

Space Law and Arbitration *

Summary

*** Please note that this summary of the panel was AI-generated and therefore has not been fully vetted for accuracy.**

The Washington Arbitration Update (WAU) session highlighted the growing intersection of space law and international arbitration, reflecting the rapid commercialization of the space industry. Ian Laird, a partner at Crowell & Moring, and co-chair Dr. Jose Antonio Rivas opened the session, emphasizing the importance of diverse perspectives in international arbitration and the need for effective dispute resolution mechanisms as the space sector evolves.

The panel featured several experts, including Professor Marie-Alice Marvel, who provided foundational insights into the legal frameworks governing space activities, particularly the Outer Space Treaty and its implications for state responsibility and liability. She discussed significant historical cases, such as the Cosmos incident, which illustrated the complexities of liability in space law.

Werner Skinn, another panelist, focused on the anticipated rise in space-related disputes due to increased commercial activity, particularly in satellite operations. He highlighted the need for arbitration in resolving these disputes effectively, given the unique nature of space activities and the technical expertise required.

Dr. Ian Fellow presented real-world examples of space arbitration cases, emphasizing the political dimensions of such disputes and the public law issues related to export controls and regulatory compliance. He noted that many arbitration cases remain confidential, which complicates the broader understanding of the field.

Nick Store discussed the environmental challenges posed by space debris, stressing the urgency of establishing enforceable commitments to manage this growing problem. He drew parallels to climate change, suggesting that proactive measures are necessary to safeguard the future of space activities.

Max Scharfe concluded the session by addressing the implications of investment treaties in the context of space law, noting the challenges of reconciling territorial requirements with the nature of space as a shared domain.

The session underscored the need for ongoing dialogue and collaboration in developing legal frameworks that address the complexities of space law and arbitration as the industry continues to expand. The panelists encouraged participants to propose topics for future discussions, highlighting the dynamic nature of this emerging field.

Authors

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Topics

Space Law

Category

WAU

Full Transcript

00:00:01

Oh, good morning, good afternoon,

00:00:04

good evening, I guess, depending

00:00:06

on where you're coming from,

00:00:07

welcome to World arbitration update.

00:00:13

Today is the first day

00:00:15

of this year's 2022, World

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arbitration update. And we have

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a fantastic panel this morning

00:00:25

which will introduce shortly. My

00:00:28

name is Ian Laird. I

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am a partner at the

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firm of Crowell & moring

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and located in Washington, DC.

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It's a pleasure to welcome

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you on behalf of world,

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arbitration update in my co-chair.

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Dr. Jose Antonio Rivas was

00:00:47

also with us this morning,

00:00:49

we want to do a

00:00:53

few administrative duties before we

00:00:55

launch into the panel first

00:00:58

is to thank our sponsors

00:01:00

who we would have been

00:01:03

able to organize this year's

00:01:04

conference without their support. A

00:01:07

big thank you to all

00:01:08

of them. We also have

00:01:09

a large group of supporters

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who being very helpful and

00:01:14

promoting the conference and providing

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speakers and we've listed them

00:01:19

as well as on the

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website and a big thanks

00:01:22

to them for their incredible

00:01:24

support for this year's conference,

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can't say enough. Of course

00:01:31

I should also mention that

00:01:34

the folks attack strategy llp

00:01:38

where where Jose Antonio is

00:01:40

the founder, have done a

00:01:42

fantastic organizational job putting together

00:01:45

the 19 panels over five

00:01:47

days and organizing the various

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panels in and speakers. And

00:01:51

so, for us than just,

00:01:52

the general Logistics is being

00:01:53

amazing and thanks to Anna

00:01:55

Maria. Lucia for their incredible

00:01:58

hard work. And of course,

00:02:01

Thanks to all of our

00:02:03

speakers and panelists and of

00:02:06

what we'll get into that

00:02:07

in a moment. World arbitration

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update has a number of

00:02:11

objective but most importantly, that's

00:02:13

provide very accessible updates to

00:02:17

developing issues and international arbitration.

00:02:20

And today's panel is definitely

00:02:23

one that fits that category.

00:02:25

And we're very much looking

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forward to that. Also, a

00:02:30
part of it is to

00:02:31
reflect that are they the

00:02:33
highly diverse nature of the

00:02:34
international arbitration World folks come

00:02:37
from every different fields act

00:02:39
or region culture. And we

00:02:43
have made an effort as

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you can see having different

00:02:47
panels focusing on different areas

00:02:49
and regions and, and legal

00:02:51
systems. And practices were trying

00:02:54
to reflect the diversity of

00:02:56
international arbitration. And I think

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today's panel which will get

00:03:01

Do now is titled, space

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law and arbitration something that

00:03:05

was certainly very very dear

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to my heart. The developments

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in in certainly space science

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and that the world of

00:03:17

the business World surrounding space

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and Aviation has developed and

00:03:22

increased dramatically over the last

00:03:24

few years. And certainly the

00:03:26

arbitration dispute resolution part of

00:03:29

that is equally an increased.

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So I think a lot

00:03:32
of people would be very

00:03:34
interested in this topic, and

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I'll pass it now, the

00:03:37
microphone over to my, my

00:03:39
colleague, dr. Jose Antonio Rivas

00:03:42
to introduce the panel and

00:03:45
moderator and and kick ass

00:03:47
off. So Jose Antonio, Thank

00:03:51
you very much Ian and

00:03:52
it is it is a

00:03:54
true pleasure to keep costs

00:03:57
this this title by introducing

00:03:59
Viva that well. And then

00:04:02
be before I do this

00:04:03
I would like to say

00:04:05
that I am truly happy

00:04:09
about having having all the

00:04:11
police that I see on

00:04:12
the screen I was just

00:04:15
commenting. How how Professor Marvel

00:04:17
came? You came into the

00:04:20
world of world arbitration update

00:04:22
that are impossibly in the

00:04:24
washing arbitration week. Just this

00:04:27
time, you gave me a

00:04:28
chance. I don't know how,

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how, how she might have

00:04:31

heard about the world of

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Jason update, but, but I

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do recall, that that and

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I will confide that we

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were on a panel possibly

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at at 5 p.m. or

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6 p.m. Washington DC time.

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And I know that that's

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how I assume that sheet

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that you might have been

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Indiana. And there she was

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no very studious and listening

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to the final comments. And

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I was amazed because because

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because the time difference is

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always a challenge. I thought

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what we might might be

00:05:00

doing something? Well it is

00:05:02

as if she would like

00:05:04

to join us up that

00:05:06

late on a Friday night.

00:05:06

So that. Or should I

00:05:09

let me to to explore

00:05:12

her expertise? And then there

00:05:14

you go find that that

00:05:16

that she's an expert on

00:05:17

Space law, among many things.

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And and one thing led

00:05:21

to the other one, the

00:05:24

launch of the various space

00:05:27

travels in 2021 by the

00:05:31

Private Industry. And made it

00:05:32

very clear that we had

00:05:35

to to create a panel

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on Space law and arbitration.

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And it wasn't, it wasn't

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too far ahead. When we

00:05:45

we learned about the existence

00:05:47

of Vivitrol who is an

00:05:51

arbitration specialist, and I'm Counseling

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in, in many cases investor-state

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on an international commercial arbitration.

00:06:00

But also with a name

00:06:02

with an extreme High interest

00:06:06

in space low mattress. I

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did too. We basically launched

00:06:12

a search based on expertise

00:06:15

and experience and that is

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the panel that that we

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have in front of us.

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I want going to everyone

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said bye. Because that's that

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is at because the Thunder

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but I would like to

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say thank you because in

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the process of drafting the

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blurb of curating, the problem

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for this specific, I do

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at the chance of getting

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closer to space law, and

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that I'm a firm believer

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that if you have strong

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bases and, and the instructor

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in public international law, On

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sources and and state responsibility,

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you, you should be able

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to do jumping to the

00:06:54
same width of course, study

00:06:55
and at and perseverance and

00:06:57
learn about space law as

00:06:59
well. This is, this is

00:07:01
a mistake. Not a new

00:07:03
topic, even though we're many

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of us and maybe this

00:07:07
is not a new topic

00:07:07
because you have been treated

00:07:10
as they're happy and there

00:07:12
have been chapters books written

00:07:13
on face lock each broad

00:07:16

but it's it's a it's

00:07:17

important that we bring it

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closer to everyone's mind. So

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we're very excited that we're

00:07:25

launching this, this spacecraft at

00:07:29

that world arbitration update, now,

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and Viva take it away.

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I know that I did

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not in precise enough your

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your accomplishments, but but it

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is obvious that that, that

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that you are. And I

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in the right place, I

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bought the investor relation International

00:07:45

commercial. I need space law.

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So thank you, and let's

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move into what will be

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an extremely exciting time. Thank

00:07:56

you. Jose Antonio, and thank

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you again, and it's a

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pleasure to be here amongst

00:08:00

all of arbitration community and

00:08:02

I'm calling as mentioned in

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it. The pleasure to be

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here with all of you

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and and thank you to

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all the panelists who will

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be speaking. I'll be introducing

00:08:14

them shortly. But before I

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do that, I also have

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the task of giving the

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audience of short, update on

00:08:21

the issues that we will

00:08:22

discuss today. And I think

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in my view, why the

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topic of space law in

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arbitration matters to the arbitration

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community. So is Jose. Antonio

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mentioned, the space sector is

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is commercializing quickly which brings

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new challenges and opportunities. And

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the space industry is expected

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to reach about a trillion

00:08:44

dollars in annual revenue by

00:08:46

2040. So, whereas, Once Upon

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a Time, space actors, were

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where she stayed after, sorry,

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we're the only real driving

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forces behind. The development of

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the state sector will now

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having the introduction of private

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after and this evolution is

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likely to result in a

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change in the existing and

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existing amount, existing types of

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space, there are likely to

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generate new types of just

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be the result in the

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topics. Come up in the

00:09:23

stands and sell. Now, since

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the world arbitration update has

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never held a session on

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this topic. My update is

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really three reasons why this

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why this topic matters for

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this opportunity and I agreed

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that into three different buckets.

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The first bucket, why the

00:09:42

arbitration committee should care about

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this topic is to ensure

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that we can offer effective

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dispute, resolution services to the

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users that are in the

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space industry as a practitioner

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as a researcher I can

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say with some confidence that

00:09:54

the number of space related

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to Does increasing and out

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of these disputes currently and

00:10:00

I think we will hear

00:10:00

more about this. I just

00:10:02

using the satellite sector are

00:10:03

dominating currently these disputes include

00:10:08

launching delivery of satellites into

00:10:09

orbit disputes involving regulatory measures

00:10:12

and policies to see if

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stemming from technical failures and

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space. And the majority of

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this dispute these disputes are

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also between commercial parties at

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the moment and perhaps unsurprisingly.

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These diffuser are actually being

00:10:29

resolved in arbitration situations that

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were so familiar with including

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the ICC industry and this

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is the reason to care

00:10:47

about this topic. The second

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reason why I think it's

00:10:50

important to care about the

00:10:51

intersection of space and arbitration

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is, so that we can

00:10:54

promote the rule of law

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in outer space. I'm an,

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as an example, I will

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give you an Indus is

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by no means the only

00:11:00

example last year. Russia conducted,

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what is called an anti-satellite

00:11:04

test that created space debris.

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That's written to collide with

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other projects in in Earth

00:11:09

orbit including the International Space

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Station, including starlink satellites. This

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is not the first time

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other countries have similarly done

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that including China. And yeah,

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but what the outcome is

00:11:23

that there is a potential

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to cause significant injury book,

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two persons and property in

00:11:27

space. Now thankfully, a number

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of States, including the United

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States are committing to refrain

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from such doing some doing

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such tests, but as the

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space industry evolves, and as

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more stayed in private actors,

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join and interact with each

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other. The needs and expectations

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of what, the rule of

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law is based, I think

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they'll change. I'm so we're

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seeing this beautiful state and

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non-state actors as well and

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we'll be talking about some

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of those examples, but another

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area to kind of look

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out for him, In this

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intersection and then find me

00:11:58

and related Lee. The growing

00:12:00

field of space, arbitration law

00:12:02

opportunities, offers opportunities on how

00:12:05

we might generate legal infrastructure

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to provide stability and certainty

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in the interface sector. And

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so, this is a question

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that I pose, I think

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for the audience for the

00:12:15

panelists as well, which is

00:12:17

kind of field of International

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Investment arbitration offer, insights for

00:12:21

the field of International Space

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law. I think it can.

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I think there are two

00:12:25

examples. One is procedural. The

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other one substance it first

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is the exact is the

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contribution by the permanent Court

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of arbitration which developed the

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actual rules for a station

00:12:36

of disputes relating to outer

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space open on the PCA

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outer space for the rules.

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Now have celebrated their 10th

00:12:42

anniversary last year, I'm in

00:12:44

our base during much on

00:12:45

the Anza Trail arbitration rules

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that many of us are

00:12:47

familiar with and they're and

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they're tailored for the highly

00:12:51

technical nature space dispute. So

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they didn't to meet the

00:12:54

demand of users in this.

00:12:56

A sector who belly confidentiality,

00:12:57

who will talk a little

00:13:03

bit about some of the

00:13:04

incentives, but the second example

00:13:08

of where I think be

00:13:09

in the National and international

00:13:12

arbitration. World can contribute to

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the state sector is also

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through substantiv Protections in outer

00:13:18

space. Perhaps, we were talking

00:13:20

about this earlier. I'm just

00:13:22

coming back from the international

00:13:24

astronautical Congress, which is a

00:13:26

congress which is a, it's

00:13:28

a, it's a large Congregation

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of everyone in the space

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industry and Professor Marvel Ashley,

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who is moderating the panel

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and we have the opportunity

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to talk about in the

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Corps. International protections that are

00:13:39

commonly found in in in

00:13:41

India over 2,500 investment treaties

00:13:44

and why some of these

00:13:45

protections perhaps could also be

00:13:46

well suited to address the

00:13:48

substance of needs and realities

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of the actor of actors

00:13:51

in space. So I think

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as a program goes forward

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on for all the audience

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members, Not, you know, thought

00:13:58

about this after I would

00:13:59

invite you to think about

00:14:00

how International arbitration International Space.

00:14:03

So I might actually go

00:14:04

hand-in-hand and lucky for us.

00:14:06

We actually have five very

00:14:08

smart and interesting panelist actually

00:14:10

kick ass off today. So

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I think I'll now transition

00:14:13

to from the topics in

00:14:14

the panelists, we will be

00:14:17

hearing from today. So first

00:14:18

mentioned, we a professor, I'm

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glad marbo who will be

00:14:22

setting the groundwork on the

00:14:24

main trees on the principles

00:14:26

and the rules are Nationals

00:14:27

baseball, kind of like a

00:14:28

space 101 class. If you

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will, Professor, my bow is

00:14:32

a professor of international law

00:14:33

at the University of Vienna

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in Australia. And I know

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many of you already know

00:14:38

her as an expert in

00:14:39

International Investment law. And, and

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her book on probably one

00:14:43

of the most important books

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at least, there any, any

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practitioner certainly associate, but she's

00:14:49

also the head of the

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Austrian national point of contact,

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Force Base, log of the

00:14:54

European Centre for space law.

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Just located in the University

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of Vienna. I'm, she's been

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a regular member of the

00:15:00

Austrian delegation to the United

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Nations committee on the peaceful

00:15:03

uses of outer space. Also

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known as you and copious,

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I'm, she was the chair

00:15:07

of the working group on

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National Space legislation of, but

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you and copious legal subcommittee,

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and she has published numerous

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articles and books, on Space

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law. In addition, to arbitration

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in the latest one. I

00:15:19
received the 2022 International Academy

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of astronautics social sciences book

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award on which is called

00:15:26
legal aspects of planetary defense.

00:15:28
And actually, if you've been

00:15:29
tracking the news, we've actually

00:15:30
had some examples of planetary

00:15:32
defense happening in the face

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after. So welcome because you're

00:15:35
my bro and thank you

00:15:36
for for joining us. We

00:15:38
also next have where I

00:15:40
skinned who will be giving

00:15:42

us an overview of the

00:15:43

existing areas of space related

00:15:45

dispute and where we can

00:15:47

see nudist is the expected

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to rise in the future.

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Werner is a partner at

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Crowe on Moorings, International dispute

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resolution group. He is almost

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30 years Experience in commercial

00:15:57

commercial litigation mostly in matters

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with International settings with a

00:16:01

strong Focus, an arbitration he

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has conducted numerous arbitrations in

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missions around the world. Including

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institutions were many space disputes

00:16:09

are resolved so we'll have

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to ask you where at

00:16:11

some point if you worked

00:16:12

on that. But including the

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ICC saccani which is the

00:16:16

Belgian arbitration center before the

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lcia, it said yeah. And

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he also regularly as an

00:16:23

arbitrator, he holds a graduate

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degree in Aerospace law from

00:16:27

the Free University of Brussels.

00:16:29

So welcome, thank you for

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joining us. I'm falling Runner.

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We will have, I'm Doctor

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young fellow who will Deep

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dive into a few concrete

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examples of space related to

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see if they have been

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observed to date and how

00:16:41

they were actually result. So

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that'll give you a taste

00:16:43

of the nothing box of

00:16:46

some of these arbitration. Ian

00:16:48

was a former dispute resolution

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associate at Baker, McKenzie. And

00:16:52

that Maurice Morrison & Foerster.

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He is now and The

00:16:56

German dispute resolution Boutique SRP

00:16:59

in Munich in Germany. I

00:17:01

mean, he has practice focuses

00:17:02

on International arbitration in particular

00:17:05

regarding Stacy from Salt and

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he's also the editor-in-chief of

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the space Arbitration Association blonde

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and he has offered a

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series of articles on Space,

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arbitration and space to Snoop.

00:17:16

And if any of you

00:17:18

want to primer on the

00:17:19

topic is article arbitration in

00:17:21

space disputes is, is one

00:17:23

to look out for. It

00:17:25

was number one, most read

00:17:27

article is for 2 months,

00:17:28

in arbitration or Nationals top

00:17:30

five list of most read

00:17:32

articles and renamed of the

00:17:33

top five lists for a

00:17:34

few months after that. So

00:17:36

check check out that article

00:17:37

for an example of future.

00:17:41

So, future space-related disputes that

00:17:44

has the limits of the

00:17:45

type of disputes that can

00:17:46

be resolved through arbitration, right?

00:17:48

So not everything. I think

00:17:49

we can take the promise

00:17:50

that not everything should be

00:17:51

resolved by arbitration and so

00:17:53

will explore some of those

00:17:54

examples. With Nick stores will

00:17:57

be discussing the topic of

00:17:58

environmental dispute and stays and

00:18:01

disputes related to space debris.

00:18:02

And I'll make as a

00:18:03

partner at Taylor wessing in

00:18:05

London where he co-leads the

00:18:06

arbitration group, he has a

00:18:07

long-standing interest in space science

00:18:09

and actually studied astrophysics before

00:18:12

starting his legal career, which

00:18:14

I think is very cool.

00:18:15

He is advise clients on

00:18:17

multiple issues over the years,

00:18:19

leading to the space and

00:18:20

satellite industry, including claims arising

00:18:22

out of joint venture and

00:18:23

cooperation agreement, or chairman, and

00:18:25

Lodge agreement and insurance. So

00:18:26

they were some of the

00:18:27

items that I've mentioned earlier

00:18:28

as well. So they really

00:18:30

great to have you onboard

00:18:31

Nic. So thank you for

00:18:33

attending and then find me

00:18:34

to round things off. We

00:18:36

have Max charging there and

00:18:39

he will be speaking on

00:18:40

the role of states in

00:18:41

the field specific Lee Acts

00:18:43

or omissions that might be

00:18:44

attributable to States under domestic

00:18:46
or international law. Now, Max

00:18:48
is the vienna-based attorney at

00:18:50
law working with Sean hairs,

00:18:51
IP and information, technology team,

00:18:55
His practice focuses on the

00:18:57
information and Communications technology sector

00:18:59
as well as the space

00:19:00
industry. And he's got a

00:19:02
very cool Lego Lego rocket

00:19:04
spaceship in the background. So

00:19:05
they haven't noticed that. Shout

00:19:07
out to the back and

00:19:09
not only that, he has

00:19:11

previously, advised, The Operators of

00:19:12

two of the largest constellations

00:19:14

in Orbit on their product,

00:19:16

launch in Central and Eastern

00:19:18

European region. So I will

00:19:19

leave it to your imagination.

00:19:20

To guess what those large

00:19:22

Mega will have each panelist.

00:19:32

They were present in the

00:19:34

order that I, I presented

00:19:35

them. We will leave some

00:19:36

room for commentary amongst ourselves,

00:19:38

but then we will open

00:19:40

up the floor for you

00:19:41

for questions and answers. After

00:19:43

all the presentations are completed.

00:19:45

And then following that, we

00:19:47

will also have a networking

00:19:48

session where we might have

00:19:50

several breakout rooms depending on

00:19:51

how many individuals a joint.

00:19:53

So, without further ado, Professor

00:19:55

Marvel, the floor is yours.

00:19:57

Thank you for joining. Thank

00:20:05

you very much for this

00:20:06

very kind introduction. It's a

00:20:07

great pleasure and honor to

00:20:09

be here with you today.

00:20:11

Connected by a zoom until

00:20:13

having a discussion with a

00:20:16

fascinating topic, namely space station

00:20:20

space suit settlement and Soda

00:20:22

Springs me at directly to

00:20:24

my rule. That I should

00:20:26

say, to seem somehow to

00:20:28

add to the legal framework.

00:20:32

I mean treaties. And I

00:20:37

will try to share my

00:20:41

which I was signed by

00:20:42

Viva and thank you very

00:20:43

much for the excellent preparation

00:20:45

of this panel and principles

00:20:51

and rules of International Space.

