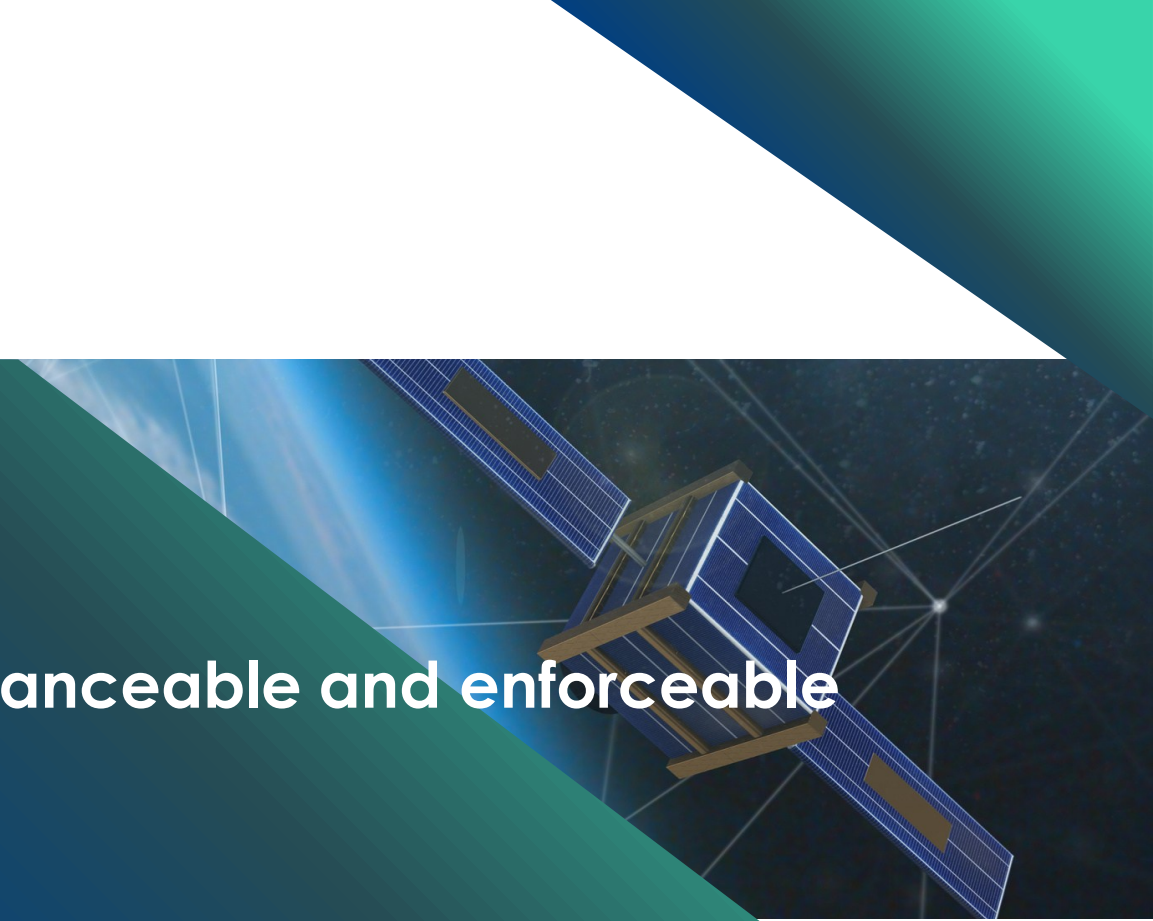
AAIL FOUNDATION

THE FINAL FRONTIER OF PRIVATE LAW

Making space assets transferable, financeable and enforceable

Gallant Guo

*Research Associate
Asian Academy of International Law*



TODAY'S ROADMAP

01

SPACE ASSETS AND THE MARKET

How the market is changing, what the asset includes, and where the private-law gap appears

