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SPACE
INNOVATION

Space for Investors

New Space Economy

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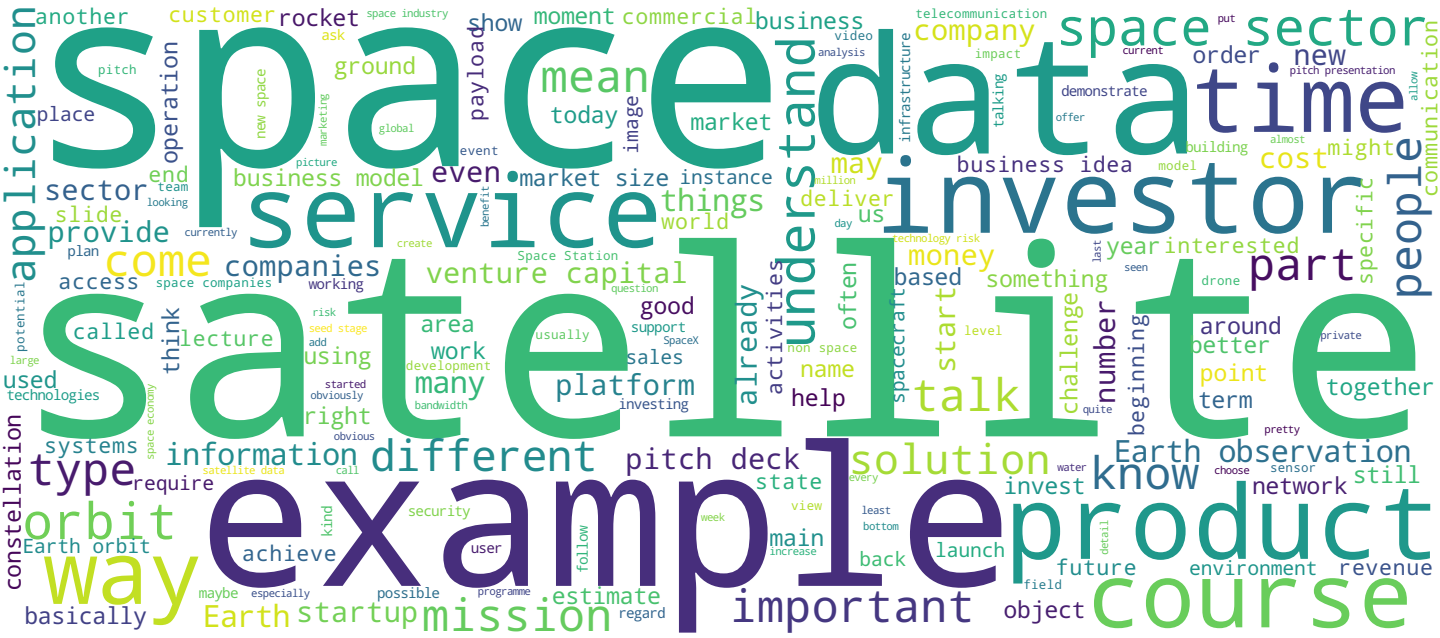

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Video

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Welcome back. In this, one of our final lectures, we will leave specific business models in space behind, and we'll talk about how you can pitch a space business idea to investors. We will also briefly review the main categories of investors you may pitch to. And lastly, we will talk about some of the common concerns investors have when considering investing in space businesses.

Notes

Summary

0m 04s

Okay, first, the pitch deck or the pitch presentation. And I get straight to the point here, and I will give you a fairly standard outline for a bare bones pitch deck. Just to be clear, this is for a pitch to investors. There are, of course, other types of pitches. For example, you can pitch your product to potential customers, or you could pitch your company to a potential key employee that you're trying to recruit. The pitch outline you see here is obviously only one of many ones which are possible. There's other well-known pitch deck outlines, for example, something called the Sequoia pitch deck, and you can easily find that online. But the main content elements are pretty much always the same. And we will now talk through each of these, which you can see here, over the following slides.

Notes

Summary

0m 28s

Value proposition template

Our _____
(WHAT – start-up / business model)

helps _____
(WHO – target customers / market)

to _____
(WHY – problem to be solved, value added)

with/by _____.
(HOW – the actual solution)

First, your value proposition. What value do you add to whom? And the information for this slide, you can get, for example, from the value proposition template that I had shown you before in a different lecture, and I wouldn't recommend to use the slide exactly as it is. It's really just meant to give you the information that you need to think about, and come up with an attractive, concise way to phrase your value add to customers.