00:20:53

Not relevant to this town

00:20:56

and not to be too

00:20:58

broad as what is really

00:21:00

relevant in the treaties and

00:21:02

principles and rules of International

00:21:03

Space slow. At first of

00:21:05

all, when we talked about

00:21:06

treaties, It is evident that

00:21:10

we are talking about public

00:21:11

international law. And this explains

00:21:14

already this state is state-centered

00:21:16

legal Frameworks primarily later we

00:21:22

have seen the privatisation, but

00:21:25

this is only around the

00:21:27

2020 years we became from

00:21:34

the sixties and seventies and

00:21:36

we call them the five

00:21:39

um treaties in outer space

00:21:41

or days a whole group

00:21:42

of related to each other

00:21:46

because the first the outer

00:21:48

space treaty is the bassist.

00:21:49

It's sometimes called the Constitution.

00:21:51

So the most basic instruments

00:21:54

which covers the principles governing

00:21:57

the activities of states have

00:22:00

even hear the name a

00:22:01

state in the title in

00:22:03

the exploration of space, including

00:22:05

the moon, and other celestial

00:22:06

bodies. 112 medications as a

00:22:11

first of January 2022, SL

00:22:13

regularly updated and 1st of

00:22:14

January, sliced agreements. They are

00:22:21

based on the main principles

00:22:23

defined in the outer space

00:22:25

treaty about a more precise

00:22:28

and specific topics. The first

00:22:35

one is the rescue agreement.

00:22:36

Isaac name says it's the

00:22:39

agreement on the rescue of

00:22:41

astronauts the return of astronauts

00:22:45

and the return of space

00:22:47

objects launched into outer space

00:22:49

and it has to be

00:22:56

noted that all of the

00:22:58

relevant space-faring Nations have ratified.

00:23:01

So the United States, the

00:23:03

former Soviet Russia is there

00:23:06

as well as China India.

00:23:08

You need me to pan

00:23:10
and European states of Frances

00:23:13
on International International documents in

00:23:30
the convention of 1972. Is

00:23:35
it going to snow in

00:23:36
international ability for damage caused

00:23:38
by space object? That has

00:23:40
98 the richest commission registration

00:23:47
of object launched into outer

00:23:48
space, at 7218 ratification. Edit

00:23:59
it. Perhaps it was a

00:24:00
little bit too early 1979

00:24:02
to try to regulate quite

00:24:05
specifically the activities of State

00:24:09
on the moon at the

00:24:12
time. It was just the

00:24:14
United States to go over

00:24:15
there. So I'll just spend

00:24:18
it after the successful Landing

00:24:23
of the United States. That

00:24:24
was not really a number

00:24:27
of states, but only one

00:24:29
stays and the greeman nevertheless

00:24:31
went forward and challenge as

00:24:41
to how it's relevant today

00:24:43
for today's activities, but it

00:24:45
is enforced since 85, so

00:24:48

it's not a pending but

00:24:50

it needed only five. Are

00:24:54

the main principles of space

00:24:56

Irrelevant in International District. I

00:24:57

cannot have a peaceful uses

00:24:59

than an appropriation. This is

00:25:01

probably not really relevant to

00:25:03

this situation, but what is

00:25:07

relevant is responsibility liability registration

00:25:12

and the definition of the

00:25:13

launching State responsibility? That's the

00:25:19

term International responsibility is connected

00:25:24

to an unlawful acts of

00:25:26

states are international responsible for

00:25:28

any unlawful act violations of

00:25:31

international law of their national

00:25:34

team activities of their nationalities.

00:25:37

Do what is that an

00:25:38

actor of that or from

00:25:41

the territory? The nationality of

00:25:44

tearing it tear important. But

00:25:46

what is specific to International

00:25:47

Space know that it's not

00:25:48

only for governmental and non-governmental

00:25:53

entities. This leads us to

00:26:00

the next application which is

00:26:02

also included in our possession

00:26:07

and continuing supervision by the

00:26:09

appropriate State party. So they

00:26:11

need and they require prior

00:26:21

authorization. And then I'm continuing

00:26:23

supervision by the appropriate state

00:26:24

has been done by National

00:26:27

Space. That just listen to

00:26:28

the implementation of International International

00:26:31

liability. Especially International. We don't

00:26:38

have it in that the

00:26:39

other areas and it's due

00:26:40

to live very dangerous nature

00:26:42

of space activities and very

00:26:47

strict liability and it's based

00:26:49

on article 7 of the

00:26:50

outer space, treaty with the

00:26:51

liabilities absolute for damage on

00:27:02

Earth and aircraft in flight

00:27:03

and liabilities based on Fallout

00:27:06

4 damage caused in outer

00:27:08

space to buy collisions of

00:27:09

Tuesday's object in outer space.

00:27:11

We do have liability. Absolutely.

00:27:16

Registration is important. Because it

00:27:21

creates the link between the

00:27:22

space object and the liable

00:27:25

stage. And this is also

00:27:28

part of the reason why

00:27:30

we have the littlest registration

00:27:32

and ratifications of the registration

00:27:34

and declaration actually, Estates be

00:27:39

liable for this particular of

00:27:42

not only, they are responsible

00:27:43

for other channels, but they

00:27:45

are certainly one of the

00:27:47

states. If something happens, if

00:27:50

the registration process and also,

00:27:55

the basis for this, that

00:27:58

they have them to gation

00:27:59

to register space object for,

00:28:00

which they are cheap with

00:28:03

launching state. But the necessary

00:28:07

to different registrations Maybelline National

00:28:09

register and all the space

00:28:15

located in Indiana at the

00:28:19

international registration on behalf of

00:28:22

the UN secretary-general. Jurisdiction as

00:28:29

the station's important for 369

00:28:31

control of the space object.

00:28:33

So we have this to

00:28:35

fold and registration and here

00:28:37

now the definition of State

00:28:39

in can meet up to

00:28:40

four different states and this

00:28:42

is because the definition of

00:28:43

liability convention and registration collection

00:28:46

are the same, identical, and

00:28:49

Define the launch of the

00:28:53

space object, or a state

00:28:56

from whose territory, or facility,

00:28:58

a space object is not.

00:28:59

So if we calculate launch

00:29:01

is prepared to launch territory

00:29:03

for potential launching state, so

00:29:07

which are all of them

00:29:09

jointly and severally liable, but

00:29:11

only one can register the

00:29:15

problems. But this is really

00:29:17

important to know. If I

00:29:18

understand international space, do I

00:29:20

have already used up all

00:29:23

my time. So I will

00:29:24

only Peppermint generally states are

00:29:30

called to resolve the disputes

00:29:33

peacefully using various methods of

00:29:38

settlement Claims Commission are at

00:29:52

procedures and so on are

00:29:54

also included. But there's also

00:29:56

the possibility of arbitration between

00:29:59

states. Or or in between

00:30:02

State and non-state entities and

00:30:13

my oldest church in Carthage,

00:30:14

and the obvious option was

00:30:16

not fun. 10 years now,

00:30:17

and application of disputes relating

00:30:19

to our space activities of

00:30:20

the permanent Court of arbitration.

00:30:21

I cannot go back, so

00:30:25

we can go with matron

00:30:27

to the details of liability

00:30:28

Interstate mechanism and Jimmy choose

00:30:33

to follow certain rules. Commission

00:30:36

is not leaving directly to

00:30:39

a binding result, Thursday. And

00:30:43

the idea that decision of

00:30:44

the commission shall be final

00:30:46

and binding if the parties

00:30:47

have agreed. Otherwise, the commission

00:30:49

shall consider in good faith

00:30:55

and the basic principles of

00:31:06

space, law, relating to dispute

00:31:08

settlement. Thank you very much.

00:31:10

Thank you, professor. And I

00:31:12

know because we are short

00:31:13

on time than and part

00:31:14

of that is my own

00:31:15

fault. If you could give

00:31:17

an example, just of how

00:31:18

the system works with dispute

00:31:22

and compensation. And how to

00:31:23

do my boob is all

00:31:24

I think that would be

00:31:25

helpful. It might summarize some

00:31:27

of the slides that you

00:31:28

have shared already of the

00:31:35

seventies. It was the cosmos

00:31:37

incident when Soviet satellite crashed

00:31:42

on Canadian territory in 1978.

00:31:45

And the satellite contains a

00:31:47

nuclear reactor which created under

00:31:49
the impact. Play Radioactive pollution

00:31:52
over. Are a very white

00:31:54
area at very high. So

00:32:01
it was still a textbook

00:32:04
case of a liability of

00:32:06
a known. She stayed with

00:32:07
a subject or a Soviet

00:32:08
and also the Soviet Union

00:32:10
I conceded yet that that

00:32:12
is our satellite. She wanted

00:32:13
to have it back quickly.

00:32:15
So the rest to return

00:32:16
agreement in principle was also

00:32:18

invoked about what they claimed

00:32:22

was them pooped by Canada

00:32:24

and requested. 6 million Canadian

00:32:26

dollars for cleanup costs, but

00:32:28

in the negotiations was not

00:32:29

the Claims Commission, which was

00:32:31

established. But they said, well,

00:32:33

it was at the same

00:32:35

time. They needed, we will

00:32:37

solve our financial situation, and

00:32:41

a G+. Okay? For Canada,

00:32:43

that Soviet Union, paid 3

00:32:45

million Canadian dollars. So, get

00:32:49

Union requested also to, to

00:32:52

help in the rescue and

00:32:53

to save some money. But

00:32:54

Canada said, well no weed

00:32:56

with the cleanup ourselves but

00:32:58

I accept the reduced Which

00:33:05

firm the principle of liability.

00:33:15

Thank you for that example.

00:33:16

I'm at all, open the

00:33:18

floor, to to any anyone

00:33:21

else here who has just

00:33:23

within the panelists. Sorry. If

00:33:25

it there any other questions?

00:33:26

Professor Marvel and then we

00:33:28
will move to the next

00:33:28
presentation. Professor, can you elaborate

00:33:33
on how I'm states can

00:33:35
accept the decision of the

00:33:36
Kings Commission? Yes, and thank

00:33:41
you very much. I mean,

00:33:42
generally stable after the current

00:33:46
Rule and accepted as finding

00:33:54
the result and making it

00:34:04
possible that already at the

00:34:06
moment when States ratify the

00:34:09
agreement of their liability commercial

00:34:11
acceptance of the situation as

00:34:16

binding. So it's a unilateral

00:34:18

declaration as a little bit

00:34:20

as we know it from

00:34:21

the international court of justice.

00:34:22

For example, that the states

00:34:24

declared to be bound by

00:34:27

the decision of a 52

00:34:30

settlement body. And I only

00:34:32

have done the research, how

00:34:33

many states have done? So

00:34:34

the list is Austria, Canada,

00:34:36

Denmark and Norway Sweden and

00:34:39

They have made such a

00:34:43

big deal for them and

00:34:45

their results will be binding

00:34:46

but only with respect to

00:34:48

States who have also made

00:34:50

this declaration declaration. So supposedly

00:34:55

has much more difficult. It

00:34:59

has already arisen Thank you

00:35:05

very much. That was very

00:35:08

interesting, winter. I think we

00:35:11

will now hand over the

00:35:12

Baton to you. Does this

00:35:20

work? Can, can you see

00:35:25

the text? Thank you, everybody.

00:35:29

I will give you a

00:35:31
presentation. A b things that

00:35:34
have changed since the 50s

00:35:36
and things that will change

00:35:38
in the coming 10 to

00:35:39
20 years in space and

00:35:41
how it effects will affect.

00:35:43
I think the arbitration Community.

00:35:44
A few things have changed

00:35:47
dramatically in the past sixty

00:35:50
or seventy years and I

00:35:51
think they will change even

00:35:52
more in the near future.

00:35:54
And first I would like

00:35:56

to make a comment on

00:35:57

volume launch costs of a

00:36:02

car, go into space between

00:36:05

the seventies. In 2010 was

00:36:08

essentially the same for that.

00:36:10

About \$16,000 per kg for

00:36:13

heavy payloads and about thirty

00:36:14

thousand kilograms, four light payloads

00:36:17

what is down to around

00:36:20

2,500 kg and D projection.

00:36:24

Now that the launch costs

00:36:26

may drop from about \$1,500,

00:36:29

to \$100 in 2040 that

00:36:34

will have an enormous impact

00:36:35

on the volume of activities

00:36:37

in space. Around 11,000 satellites

00:36:41

have been launched since with

00:36:43

more than 7,000 are currently

00:36:46

into orbits, but the plans

00:36:48

for the immediate future is

00:36:50

to ring that number of

00:36:51

7070 thousands to say that

00:36:55

these days satellite launches are

00:36:57

peaking is probably an understatement.

00:37:01

The turnover of the space

00:37:04

industry is growing since 2009.

00:37:09

It's Drew from about two

00:37:11
thousand fifteen billion dollars to

00:37:15
about 450 billion dollars and

00:37:18
sweeter mentioned this in her

00:37:20
introductions. And even though the

00:37:22
predictions, do not always match

00:37:23
and the growth figures diverge

00:37:25
sometimes dramatically the one thing

00:37:27
on which all the bankers

00:37:28
and Economist appear to agree

00:37:30
is that human activity is

00:37:32
space. Just like space itself

00:37:34
is expanding somebody that the

00:37:37
1 trillion March for the

00:37:39

space business will be reached

00:37:40

as soon as 2030 how

00:37:42

to say that, it will

00:37:43

happen in 2040. But everybody

00:37:45

believes that he will happen

00:37:46

in the near future to

00:37:50

place these numbers. In perspective,

00:37:52

if you look at the

00:37:53

total revenue of the world,

00:37:55

why it's a variation in

00:37:57

the street for 2019 which

00:37:59

was the best year, it

00:38:01

is treason. Because it's the

00:38:03

value of the of that

00:38:04

total revenue is 875 billion

00:38:07

is 0.8 trillion dollars. So

00:38:11

that would be the size

00:38:13

of the space industry is

00:38:14

expected to become bigger than

00:38:15

that. So that's all you,

00:38:18

then let's look at the

00:38:21

Players until recently only a

00:38:23

handful of governments are playing

00:38:25

an active role in space,

00:38:27

but this has already changed

00:38:28

dramatically today, we have more

00:38:30

than 70 established National Space

00:38:33

agencies, and these include countries

00:38:35

like a \$1. Vietnam, Morocco

00:38:37

in Costa Rica Among the

00:38:40

15 leading space businesses, many

00:38:44

but not all. Are they

00:38:45

still us and most are

00:38:47

listed on stock markets. In

00:38:50

total, the current estimate is

00:38:52

that there are about 1,700

00:38:54

companies that focus on Space

00:38:56

activities and in the past

00:38:58

nine or ten years, they

00:38:59

have raised more than 260

00:39:01

billion US dollars. And of

00:39:05

course, that would like to

00:39:06

make and Nick will tell

00:39:09

you much more about the

00:39:10

specific challenges that are raced

00:39:12

by debris in space. But

00:39:14

the orbital space around Earth

00:39:16

is getting very crowded field.

00:39:18

I mentioned this to already,

00:39:19

there are today more than

00:39:21

twenty thousand pieces of 10

00:39:23

cm debris orbiting Earth. Each

00:39:29

satellite operator requires frequency slots

00:39:33

requires orbital slots. And these

00:39:35

are not an infinite resource.

00:39:38

So, we have all these

00:39:40

numbers and statistics, some of

00:39:42

which are projections, some of

00:39:44

which may be a little

00:39:45

bit too optimistic, but I

00:39:47

think they show clearly three

00:39:49

separate fence and the first

00:39:52

one that this is a

00:39:54

growing expanding markets and that

00:39:57

is driven by the amounts

00:39:58

and is driven by new

00:39:59

technology. The second strength is

00:40:03
that the environment of the

00:40:04
operations is limited by a

00:40:06
number of constraints. And the

00:40:09
third one is at the

00:40:10
majority of the space economy

00:40:12
is now organized by commercial

00:40:15
players and a large majority

00:40:18
of these. Are you organizations

00:40:20
or startups? A, my submission

00:40:23
today to you is very

00:40:25
briefly that this will inevitably

00:40:27
lead to disputes. And because

00:40:33
of three specific reasons, I

00:40:34

think first, they will be

00:40:36

friction, they will probably not

00:40:40

be enough space and resources

00:40:42

for every candidate participate and

00:40:44

the existing constraints will create

00:40:47

incidence and Cindy Taz, and

00:40:49

I believe I explained earlier,

00:40:50

they have already created. Instance,

00:40:52

space is getting more crowded

00:40:54

so there will be more

00:40:55

radio interference. That would be

00:40:57

an increased Collision risk. This

00:40:59

will affect operations, it will

00:41:01

increase costs and it will

00:41:02

reduce the projected income. There's

00:41:07

a lot of new technology

00:41:07

that increases the risk of

00:41:10

system failures that increases the

00:41:12

risk of incidents. And also

00:41:14

I think of this agreement

00:41:15

on the ownership of this

00:41:17

new technology. And I think

00:41:20

with so much new technology

00:41:21

and you businesses, we can

00:41:23

expect post-acquisition claims discussions on

00:41:27

representation and warranty that have

00:41:28

be mates. Disappointment softer to

00:41:31
enthusiastic business, plants that were

00:41:33
projected That's the friction. The

00:41:37
players is also. I think

00:41:39
an important factor, most actors

00:41:41
are now commercial organizations and

00:41:44
they will have quarterly reporting

00:41:46
obligations. They will have business

00:41:48
plans to deliver. They will

00:41:49
have Financial covenants to meet

00:41:51
with regard to Banks and

00:41:53
it will also take a

00:41:54
much shorter term view when

00:41:57
it comes to claims. And

00:41:58

liabilities than governmental organizations have

00:42:01

done in the past, they

00:42:03

will be less dispute. Avoiding,

00:42:05

and Abel wants a quick

00:42:06

and efficient binding. Resolution of

00:42:09

the dispute. I think, frigidus

00:42:11

parties in a commercial worlds,

00:42:13

will seek to translate losses,

00:42:15

which they may have suffered

00:42:16

into immediately accessible financial compensation.

00:42:20

And I think this will

00:42:22

bring us bring us two

00:42:23

quarts and arbitration now, I

00:42:27

believe that some areas will

00:42:29

in the immediate future and

00:42:31

probably remain in the realm

00:42:33

of state courts. And I

00:42:34

think if regular tree or

00:42:36

perhaps even criminal aspect will

00:42:39

Verizon relation to space situation,

00:42:41

say a data breach collusions,

00:42:44

local authorities and state courts.

00:42:47

I expect, you'll still play

00:42:48

an important role unless we

00:42:50

can get into the area

00:42:51

of investment treaty obligation, to

00:42:53

tell the people who comment

00:42:54

on that. I expect however

00:42:57

that when it comes to

00:42:58

a commercial contract satellite manufacturing

00:43:02

lounge and operation, agreements insurance

00:43:06

claims, that space tourism, IP

00:43:10

licensing disputes post admitted claims.

00:43:12

I expect that to be

00:43:14

submitted to commercial arbitration proceedings.

00:43:18

And that is for a

00:43:19

number of specific reasons, which

00:43:21

are reading relates to the

00:43:22

nature of arbitration proceedings, first

00:43:26

arbitration, as opposed to state

00:43:29

courts will present a more

00:43:32

transnational. And I think independent

00:43:34

for him for litigants Seconds.

00:43:38

And I think we should

00:43:39

not underestimate this. If you

00:43:41

look at the spread of

00:43:42

space agencies, the proceedings before

00:43:46

arbitration tribunals can, of course,

00:43:47

be conducted in any chosen

00:43:49

language. That is not the

00:43:50

case state courts. Search proceedings.

00:43:57

Of course, allow he parties

00:43:58

to nominate themselves the members

00:44:00

to a tribunal. That means

00:44:01

they can designate specialized persons

00:44:04

to act as arbitrators also

00:44:06

who are in their view

00:44:07

trustworthy, and who can be

00:44:10

completely unrelated to any of

00:44:12

the parties and impartial that

00:44:14

is different than a State

00:44:16

Court of Two, which one

00:44:17

of the party, Arbitration proceedings

00:44:21

are confidential, they have been

00:44:23

mentioned earlier and I think

00:44:24

in the high-tech industry or

00:44:25

patents and Technology are teeth,

00:44:27

that is a very important

00:44:28

factor. Is finally incidents in

00:44:33

space that will happen far

00:44:35

away with very limited life

00:44:37

access to the scene of

00:44:38

the events and arbitration will

00:44:41

allow parties to bring forward

00:44:42

their own expert witnesses. To

00:44:44

play a very active role

00:44:46

in a lightning. A tribunal

00:44:47

on the technical aspects leaving

00:44:50

the advocacy to lawyers. It

00:44:52

allows, I think, also arbitration

00:44:54

proceedings. That is allows for

00:44:55

much more controlled document production

00:44:57

process, which can be essentially,

00:45:00

Volume 11 date. That is

00:45:01

in the possession of one

00:45:02

single party. For example, the

00:45:05

launching at Organization. For these

00:45:08

reasons, I expect to be

00:45:10

more disputes. I think this

00:45:12

is beautifully, much more commercial

00:45:14

in nature and an important

00:45:15

part of the will be

00:45:16

submitted to commercial arbitration. Thank

00:45:19

you. Thank you very much.

00:45:22

Werner was wondering if any

00:45:25

of the panelists have any

00:45:27

questions on this presentation and

00:45:29

then following that will move

00:45:31

to professor at 2, Dr.

00:45:33

If I can, if I

00:45:35

can jump in Manitou. I

00:45:36

mean, that's really interesting. Thank

00:45:38

you. Baseball or nothing in

00:45:41

particular, dispute handling and we

00:45:44

can all agree is a

00:45:45

new and very fast developing

00:45:48

legal disciplined. All there any

00:45:52

lessons which we can learn

00:45:54

from our God, more established.