02

LEGAL CERTAINTY

How title, notice, priority, and control can be made more predictable

03

DISPUTE RESOLUTION

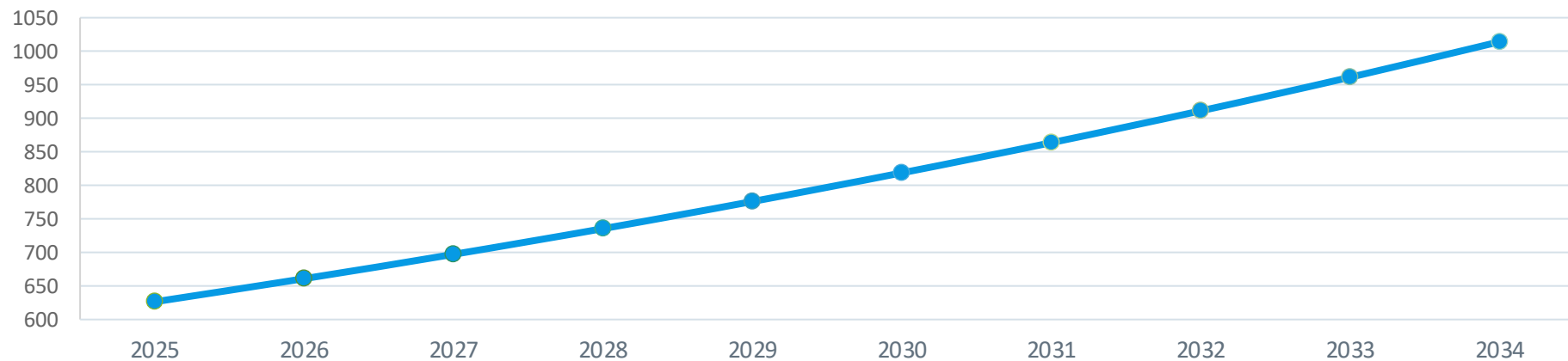
How specialist procedure can make those rights practically enforceable

SPACE ASSETS AND THE MARKET

A US\$1 TRILLION SPACE ECONOMY?

2025
US\$626.4bn

2034
US\$1.01tn (Expected)



5.5% compound annual growth rate

Novaspace, Space Economy Report 2026. Intermediate points are an illustrative interpolation using the stated 5.5% CAGR; Novaspace publishes the endpoints.

THE MARKET IS CHANGING SHAPE

ONE-OFF SPACE MISSIONS



CONSTELLATIONS + REPLENISHMENT

HARDWARE VALUE ONLY



HARDWARE + SERVICES + DATA

FEWER CAPITAL TRANSACTIONS



MORE M&A + EXTERNAL FINANCING

More capital and counterparties require rights that can be verified and enforced.

WHAT IS A “SPACE ASSET”?

SPACE PROTOCOL DEFINITIONS

a uniquely identifiable man-made asset in space or designed to be launched into space, comprising:

- a spacecraft
- a payload that can be separately registered
- a separately registrable part, e.g. a transponder

together with installed, incorporated or attached accessories, parts and equipment and related data, manuals and records.

THE WIDER COMMERCIAL BUNDLE MAY ALSO INCLUDE

- Contracts + receivables
- Licences + spectrum access
- Software + data + IP • Ground infrastructure
- Customer and network value

OWNERSHIP, CONTROL AND PERMISSION

COMMODITY

Ownership usually brings possession and use.

AIRCRAFT

Ownership and operation may diverge; physical recovery is possible.

SPACE ASSET

The owner may lack command access, regulatory permission or practical recovery.

A space asset is a legal and operational bundle, not just an object in orbit.

EXISTING LEGAL FRAMEWORKS

STATE RESPONSIBILITY/ LIABILITY

Outer Space Treaty (1967) · Liability Convention (1972)

OBJECT + FREQUENCY RECORDS

Registration Convention / UNOOSA · ITU frequency coordination

NATIONAL SUPERVISION

Hong Kong Cap. 523 · proposed EU Space Act

**These regimes identify, authorise, supervise and coordinate.
They do not, by themselves, establish private title or creditor priority.**

WHAT REMAINS MISSING?

TITLE + TRANSACTIONS

Sale · lease · chain of title

SECURITY

Creation · notice · enforcement

PRIORITY

A searchable record + a simple first-to-file rule

Ordinary national law supplies transactions, but not a common space-specific system.

AIRCRAFT SHOW THE VALUE OF TWO LEGAL LAYERS

PUBLIC / OPERATIONAL REGISTER

Nationality · registration mark
Registered owner / operator

🕒 20/07/26 - 02/08/26

MARK	TYPE	S/N	1S OV
G-CFXX	QUIKR	8443	DA
G-CNBL	DIAMOND P-90	DB-SN-032	BE
G-CNDJ	CAMERON GRAZ BOX-110	12858	NC
G-CNDN	SCHWEIZER 269D	0005	SA

A national aircraft register identifies the aircraft and registered owner; it is not, by itself, proof of legal title.

FINANCE REGISTER

International interests · sales / leases
Notice · priority · discharge

INTERNATIONAL REGISTRY

Asset identifier

Registered interest

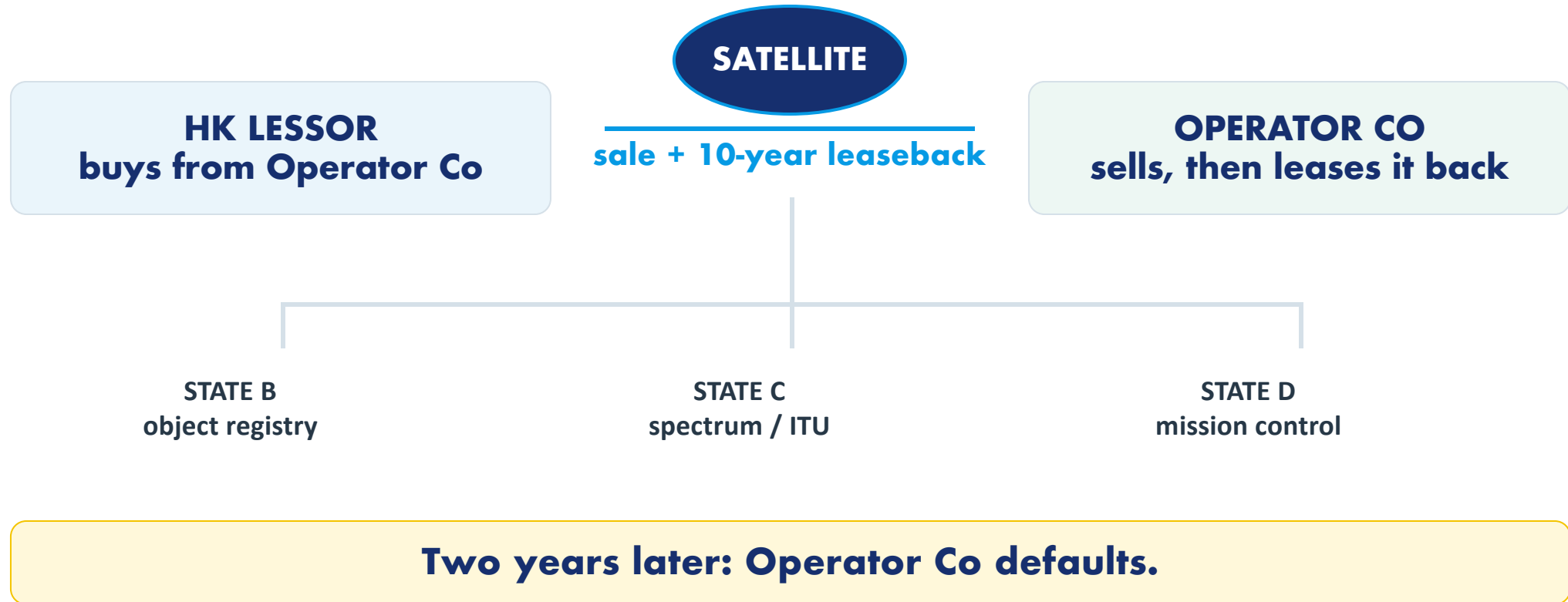
Registration date and time

A proven model, but not a copy-and-paste solution for space assets.

THE PRIVATE-LAW GAP

**We cannot yet verify,
through a coherent system, who owns the
asset, who has priority
and what can be enforced on default.**

A CASE STUDY



LEGAL CERTAINTY

WHAT PUBLIC LAW CAN ANSWER

STATE OF REGISTRY

Which State retains jurisdiction and control over the object

REGULATORS

Who may operate or control it, and whether approvals continue

ITU SYSTEM

How the frequency use remains coordinated through administrations

These answers keep the mission lawful. They do not rank private claimants.

WHAT THE TRANSACTION STILL NEEDS TO KNOW

CLEAN TITLE

Did the owner acquire the satellite free of an earlier claim?

NOTICE + PRIORITY

Where should the sale, lease and security be recorded, and who ranks first?