00:45:56

There is a blower which

00:45:57

might contribute to that development.

00:45:59

You think what? I s

00:46:04

s a tresa mobile explain

00:46:06

to me that there are

00:46:06

obviously lessons to be learned

00:46:07

nothing from the investment protection

00:46:09

area and discipline. I would

00:46:14

say come 10 twice at

00:46:16

I can think of two

00:46:17

sources which could be incredibly

00:46:20

helpful. 1st, Aviation legal discipline,

00:46:28

the space activity of today,

00:46:30

I think is not extremely

00:46:32

different from what happens in

00:46:34

the commercial Aviation area about

00:46:36

a century ago and India,

00:46:40

be a shin industry quite

00:46:42

quickly. There was a clear

00:46:43

difference between state-to-state Arrangements, traffic

00:46:47

rights, for example, on safety

00:46:49

and and Technical standards and

00:46:51

that area remains solidly in

00:46:54

the non commercial sphere. I

00:46:58

think dealings in the supply

00:47:00

chain in the aviation industry

00:47:02

has become completely privatized and

00:47:04

a lot of arbitration commercial

00:47:06

arbitration that is happening there

00:47:07

additional services to businesses can

00:47:11

be broken down into commoditized,

00:47:13

large transfer, cargo transportation. That

00:47:15

is typically handled by courts.

00:47:17

But the more complex Aviation

00:47:19

to business, transactions are handled

00:47:21

by commercial arbitration and when

00:47:23

it comes to Consumers that

00:47:26

has been regulated by liability

00:47:28

caps by strict liability and

00:47:30

dirt by the courts. So

00:47:32

I expect a similar evolution

00:47:35

in the station. The street

00:47:36

with the more profoundly commercial

00:47:39

activity, being handled by a

00:47:40

commercial arbitration And I think

00:47:45

another source of inspiration can

00:47:47

be maritime law. Shipping and

00:47:51

Pap's, we can project a

00:47:52

to launching agreements. Shipping agreements

00:47:54

have become very formats and

00:47:57

are typically resolved by specialized,

00:48:00

and very experienced counsel, and

00:48:01

all the traitors and experts

00:48:03

with a view to speed

00:48:05

up resolution. Really maritime. Law

00:48:09

also deals with a number

00:48:10

of important States responsibilities and

00:48:13

the regulation of the high

00:48:15

seas. And that includes the

00:48:18

recent phenomenon of deep sea

00:48:20

Mining and it's possible environmental

00:48:23

effects. And I think I

00:48:25

could be a real inspiration

00:48:26

to the current topic of

00:48:29

moon and space mining activities.

00:48:35

Thank you, thank you very

00:48:36

much. I think that was

00:48:37

a great Nick. I don't

00:48:38

know if you've any follow-up

00:48:39

and if not we can

00:48:40

we can move to the

00:48:41

next presentation. Stop the sharing.

00:48:49

All right, thank you. Thank

00:48:51

you very much. Thank you

00:48:53

very much, everyone. Having me.

00:48:55

So now that we've heard

00:48:57

from from Professor, my boat

00:48:59

on a, on the legal

00:49:00

framework, for for outer space

00:49:02

activities, and from Verna on

00:49:04

the areas of space activities,

00:49:05

let's have a look at

00:49:06

the actual space arbitration cases,

00:49:09

that that currently exists. And,

00:49:10

and if you look at

00:49:12

the space arbitration cases that

00:49:14

currently exists, is he very

00:49:16

quickly that they are very

00:49:17

much correlate with a commercial

00:49:20

space activities, taking place today.

00:49:22

As we just heard from

00:49:23

today's commercial space, activities are

00:49:26

still primarily satellites satellites for

00:49:29

telecommunications satellites for Earth, observation.

00:49:31

So space disputes and space

00:49:34

out. The trash cans have

00:49:35

typically something to do with

00:49:37

either selling launching or operating

00:49:40

satellites and these space disputes

00:49:42

have certain recurring elements that

00:49:45

stand out and then you

00:49:46

can quickly identify it when

00:49:48

you involved in Willow, looking

00:49:50

at a space arbitration with

00:49:51

its commercial or investment arbitration.

00:49:54

So today, I would like

00:49:56

to talk about three three

00:49:58

features of space Arbitration,

00:50:00

in, and give you some

00:50:01

some cases as examples for

00:50:03

each number. One, politics, number

00:50:07

to Republic no issues. And

00:50:09

number three confidentiality, So, we

00:50:13

going to eat that the

00:50:14

first characteristic of politics you

00:50:18

can get political very quickly.

00:50:20

And one reason for that,

00:50:22

is that satellites and Rockets

00:50:24

are at Julia's goods and

00:50:26

there is a commercial used

00:50:27

to them as we can

00:50:29

tell her no everyday lives.

00:50:30

But they're also very powerful

00:50:32

strategic military assets and them,

00:50:35

that. Sometimes means. One of

00:50:37

the parties in the dispute.

00:50:38

Even if it's commercial dispute,

00:50:40

axonal in a note, according

00:50:42

to the terms of the

00:50:44

contract. But according to be

00:50:48

a security interests of the

00:50:50

involved stages of its military.

00:50:52

Another reason for the influence

00:50:54

of politics is that some

00:50:56

of the key players in

00:50:58

the industry are all still

00:50:59

state agencies? Like NASA, like

00:51:01

roscosmos, we seen them the

00:51:03

slider Bernards a few seconds

00:51:06

ago. I'm so even though

00:51:07

we have a contract in

00:51:09

place, you are effectively dealing

00:51:12

with the gout. And if

00:51:13

that government decides to unilaterally

00:51:16

alter the terms of the

00:51:18

contract, because of pressure from

00:51:19

the political opposition because of

00:51:22

pressure from the media or

00:51:23

because the geopolitical environment chance

00:51:28

is to obtain specific performance

00:51:29

of that contract will be

00:51:31

questionable to say the least,

00:51:33

a great example for politics.

00:51:36

In space operations of the

00:51:38

Divas arbitrations. The Divas habitations

00:51:42

can send the Indian State

00:51:43

old company and tricks and

00:51:45

entrance had leased paucity in

00:51:47
the in the S-Pen. Expect

00:51:48
a man to set lights

00:51:49
to Divas which was in

00:51:51
turn to provide Broadband services

00:51:54
to the Indian market. Now,

00:51:56
five years into the project

00:51:57
media coverage in a certain

00:52:00
that the government had given

00:52:01
the best on Spectrum to

00:52:03
two divas and an illegitimate

00:52:04
process, a to low price

00:52:06
and the government was called

00:52:08
upon to to cancel the

00:52:10

project. Divas tried everything to

00:52:13

to dispel the the negative

00:52:15

media coverage. But at that

00:52:16

point, it was really two

00:52:18

later. So if a chain

00:52:19

reaction was triggered and that

00:52:21

letter to the government, to

00:52:22

know the contract, which form

00:52:24

the basis for the deepest

00:52:25

project proposed merger and that

00:52:28

in turn, trigger, 3 up,

00:52:30

tration cases to investment treaty

00:52:31

cases at CCD Vespa Cindy,

00:52:34

I don't you telephone versus

00:52:35

India and one commercial arbitration

00:52:37

Divas vs Hendricks and then

00:52:40

03 arbitration state that the

00:52:42

claims prevailed. They the diva

00:52:45

Saga, still continuing a lot

00:52:49

more to be said about

00:52:49

it to be. I don't

00:52:51

have the time to do

00:52:52

that today, that that's for

00:52:54

another day. But that the

00:52:56

Divas arbitration to reheat a

00:52:57

prime example for, for how

00:52:59

things can go south in

00:53:01

the space dispute. If the

00:53:02

government feels pressure to act,

00:53:05

They are the second key

00:53:08

characteristic of of space arbitrations

00:53:09

Pueblo issues. If you manufacture

00:53:13

or sell satellites, you cannot

00:53:15

simply sell them abroad. You

00:53:18

need an export control permit.

00:53:19

And if you want to

00:53:21

operate satellites in orbit, then

00:53:23

already talked about this. You

00:53:24

cannot simply play some anyway.

00:53:26

You like, and use the

00:53:26

frequencies, you desire. You require

00:53:29

the right to use the

00:53:30

frequencies in the relevant orbit

00:53:31

and these public Louis shoes,

00:53:34

regularly fire on their way

00:53:35

into space, arbitrations a great

00:53:39

example for that is bae,

00:53:40

the ICC arbitration ABS. This

00:53:42

is Katie. And in that

00:53:43

case, the tribunal have to

00:53:45

decide if title for the

00:53:46

satellite Krista at 3, which

00:53:48

was already already know, but

00:53:49

had passed from sellers, Katie

00:53:51

to buy. It's abs abs

00:53:53

to purchase a satellite from

00:53:54

the green company Katie, which

00:53:56

Katie had originally purchased from,

00:53:58

from the US company located

00:53:59

Martin. So we was a

00:54:01

second-hand satellite two years after

00:54:04

they ate, they said Purchase

00:54:07

have been concluded and fulfills.

00:54:09

They were media reports in,

00:54:11

in South Korea saying that

00:54:13

I'm Katie had sold the

00:54:15

satellite for to lower price.

00:54:16

Now against the background of

00:54:19

the device arbitrations. If that

00:54:20

already sounds familiar to you

00:54:21

with what for what happens

00:54:23

next. The the the the

00:54:25

media reports that they Korean

00:54:28

Ministry of Science and declare

00:54:30

the satellite purchase Nolan void

00:54:32

because it's allegedly violated Korean

00:54:35

Xbox controllers at because the

00:54:37

parties have not obtained, a

00:54:38

Korean Expo, control permit, they

00:54:40

had obtained, the US export

00:54:41

control permit test at the

00:54:43

contract, the notary Korean Expo

00:54:45

control, so they are the

00:54:47

question for the tribunal really

00:54:49

was to decide if the

00:54:50

satellite selling postage was a

00:54:52

US export in there. 22

00:54:54

us export control regulations for

00:54:56

a Korean Expo in there.

00:54:57

Check to Korean Expo, control

00:54:59

regulations. If you don't know

00:55:02

the case that the twist

00:55:03

in the story was that

00:55:04

they Korean Ministry of Nullify

00:55:06

the contract was not the

00:55:08

competent. Korean Ministry to issue

00:55:10

and monitor, export control, tablets

00:55:12

at the heart of ABS

00:55:15

vs. Katie was really a

00:55:17

political decision, and also a

00:55:21

public blow issue and namely

00:55:23

which export control regulations. Apply.

00:55:24

Now that the third and

00:55:27

final element of space, arbitrations

00:55:29

that I have to time

00:55:30

for today is, is confidentiality

00:55:31

touched on it already earlier.

00:55:35

And the Space Industries is

00:55:36

small in the secret of

00:55:38

Industry. I'm very technical and

00:55:40

because of that, they at

00:55:41

the contracts usually contain confidentiality

00:55:43

Clauses, and, and space disputes.

00:55:45

The end up in arbitration

00:55:46

typically remain confidential. But just

00:55:50

because you don't hear about

00:55:50

many space, arbitrations, doesn't mean

00:55:52

that there aren't any. I

00:55:54

am an office space arbitration

00:55:56

study here about only few

00:55:58

space arbitration Awards out. Bailable

00:56:00

one example for that is

00:56:03

you can stop. This is

00:56:05

Mexico. We know that you

00:56:07

can sad Protonix a case

00:56:09

against Mexico because Mexico requires

00:56:11

satellite companies to reserve some

00:56:13

some of that satellite capacity

00:56:15

for government use which you

00:56:17

claimed amounted to a tax.

00:56:19

We also know that a

00:56:22

Mexico prevailed in this operation

00:56:24

because there was a press

00:56:25

release but the water still

00:56:27

no publicly available. So we

00:56:30

don't know any details about

00:56:32

the the tribunals reasoning. So

00:56:35

as to get CDs, be

00:56:36

space, arbitration some very unique

00:56:38

features. Not only in terms

00:56:40

of outer space being a

00:56:41

very unique environment but also

00:56:43

regarding the operation proceeding. Such

00:56:46

thank you very much. Thank

00:56:49

you very much John can

00:56:50

you tell us a little

00:56:51

bit more about how investment?

00:56:53

Treaties themselves can apply to

00:56:54

the dispute. So you should

00:56:56

have some examples but if

00:56:58

you could just spend a

00:56:58

few minutes on that as

00:56:59

well, I think if you

00:57:03

if you if you speak

00:57:04

about investment treaty space arbitration

00:57:07

you need to address the

00:57:09

elephant in the room straight

00:57:10

away. And I think baby

00:57:12

elephant in the room, is

00:57:12

this article to outer space

00:57:13

treaty? Which says, that I

00:57:16

was face is not subject

00:57:17

to National appropriation by claiming

00:57:19

Serenity. This means that space

00:57:22

belongs to old and not

00:57:23

just one stays at an

00:57:25

investment trees. On the other

00:57:26

hand, as many of you

00:57:28

know, regularly required that the

00:57:29

investor makes an investment in

00:57:31

the territory of of the

00:57:32

whole state. So so how

00:57:34

can you reconcile the the

00:57:35

requirement of investment in the

00:57:37

territory of a state when

00:57:38

they can be no territory

00:57:40

of the states in outer

00:57:41

space because about to go

00:57:42

to outer space treaty in

00:57:43

the diva style patricians and

00:57:46

in in Utah that this

00:57:47

is Mexico that wasn't really

00:57:48

an issue. Because they're the

00:57:50

investors held shares in companies

00:57:53

in the whole state. So

00:57:54

you had an investment in

00:57:56

the territory of the whole

00:57:57

state on planet Earth where

00:58:01

this is not the case

00:58:02

that there are several ideas

00:58:04

of how to create that

00:58:06

a Nexus to to to

00:58:07

the territory of the whole

00:58:10

state. I think 11 or

00:58:12

ideas to Chief that through

00:58:14

frequency rights in orbital slot

00:58:16

location. So the itu grounds

00:58:18

frequency rights and an orbital

00:58:19

slots only two states but

00:58:21

not to private companies and

00:58:23

the states can then I

00:58:25

look at the frequency in

00:58:26

orbital slots usage rights to

00:58:28

to private companies and the

00:58:29

idea here is that the

00:58:31

Ascension allocation amounts to to

00:58:35

an investment in the territory

00:58:37

off of that state. Another

00:58:40

idea is to drive the

00:58:41

the territorial Nexus from the

00:58:43

fact that launching state-maintained jurisdiction,

00:58:46

control over the uptake say

00:58:48

of launched in. How to

00:58:49

space too soon to autoclave

00:58:51

how to space treaty we

00:58:53

fed earlier? From Professor, my

00:58:54

boat launching States. Need to

00:58:55

register the uptake State. They

00:58:57

launched into outer space. And,

00:58:59

and hear the idea is

00:59:00

that the, the the entry

00:59:03

of the space object in

00:59:05

the registry amounts to an

00:59:07

investment in in the territory

00:59:09

of the state, make in

00:59:10

the registration. So these are

00:59:13

some some Concepts to to

00:59:16

create that necessary territory Nexus

00:59:18

in spite of article to

00:59:20

outer space treaty but I

00:59:22

think it's important to bear

00:59:23

in mind that these Concepts

00:59:24

as as interesting as they

00:59:25

off at, to my knowledge

00:59:26

have not been tested and

00:59:27

practice yet. So very much

00:59:30

remains to be seen if

00:59:31

if not what your trouble

00:59:32

or Greece. Thank you very

00:59:34

much. I think that was

00:59:35

very interesting response to some

00:59:39

of the jurisdictional objections that

00:59:40

might be raised in any

00:59:46

way. That's Gracin understand. Thanks,

00:59:51

thanks everyone. In such a

00:59:52

pleasure and privilege to be

00:59:54

a space debris, the impacts

01:00:05

that states faced every has

01:00:06

on the industry, some of

01:00:08

the legislative and Regulatory solutions

01:00:10

that might be needed to

01:00:13

safeguard the environment in outer

01:00:15

space. What is the? Starting

01:00:18

point? I think it's important

01:00:19

to set out the nature

01:00:22

and into some expensive, is

01:00:24

the scale of the term

01:00:28

space. Deborah might suggest that

01:00:30

what we talkin about is

01:00:32

something environmental and if you

01:00:34

draw parallels to terrestrial environment

01:00:37

to the shoes, the conclusion

01:00:38

you might reach is the,

01:00:40

this is something which could

01:00:41

be remedied at a time

01:00:43

and, and therefore, an issue

01:00:45

which might be for the

01:00:45
future will feature regulation and

01:00:48
Not necessarily that for an

01:00:50
immediate concern. If that is

01:00:53
the approach. I think it's

01:00:55
the wrong way of looking

01:00:56
at this problem because unlike

01:00:58
terrestrial environment, which space debris

01:01:01
and its existence represent a

01:01:04
near-term existence right to the

01:01:07
space industry itself. And so

01:01:10
unless this is the day

01:01:12
that may be very serious

01:01:14
issues for the future. The

01:01:17

reason for that is the

01:01:18

space lights, white bean and

01:01:25

pushing the graveyard slots but

01:01:27

too much larger extended cab

01:01:30

step rate and which are

01:01:33

orbiting a very high velocities

01:01:34

mention two coups damage to

01:01:37

other space objects. I didn't.

01:01:39

But I know about 20,000

01:01:41

iTunes is greater than 10

01:01:43

cm in size. I've seen

01:01:45

statistics present a bit higher.

01:01:48

Thirty-thousand between a centimeter and

01:01:55

a bit. And the statistic

01:01:58

I have a something approaching

01:02:00

160 million objects between 1

01:02:02

million and 1 cm in

01:02:03

size and whether or not

01:02:05

they test ticks are accurate.

01:02:07

I think they do at

01:02:09

least illustrate the problem. And

01:02:12

the problem is that a

01:02:15

pre with 6in orbital clouds,

01:02:17

mostly near to throw away,

01:02:20

is that it creates more,

01:02:26

that pre-collision that he projectile,

01:02:37

which are necessarily A Hazard

01:02:39

to communication satellites, space stations,

01:02:43

and future man, to Mission

01:02:46

and the morgue There is

01:02:49

the greater backtrack to come

01:02:51

and then without being too

01:02:53

alarmist about this. Creates a

01:02:55

commercial challenge in developing the

01:02:57

space industry, the existence of

01:02:59

space debris, Mission success and

01:03:12

see which in turn my

01:03:13

fat levels investment. The reason

01:03:24

But what it does mean

01:03:26

is that that is an

01:03:29

industry self-interested ensuring. This issue

01:03:32

has managed. What about the

01:03:38

question that I think it's

01:03:39

being put to me in

01:03:40

the context of this to

01:03:41

his will here is liable

01:03:43

for the damage caused by

01:03:44

the space that break time

01:03:46

for this. I'm going to

01:03:48

focus purely on outer space.

01:03:51

Collisions are the counties are

01:04:00

in need with rocket case.

01:04:12

Now, we had little bit

01:04:14

earlier from Fresno to the

01:04:16

damage caused by to take

01:04:17

snapspace Prince determined by the

01:04:19

liability convention and not in

01:04:21

summary, provides the liability for

01:04:23

damaged by space object, is

01:04:26

attributable to its own state,

01:04:27

but where that can be

01:04:29

shamed before to establish with

01:04:37

various boat and if you

01:04:39

do is not why you

01:04:40

suddenly see the problem that

01:04:42

arises with liability chart, tribution,

01:04:45

firstly, you have the immense

01:04:47
difficulty in establishing to which

01:04:49
state particular, I scrubbed every

01:04:52
pillows. That may be possible

01:04:54
in some cases but clearly

01:04:56
no license which operates be

01:05:02
out there. Second time, you

01:05:04
have to shake. In that

01:05:13
way. The current liability framework

01:05:15
does not have an affection

01:05:17
for her dress, but that

01:05:26
is experiencing the effects of

01:05:28
space, debris, collisions To support

01:05:35
effective management of this session

01:05:38

is about arbitration space and

01:05:41

how arbitration can support the

01:05:43

resolution of disputes involving the

01:05:44

SpaceX and just explain to

01:05:50

space. Debris problem. Just not

01:05:51

really having sex with liability

01:05:53

framework until you're ready to

01:05:55

get to the question of.

01:05:56

How does arbitration help at

01:05:58

this stage? At least, I'm

01:06:00

the current rate of space

01:06:01

debris is managed in practice.

01:06:03

At least it's through interagency

01:06:05

cooperation. And there are guidelines,

01:06:09

which the parties at, by

01:06:12

naughty kid to which provided

01:06:14

cooperation framework, the house based

01:06:16

at 3 and its impacts

01:06:17

also dealt with the interagency

01:06:22

Coordination Committee guidelines in the

01:06:26

UN office. It's a case

01:06:34

that the IDC guidelines to

01:06:37

find zoned areas of particular

01:06:39

importance to ensure particular consideration

01:06:41

given during mission planning two

01:06:44

issues which might have a

01:06:45

greater impact when we use

01:06:47
particular over to vacation. The

01:06:53
great difficulty is that there

01:06:55
is no enforcement mechanism so

01:07:04
freaking amazing. I need the

01:07:07
industry itself which is ensuring

01:07:10
that space. Debris is managed

01:07:11
appropriately Masonite, but it does.

01:07:19
I think same to me

01:07:20
at least some degree of

01:07:22
enforceable. Commitment is going to

01:07:24
be needed to ensure tissues

01:07:25
attributable to the increasing. That

01:07:27
also states that breed are

01:07:29

going to be managed effectively

01:07:31

as the industry grows. I

01:07:34

did not contact arbitration through

01:07:40

the lens of new binding,

01:07:41

commitment and space debris. I

01:07:45

think it to some extent

01:07:47

of climate change. A single

01:07:53

personal state. But what are

01:07:54

our International accepted standards which

01:07:57

which which happened and when

01:08:03

it comes to enforcing those

01:08:04

commitments. You take, for example,

01:08:07

the Paris agreement, I will

01:08:16

end this brief presentation with

01:08:19

this stupid while everybody spends

01:08:31

and that could be supported

01:08:33

by an arbitration to police,

01:08:35

or at least encourage compliance

01:08:37

and cooperation to safeguard the

01:08:40

space environment for future Generations.

01:08:42

Expect, my time is up,

01:08:45

so I'm going to pause

01:08:47

that. Thank you very much,

01:08:51

Nick, that was very interesting,

01:08:53

indeed. I don't know if

01:08:55

any of the other panelists

01:08:56

have questions the next Yeah,

01:08:59

thank you. Thank you, make

01:09:00

for the for the presentation

01:09:01

was very interesting. I'm like

01:09:03

I do agree with with

01:09:05

many others that the space

01:09:07

debris is a huge, huge

01:09:08

problem and I think it's

01:09:10

good to see in the

01:09:11

that this is getting up

01:09:12

picked up in the in

01:09:14

the media to also creates

01:09:16

awareness. And the general public

01:09:17

that, that this is a

01:09:19

huge problem. But as we

01:09:20

say with climate change, when

01:09:22

this is only the first

01:09:23

step towards addressing and solving

01:09:27

the problem. So he could

01:09:28

you, maybe go go into

01:09:29

a bit more detail, on

01:09:31

how big they are the

01:09:32

space, that be a problem

01:09:33

isn't and how a date,

01:09:35

that the current legal framework

01:09:36

cannot cope with it. And

01:09:37

they, and they showed him,

01:09:38

thank you. And actually focusing

01:09:41

in there is really interesting

01:09:43

because what you, what you

01:09:44

currently have is a framework

01:09:45

of self-regulation and self-interest with

01:09:49

your driving test, practice and

01:09:51

tattoos on doubtedly, a powerful

01:09:54

behavioral Mason Bates at but

01:09:56

the absence of effective dispute

01:09:59

resolution mechanism which responds, I

01:10:01

think to the more space

01:10:03

and don't leave the cap

01:10:05

and I'm going to slide

01:10:06

I think she ate the

01:10:08

Steep rise in the number

01:10:09

of objects being tracked and

01:10:11

save, even with that industry

01:10:14

incentive to reduce space debris.

01:10:16

The number of objects is

01:10:18

increasing. You know, if you

01:10:29

X shot by the number

01:10:31

of b, a b a

01:10:33

separate you can see that

01:10:34

it's it, it can increase

01:10:37

exponentially. Separate issue, which I

01:10:41

think baby Touchstone right at

01:10:44

the start with me. I

01:10:45

didn't need to be considered

01:10:46

alongside this problem which is

01:10:47

the militarisation of space which

01:10:52

topic in itself is cry

01:10:55

out for an international discussion.

01:10:57

On how space debris is

01:10:58

including in the military Is

01:11:04

this time? I thought I

01:11:05

could ask you one more

01:11:06

question is Introduction to the

01:11:11

self-regulation parts. Something I quietly.

01:11:15

I hope I sell Visa.

01:11:16

Perhaps ESG in space May

01:11:19

translate to Commercial and private

01:11:21

activity, including in their contractual

01:11:23

relationship. A contractual obligations to

01:11:26

deal with them. That is

01:11:28

something I can help him

01:11:28

in in the future. I

01:11:29

don't think that is standard

01:11:30

or entirely standard already. But

01:11:33

the question I had for

01:11:34

you is, would you be

01:11:37

able to expand it? What

01:11:38

you accuse would be on

01:11:39

the rights of a user

01:11:41

of say Telecom services, and

01:11:44
that user can no longer

01:11:45
enjoy his or her rights

01:11:48
because the satellite has been

01:11:49
disturbed by the record company

01:11:52
is facing And I'm not.

01:11:56
So I think there's nobody

01:11:57
else. An end to some

01:12:02
extent, the old reacts with

01:12:03
Dave secret rs.33, the provider

01:12:06
was out of service, it

01:12:07
might be. But what it

01:12:08
does to his highlight, I

01:12:09
think the very will give

01:12:10

you a question. How does

01:12:11

the very real world impact

01:12:13

this has on on on

01:12:14

peoples, take satellite internet services,

01:12:19

for example. And I think

01:12:21

this is increasingly seen as

01:12:22

the way to deliver connectivity.

01:12:24

Sperry Lodge tops wells in

01:12:26

the multi weld access to

01:12:29

the instead. She's only seen

01:12:30

as a fundamental rights or

01:12:32

necessity. And so, unless you

01:12:36

have a framework to effectively

01:12:38

protect that results, which I

01:12:40
didn't think you currently have

01:12:41
that creates a risk, which

01:12:43
kind of having a well,

01:12:44
will have an impact on

01:12:45
the everyday lives of people

01:12:48
in my life that you

01:12:54
face on the ground. Thank

01:13:01
you very much for for

01:13:02
both for those those, those

01:13:04
great answers to those questions

01:13:06
on the both discussions Max.

01:13:09
I picked her up and

01:13:10
I'm being mindful of the

01:13:12
time and it might be

01:13:12
that we will consolidate the

01:13:14
cues in A's and the

01:13:16
networking into 1 sessions, so

01:13:18
fret, not to the audience

01:13:20
members, who are, who are

01:13:21
interested in asking our wonderful

01:13:22
panelist questions, but Max year

01:13:24
of the phone. Thank you.

01:13:26
Extinct. Mexican near me. I

01:13:52
think there's a little bit

01:13:53
of background static. I don't

01:13:55
know if other people are

01:13:56
hearing it as well. I

01:13:57
think they might be, is

01:13:58
it possible? They're just some

01:13:59
static as you speak. So

01:14:02
could you try to maybe?

01:14:03
Maybe the microphone is covered.

01:14:05
I'm not sure what it

01:14:06
would be causing it. This

01:14:10
is better. A little bit

01:14:15
better. Not give me a

01:14:18
sec, please. Somebody said Wireless

01:14:47
and I think indeed this

01:14:48
sounds like a bat's, a

01:14:49

Bluetooth connection. Perhaps in the

01:15:01

meantime, I'm wondering if we

01:15:03

take advantage of the limited

01:15:06

time we have together, we

01:15:07

did receive one question and

01:15:08

I think we have to

01:15:10

keep it short just because

01:15:11

Max will join us and

01:15:12

I want to make sure

01:15:13

we have enough time for

01:15:14

his presentation. But as we

01:15:16

were talking about, you know,

01:15:18

outer space, you know, Now,

01:15:25

we don't hear you at

01:15:26

all. No, nothing. In the

01:16:14

meantime, maybe a shout-out to

01:16:16

to Charles for the for

01:16:17

the question, in the chat

01:16:18

because I think we can

01:16:19

hold a whole panel just

01:16:21

to talk about these question

01:16:23

them and you can feel

01:16:23

one and a half hours.

01:16:24

Thank you so much. Maxim

01:16:29

wondering if it's possible to

01:16:30

value in their phone or

01:16:32

something else. Perhaps, I'm not

01:16:34

sure if Maria was. He

01:16:35

has around just trying to

01:16:38

make sure we have a

01:16:39

chance to hear from you.

01:16:40

Yes, I'm here. Maybe I

01:16:43

should does the Maxtown, maybe

01:16:45

send him, he's his lights

01:16:47

and maybe if I share

01:16:49

them for him, The the

01:16:52

Wi-Fi. It's better. are, we

01:17:00

can hear you now, could

01:17:02

you say It's a little

01:17:04

bit better. I don't know

01:17:11

if it's someone mentioned that

01:17:13
it so it could be

01:17:13
a wireless issue, Maybe. I

01:17:31
wonder if there's a way

01:17:32
to call him just an

01:17:35
old school phone. Apps max.

01:17:48
If you try to switch

01:17:49
off your camera that made

01:17:51
Pepsi improve quality and then

01:17:53
the bats somebody run outside

01:17:55
could just show your lights

01:17:57
so that you have time.

01:18:00
Alice, Lotus connection. if you

01:18:04
can say something out, Max

01:18:26

Pikachu. I can hear you

01:18:32

still static. I don't know.

01:18:45

Let me know which one

01:18:47

because the gas my your

01:18:50

phone. I think it might

01:18:53

be working. So whatever you're

01:18:54

doing right now. Okay, yeah,

01:18:58

I will try to get

01:18:59

as close as possible to

01:19:00

the Mac. Are you still

01:19:10

sick? It went away. We

01:19:15

had it and m.a.d. Maria,

01:19:17

Lucia could could change the

01:19:20

Flies for you if that

01:19:21

helps at all. And that's

01:19:22

okay. I'm sorry that again,

01:19:29

thank you very much. So

01:19:31

I want to compete with

01:19:32

a few exceptions such as

01:19:42

arbitration litigation. So far is

01:19:54

basically from Human conflicts. In

01:19:56

USA, Security. Stop relying on

01:20:05

very limited resources. Space. Iniquity.

01:20:18

We've already heard about this

01:20:20

space debris and influence on

01:20:22

Space activities. I seen the

01:20:31

pictures at before, but it's

01:20:33
not on the left or

01:20:36
if it's because it's you

01:20:43
said the last time and

01:20:45
energy in expecting the same

01:20:46
position to fix in One

01:20:55
Direction or satellite dishes to

01:21:00
see and use What's recognized

01:21:10
early? Recognizing a first-come. First-served

01:21:16
approach a location of fox

01:21:19
locks and co-opted and an

01:21:26
ultimate plan for specific. In

01:21:33
other courts besides you. However,

01:21:35
the first come first, serve

01:21:37

principle remix in particular in

01:21:41

the world, because we have

01:21:46

seen already set the lights

01:21:48

in the. You will explode

01:21:50

in the next year today.

01:21:52

Due to the north one

01:21:57

where the puppy dog video,

01:21:59

third time in September 2021.

01:22:02

Space agency has filed a

01:22:06

request with the itu. Buta

01:22:07

constellation, 330,000 satellites. The future

01:22:15

disputes for organization. It applies

01:22:23

to the use of of

01:22:24
the radio spectrum spectrum is

01:22:27
a limited Resource as well

01:22:28
as frequency. Be kept in

01:22:47
mind here is that not

01:22:49
just a rising number of

01:22:50
set the lights, increase the

01:22:52
issue of the congestion. Yes,

01:22:57
we've all seen an explosion

01:22:59
of radin Radio on Sirius

01:23:08
red space in July 2020

01:23:13
to SpaceX, starlink interference about

01:23:18
80% of the time. If

01:23:20
you spell 45, What's a

01:23:31

short note on the estimate

01:23:32

is right up blocking jamming.

01:23:36

The itu member states to

01:23:47

take measures to prevent harmful

01:23:49

interference with radio, navigate to

01:23:55

Publix. I'm still on maybe

01:24:03

Spaceman might still seem a

01:24:06

little science fiction. but it

01:24:10

may be in the near

01:24:12

future, and answer the question

01:24:14

of who owns outer space,

01:24:16

May Remains the question of

01:24:23

ownership with olive oil, As

01:24:26

we have already. This is

01:24:41

also an important part of

01:24:43

the treaty which even had

01:24:46

strong 11 that night of

01:24:54

the store. Sort of unnatural

01:25:00

resources, a plate become property

01:25:03

of international governmental organization. Call

01:25:13

Penny Metro Park. In 2015,

01:25:17

the US Congress passed the

01:25:19

so-called space, which stipulates that

01:25:22

the US citizen or resource

01:25:28

champion title to the resource

01:25:31

use and sent the resource.

01:25:39

Similar language, was passed around

01:25:42

by induction port in the

01:25:45

state's resources, in 2017 and

01:25:50

in 2020. Ownership in space

01:25:55

resources is a space resources.

01:26:08

I want to discuss a

01:26:09

switch. A particular Supply chains

01:26:31

of Griffith. This mainly affects.

01:26:47

Effects reported estate companies in

01:26:51

higher prices, as well as

01:27:00

lower Revenue. It was a

01:27:06

ride, you space colony. Like

01:27:19

like like it was in

01:27:19

the old place where we

01:27:21

have stayed actors at the

01:27:24

major players in space, first

01:27:30

industry with capital players and

01:27:34

states. In the background. So

01:27:36

I'm in licensing. Adele no

01:27:46

longer to make slime sticky.

01:27:50

Very pretty. 2022. 318 switch

01:28:13

in the united launch Alliance.

01:28:18

Fortunately, it is already had

01:28:31

place. The artist enough already

01:28:55

in the Las Vegas on

01:28:56

the Lost pen. Roscosmos refused

01:28:59

to launch the satellite Inn

01:29:08

in the company. Company review.

01:29:21

Just left work. Finally, I

01:29:31

want to discuss also very

01:29:35

aspect of it. Reached an

01:29:43

all-time high in 2021 and

01:29:47

everything. Father has an initial

01:30:08

public offering instead they used

01:30:11

something called a special purpose,

01:30:13

acquisition company. And this is

01:30:17

such a company, stock exchange

01:30:21

temperature with private companies, without

01:30:29

going through the traditional, I'm

01:30:32

offering process. The main problem

01:30:36

with suspects is that they

01:30:38
are subject to match. Critics

01:30:48
argue that stinks. Expose investors

01:30:55
to a tremendous risk because

01:30:57
of the answer. And the

01:31:07
number of specs that the

01:31:11
investor returns suspects are almost

01:31:14
perfect. Example is electric. I

01:31:22
think I'm going with \$10

01:31:30
and \$1. \$0.30 or something.

01:31:36
Ryan is already moving through

01:31:50
US ports. Yeah, I already

01:31:59
want to go with my

01:32:02
presentation and To answer any

01:32:09

questions. Thank you very much

01:32:14

Max that is very interesting

01:32:15

and I'm sorry that we

01:32:17

weren't able to see you

01:32:18

during the presentation. I'm mindful

01:32:20

of the fact that the

01:32:21

next session starts at 9:40,

01:32:23

we might have to under,

01:32:25

we might have to forego

01:32:26

the networking session, but I

01:32:30

did want to give if

01:32:30

any of the panelists have

01:32:32

a question for Max and

01:32:33

I think it'd be a

01:32:34

good time to ask ask

01:32:36

Max and maybe we could

01:32:38

do one on his question.

01:32:39

We can squeeze that in

01:32:40

within 5 minutes but I

01:32:42

want to be mindful of

01:32:42

the next panel as well.

01:32:43

So thank you Max. And

01:32:45

if any of the parents

01:32:45

have a question that be

01:32:47

great. If I may thank

01:32:50

you and thank you very

01:32:51

much. It was a great

01:32:52

presentation and even though we

01:32:54

could not see it everything,

01:32:55

but I think almost everybody

01:32:57

was very intriguing. And chicken,

01:33:01

you can give us an

01:33:02

example of practical example of

01:33:05

friction that you have experience

01:33:07

with one of your clients

01:33:09

in the space industry. Tegra,

01:33:12

most professional Apple. Unfortunately, we

01:33:16

did not need to initiate

01:33:17

any HUD case, proceedings of

01:33:20

the blinds, yet experienced the

01:33:35

regulatory framework for companies like

01:33:50

one way of SpaceX. Issue

01:34:01

with ES. How to explain

01:34:07

this? You should soak. Soak

01:34:12

the new service providers access,

01:34:15

and I suppose you must

01:34:24

stay lost. Their own satellites

01:34:26

of Jupiter, on satellite operator

01:34:28

with bringing a product on

01:34:36

local Partners to achieve compliance

01:34:40

partner. Is one of our

01:34:49

clients wanted to import from

01:34:51

Quizlet import document science using

01:34:58

electronic signature. At the electronic

01:35:02

signature was only provided electronic

01:35:05

signature did not offer remote.

01:35:10

So this might appear and

01:35:14

no problem. If you're only

01:35:16

answering one Country Market in

01:35:23

our cases, it was usually

01:35:37

the case that The Regulators

01:35:40

at the national government, brought

01:35:46

this to their attention sound

01:35:50

solution. SSA. Eastern Market. The

01:36:01

Amore of the distant one

01:36:04

night, please. Thank you very

01:36:10

much, Max. I'm and thank

01:36:11

you to everyone. I think

01:36:13

we, we should, we should

01:36:14

call it here unfortunately, and

01:36:17

I apologize to the, to

01:36:18

the audience member, I do

01:36:20

want to be mindful of

01:36:21

the next panel on, but

01:36:22

I hope you can help

01:36:24

you learn something new. I

01:36:25

think all of our panelists

01:36:27

can be found their googleable

01:36:28

and I think you could

01:36:31

perhaps follow up on if

01:36:32

you do have individual questions

01:36:33
and and I and I

01:36:36
and I hope Jose Antonio

01:36:37
this is a this is

01:36:39
a good time to plug

01:36:40
a session for wa you

01:36:42
for a while to do

01:36:43
the same next year. I

01:36:46
think I think this is

01:36:47
a very interesting topic and

01:36:49
I think we do have

01:36:50
questions as I see in

01:36:51
the chat and the chat

01:36:52
bar. So apologies to the

01:36:53
to the audience members. And

01:36:54
I I think big thank

01:36:56
you to all the pain

01:36:57
and I had before back

01:36:58
to you who's Antonia Thank

01:37:01
you. Thank you very much

01:37:02
and a Visa and thank

01:37:04
you very much for real

01:37:05
for the wonderful presentation. Oh

01:37:07
yeah. And thank you very

01:37:09
much for it or else

01:37:11
were being here and I

01:37:13
have to give a big

01:37:14

shout-out to know to the,

01:37:17

to the support of the

01:37:20

space Arbitration Association to this

01:37:22

battle specially and also to

01:37:25

the world application update Beyond

01:37:27

it is is as founder

01:37:29

of the of the very

01:37:34

glad to be collaborating with

01:37:35

with the we get to

01:37:37

shatian here. Also garnered a

01:37:40

thank you very much for

01:37:41

for your questions and for

01:37:42

your contribution and I'm I'm

01:37:44

I'm going through you as

01:37:46

I see you. So Professor

01:37:48

marble it's it's a pleasure

01:37:50

to have had you here

01:37:51

and and that Walker's, some

01:37:54

of of all of us

01:37:55

novices in in in the

01:37:56

in this area of the

01:37:58

law to This new world

01:38:00

and thank you very much

01:38:03

Max. I'm I'm really glad

01:38:04

that that that were able

01:38:05

to go through it and

01:38:08

be able to listen to

01:38:11
your presentation. I found was

01:38:13
it was it was cheap

01:38:14
work or making a this

01:38:16
panel, a complete one and

01:38:18
an egg at? Thank you

01:38:19
very much as well. I

01:38:22
learned a lot and I'm

01:38:22
sure that that that, that

01:38:24
many of us did too.

01:38:26
I am, I am also

01:38:29
very sorry that that won't

01:38:31
be able to serve interact

01:38:32
in the in the break

01:38:34
room. Unfortunately. Trying to be

01:38:37
loyal with time and not

01:38:39
make it too late in

01:38:40
Europe that we did schedule.

01:38:41
The the the Look up

01:38:45
the panels are a little

01:38:47
bit closer in time between

01:38:48
between themselves with that. I

01:38:52
will, I will have to

01:38:54
close because the our next

01:38:55
panel is is not stressing

01:38:57
because it were were at

01:39:00
the 41 minutes at range

01:39:03

and we have to connect

01:39:03

with them to get ready

01:39:05

for the next one. So

01:39:06

thank you very much and

01:39:08

I it was truly a

01:39:08

wonderful and we will certainly

01:39:11

certainly have another space law

01:39:18

on arbitration. This did the

01:39:21

panels and Justice where everyone's

01:39:23

knowledge are are selected on

01:39:26

the basis of suggestions of

01:39:28

public, International lawyers, arbitration, specialist

01:39:32

position, investor States, and in

01:39:35

international, commercial arbitration, there is

01:39:37

no. If there's no magic

01:39:39

formula as to why and

01:39:41

how we will choose the

01:39:43

topic? As a matter of

01:39:46

interest news at cetera. And

01:39:48

also there's no magic it

01:39:50

in terms of why, why?

01:39:51

We we went by a

01:39:53

palace to speak with. We

01:39:55

basically have a subject, ask

01:39:58

the questions and then look

01:40:01

into who has written and

01:40:04

who has spoken, who are

01:40:06

the real brains on those

01:40:08

subjects Association. There are no

01:40:12

Amici's at set, right? It's

01:40:14

very straightforward. So I would

01:40:16

like to invite everyone to

01:40:18

to propose topics and and

01:40:20

that will make it happen

01:40:21

again. And what I can

01:40:23

say is a week, will

01:40:24

you a greater chance for

01:40:27

networking? Next time I will

01:40:29

make it happen and have

01:40:31

a beautiful day and for

01:40:33

those that may be interested

01:40:34

in matters of a claw

01:40:37

and investor-state arbitration will see

01:40:40

you hopefully in 20 minutes.

01:40:44

Thank you so much. Oh,

00:00:02

good morning, good afternoon, good

00:00:05

evening, I guess, depending on

00:00:06

where you're coming from, welcome

00:00:09

to World arbitration update. Today

00:00:14

is the first day of

00:00:17

this year's 2022, World arbitration

00:00:20

update. And we have a

00:00:22

fantastic panel this morning which

00:00:26

will introduce shortly. My name



00:00:28

is Ian Laird. I am

00:00:30

a partner at the firm

00:00:32

of Crowell & Moring and

00:00:35

located in Washington, DC. It's

00:00:39

a pleasure to welcome you

00:00:40

on behalf of World Arbitration

00:00:42

update in my co-chair. Dr.