CONTROL + VALUE

Can the creditor obtain lawful command access and revenue after default?

Can you own the satellite yet be unable to use it?

THE 2012 SPACE PROTOCOL

A uniform asset-finance framework

- 1 Extends the Cape Town Convention to qualifying space assets
- 2 Provides registration and priority rules for sales, leases and secured financing
- 3 Preserves national licensing, spectrum and public-policy powers

WHAT THE PROTOCOL WOULD ADD

NOTICE + PRIORITY

International Registry · first-to-file ranking

FUTURE VALUE

Future assets · related receivables

SPACE-ADAPTED REMEDIES

Command-code arrangements · linked assets · insolvency · public-service continuity

It tries to do for qualifying space assets what the Cape Town system did for aircraft.

IMPORTANT, BUT NOT YET OPERATIONAL

NOT IN FORCE

**2 accessions
4 signatures**

ENTRY INTO FORCE REQUIRES

**10 instruments + a fully operational
International Registry**

RECENT MOVEMENT

DRC accession: June 2026 · UNIDROIT implementation Focus Group active

DO WE WAIT?

DOMESTIC SYSTEM

HK can legislate notice + priority
HK can define remedies + insolvency
Wider owner/operator/lease record



SPACE PROTOCOL

Treaty-recognised interests
International Registry + treaty priority
Among participating Contracting States

**Same problem, different legal reach:
domestic platform + international layer.**

PROPOSED SPACE ASSET REGISTRATION AND FINANCE ORDINANCE

1

FINANCE-GRADE ELECTRONIC NOTICE REGISTER

2

CLEAR THIRD-PARTY PRIORITY + ASSOCIATED-RIGHTS RULES

3

SPACE-ADAPTED REMEDIES + INSOLVENCY MACHINERY

ONE REGISTER, TWO FUNCTIONS

ASSET + OPERATOR RECORD

Unique identifier

Owner + operator

Launch + orbit

UNOOSA / ITU / other filing references

IDENTIFY + LINK

FINANCE NOTICE RECORD

Sale / lease

Security interest + creditor

Rights assignment

Governing law

GIVE NOTICE + SUPPORT PRIORITY

DISPUTE RESOLUTION

WHAT'S SPECIAL ABOUT SPACE DISPUTES?

TECHNICAL PROOF

Telemetry · orbital data · software ·
engineering causation

OPERATIONAL URGENCY

Launch windows · interference ·
service continuity · collision risk

FRAGMENTED CHAINS

Manufacturer · launcher · operator ·
insurer · lender · State / regulator

The substantive law may be familiar; the procedure must fit the mission.

THE CURRENT DISPUTE LANDSCAPE

STATE ↔ STATE

Treaty consultation · diplomatic claim · Claims Commission

PRIVATE COMMERCIAL CLAIMS

National courts · general arbitration · expert determination

FOREIGN INVESTOR ↔ STATE

Investment-treaty arbitration

Illustrations: Cosmos 954 · Devas / Deutsche Telekom v India

PCA OPTIONAL RULES FOR OUTER SPACE ACTIVITIES

WHY THEY EXIST

States + private parties · public + commercial law ·
technical + sensitive evidence

WHAT THEY ADD

Specialist panels · technical explanations · confidentiality
adviser
Experts · interim measures · model clauses

SPECIALISATION IS ALREADY UNDER WAY

DIFC COURTS: COURTS OF SPACE

Judicial capacity · dispute guide
Training + moot

SPACE ARBITRATION ASSOCIATION

Research · exchange
training, not case administration

MAINSTREAM INSTITUTIONS

Emergency relief · joinder
consolidation already available

AAIL'S HONG KONG PROPOSAL

A SPECIALIST OVERLAY

Compatible with existing court and arbitral procedures

SPACE-QUALIFIED PROCESS

Appointments · secure technical evidence · urgent relief

TRANSACTION-CHAIN DESIGN

Model clauses · joinder / consolidation · coordinated proceedings

Practice and model clauses first; institutional adoption can follow.

THREE TAKEAWAYS

- 1 A space asset is a bundle: ownership, control and permission may diverge.**

- 2 Regulation is developing, but no common system yet provides legal certainty for title, security, priority and private-law remedies.**

- 3 A finance-grade register and a specialist dispute resolution platform are compatible first steps.**