00:00:46

Jose Antonio Rivas was also

00:00:48

with us this morning, we

00:00:51

want to do a few

00:00:54

administrative duties before we launch

00:00:56

into the panel first is

00:00:58

to thank our sponsors who

00:01:01

we would Have been able

00:01:03

to organize this year's conference

00:01:05

without their support. A big

00:01:07

thank you to all of

00:01:08

them. We also have a

00:01:10

large group of supporters who

00:01:11

being very helpful and promoting

00:01:14

the conference and providing speakers

00:01:17

and we've listed them as

00:01:19

well as on the website

00:01:21

and a big thanks to

00:01:23

them for their incredible support

00:01:25

for this year's conference, can't

00:01:29

say enough. Of course I

00:01:33

should also mention that the

00:01:35

folks attack strategy llp where

00:01:39

where Jose Antonio is the

00:01:40

founder, have done a fantastic

00:01:42

organizational job putting together the

00:01:45

19 panels over five days

00:01:47

and organizing the various panels

00:01:49

in and speakers. And so,

00:01:51

for us than just, the

00:01:52

general Logistics is being amazing

00:01:54

and thanks to Anna Maria.

00:01:56

Lucia for their incredible hard

00:01:58

work. And of course, Thanks

00:02:02

to all of our speakers

00:02:03

and panelists and of what

00:02:06

we'll get into that in

00:02:07

a moment. World arbitration update

00:02:10

has a number of objective

00:02:12

but most importantly, that's provide

00:02:14

very accessible updates to developing

00:02:17

issues and international arbitration. And

00:02:20

today's panel is definitely one

00:02:23

that fits that category. And

00:02:28

we're very much looking forward

00:02:29

to that. Also, a part

00:02:30

of it is to reflect

00:02:32

that are they the highly

00:02:33

diverse nature of the international

00:02:35

arbitration World folks come from

00:02:37

every different fields act or

00:02:39

region culture. And we have

00:02:44

made an effort as you

00:02:45

can see having different panels

00:02:47

focusing on different areas and

00:02:49

regions and, and legal systems.

00:02:51

And practices were trying to

00:02:54

reflect the diversity of international

00:02:57

arbitration. And I think today's

00:02:59

panel which will get Do

00:03:01

now is titled, space law

00:03:03

and arbitration something that was

00:03:07

certainly very very dear to

00:03:08

my heart. The developments in

00:03:11

in certainly space science and

00:03:17

that the world of the

00:03:18

business World surrounding space and

00:03:20

Aviation has developed and increased

00:03:23

dramatically over the last few

00:03:24

years. And certainly the arbitration

00:03:27

dispute resolution part of that

00:03:29

is equally an increased. So

00:03:31

I think a lot of

00:03:33

people would be very interested

00:03:34

in this topic, and I'll

00:03:36

pass it now, the microphone

00:03:38

over to my, my colleague,

00:03:39

dr. Jose Antonio Rivas to

00:03:43

introduce the panel and moderator

00:03:46

and and kick ass off.

00:03:47

So Jose Antonio, Thank you

00:03:51

very much Ian and it

00:03:54

is it is a true

00:03:55

pleasure to keep costs this

00:03:58

this title by introducing Viva

00:04:00

that well. And then be

00:04:03

before I do this I

00:04:04

would like to say that

00:04:06

I am truly happy about

00:04:10

having having all the police

00:04:12

that I see on the

00:04:12

screen I was just commenting.

00:04:15

How how Professor Marvel came?

00:04:18

You came into the world

00:04:21

of world arbitration update that

00:04:23

are impossibly in the washing

00:04:24

arbitration week. Just this time,

00:04:27

you gave me a chance.

00:04:28

I don't know how, how,

00:04:29

how she might have heard

00:04:31

about the world of Jason

00:04:33

update, but, but I do

00:04:34

recall, that that and I

00:04:36

will confide that we were

00:04:38

on a panel possibly at

00:04:40

at 5 p.m. or 6

00:04:42

p.m. Washington DC time. And

00:04:45

I know that that's how

00:04:46

I assume that sheet that

00:04:47

you might have been Indiana.

00:04:48

And there she was no

00:04:50

very studious and listening to

00:04:53

the final comments. And I

00:04:54

was amazed because because because

00:04:56
the time difference is always

00:04:58
a challenge. I thought what

00:04:59
we might might be doing

00:05:01
something? Well it is as

00:05:03
if she would like to

00:05:04
join us up that late

00:05:06
on a Friday night. So

00:05:07
that. Or should I let

00:05:10
me to to explore her

00:05:13
expertise? And then there you

00:05:15
go find that that that

00:05:16
she's an expert on Space

00:05:17
law, among many things. And

00:05:20

and one thing led to

00:05:21

the other one, the launch

00:05:24

of the various space travels

00:05:28

in 2021 by the Private

00:05:31

Industry. And made it very

00:05:33

clear that we had to

00:05:35

to create a panel on

00:05:38

Space law and arbitration. And

00:05:40

it wasn't, it wasn't too

00:05:44

far ahead. When we we

00:05:46

learned about the existence of

00:05:47

Vivitrol who is an arbitration

00:05:52

specialist, and I'm Counseling in,

00:05:56

in many cases investor-state on

00:05:58

an international commercial arbitration. But

00:06:00

also with a name with

00:06:02

an extreme High interest in

00:06:06

space low mattress. I did

00:06:09

too. We basically launched a

00:06:13

search based on expertise and

00:06:15

experience and that is the

00:06:17

panel that that we have

00:06:18

in front of us. I

00:06:20

want going to everyone said

00:06:22

bye. Because that's that is

00:06:24

at because the Thunder but

00:06:26

I would like to say

00:06:26

thank you because in the

00:06:29

process of drafting the blurb

00:06:31

of curating, the problem for

00:06:32

this specific, I do at

00:06:35

the chance of getting closer

00:06:37

to space law, and that

00:06:38

I'm a firm believer that

00:06:39

if you have strong bases

00:06:42

and, and the instructor in

00:06:44

public international law, On sources

00:06:48

and and state responsibility, you,

00:06:51

you should be able to

00:06:52

do jumping to the same

00:06:54

width of course, study and

00:06:56

at and perseverance and learn

00:06:58

about space law as well.

00:06:59

This is, this is a

00:07:01

mistake. Not a new topic,

00:07:03

even though we're many of

00:07:06

us and maybe this is

00:07:07

not a new topic because

00:07:09

you have been treated as

00:07:10

they're happy and there have

00:07:12

been chapters books written on

00:07:14

face lock each broad but

00:07:16

it's it's a it's important

00:07:18

that we bring it closer

00:07:19

to everyone's mind. So we're

00:07:23

very excited that we're launching

00:07:25

this, this spacecraft at that

00:07:30

world arbitration update, now, and

00:07:32

Viva take it away. I

00:07:35

know that I did not

00:07:36

in precise enough your your

00:07:37

accomplishments, but but it is

00:07:39

obvious that that, that that

00:07:41

you are. And I in

00:07:42

the right place, I bought

00:07:44

the investor relation International commercial.

00:07:46

I need space law. So

00:07:49

thank you, and let's move

00:07:51

into what will be an

00:07:53

extremely exciting time. Thank you.

00:07:57

Jose Antonio, and thank you

00:07:58

again, and it's a pleasure

00:07:59

to be here amongst all

00:08:00

of arbitration community and I'm

00:08:02

calling as mentioned in it.

00:08:08

The pleasure to be here

00:08:09

with all of you and

00:08:10

and thank you to all

00:08:11

the panelists who will be

00:08:12

speaking. I'll be introducing them

00:08:14

shortly. But before I do

00:08:17

that, I also have the

00:08:18

task of giving the audience

00:08:19

of short, update on the

00:08:21

issues that we will discuss

00:08:22

today. And I think in

00:08:23

my view, why the topic

00:08:25

of space law in arbitration

00:08:26

matters to the arbitration community.

00:08:28

So is Jose. Antonio mentioned,

00:08:31

the space sector is is

00:08:34

commercializing quickly which brings new

00:08:37

challenges and opportunities. And the

00:08:41

space industry is expected to

00:08:43

reach about a trillion dollars

00:08:44

in annual revenue by 2040.

00:08:47

So, whereas, Once Upon a

00:08:49

Time, space actors, were where

00:08:53

she stayed after, sorry, we're

00:08:54

the only real driving forces

00:08:56

behind. The development of the

00:08:57

state sector will now having

00:08:59

the introduction of private after

00:09:00

and this evolution is likely

00:09:03

to result in a change

00:09:05

in the existing and existing

00:09:09

amount, existing types of space,

00:09:11

there are likely to generate

00:09:14

new types of just be

00:09:15

the result in the topics.

00:09:22

Come up in the stands

00:09:24

and sell. Now, since the

00:09:26

world arbitration update has never

00:09:29

held a session on this

00:09:30

topic. My update is really

00:09:32

three reasons why this why

00:09:34

this topic matters for this

00:09:36

opportunity and I agreed that

00:09:39

into three different buckets. The

00:09:41

first bucket, why the arbitration

00:09:43

committee should care about this

00:09:44

topic is to ensure that

00:09:45

we can offer effective dispute,

00:09:47

resolution services to the users

00:09:49

that are in the space

00:09:50

industry as a practitioner as

00:09:52

a researcher I can say

00:09:53

with some confidence that the

00:09:55

number of space related to

00:09:56

Does increasing and out of

00:09:58

these disputes currently and I

00:10:00

think we will hear more

00:10:00

about this. I just using

00:10:02

the satellite sector are dominating

00:10:04

currently these disputes include launching

00:10:08

delivery of satellites into orbit

00:10:09

disputes involving regulatory measures and

00:10:12

policies to see if stemming

00:10:14

from technical failures and space.

00:10:16

And the majority of this

00:10:21

dispute these disputes are also

00:10:23

between commercial parties at the

00:10:24

moment and perhaps unsurprisingly. These

00:10:28

diffuser are actually being resolved

00:10:30

in arbitration situations that were

00:10:34

so familiar with including the

00:10:35

ICC industry and this is

00:10:46

the reason to care about

00:10:47

this topic. The second reason

00:10:49

why I think it's important

00:10:50

to care about the intersection

00:10:51

of space and arbitration is,

00:10:53

so that we can promote

00:10:54

the rule of law in

00:10:55

outer space. I'm an, as

00:10:57

an example, I will give

00:10:58

you an Indus is by

00:10:59

no means the only example

00:11:00

last year. Russia conducted, what

00:11:03

is called an anti-satellite test

00:11:05

that created space debris. That's

00:11:07

written to collide with other

00:11:08

projects in in Earth orbit

00:11:09

including the International Space Station,

00:11:11

including starlink satellites. This is

00:11:15

not the first time other

00:11:16

countries have similarly done that

00:11:18

including China. And yeah, but

00:11:22

what the outcome is that

00:11:23

there is a potential to

00:11:24

cause significant injury book, two

00:11:26

persons and property in space.

00:11:28

Now thankfully, a number of

00:11:29

States, including the United States

00:11:31

are committing to refrain from

00:11:32

such doing some doing such

00:11:34

tests, but as the space

00:11:35

industry evolves, and as more

00:11:38

stayed in private actors, join

00:11:39

and interact with each other.

00:11:41

The needs and expectations of

00:11:42

what, the rule of law

00:11:43

is based, I think they'll

00:11:45

change. I'm so we're seeing

00:11:47

this beautiful state and non-state

00:11:48

actors as well and we'll

00:11:50

be talking about some of

00:11:51

those examples, but another area

00:11:55

to kind of look out

00:11:55

for him, In this intersection

00:11:57

and then find me and

00:11:58

related Lee. The growing field

00:12:00

of space, arbitration law opportunities,

00:12:03

offers opportunities on how we

00:12:05

might generate legal infrastructure to

00:12:08

provide stability and certainty in

00:12:10

the interface sector. And so,

00:12:13

this is a question that

00:12:14

I pose, I think for

00:12:15

the audience for the panelists

00:12:16

as well, which is kind

00:12:17

of field of International Investment

00:12:19

arbitration offer, insights for the

00:12:21

field of International Space law.

00:12:22

I think it can. I

00:12:24

think there are two examples.

00:12:25

One is procedural. The other

00:12:27

one substance it first is

00:12:29

the exact is the contribution

00:12:31

by the permanent Court of

00:12:32

arbitration which developed the actual

00:12:34

rules for a station of

00:12:36

disputes relating to outer space

00:12:37

open on the PCA outer

00:12:39

space for the rules. Now

00:12:41

have celebrated their 10th anniversary

00:12:42

last year, I'm in our

00:12:44

base during much on the

00:12:45

Anza Trail arbitration rules that

00:12:47

many of us are familiar

00:12:48

with and they're and they're

00:12:50

tailored for the highly technical

00:12:51

nature space dispute. So they

00:12:53

didn't to meet the demand

00:12:55

of users in this. A

00:12:56

sector who belly confidentiality, who

00:12:58

will talk a little bit

00:13:03

about some of the incentives,

00:13:04

but the second example of

00:13:08

where I think be in

00:13:10

the National and international arbitration.

00:13:12

World can contribute to the

00:13:14

state sector is also through

00:13:16

substantiv Protections in outer space.

00:13:18

Perhaps, we were talking about

00:13:21

this earlier. I'm just coming

00:13:22

back from the international astronomical

00:13:25

Congress, which is a congress

00:13:26

which is a, it's a,

00:13:28

it's a large Congregation of

00:13:30

everyone in the space industry

00:13:32

and Professor Marvel Ashley, who

00:13:34

is moderating the panel and

00:13:35

we have the opportunity to

00:13:36

talk about in the Corps.

00:13:38

International protections that are commonly

00:13:39

found in in in India

00:13:42

over 2,500 investment treaties and

00:13:44

why some of these protections

00:13:45

perhaps could also be well

00:13:47

suited to address the substance

00:13:48

of needs and realities of

00:13:50

the actor of actors in

00:13:51

space. So I think as

00:13:53

a program goes forward on

00:13:55

for all the audience members,

00:13:56

Not, you know, thought about

00:13:58

this after I would invite

00:13:59

you to think about how

00:14:00

International arbitration International Space. So

00:14:03

I might actually go hand-in-hand

00:14:04

and lucky for us. We

00:14:06

actually have five very smart

00:14:08

and interesting panelist actually kick

00:14:10

ass off today. So I

00:14:12

think I'll now transition to

00:14:13

from the topics in the

00:14:15

panelists, we will be hearing

00:14:17

from today. So first mentioned,

00:14:20

we a professor, I'm glad

00:14:21

marbo who will be setting

00:14:23

the groundwork on the main

00:14:24

trees on the principles and

00:14:26

the rules are Nationals baseball,

00:14:27

kind of like a space

00:14:29

101 class. If you will,

00:14:30

Professor, my bow is a

00:14:32

professor of international law at

00:14:34

the University of Vienna in

00:14:35

Australia. And I know many

00:14:37

of you already know her

00:14:38

as an expert in International

00:14:39

Investment law. And, and her

00:14:42

book on probably one of

00:14:43

the most important books at

00:14:45

least, there any, any practitioner

00:14:46

certainly associate, but she's also

00:14:49

the head of the Austrian

00:14:51

national point of contact, Force

00:14:53

Base, log of the European

00:14:55

Centre for space law. Just

00:14:56

located in the University of

00:14:57

Vienna. I'm, she's been a

00:14:59

regular member of the Austrian

00:15:00

delegation to the United Nations

00:15:01

committee on the peaceful uses

00:15:03

of outer space. Also known

00:15:05

as you and copious, I'm,

00:15:07

she was the chair of

00:15:07

the working group on National

00:15:09

Space legislation of, but you

00:15:10

and copious legal subcommittee, and

00:15:12

she has published numerous articles

00:15:14

and books, on Space law.

00:15:15

In addition, to arbitration in

00:15:18

the latest one. I received

00:15:19

the 2022 International Academy of

00:15:22

astronautics social sciences book award

00:15:24

on which is called legal

00:15:26

aspects of planetary defense. And

00:15:28

actually, if you've been tracking

00:15:29

the news, we've actually had

00:15:30

some examples of planetary defense

00:15:32

happening in the face after.

00:15:34

So welcome because you're my

00:15:35

bro and thank you for

00:15:36

for joining us. We also

00:15:38

next have where I skinned

00:15:40

who will be giving us

00:15:42

an overview of the existing

00:15:44

areas of space related dispute

00:15:46

and where we can see

00:15:47

nudist is the expected to

00:15:49

rise in the future. Werner

00:15:51

is a partner at Crowe

00:15:52

on Moorings, International dispute resolution

00:15:54

group. He is almost 30

00:15:56

years Experience in commercial commercial

00:15:58

litigation mostly in matters with

00:16:00

International settings with a strong

00:16:01

Focus, an arbitration he has

00:16:03

conducted numerous arbitrations in missions

00:16:05

around the world. Including institutions

00:16:08

were many space disputes are

00:16:09

resolved so we'll have to

00:16:10

ask you where at some

00:16:11

point if you worked on

00:16:12

that. But including the ICC

00:16:14

saccani which is the Belgian

00:16:16

arbitration center before the Ica,

00:16:19

it said yeah. And he

00:16:21

also regularly as an arbitrator,

00:16:23

he holds a graduate degree

00:16:26

in Aerospace law from the

00:16:27

Free University of Brussels. So

00:16:29

welcome, thank you for joining

00:16:31

us. I'm falling Runner. We

00:16:33

will have, I'm Doctor young

00:16:34

fellow who will Deep dive

00:16:36

into a few concrete examples

00:16:38

of space related to see

00:16:39

if they have been observed

00:16:40

to date and how they

00:16:41

were actually result. So that'll

00:16:43

give you a taste of

00:16:44

the nothing box of some

00:16:46

of these arbitration. Ian was

00:16:48

a former dispute resolution associate

00:16:51

at Baker, McKenzie. And that

00:16:52

Maurice Morrison & Foerster. He

00:16:54

is now and The German

00:16:57

dispute resolution Boutique SRP in

00:16:59

Munich in Germany. I mean,

00:17:01

he has practice focuses on

00:17:03

International arbitration in particular regarding

00:17:06

Stacy from Salt and he's

00:17:08

also the editor-in-chief of the

00:17:10

space Arbitration Association blonde and

00:17:12

he has offered a series

00:17:14

of articles on Space, arbitration

00:17:16

and space to Snoop. And

00:17:18

if any of you want

00:17:18

to primer on the topic

00:17:20

is article arbitration in space

00:17:22

disputes is, is one to

00:17:24

look out for. It was

00:17:25

number one, most read article

00:17:27

is for 2 months, in

00:17:28

arbitration or Nationals top five

00:17:31

list of most read articles

00:17:32

and renamed of the top

00:17:33

five lists for a few

00:17:34

months after that. So check

00:17:36

check out that article for

00:17:39

an example of future. So,

00:17:42

future space-related disputes that has

00:17:44

the limits of the type

00:17:45
of disputes that can be

00:17:46
resolved through arbitration, right? So

00:17:48
not everything. I think we

00:17:49
can take the promise that

00:17:50
not everything should be resolved

00:17:52
by arbitration and so will

00:17:53
explore some of those examples.

00:17:56
With Nick stores will be

00:17:57
discussing the topic of environmental

00:17:59
dispute and stays and disputes

00:18:01
related to space debris. And

00:18:03
I'll make as a partner

00:18:03
at Taylor wessing in London

00:18:05

where he co-leads the arbitration

00:18:06

group, he has a long-standing

00:18:08

interest in space science and

00:18:10

actually studied astrophysics before starting

00:18:13

his legal career, which I

00:18:14

think is very cool. He

00:18:16

is advise clients on multiple

00:18:17

issues over the years, leading

00:18:19

to the space and satellite

00:18:20

industry, including claims arising out

00:18:22

of joint venture and cooperation

00:18:23

agreement, or chairman, and Lodge

00:18:25

agreement and insurance. So they

00:18:26

were some of the items

00:18:27

that I've mentioned earlier as

00:18:28

well. So they really great

00:18:30

to have you onboard Nic.

00:18:31

So thank you for attending

00:18:33

and then find me to

00:18:34

round things off. We have

00:18:36

Max charging there and he

00:18:39

will be speaking on the

00:18:40

role of states in the

00:18:41

field specific Lee Acts or

00:18:43

omissions that might be attributable

00:18:44

to States under domestic or

00:18:46

international law. Now, Max is

00:18:48

the vienna-based attorney at law

00:18:50

working with Sean hairs, IP

00:18:52

and information, technology team, His

00:18:55

practice focuses on the information

00:18:57

and Communications technology sector as

00:19:00

well as the space industry.

00:19:00

And he's got a very

00:19:02

cool Lego Lego rocket spaceship

00:19:05

in the background. So they

00:19:06

haven't noticed that. Shout out

00:19:07

to the back and not

00:19:10

only that, he has previously,

00:19:11

advised, The Operators of two

00:19:13
of the largest constellations in

00:19:14
Orbit on their product, launch

00:19:16
in Central and Eastern European

00:19:18
region. So I will leave

00:19:19
it to your imagination. To

00:19:20
guess what those large Mega

00:19:23
will have each panelist. They

00:19:33
were present in the order

00:19:34
that I, I presented them.

00:19:36
We will leave some room

00:19:37
for commentary amongst ourselves, but

00:19:39
then we will open up

00:19:40
the floor for you for

00:19:41

questions and answers. After all

00:19:43

the presentations are completed. And

00:19:46

then following that, we will

00:19:47

also have a networking session

00:19:48

where we might have several

00:19:50

breakout rooms depending on how

00:19:52

many individuals a joint. So,

00:19:54

without further ado, Professor Marvel,

00:19:56

the floor is yours. Thank

00:19:58

you for joining. Thank you

00:20:05

very much for this very

00:20:06

kind introduction. It's a great

00:20:07

pleasure and honor to be

00:20:09

here with you today. Connected

00:20:12

by a zoom until having

00:20:14

a discussion with a fascinating

00:20:17

topic, namely space station space

00:20:20

suit settlement and Soda Springs

00:20:23

me at directly to my

00:20:24

rule. That I should say,

00:20:26

to seem somehow to add

00:20:29

to the legal framework. I

00:20:33

mean treaties. And I will

00:20:37

try to share my which

00:20:41

I was signed by Viva

00:20:43

and thank you very much

00:20:44

for the excellent preparation of

00:20:45

this panel and principles and

00:20:51

rules of International Space. Not

00:20:53

relevant to this town and

00:20:57

not to be too broad

00:20:58

as what is really relevant

00:21:00

in the treaties and principles

00:21:03

and rules of International Space

00:21:04

slow. At first of all,

00:21:06

when we talked about treaties,

00:21:08

It is evident that we

00:21:10

are talking about public international

00:21:11

law. And this explains already

00:21:14

this state is state-centered legal

00:21:18

Frameworks primarily later we have

00:21:23

seen the privatisation, but this

00:21:25

is only around the 2020

00:21:29

years we became from the

00:21:34

sixties and seventies and we

00:21:37

call them the five um

00:21:39

treaties in outer space or

00:21:41

days a whole group of

00:21:43

related to each other because

00:21:46

the first the outer space

00:21:48

treaty is the bassist. It's

00:21:50

sometimes called the Constitution. So

00:21:52

the most basic instruments which

00:21:54

covers the principles governing the

00:21:57

activities of states have even

00:22:00

hear the name a state

00:22:01

in the title in the

00:22:03

exploration of space, including the

00:22:05

moon, and other celestial bodies.

00:22:08

112 medications as a first

00:22:11

of January 2022, SL regularly

00:22:13

updated and 1st of January,

00:22:15

sliced agreements. They are based

00:22:22

on the main principles defined

00:22:25

in the outer space treaty

00:22:26

about a more precise and

00:22:28

specific topics. The first one

00:22:35

is the rescue agreement. Isaac

00:22:38

name says it's the agreement

00:22:40

on the rescue of astronauts

00:22:42

the return of astronauts and

00:22:45

the return of space objects

00:22:48

launched into outer space and

00:22:50

it has to be noted

00:22:57

that all of the relevant

00:22:59

space-faring Nations have ratified. So

00:23:01

the United States, the former

00:23:04

Soviet Russia is there as

00:23:07

well as China India. You

00:23:09

need me to pan and

00:23:11

European states of France on

00:23:13

International International documents in the

00:23:32

convention of 1972. Is it

00:23:35

going to show in international

00:23:36

ability for damage caused by

00:23:39

space object? That has 98

00:23:41

the richest commission registration of

00:23:47

object launched into outer space,

00:23:49

at 7218 ratification. Edit it.

00:23:59

Perhaps it was a little

00:24:00

bit too early 1979 to

00:24:03

try to regulate quite specifically

00:24:06

the activities of State on

00:24:09

the moon at the time.

00:24:12

It was just the United

00:24:14

States to go over there.

00:24:15

So I'll just spend it

00:24:18

after the successful Landing of

00:24:23

the United States. That was

00:24:24

not really a number of

00:24:28

states, but only one stays

00:24:29

and the greeman nevertheless went

00:24:32

forward and challenge as to

00:24:41

how it's relevant today for

00:24:43

today's activities, but it is

00:24:45

enforced since 85, so it's

00:24:48

not a pending but it

00:24:50

needed only five. Are the

00:24:55

main principles of space Irrelevant

00:24:56

in International District. I cannot

00:24:58

have a peaceful uses than

00:25:00

an appropriation. This is probably

00:25:01

not really relevant to this

00:25:03

situation, but what is relevant

00:25:08

is responsibility liability registration and

00:25:12

the definition of the launching

00:25:14

State responsibility? That's the term

00:25:20

International responsibility is connected to

00:25:25

an unlawful acts of states

00:25:27

are international responsible for any

00:25:29

unlawful act violations of international

00:25:31

law of their national team

00:25:34

activities of their nationalities. Do

00:25:37

what is that an actor

00:25:39

of that or from the

00:25:41

territory? The nationality of tearing

00:25:44

it tear important. But what

00:25:46

is specific to International Space

00:25:48

know that it's not only

00:25:49

for governmental and non-governmental entities.

00:25:54

This leads us to the

00:26:01

next application which is also

00:26:02

included in our possession and

00:26:07

continuing supervision by the appropriate

00:26:09

State party. So they need

00:26:19

and they require prior authorization.

00:26:22

And then I'm continuing supervision

00:26:23

by the appropriate state has

00:26:25

been done by National Space.

00:26:27

That just listen to the

00:26:28

implementation of International International liability.

00:26:36

Especially International. We don't have

00:26:38

it in that the other

00:26:39

areas and it's due to

00:26:40

live very dangerous nature of

00:26:42

space activities and very strict

00:26:47

liability and it's based on

00:26:49

article 7 of the outer

00:26:51

space, treaty with the liabilities

00:27:01

absolute for damage on Earth

00:27:02

and aircraft in flight and

00:27:05

liabilities based on Fallout 4

00:27:06

damage caused in outer space

00:27:08

to buy collisions of Tuesday's

00:27:10

object in outer space. We

00:27:11

do have liability. Absolutely. Registration

00:27:17

is important. Because it creates

00:27:21

the link between the space

00:27:23

object and the liable stage.

00:27:27

And this is also part

00:27:29

of the reason why we

00:27:30

have the littlest registration and

00:27:32

ratifications of the registration and

00:27:34

declaration actually, Estates be liable

00:27:40

for this particular of not

00:27:42

only, they are responsible for

00:27:44

other channels, but they are

00:27:45

certainly one of the states.

00:27:49

If something happens, if the

00:27:52

registration process and also, the

00:27:56

basis for this, that they

00:27:58

have them to gation to

00:27:59

register space object for, which

00:28:00

they are cheap with launching

00:28:04

state. But the necessary to

00:28:07

different registrations Maybelline National register

00:28:09

and all the space located

00:28:16

in Indiana at the international

00:28:19

registration on behalf of the

00:28:22

UN secretary-general. Jurisdiction as the

00:28:29

station's important for 369 control

00:28:32

of the space object. So

00:28:34

we have this to fold

00:28:35

and registration and here now

00:28:37

the definition of State in

00:28:39

can meet up to four

00:28:40

different states and this is

00:28:42

because the definition of liability

00:28:44

convention and registration collection are

00:28:46

the same, identical, and Define

00:28:50

the launch of the space

00:28:54

object, or a state from

00:28:56

whose territory, or facility, a

00:28:58

space object is not. So

00:28:59

if we calculate launch is

00:29:01

prepared to launch territory for

00:29:04

potential launching state, so which

00:29:07

are all of them jointly

00:29:10

and severally liable, but only

00:29:11

one can register the problems.

00:29:15

But this is really important

00:29:17

to know. If I understand

00:29:18

international space, do I have

00:29:20

already used up all my

00:29:23

time. So I will only

00:29:27

Peppermint generally states are called

00:29:31

to resolve the disputes peacefully

00:29:34

using various methods of settlement

00:29:39

Claims Commission are at procedures

00:29:53

and so on are also

00:29:54

included. But there's also the

00:29:56

possibility of arbitration between states.

00:30:01

Or or in between State

00:30:03

and non-state entities and my

00:30:13

oldest church in Carthage, and

00:30:15

the obvious option was not

00:30:16

fun. 10 years now, and

00:30:17

application of disputes relating to

00:30:19

our space activities of the

00:30:20

permanent Court of arbitration. I

00:30:22

cannot go back, so we

00:30:25

can go with matron to

00:30:27

the details of liability Interstate

00:30:30

mechanism and Jimmy choose to

00:30:33

follow certain rules. Commission is

00:30:37

not leaving directly to a

00:30:39

binding result, Thursday. And the

00:30:43

idea that decision of the

00:30:44

commission shall be final and

00:30:46

binding if the parties have

00:30:47

agreed. Otherwise, the commission shall

00:30:54

consider in good faith and

00:30:56

the basic principles of space,

00:31:07

law, relating to dispute settlement.

00:31:08

Thank you very much. Thank

00:31:11

you, professor. And I know

00:31:12

because we are short on

00:31:13

time than and part of

00:31:14

that is my own fault.

00:31:15

If you could give an

00:31:17

example, just of how the

00:31:19

system works with dispute and

00:31:22

compensation. And how to do

00:31:24

my boob is all I

00:31:25

think that would be helpful.

00:31:26

It might summarize some of

00:31:27

the slides that you have

00:31:28

shared already of the seventies.

00:31:36

It was the cosmos incident

00:31:38

when Soviet satellite crashed on

00:31:43

Canadian territory in 1978. And

00:31:46

the satellite contains a nuclear

00:31:48

reactor which created under the

00:31:49

impact. Play Radioactive pollution over.

00:31:52

Are a very white area

00:31:54

at very high. So it

00:32:02

was still a textbook case

00:32:04

of a liability of a

00:32:06

known. She stayed with a

00:32:07

subject or a Soviet and

00:32:09

also the Soviet Union I

00:32:10

conceded yet that that is

00:32:12

our satellite. She wanted to

00:32:14

have it back quickly. So

00:32:15

the rest to return agreement

00:32:16

in principle was also invoked

00:32:19

about what they claimed was

00:32:23

them pooped by Canada and

00:32:24

requested. 6 million Canadian dollars

00:32:26

for cleanup costs, but in

00:32:28

the negotiations was not the

00:32:30

Claims Commission, which was established.

00:32:31

But they said, well, it

00:32:33

was at the same time.

00:32:35

They needed, we will solve

00:32:38

our financial situation, and a

00:32:41

G+. Okay? For Canada, that

00:32:43

Soviet Union, paid 3 million

00:32:45

Canadian dollars. So, get Union

00:32:49

requested also to, to help

00:32:52

in the rescue and to

00:32:53

save some money. But Canada

00:32:55

said, well no weed with

00:32:56

the cleanup ourselves but I

00:32:58

accept the reduced Which firm

00:33:07

the principle of liability. Thank

00:33:16

you for that example. I'm

00:33:17

at all, open the floor,

00:33:18

to to any anyone else

00:33:21

here who has just within

00:33:24

the panelists. Sorry. If it

00:33:25

there any other questions? Professor

00:33:27

Marvel and then we will

00:33:28

move to the next presentation.

00:33:30

Professor, can you elaborate on

00:33:33

how I'm states can accept

00:33:36

the decision of the Kings

00:33:37

Commission? Yes, and thank you

00:33:41

very much. I mean, generally

00:33:43

stable after the current Rule

00:33:52

and accepted as finding the

00:33:54

result and making it possible

00:34:04

that already at the moment

00:34:07

when States ratify the agreement

00:34:09

of their liability commercial acceptance

00:34:14

of the situation as binding.

00:34:17

So it's a unilateral declaration

00:34:19
as a little bit as

00:34:20
we know it from the

00:34:21
international court of justice. For

00:34:22
example, that the states declared

00:34:25
to be bound by the

00:34:28
decision of a 52 settlement

00:34:30
body. And I only have

00:34:32
done the research, how many

00:34:33
states have done? So the

00:34:34
list is Austria, Canada, Denmark

00:34:37
and Norway Sweden and They

00:34:40
have made such a big

00:34:43
deal for them and their

00:34:45

results will be binding but

00:34:47

only with respect to States

00:34:49

who have also made this

00:34:50

declaration declaration. So supposedly has

00:34:58

much more difficult. It has

00:34:59

already arisen Thank you very

00:35:06

much. That was very interesting,

00:35:08

winter. I think we will

00:35:11

now hand over the Baton

00:35:12

to you. Does this work?

00:35:24

Can, can you see the

00:35:25

text? Thank you, everybody. I

00:35:31

will give you a presentation.

00:35:31

A b things that have

00:35:35
changed since the 50s and

00:35:36
things that will change in

00:35:38
the coming 10 to 20

00:35:40
years in space and how

00:35:41
it effects will affect. I

00:35:43
think the arbitration Community. A

00:35:46
few things have changed dramatically

00:35:48
in the past sixty or

00:35:50
seventy years and I think

00:35:51
they will change even more

00:35:52
in the near future. And

00:35:55
first I would like to

00:35:56
make a comment on volume

00:35:59

launch costs of a car,

00:36:03

go into space between the

00:36:06

seventies. In 2010 was essentially

00:36:09

the same for that. About

00:36:10

\$16,000 per kg for heavy

00:36:13

payloads and about thirty thousand

00:36:15

kilograms, four light payloads what

00:36:19

is down to around 2,500

00:36:22

kg and D projection. Now

00:36:25

that the launch costs may

00:36:26

drop from about \$1,500, to

00:36:29

\$100 in 2040 that will

00:36:34

have an enormous impact on

00:36:35

the volume of activities in

00:36:37

space. Around 11,000 satellites have

00:36:42

been launched since with more

00:36:44

than 7,000 are currently into

00:36:46

orbits, but the plans for

00:36:48

the immediate future is to

00:36:50

ring that number of 7070

00:36:53

thousands to say that these

00:36:55

days satellite launches are peaking

00:36:58

is probably an understatement. The

00:37:02

turnover of the space industry

00:37:04

is growing since 2009. It's

00:37:09

Drew from about two thousand

00:37:12

fifteen billion dollars to about

00:37:15

450 billion dollars and sweeter

00:37:19

mentioned this in her introductions.

00:37:20

And even though the predictions,

00:37:22

do not always match and

00:37:24

the growth figures diverge sometimes

00:37:25

dramatically the one thing on

00:37:27

which all the bankers and

00:37:29

Economist appear to agree is

00:37:31

that human activity is space.

00:37:33

Just like space itself is

00:37:34

expanding somebody that the 1

00:37:37

trillion March for the space

00:37:39

business will be reached as

00:37:40

soon as 2030 how to

00:37:42

say that, it will happen

00:37:43

in 2040. But everybody believes

00:37:46

that he will happen in

00:37:47

the near future to place

00:37:51

these numbers. In perspective, if

00:37:53

you look at the total

00:37:53

revenue of the world, why

00:37:55

it's a variation in the

00:37:57

street for 2019 which was

00:37:59

the best year, it is

00:38:01

treason. Because it's the value

00:38:03

of the of that total

00:38:04

revenue is 875 billion is

00:38:08

0.8 trillion dollars. So that

00:38:11

would be the size of

00:38:13

the space industry is expected

00:38:14

to become bigger than that.

00:38:16

So that's all you, then

00:38:19

let's look at the Players

00:38:21

until recently only a handful

00:38:24

of governments are playing an

00:38:26

active role in space, but

00:38:27

this has already changed dramatically

00:38:29

today, we have more than

00:38:30

70 established National Space agencies,

00:38:34

and these include countries like

00:38:35

a \$1. Vietnam, Morocco in

00:38:37

Costa Rica Among the 15

00:38:41

leading space businesses, many but

00:38:44

not all. Are they still

00:38:45

us and most are listed

00:38:47

on stock markets. In total,

00:38:51

the current estimate is that

00:38:52

there are about 1,700 companies

00:38:55

that focus on Space activities

00:38:56

and in the past nine

00:38:58

or ten years, they have

00:39:00

raised more than 260 billion

00:39:02

US dollars. And of course,

00:39:06
that would like to make

00:39:06
and Nick will tell you

00:39:09
much more about the specific

00:39:11
challenges that are faced by

00:39:12
debris in space. But the

00:39:14
orbital space around Earth is

00:39:16
getting very crowded field. I

00:39:18
mentioned this to already, there

00:39:20
are today more than twenty

00:39:21
thousand pieces of 10 cm

00:39:23
debris orbiting Earth. Each satellite

00:39:29
operator requires frequency slots requires

00:39:33
orbital slots. And these are

00:39:35

not an infinite resource. So,

00:39:39

we have all these numbers

00:39:40

and statistics, some of which

00:39:43

are projections, some of which

00:39:44

may be a little bit

00:39:45

too optimistic, but I think

00:39:47

they show clearly three separate

00:39:50

fence and the first one

00:39:52

that this is a growing

00:39:55

expanding markets and that is

00:39:57

driven by the amounts and

00:39:58

is driven by new technology.

00:40:01

The second strength is that

00:40:03

the environment of the operations

00:40:05

is limited by a number

00:40:07

of constraints. And the third

00:40:09

one is at the majority

00:40:10

of the space economy is

00:40:13

now organized by commercial players

00:40:16

and a large majority of

00:40:18

these. Are you organizations or

00:40:21

startups? A, my submission today

00:40:24

to you is very briefly

00:40:26

that this will inevitably lead

00:40:28

to disputes. And because of

00:40:33

three specific reasons, I think

00:40:35

first, they will be friction,

00:40:37

they will probably not be

00:40:41

enough space and resources for

00:40:43

every candidate participate and the

00:40:45

existing constraints will create incidence

00:40:48

and Cindy Taz, and I

00:40:49

believe I explained earlier, they

00:40:51

have already created. Instance, space

00:40:53

is getting more crowded so

00:40:54

there will be more radio

00:40:55

interference. That would be an

00:40:57

increased Collision risk. This will

00:40:59

affect operations, it will increase

00:41:01

costs and it will reduce

00:41:02

the projected income. There's a

00:41:07

lot of new technology that

00:41:08

increases the risk of system

00:41:10

failures that increases the risk

00:41:12

of incidents. And also I

00:41:14

think of this agreement on

00:41:16

the ownership of this new

00:41:17

technology. And I think with

00:41:20

so much new technology and

00:41:22

you businesses, we can expect

00:41:23

post-acquisition claims discussions on representation

00:41:27

and warranty that have be

00:41:28

mates. Disappointment softer to enthusiastic

00:41:31

business, plants that were projected

00:41:34

That's the friction. The players

00:41:38

is also. I think an

00:41:40

important factor, most actors are

00:41:41

now commercial organizations and they

00:41:44

will have quarterly reporting obligations.

00:41:46

They will have business plans

00:41:48

to deliver. They will have

00:41:49

Financial covenants to meet with

00:41:52

regard to Banks and it

00:41:54

will also take a much

00:41:55

shorter term view when it

00:41:57

comes to claims. And liabilities

00:41:58

than governmental organizations have done

00:42:01

in the past, they will

00:42:03

be less dispute. Avoiding, and

00:42:05

Abel wants a quick and

00:42:07

efficient binding. Resolution of the

00:42:09

dispute. I think, frigidus parties

00:42:12

in a commercial worlds, will

00:42:13

seek to translate losses, which

00:42:15

they may have suffered into

00:42:17

immediately accessible financial compensation. And

00:42:21

I think this will bring

00:42:22

us bring us two quarts

00:42:24

and arbitration now, I believe

00:42:28

that some areas will in

00:42:29

the immediate future and probably

00:42:31

remain in the realm of

00:42:33

state courts. And I think

00:42:35

if regular tree or perhaps

00:42:37

even criminal aspect will Verizon

00:42:39

relation to space situation, say

00:42:42

a data breach collusions, local

00:42:45

authorities and state courts. I

00:42:47

expect, you'll still play an

00:42:48

important role unless we can

00:42:50

get into the area of

00:42:51

investment treaty obligation, to tell

00:42:53

the people who comment on

00:42:54

that. I expect however that

00:42:57

when it comes to a

00:42:58

commercial contract satellite manufacturing lounge

00:43:03

and operation, agreements insurance claims,

00:43:06

that space tourism, IP licensing

00:43:10

disputes post admitted claims. I

00:43:13

expect that to be submitted

00:43:15

to commercial arbitration proceedings. And

00:43:19

that is for a number

00:43:20

of specific reasons, which are

00:43:21

reading relates to the nature

00:43:23

of arbitration proceedings, first arbitration,

00:43:28

as opposed to state courts

00:43:29

will present a more transnational.

00:43:32

And I think independent for

00:43:34

him for litigants Seconds. And

00:43:39

I think we should not

00:43:39

underestimate this. If you look

00:43:41

at the spread of space

00:43:42

agencies, the proceedings before arbitration

00:43:47

tribunals can, of course, be

00:43:48

conducted in any chosen language.

00:43:49

That is not the case

00:43:50

state courts. Search proceedings. Of

00:43:57

course, allow he parties to

00:43:58

nominate themselves the members to

00:44:00

a tribunal. That means they

00:44:02

can designate specialized persons to

00:44:04

act as arbitrators also who

00:44:06

are in their view trustworthy,

00:44:08

and who can be completely

00:44:11

unrelated to any of the

00:44:12

parties and impartial that is

00:44:15

different than a State Court

00:44:16

of Two, which one of

00:44:17

the party, Arbitration proceedings are

00:44:21

confidential, they have been mentioned

00:44:23

earlier and I think in

00:44:24

the high-tech industry or patents

00:44:26

and Technology are teeth, that

00:44:28

is a very important factor.

00:44:31

Is finally incidents in space

00:44:34

that will happen far away

00:44:35

with very limited life access

00:44:38

to the scene of the

00:44:38

events and arbitration will allow

00:44:41

parties to bring forward their

00:44:42

own expert witnesses. To play

00:44:45

a very active role in

00:44:46

a lightning. A tribunal on

00:44:48

the technical aspects leaving the

00:44:50

advocacy to lawyers. It allows,

00:44:52

I think, also arbitration proceedings.

00:44:54

That is allows for much

00:44:55
more controlled document production process,

00:44:58
which can be essentially, Volume

00:45:00
11 date. That is in

00:45:01
the possession of one single

00:45:03
party. For example, the launching

00:45:06
at Organization. For these reasons,

00:45:09
I expect to be more

00:45:11
disputes. I think this is

00:45:12
beautifully, much more commercial in

00:45:14
nature and an important part

00:45:15
of the will be submitted

00:45:16
to commercial arbitration. Thank you.

00:45:21
Thank you very much. Werner

00:45:23

was wondering if any of

00:45:25

the panelists have any questions

00:45:27

on this presentation and then

00:45:29

following that will move to

00:45:31

professor at 2, Dr. If

00:45:34

I can, if I can

00:45:35

jump in Manitou. I mean,

00:45:36

that's really interesting. Thank you.

00:45:39

Baseball or nothing in particular,

00:45:41

dispute handling and we can

00:45:44

all agree is a new

00:45:45

and very fast developing legal

00:45:49

disciplined. All there any lessons

00:45:54

which we can learn from

00:45:55

our God, more established. There

00:45:56

is a blower which might

00:45:57

contribute to that development. You

00:45:59

think what? I s s

00:46:04

a tresa mobile explain to

00:46:06

me that there are obviously

00:46:07

lessons to be learned nothing

00:46:08

from the investment protection area

00:46:11

and discipline. I would say

00:46:14

come 10 twice at I

00:46:16

can think of two sources

00:46:18

which could be incredibly helpful.

00:46:22

1st, Aviation legal discipline, the

00:46:29

space activity of today, I

00:46:31

think is not extremely different

00:46:32

from what happens in the

00:46:34

commercial Aviation area about a

00:46:36

century ago and India, be

00:46:40

a shin industry quite quickly.

00:46:42

There was a clear difference

00:46:43

between state-to-state Arrangements, traffic rights,

00:46:47

for example, on safety and

00:46:49

and Technical standards and that

00:46:53

area remains solidly in the

00:46:55

non commercial sphere. I think

00:46:58

dealings in the supply chain

00:47:00

in the aviation industry has

00:47:02

become completely privatized and a

00:47:04

lot of arbitration commercial arbitration

00:47:06

that is happening there additional

00:47:09

services to businesses can be

00:47:11

broken down into commoditized, karge

00:47:13

transfer, cargo transportation. That is

00:47:15

typically handled by courts. But

00:47:17

the more complex Aviation to

00:47:19

business, transactions are handled by

00:47:21

commercial arbitration and when it

00:47:23

comes to Consumers that has

00:47:26

been regulated by liability caps

00:47:28

by strict liability and dirt

00:47:31

by the courts. So I

00:47:32

expect a similar evolution in

00:47:35

the station. The street with

00:47:36

the more profoundly commercial activity,

00:47:39

being handled by a commercial

00:47:42

arbitration And I think another

00:47:45

source of inspiration can be

00:47:47

maritime law. Shipping and Pap's,

00:47:51

we can project a to

00:47:52

launching agreements. Shipping agreements have

00:47:54

become very formats and are

00:47:57

typically resolved by specialized, and

00:48:00

very experienced counsel, and all

00:48:02

the traitors and experts with

00:48:04

a view to speed up

00:48:06

resolution. Really maritime. Law also

00:48:09

deals with a number of

00:48:11

important States responsibilities and the

00:48:13

regulation of the high seas.

00:48:15

And that includes the recent

00:48:19

phenomenon of deep sea Mining

00:48:20

and it's possible environmental effects.

00:48:24

And I think I could

00:48:25

be a real inspiration to

00:48:27

the current topic of moon

00:48:29

and space mining activities. Thank

00:48:35

you, thank you very much.

00:48:36

I think that was a

00:48:37

great Nick. I don't know

00:48:38

if you've any follow-up and

00:48:39

if not we can we

00:48:41

can move to the next

00:48:41

presentation. Stop the sharing. All

00:48:50

right, thank you. Thank you

00:48:51

very much. Thank you very

00:48:53

much, everyone. Having me. So

00:48:56

now that we've heard from

00:48:57

from Professor, my boat on

00:48:59

a, on the legal framework,

00:49:00

for for outer space activities,

00:49:03

and from Verna on the

00:49:04

areas of space activities, let's

00:49:06

have a look at the

00:49:07

actual space arbitration cases, that

00:49:09

that currently exists. And, and

00:49:10

if you look at the

00:49:12

space arbitration cases that currently

00:49:14

exists, is he very quickly

00:49:16

that they are very much

00:49:18

correlate with a commercial space

00:49:21

activities, taking place today. As

00:49:22

we just heard from today's

00:49:25

commercial space, activities are still

00:49:26

primarily satellites satellites for telecommunications

00:49:30

satellites for Earth, observation. So

00:49:32

space disputes and space out.

00:49:34

The trash cans have typically

00:49:36

something to do with either

00:49:37

selling launching or operating satellites

00:49:40

and these space disputes have

00:49:43

certain recurring elements that stand

00:49:46

out and then you can

00:49:46

quickly identify it when you

00:49:49

involved in Willow, looking at

00:49:50

a space arbitration with its

00:49:52

commercial or investment arbitration. So

00:49:55

today, I would like to

00:49:56

talk about three three features

00:49:59

of space Arbitration, in,

00:50:00

and give you some some

00:50:02

cases as examples for each

00:50:04

number. One, politics, number to

00:50:08

Republic no issues. And number

00:50:09

three confidentiality, So, we going

00:50:13

to eat that the first

00:50:15

characteristic of politics you can

00:50:18

get political very quickly. And

00:50:21

one reason for that, is

00:50:22

that satellites and Rockets are

00:50:24

at Julia's goods and there

00:50:27

is a commercial used to

00:50:28

them as we can tell

00:50:29

her no everyday lives. But

00:50:31

they're also very powerful strategic

00:50:33

military assets and them, that.

00:50:36

Sometimes means. One of the

00:50:37

parties in the dispute. Even

00:50:39

if it's commercial dispute, axonal

00:50:41

in a note, according to

00:50:43

the terms of the contract.

00:50:44

But according to be a

00:50:49

security interests of the involved

00:50:51

stages of its military. Another

00:50:53

reason for the influence of

00:50:54

politics is that some of

00:50:56

the key players in the

00:50:58

industry are all still state

00:51:00

agencies? Like NASA, like roscosmos,

00:51:02

we seen them the slider

00:51:03

Bernards a few seconds ago.

00:51:06

I'm so even though we

00:51:08

have a contract in place,

00:51:09

you are effectively dealing with

00:51:12

the gout. And if that

00:51:14

government decides to unilaterally alter

00:51:17

the terms of the contract,

00:51:18

because of pressure from the

00:51:20

political opposition because of pressure

00:51:22

from the media or because

00:51:24

the geopolitical environment chance is

00:51:28

to obtain specific performance of

00:51:30

that contract will be questionable

00:51:31

to say the least, a

00:51:35

great example for politics. In

00:51:36

space operations of the Divas

00:51:38

arbitrations. The Divas habitations can

00:51:42

send the Indian State old

00:51:43

company and tricks and entrance

00:51:45

had leased paucity in the

00:51:47

in the S-Pen. Expect a

00:51:48
man to set lights to

00:51:49
Divas which was in turn

00:51:51
to provide Broadband services to

00:51:54
the Indian market. Now, five

00:51:56
years into the project media

00:51:58
coverage in a certain that

00:52:00
the government had given the

00:52:01
best on Spectrum to two

00:52:03
divas and an illegitimate process,

00:52:05
a to low price and

00:52:07
the government was called upon

00:52:08
to to cancel the project.

00:52:12
Divas tried everything to to

00:52:13

dispel the the negative media

00:52:15

coverage. But at that point,

00:52:17

it was really two later.

00:52:18

So if a chain reaction

00:52:19

was triggered and that letter

00:52:22

to the government, to know

00:52:23

the contract, which form the

00:52:24

basis for the deepest project

00:52:25

proposed merger and that in

00:52:28

turn, trigger, 3 up, tration

00:52:30

cases to investment treaty cases

00:52:32

at CCD Vespa Cindy, I

00:52:34

don't you telephone versus India

00:52:35

and one commercial arbitration Divas

00:52:38

vs Hendricks and then 03

00:52:41

arbitration state that the claims

00:52:43

prevailed. They the diva Saga,

00:52:46

still continuing a lot more

00:52:49

to be said about it

00:52:50

to be. I don't have

00:52:51

the time to do that

00:52:52

today, that that's for another

00:52:54

day. But that the Divas

00:52:56

arbitration to reheat a prime

00:52:58

example for, for how things

00:53:00

can go south in the

00:53:01

space dispute. If the government

00:53:03

feels pressure to act, They

00:53:06

are the second key characteristic

00:53:08

of of space arbitrations Pueblo

00:53:10

issues. If you manufacture or

00:53:13

sell satellites, you cannot simply

00:53:16

sell them abroad. You need

00:53:18

an export control permit. And

00:53:20

if you want to operate

00:53:21

satellites in orbit, then already

00:53:23

talked about this. You cannot

00:53:24

simply play some anyway. You

00:53:26

like, and use the frequencies,

00:53:27

you desire. You require the

00:53:29

right to use the frequencies

00:53:30

in the relevant orbit and

00:53:32

these public Louis shoes, regularly

00:53:34

fire on their way into

00:53:36

space, arbitrations a great example

00:53:39

for that is bae, the

00:53:40

ICC arbitration ABS. This is

00:53:42

Katie. And in that case,

00:53:44

the tribunal have to decide

00:53:45

if title for the satellite

00:53:47

Krista at 3, which was

00:53:48

already already know, but had

00:53:50

passed from sellers, Katie to

00:53:52

buy. It's abs abs to

00:53:53

purchase a satellite from the

00:53:54

green company Katie, which Katie

00:53:57

had originally purchased from, from

00:53:59

the US company located Martin.

00:54:00

So we was a second-hand

00:54:02

satellite two years after they

00:54:05

ate, they said Purchase have

00:54:07

been concluded and fulfills. They

00:54:10

were media reports in, in

00:54:11

South Korea saying that I'm

00:54:14

Katie had sold the satellite

00:54:15

for to lower price. Now

00:54:18

against the background of the

00:54:19
device arbitrations. If that already

00:54:20
sounds familiar to you with

00:54:22
what for what happens next.

00:54:23
The the the the media

00:54:27
reports that they Korean Ministry

00:54:28
of Science and declare the

00:54:30
satellite purchase Nolan void because

00:54:33
it's allegedly violated Korean Xbox

00:54:35
controllers at because the parties

00:54:37
have not obtained, a Korean

00:54:39
Expo, control permit, they had

00:54:40
obtained, the US export control

00:54:42
permit test at the contract,

00:54:43

the notary Korean Expo control,

00:54:45

so they are the question

00:54:48

for the tribunal really was

00:54:49

to decide if the satellite

00:54:51

selling postage was a US

00:54:53

export in there. 22 us

00:54:54

export control regulations for a

00:54:56

Korean Expo in there. Check

00:54:58

to Korean Expo, control regulations.

00:55:00

If you don't know the

00:55:02

case that the twist in

00:55:03

the story was that they

00:55:04

Korean Ministry of Nullify the

00:55:06

contract was not the competent.

00:55:09

Korean Ministry to issue and

00:55:10

monitor, export control, tablets at

00:55:15

the heart of ABS vs.

00:55:16

Katie was really a political

00:55:18

decision, and also a public

00:55:22

blow issue and namely which

00:55:23

export control regulations. Apply. Now

00:55:26

that the third and final

00:55:27

element of space, arbitrations that

00:55:29

I have to time for

00:55:30

today is, is confidentiality touched

00:55:33

on it already earlier. And

00:55:35

the Space Industries is small

00:55:37

in the secret of Industry.

00:55:38

I'm very technical and because

00:55:40

of that, they at the

00:55:41

contracts usually contain confidentiality Clauses,

00:55:44

and, and space disputes. The

00:55:45

end up in arbitration typically

00:55:47

remain confidential. But just because

00:55:50

you don't hear about many

00:55:51

space, arbitrations, doesn't mean that

00:55:52

there aren't any. I am

00:55:54

an office space arbitration study

00:55:56

here about only few space

00:55:58

arbitration Awards out. Bailable one

00:56:01

example for that is you

00:56:04

can stop. This is Mexico.

00:56:05

We know that you can

00:56:07

sad Protonix a case against

00:56:09

Mexico because Mexico requires satellite

00:56:12

companies to reserve some some

00:56:14

of that satellite capacity for

00:56:15

government use which you claimed

00:56:18

amounted to a tax. We

00:56:21

also know that a Mexico

00:56:22

prevailed in this operation because

00:56:24

there was a press release

00:56:25

but the water still no

00:56:28

publicly available. So we don't

00:56:30

know any details about the

00:56:32

the tribunals reasoning. So as

00:56:36

to get CDs, be space,

00:56:37

arbitration some very unique features.

00:56:40

Not only in terms of

00:56:40

outer space being a very

00:56:42

unique environment but also regarding

00:56:44

the operation proceeding. Such thank

00:56:47

you very much. Thank you

00:56:49

very much John can you

00:56:51

tell us a little bit

00:56:51

more about how investment? Treaties

00:56:53

themselves can apply to the

00:56:54
dispute. So you should have

00:56:56
some examples but if you

00:56:58
could just spend a few

00:56:58
minutes on that as well,

00:56:59
I think if you if

00:57:04
you if you speak about

00:57:05
investment treaty space arbitration you

00:57:07
need to address the elephant

00:57:09
in the room straight away.

00:57:10
And I think baby elephant

00:57:12
in the room, is this

00:57:13
article to outer space treaty?

00:57:14
Which says, that I was

00:57:16

face is not subject to

00:57:17

National appropriation by claiming Serenity.

00:57:20

This means that space belongs

00:57:22

to old and not just

00:57:23

one stays at an investment

00:57:26

trees. On the other hand,

00:57:27

as many of you know,

00:57:28

regularly required that the investor

00:57:30

makes an investment in the

00:57:31

territory of of the whole

00:57:32

state. So so how can

00:57:34

you reconcile the the requirement

00:57:35

of investment in the territory

00:57:38

of a state when they

00:57:39

can be no territory of

00:57:40

the states in outer space

00:57:41

because about to go to

00:57:42

outer space treaty in the

00:57:45

diva style patricians and in

00:57:46

in Utah that this is

00:57:47

Mexico that wasn't really an

00:57:48

issue. Because they're the investors

00:57:51

held shares in companies in

00:57:53

the whole state. So you

00:57:55

had an investment in the

00:57:56

territory of the whole state

00:57:58

on planet Earth where this

00:58:01
is not the case that

00:58:02
there are several ideas of

00:58:04
how to create that a

00:58:06
Nexus to to to the

00:58:08
territory of the whole state.

00:58:10
I think 11 or ideas

00:58:13
to Chief that through frequency

00:58:15
rights in orbital slot location.

00:58:16
So the itu grounds frequency

00:58:19
rights and an orbital slots

00:58:20
only two states but not

00:58:21
to private companies and the

00:58:23
states can then I look

00:58:25

at the frequency in orbital

00:58:26

slots usage rights to to

00:58:28

private companies and the idea

00:58:30

here is that the Ascension

00:58:32

allocation amounts to to an

00:58:35

investment in the territory off

00:58:37

of that state. Another idea

00:58:40

is to drive the the

00:58:42

territorial Nexus from the fact

00:58:44

that launching state-maintained jurisdiction, control

00:58:47

over the uptake say of

00:58:48

launched in. How to space

00:58:49

too soon to autoclave how

00:58:51

to space treaty we fed

00:58:53

earlier? From Professor, my boat

00:58:54

launching States. Need to register

00:58:56

the uptake State. They launched

00:58:58

into outer space. And, and

00:58:59

hear the idea is that

00:59:00

the, the the entry of

00:59:03

the space object in the

00:59:05

registry amounts to an investment

00:59:07

in in the territory of

00:59:09

the state, make in the

00:59:10

registration. So these are some

00:59:13

some Concepts to to create

00:59:16

that necessary territory Nexus in

00:59:19

spite of article to outer

00:59:20

space treaty but I think

00:59:22

it's important to bear in

00:59:23

mind that these Concepts as

00:59:24

as interesting as they off

00:59:26

at, to my knowledge have

00:59:27

not been tested and practice

00:59:28

yet. So very much remains

00:59:30

to be seen if if

00:59:31

not what your trouble or

00:59:32

Greece. Thank you very much.

00:59:34

I think that was very

00:59:36

interesting response to some of

00:59:39
the jurisdictional objections that might

00:59:41
be raised in any way.

00:59:48
That's Gracin understand. Thanks, thanks

00:59:51
everyone. In such a pleasure

00:59:53
and privilege to be a

00:59:54
space debris, the impacts that

01:00:05
states faced every has on

01:00:06
the industry, some of the

01:00:08
legislative and Regulatory solutions that

01:00:11
might be needed to safeguard

01:00:13
the environment in outer space.

01:00:16
What is the? Starting point?

01:00:18
I think it's important to

01:00:20

set out the nature and

01:00:22

into some expensive, is the

01:00:24

scale of the term space.

01:00:28

Deborah might suggest that what

01:00:31

we talkin about is something

01:00:32

environmental and if you draw

01:00:34

parallels to terrestrial environment to

01:00:37

the shoes, the conclusion you

01:00:38

might reach is the, this

01:00:40

is something which could be

01:00:41

remedied at a time and,

01:00:43

and therefore, an issue which

01:00:45

might be for the future

01:00:46

will feature regulation and Not

01:00:48
necessarily that for an immediate

01:00:50
concern. If that is the

01:00:54
approach. I think it's the

01:00:55
wrong way of looking at

01:00:56
this problem because unlike terrestrial

01:00:59
environment, which space debris and

01:01:02
its existence represent a near-term

01:01:05
existence right to the space

01:01:08
industry itself. And so unless

01:01:10
this is the day that

01:01:13
may be very serious issues

01:01:15
for the future. The reason

01:01:17
for that is the space

01:01:19

lights, white bean and pushing

01:01:26

the graveyard slots but too

01:01:28

much larger extended cab step

01:01:31

rate and which are orbiting

01:01:33

a very high velocities mention

01:01:36

two coups damage to other

01:01:38

space objects. I didn't. But

01:01:39

I know about 20,000 iTunes

01:01:42

is greater than 10 cm

01:01:44

in size. I've seen statistics

01:01:46

present a bit higher. Thirty-thousand

01:01:49

between a centimeter and a

01:01:56

bit. And the statistic I

01:01:58

have a something approaching 160

01:02:00

million objects between 1 million

01:02:02

and 1 cm in size

01:02:04

and whether or not they

01:02:05

test ticks are accurate. I

01:02:08

think they do at least

01:02:09

illustrate the problem. And the

01:02:14

problem is that a pre

01:02:15

with 6in orbital clouds, mostly

01:02:18

near to throw away, is

01:02:22

that it creates more, that

01:02:26

pre-collision that he projectile, which

01:02:37

are necessarily A Hazard to

01:02:39

communication satellites, space stations, and

01:02:43

future man, to Mission and

01:02:47

the morgue There is the

01:02:49

greater backtrack to come and

01:02:52

then without being too alarmist

01:02:53

about this. Creates a commercial

01:02:56

challenge in developing the space

01:02:58

industry, the existence of space

01:02:59

debris, Mission success and see

01:03:12

which in turn my fat

01:03:14

levels investment. The reason But

01:03:26

what it does mean is

01:03:27

that that is an industry

01:03:30

self-interested ensuring. This issue has

01:03:32
managed. What about the question

01:03:38
that I think it's being

01:03:40
put to me in the

01:03:40
context of this to his

01:03:42
will here is liable for

01:03:43
the damage caused by the

01:03:44
space that break time for

01:03:46
this. I'm going to focus

01:03:48
purely on outer space. Collisions

01:03:52
are the counties are in

01:04:01
need with rocket case. Now,

01:04:13
we had little bit earlier

01:04:14
from Fresno to the damage

01:04:17

caused by to take snapspace

01:04:18

Prince determined by the liability

01:04:20

convention and not in summary,

01:04:22

provides the liability for damaged

01:04:24

by space object, is attributable

01:04:26

to its own state, but

01:04:28

where that can be shamed

01:04:29

before to establish with various

01:04:38

boat and if you do

01:04:39

is not why you suddenly

01:04:40

see the problem that arises

01:04:42

with liability chart, tribution, firstly,

01:04:47

you have the immense difficulty

01:04:48

in establishing to which state

01:04:50

particular, I scrubbed every pillows.

01:04:53

That may be possible in

01:04:54

some cases but clearly no

01:04:56

license which operates be out

01:05:02

there. Second time, you have

01:05:04

to shake. In that way.

01:05:13

The current liability framework does

01:05:15

not have an affection for

01:05:24

her dress, but that is

01:05:26

experiencing the effects of space,

01:05:29

debris, collisions To support effective

01:05:36

management of this session is

01:05:38

about arbitration space and how

01:05:41

arbitration can support the resolution

01:05:43

of disputes involving the SpaceX

01:05:45

and just explain to space.

01:05:50

Debris problem. Just not really

01:05:52

having sex with liability framework

01:05:54

until you're ready to get

01:05:55

to the question of. How

01:05:56

does arbitration help at this

01:05:58

stage? At least, I'm the

01:06:00

current rate of space debris

01:06:01

is managed in practice. At

01:06:03

least it's through interagency cooperation.

01:06:06

And there are guidelines, which

01:06:10

the parties at, by naughty

01:06:12

kid to which provided cooperation

01:06:15

framework, the house based at

01:06:16

3 and its impacts also

01:06:18

dealt with the interagency Coordination

01:06:24

Committee guidelines in the UN

01:06:26

office. It's a case that

01:06:34

the IDC guidelines to find

01:06:37

zoned areas of particular importance

01:06:40

to ensure particular consideration given

01:06:42

during mission planning two issues

01:06:44

which might have a greater

01:06:46

impact when we use particular

01:06:48

over to vacation. The great

01:06:53

difficulty is that there is

01:06:56

no enforcement mechanism so freaking

01:07:04

amazing. I need the industry

01:07:08

itself which is ensuring that

01:07:10

space. Debris is managed appropriately

01:07:11

Masonite, but it does. I

01:07:19

think same to me at

01:07:21

least some degree of enforceable.

01:07:22

Commitment is going to be

01:07:24

needed to ensure tissues attributable

01:07:26

to the increasing. That also

01:07:28

states that breed are going

01:07:29

to be managed effectively as

01:07:32

the industry grows. I did

01:07:35

not contact arbitration through the

01:07:40

lens of new binding, commitment

01:07:41

and space debris. I think

01:07:45

it to some extent of

01:07:47

climate change. A single personal

01:07:54

state. But what are our

01:07:55

International accepted standards which which

01:07:57

which happened and when it

01:08:03

comes to enforcing those commitments.

01:08:05

You take, for example, the

01:08:07

Paris agreement, I will end

01:08:16

this brief presentation with this

01:08:19

stupid while everybody spends and

01:08:31

that could be supported by

01:08:33

an arbitration to police, or

01:08:36

at least encourage compliance and

01:08:38

cooperation to safeguard the space

01:08:41

environment for future Generations. Expect,

01:08:43

my time is up, so

01:08:46

I'm going to pause that.

01:08:50

Thank you very much, Nick,

01:08:52

that was very interesting, indeed.

01:08:54

I don't know if any

01:08:55

of the other panelists have

01:08:56

questions the next Yeah, thank

01:09:00

you. Thank you, make for

01:09:01
the for the presentation was

01:09:02
very interesting. I'm like I

01:09:03
do agree with with many

01:09:05
others that the space debris

01:09:07
is a huge, huge problem

01:09:08
and I think it's good

01:09:11
to see in the that

01:09:12
this is getting up picked

01:09:13
up in the in the

01:09:14
media to also creates awareness.

01:09:16
And the general public that,

01:09:18
that this is a huge

01:09:19
problem. But as we say

01:09:21

with climate change, when this

01:09:22

is only the first step

01:09:24

towards addressing and solving the

01:09:27

problem. So he could you,

01:09:28

maybe go go into a

01:09:30

bit more detail, on how

01:09:31

big they are the space,

01:09:32

that be a problem isn't

01:09:33

and how a date, that

01:09:35

the current legal framework cannot

01:09:36

cope with it. And they,

01:09:37

and they showed him, thank

01:09:39

you. And actually focusing in

01:09:42

there is really interesting because

01:09:43

what you, what you currently

01:09:44

have is a framework of

01:09:46

self-regulation and self-interest with your

01:09:49

driving test, practice and tattoos

01:09:52

on doubtedly, a powerful behavioral

01:09:55

Mason Bates at but the

01:09:57

absence of effective dispute resolution

01:10:00

mechanism which responds, I think

01:10:02

to the more space and

01:10:03

don't leave the cap and

01:10:05

I'm going to slide I

01:10:07

think she ate the Steep

01:10:08

rise in the number of

01:10:10

objects being tracked and save,

01:10:12

even with that industry incentive

01:10:15

to reduce space debris. The

01:10:17

number of objects is increasing.

01:10:19

You know, if you X

01:10:30

shot by the number of

01:10:31

b, a b a separate

01:10:34

you can see that it's

01:10:35

it, it can increase exponentially.

01:10:40

Separate issue, which I think

01:10:41

baby Touchstone right at the

01:10:44

start with me. I didn't

01:10:45

need to be considered alongside

01:10:46

this problem which is the

01:10:48

militarisation of space which topic

01:10:52

in itself is cry out

01:10:55

for an international discussion. On

01:10:57

how space debris is including

01:10:59

in the military Is this

01:11:04

time? I thought I could

01:11:05

ask you one more question

01:11:06

is Introduction to the self-regulation

01:11:12

parts. Something I quietly. I

01:11:15

hope I sell Visa. Perhaps

01:11:17

ESG in space May translate

01:11:19

to Commercial and private activity,

01:11:22

including in their contractual relationship.

01:11:24

A contractual obligations to deal

01:11:26

with them. That is something

01:11:28

I can help him in

01:11:29

in the future. I don't

01:11:29

think that is standard or

01:11:31

entirely standard already. But the

01:11:33

question I had for you

01:11:34

is, would you be able

01:11:37

to expand it? What you

01:11:38

accuse would be on the

01:11:39

rights of a user of

01:11:41

say Telecom services, and that

01:11:44

user can no longer enjoy

01:11:45

his or her rights because

01:11:48

the satellite has been disturbed

01:11:51

by the record company is

01:11:53

facing And I'm not. So

01:11:56

I think there's nobody else.

01:12:00

An end to some extent,

01:12:02

the old reacts with Dave

01:12:04

secret rs.33, the provider was

01:12:06

out of service, it might

01:12:07

be. But what it does

01:12:08

to his highlight, I think

01:12:09

the very will give you

01:12:10

a question. How does the

01:12:11

very real world impact this

01:12:13

has on on on peoples,

01:12:15

take satellite internet services, for

01:12:19

example. And I think this

01:12:21

is increasingly seen as the

01:12:22

way to deliver connectivity. Sperry

01:12:25

Lodge tops wells in the

01:12:27

multi weld access to the

01:12:29

instead. She's only seen as

01:12:30

a fundamental rights or necessity.

01:12:33

And so, unless you have

01:12:36

a framework to effectively protect

01:12:39

that results, which I didn't

01:12:40

think you currently have that

01:12:41

creates a risk, which kind

01:12:43

of having a well, will

01:12:45

have an impact on the

01:12:46

everyday lives of people in

01:12:48

my life that you face

01:12:55

on the ground. Thank you

01:13:01

very much for for both

01:13:03

for those those, those great

01:13:05

answers to those questions on

01:13:07

the both discussions Max. I

01:13:09

picked her up and I'm

01:13:11

being mindful of the time

01:13:12

and it might be that

01:13:13

we will consolidate the cues

01:13:15

in A's and the networking

01:13:16

into 1 sessions, so fret,

01:13:19

not to the audience members,

01:13:20

who are, who are interested

01:13:21

in asking our wonderful panelist

01:13:23

questions, but Max year of

01:13:24

the phone. Thank you. Extinct.

01:13:50

Mexican near me. I think

01:13:52

there's a little bit of

01:13:53

background static. I don't know

01:13:55

if other people are hearing

01:13:56

it as well. I think

01:13:57
they might be, is it

01:13:58
possible? They're just some static

01:14:00
as you speak. So could

01:14:03
you try to maybe? Maybe

01:14:04
the microphone is covered. I'm

01:14:05
not sure what it would

01:14:06
be causing it. This is

01:14:10
better. A little bit better.

01:14:15
Not give me a sec,

01:14:18
please. Somebody said Wireless and

01:14:47
I think indeed this sounds

01:14:48
like a bat's, a Bluetooth

01:14:50
connection. Perhaps in the meantime,

01:15:02

I'm wondering if we take

01:15:03

advantage of the limited time

01:15:06

we have together, we did

01:15:07

receive one question and I

01:15:08

think we have to keep

01:15:10

it short just because Max

01:15:11

will join us and I

01:15:12

want to make sure we

01:15:13

have enough time for his

01:15:14

presentation. But as we were

01:15:16

talking about, you know, outer

01:15:19

space, you know, Now, we

01:15:25

don't hear you at all.

01:15:55

No, nothing. In the meantime,

01:16:15

maybe a shout-out to to

01:16:16

Charles for the for the

01:16:17

question, in the chat because

01:16:18

I think we can hold

01:16:19

a whole panel just to

01:16:21

talk about these question them

01:16:23

and you can feel one

01:16:24

and a half hours. Thank

01:16:25

you so much. Maxim wondering

01:16:30

if it's possible to value

01:16:31

in their phone or something

01:16:33

else. Perhaps, I'm not sure

01:16:34

if Maria was. He has

01:16:36
around just trying to make

01:16:38
sure we have a chance

01:16:39
to hear from you. Yes,

01:16:41
I'm here. Maybe I should

01:16:43
does the Maxtown, maybe send

01:16:45
him, he's his lights and

01:16:48
maybe if I share them

01:16:50
for him, The the Wi-Fi.

01:16:53
It's better. are, we can

01:17:00
hear you now, could you

01:17:02
say It's a little bit

01:17:04
better. I don't know if

01:17:11
it's someone mentioned that it

01:17:13

so it could be a

01:17:13

wireless issue, Maybe. I wonder

01:17:32

if there's a way to

01:17:32

call him just an old

01:17:35

school phone. Apps max. If

01:17:48

you try to switch off

01:17:49

your camera that made Pepsi

01:17:51

improve quality and then the

01:17:53

bats somebody run outside could

01:17:55

just show your lights so

01:17:58

that you have time. Alice,

01:18:01

Lotus connection. if you can

01:18:04

say something out, Max Pikachu.

01:18:28

I can hear you still

01:18:32

stacity. I don't know. Let

01:18:46

me know which one because

01:18:48

the gas my your phone.

01:18:50

I think it might be

01:18:53

working. So whatever you're doing

01:18:54

right now. Okay, yeah, I

01:18:58

will try to get as

01:18:59

close as possible to the

01:19:00

Mac. Are you still sick?

01:19:13

It went away. We had

01:19:16

it and m.a.d. Maria, Lucia

01:19:18

could could change the Flies

01:19:21

for you if that helps

01:19:21

at all. And that's okay.

01:19:28

I'm sorry that again, thank

01:19:30

you very much. So I

01:19:32

want to compete with a

01:19:33

few exceptions such as arbitration

01:19:43

litigation. So far is basically

01:19:54

from Human conflicts. In USA,

01:20:04

Security. Stop relying on very

01:20:06

limited resources. Space. Iniquity. We've

01:20:19

already heard about this space

01:20:20

debris and influence on Space

01:20:22

activities. I seen the pictures

01:20:32

at before, but it's not

01:20:33

on the left or if

01:20:40

it's because it's you said

01:20:43

the last time and energy

01:20:45

in expecting the same position

01:20:46

to fix in One Direction

01:20:55

or satellite dishes to see

01:21:00

and use What's recognized early?

01:21:12

Recognizing a first-come. First-served approach

01:21:16

a location of fox locks

01:21:19

and co-opted and an ultimate

01:21:26

plan for specific. In other

01:21:34

courts besides you. However, the

01:21:36

first come first, serve principle

01:21:38

remix in particular in the

01:21:41
world, because we have seen

01:21:47
already set the lights in

01:21:48
the. You will explode in

01:21:50
the next year today. Due

01:21:52
to the north one where

01:21:57
the puppy dog video, third

01:22:00
time in September 2021. Space

01:22:04
agency has filed a request

01:22:06
with the itu. Buta constellation,

01:22:08
330,000 satellites. The future disputes

01:22:15
for organization. It applies to

01:22:23
the use of of the

01:22:24
radio spectrum spectrum is a

01:22:27

limited Resource as well as

01:22:28

frequency. Be kept in mind

01:22:47

here is that not just

01:22:49

a rising number of set

01:22:51

the lights, increase the issue

01:22:53

of the congestion. Yes, we've

01:22:57

all seen an explosion of

01:22:59

radin Radio on Sirius red

01:23:08

space in July 2020 to

01:23:13

SpaceX, starlink interference about 80%

01:23:19

of the time. If you

01:23:21

spell 45, What's a short

01:23:32

note on the estimate is

01:23:33

right up blocking jamming. The

01:23:38

itu member states to take

01:23:47

measures to prevent harmful interference

01:23:50

with radio, navigate to Publix.

01:24:00

I'm still on maybe Spaceman

01:24:04

might still seem a little

01:24:06

science fiction. but it may

01:24:10

be in the near future,

01:24:12

and answer the question of

01:24:14

who owns outer space, May

01:24:17

Remains the question of ownership

01:24:23

with olive oil, As we

01:24:26

have already. This is also

01:24:41

an important part of the

01:24:43

treaty which even had strong

01:24:47

11 that night of the

01:24:54

store. Sort of unnatural resources,

01:25:01

a plate become property of

01:25:03

international governmental organization. Call Penny

01:25:13

Metro Park. In 2015, the

01:25:18

US Congress passed the so-called

01:25:19

space, which stipulates that the

01:25:22

US citizen or resource champion

01:25:29

title to the resource use

01:25:37

and sent the resource. Similar

01:25:41

language, was passed around by

01:25:43

induction port in the state's

01:25:46

resources, in 2017 and in

01:25:51

2020. Ownership in space resources

01:25:56

is a space resources. I

01:26:08

want to discuss a switch.

01:26:28

A particular Supply chains of

01:26:31

Griffith. This mainly affects. Effects

01:26:48

reported estate companies in higher

01:26:52

prices, as well as lower

01:27:01

Revenue. It was a ride,

01:27:06

you space colony. Like like

01:27:19

like it was in the

01:27:20

old place where we have

01:27:22

stayed actors at the major

01:27:24

players in space, first industry

01:27:30

with capital players and states.

01:27:35

In the background. So I'm

01:27:39

in licensing. Adele no longer

01:27:46

to make slime sticky. Very

01:27:51

pretty. 2022. 318 switch in

01:28:13

the united launch Alliance. Fortunately,

01:28:20

it is already had place.

01:28:31

The artist enough already in

01:28:55

the Las Vegas on the

01:28:57

Lost pen. Roscosmos refused to

01:29:00

launch the satellite Inn in

01:29:08

the company. Company review. Just

01:29:22

left work. Finally, I want

01:29:32
to discuss also very aspect

01:29:38
of it. Reached an all-time

01:29:43
high in 2021 and everything.

01:29:55
Father has an initial public

01:30:08
offering instead they used something

01:30:11
called a special purpose, acquisition

01:30:13
company. And this is such

01:30:18
a company, stock exchange temperature

01:30:24
with private companies, without going

01:30:29
through the traditional, I'm offering

01:30:33
process. The main problem with

01:30:37
suspects is that they are

01:30:38
subject to match. Critics argue

01:30:48

that stinks. Expose investors to

01:30:55

a tremendous risk because of

01:30:57

the answer. And the number

01:31:08

of specs that the investor

01:31:12

returns suspects are almost perfect.

01:31:18

Example is electric. I think

01:31:22

I'm going with \$10 and

01:31:30

\$1. \$0.30 or something. Ryan

01:31:42

is already moving through US

01:31:51

ports. Yeah, I already want

01:32:00

to go with my presentation

01:32:03

and To answer any questions.

01:32:13

Thank you very much Max

01:32:14

that is very interesting and

01:32:16

I'm sorry that we weren't

01:32:17

able to see you during

01:32:18

the presentation. I'm mindful of

01:32:20

the fact that the next

01:32:21

session starts at 9:40, we

01:32:24

might have to under, we

01:32:25

might have to forego the

01:32:27

networking session, but I did

01:32:30

want to give if any

01:32:31

of the panelists have a

01:32:32

question for Max and I

01:32:34

think it'd be a good

01:32:34

time to ask ask Max

01:32:37

and maybe we could do

01:32:38

one on his question. We

01:32:39

can squeeze that in within

01:32:40

5 minutes but I want

01:32:42

to be mindful of the

01:32:43

next panel as well. So

01:32:44

thank you Max. And if

01:32:45

any of the parents have

01:32:46

a question that be great.

01:32:49

If I may thank you

01:32:50

and thank you very much.

01:32:51

It was a great presentation

01:32:53

and even though we could

01:32:54

not see it everything, but

01:32:56

I think almost everybody was

01:32:59

very intriguing. And chicken, you

01:33:01

can give us an example

01:33:02

of practical example of friction

01:33:05

that you have experience with

01:33:08

one of your clients in

01:33:09

the space industry. Tegra, most

01:33:12

professional Apple. Unfortunately, we did

01:33:16

not need to initiate any

01:33:18

HUD case, proceedings of the

01:33:20

blinds, yet experienced the regulatory

01:33:36

framework for companies like one

01:33:50

way of SpaceX. Issue with

01:34:02

ES. How to explain this?

01:34:10

You should soak. Soak the

01:34:13

new service providers access, and

01:34:15

I suppose you must stay

01:34:24

lost. Their own satellites of

01:34:26

Jupiter, on satellite operator with

01:34:31

bringing a product on local

01:34:37

Partners to achieve compliance partner.

01:34:42

Is one of our clients

01:34:49

wanted to import from Quizlet

01:34:55

import document science using electronic

01:34:59

signature. At the electronic signature

01:35:02

was only provided electronic signature

01:35:06

did not offer remote. So

01:35:11

this might appear and no

01:35:14

problem. If you're only answering

01:35:17

one Country Market in our

01:35:35

cases, it was usually the

01:35:38

case that The Regulators at

01:35:40

the national government, brought this

01:35:47

to their attention sound solution.

01:35:53

SSA. Eastern Market. The Amore

01:36:02

of the distant one night,

01:36:05

please. Thank you very much,

01:36:10

Max. I'm and thank you

01:36:11

to everyone. I think we,

01:36:14

we should, we should call

01:36:15

it here unfortunately, and I

01:36:17

apologize to the, to the

01:36:18

audience member, I do want

01:36:20

to be mindful of the

01:36:21

next panel on, but I

01:36:23

hope you can help you

01:36:24

learn something new. I think

01:36:26

all of our panelists can

01:36:27

be found their googleable and

01:36:30

I think you could perhaps

01:36:31

follow up on if you

01:36:32

do have individual questions and

01:36:35

and I and I and

01:36:36

I hope Jose Antonio this

01:36:37

is a this is a

01:36:39

good time to plug a

01:36:40

session for wa you for

01:36:42

a while to do the

01:36:44

same next year. I think

01:36:46

I think this is a

01:36:47

very interesting topic and I

01:36:49

think we do have questions

01:36:50

as I see in the

01:36:51

chat and the chat bar.

01:36:52

So apologies to the to

01:36:53

the audience members. And I

01:36:55

I think big thank you

01:36:56

to all the pain and

01:36:57

I had before back to

01:36:58

you who's Antonia Thank you.

01:37:01

Thank you very much and

01:37:03

a Visa and thank you

01:37:04

very much for real for

01:37:06

the wonderful presentation. Oh yeah.

01:37:08

And thank you very much

01:37:09

for it or else were

01:37:11

being here and I have

01:37:13

to give a big shout-out

01:37:15

to know to the, to

01:37:18

the support of the space

01:37:20

Arbitration Association to this battle

01:37:22

specially and also to the

01:37:26

world application update Beyond it

01:37:28

is is as founder of

01:37:29

the of the very glad

01:37:34

to be collaborating with with

01:37:36

the we get to shatian

01:37:37

here. Also garnered a thank

01:37:40

you very much for for

01:37:41

your questions and for your

01:37:43

contribution and I'm I'm I'm

01:37:44

going through you as I

01:37:46

see you. So Professor marble

01:37:49

it's it's a pleasure to

01:37:50

have had you here and

01:37:51

and that Walker's, some of

01:37:54

of all of us novices

01:37:55

in in in the in

01:37:57

this area of the law

01:37:58

to This new world and

01:38:01

thank you very much Max.

01:38:03

I'm I'm really glad that

01:38:04

that that were able to

01:38:06

go through it and be

01:38:09

able to listen to your

01:38:11

presentation. I found was it

01:38:13

was it was cheap work

01:38:15

or making a this panel,

01:38:17

a complete one and an

01:38:18

egg at? Thank you very

01:38:20

much as well. I learned

01:38:22

a lot and I'm sure

01:38:23

that that that, that many

01:38:25

of us did too. I

01:38:27

am, I am also very

01:38:30

sorry that that won't be

01:38:31

able to serve interact in

01:38:33

the in the break room.

01:38:34

Unfortunately. Trying to be loyal

01:38:37

with time and not make

01:38:39

it too late in Europe

01:38:40

that we did schedule. The

01:38:42

the the Look up the

01:38:46

panels are a little bit

01:38:47

closer in time between between

01:38:49

themselves with that. I will,

01:38:52

I will have to close

01:38:54

because the our next panel

01:38:55

is is not stressing because

01:38:58

it were were at the

01:39:00

41 minutes at range and

01:39:03

we have to connect with

01:39:04

them to get ready for

01:39:05

the next one. So thank

01:39:06

you very much and I

01:39:08

it was truly a wonderful

01:39:09

and we will certainly certainly

01:39:12

have another space law on

01:39:18

arbitration. This did the panels

01:39:21

and Justice where everyone's knowledge

01:39:24

are are selected on the

01:39:26

basis of suggestions of public,

01:39:29

International lawyers, arbitration, specialist position,

01:39:33

investor States, and in international,

01:39:36

commercial arbitration, there is no.

01:39:37

If there's no magic formula

01:39:40
as to why and how

01:39:41
we will choose the topic?

01:39:45
As a matter of interest

01:39:46
news at cetera. And also

01:39:48
there's no magic it in

01:39:50
terms of why, why? We

01:39:51
we went by a palace

01:39:54
to speak with. We basically

01:39:55
have a subject, ask the

01:39:58
questions and then look into

01:40:01
who has written and who

01:40:04
has spoken, who are the

01:40:06
real brains on those subjects

01:40:08

Association. There are no Amici's

01:40:14

at set, right? It's very

01:40:15

straightforward. So I would like

01:40:16

to invite everyone to to

01:40:18

propose topics and and that

01:40:20

will make it happen again.

01:40:21

And what I can say

01:40:23

is a week, will you

01:40:24

a greater chance for networking?

01:40:27

Next time I will make

01:40:29

it happen and have a

01:40:31

beautiful day and for those

01:40:33

that may be interested in

01:40:35



matters of a claw and

01:40:37

investor-state arbitration will see you

01:40:41

hopefully in 20 minutes. Thank

01:40:45

you so much.