Notes

Summary

1m 19s

Onto market. Okay, we have not explicitly discussed potential market size for your business idea before. But trust me, it's really important. First, it's part of economic viability. If your market is not big enough to support a required investment or cost structure, then your business simply won't work from an economic point of view. Second, many professional investors, like venture capitalists like myself, have a minimum absolute size that a target business must be able to achieve in order for the venture capitalist to be interested in investing. For large venture capital funds, it's not uncommon that that size needs to be in the hundreds of millions of dollars. And if it's in the billions, that's much better, because if most, if not all cases, obviously, you're not the only one who will be competing in the market you choose to compete with, and you have to share the market with other competitors. Speaking of competitors, also prepare to give an evaluation of the competitive environment your business will find itself in. You should know the names of your potential competitors. What if you have a business idea that can achieve a few million dollars of revenues at peak?

Notes

Summary

1m 44s

Well, if you have to look at that, then you may have to consider other financing options, maybe your own funds, friends and family, maybe small business assistance, maybe you go to your bank and get a loan, but it will not be suitable for professional venture investors. The more specific you can be in your analysis of the potential market size, the better. This should be obvious, but don't just say there are 7 to 8 billion people in the world and X percent will be interested in my product. You have to go down into more detail. And there's basically two ways of doing that. You can do top-down, which is kind of what we just did if you start with the overall market size. But sometimes even better is bottom-up estimates. And this is actual proven demand for your product. And that's hugely helpful and impressive. And so what are those bottom-up estimates? Well, it could be that you already have some first version of your product and people have already demonstrated interest. Maybe they have even bought your product, or they have signed a letter of intent or something like that. It could also be that your product is substituting some other existing product.

Notes

Summary

2m 54s

Market, size, competition

- Market size estimation
  - Top-down (are you attacking an existing market?)
  - Bottom-up (tangible indications of customer interest?)
- Need a minimum size to attract institutional investors
  - Hundreds of millions of US$ +
- Competitive evaluation
  - Market share estimate

Let's say, for example, that you're planning to offer some satellite remote sensing data for a specific use case, and there's currently an existing terrestrial alternative to provide that type of data, maybe with aerial plane imagery or drone imagery. You'd think your satellite solution is superior and you will take over a large part of that existing market. Of course, in such a case, you can and should look at the existing market size, that is, what is the revenues that the current alternatives are currently generating, and that will give very good guidance with regard to your own revenue potential.

Notes

Summary

3m 58s

Your solution

- What is your solution?
- What is its current status of development?
- How is it different from other potential solutions to the same problem?

Okay, onto your solution, and this goes to what we previously called feasibility. And given we are talking about the space sector here, this will very often, if not always, mean the technological feasibility, as the solutions are technological. This technological feasibility can be more or less of an obstacle. It can be as simple as all parts of it being available already, in which case, there's virtually no more technology risk for the investor, just integration risk. But it may also mean that it's easier for potential competitors to come into your market. On the other hand of the spectrum, maybe you still have to invent or at least prove parts of tech required for your solution. And that would mean high technology risk, but also in many cases, high potential reward. It's different valuation and different investors who have tolerance for such high technology risk. If you already have anything tangible you can show with regard to your product or service, that is, of course, always helpful, like a prototype. This is also the moment to show how your solution differentiates you from other potential solutions to the same customer problem. Maybe it's simply cheaper, and maybe it provides a better customer experience.

Notes

Summary

4m 33s

Team

- Seed stage investing is substantially betting on the team
- Why is your team the best to execute on this business opportunity?
- Be upfront about gaps in your team that you need to fill
  - Tech is not everything! E.g., who will sell?

There's many ways to demonstrate superiority. Onto the team part of your pitch, and you really have to show why are you the right team to execute on your chosen business idea. Maybe your team includes one of the world's experts in the required technology, and/or somebody who really understands your target market. And ideally, it would be both types of people. It also helps if you have a well-rounded team that combines necessary skills. So for example, business skills and technology skills. Although at a very early stage of companies, some gaps can be filled in. The earlier stage you are, the more important the team is. This should be obvious. If you have no real business yet, no sales, no profits, maybe not even a ready product, then the investors are effectively investing in the team. If there are any obvious gaps to fill, be upfront about it. If you're a seed stage technology-dependent startup, nobody will usually give you a hard time if you haven't found a perfect chief financial officer yet. If you don't have a chief technology officer CTO yet, that's a completely different story.

Notes

Summary

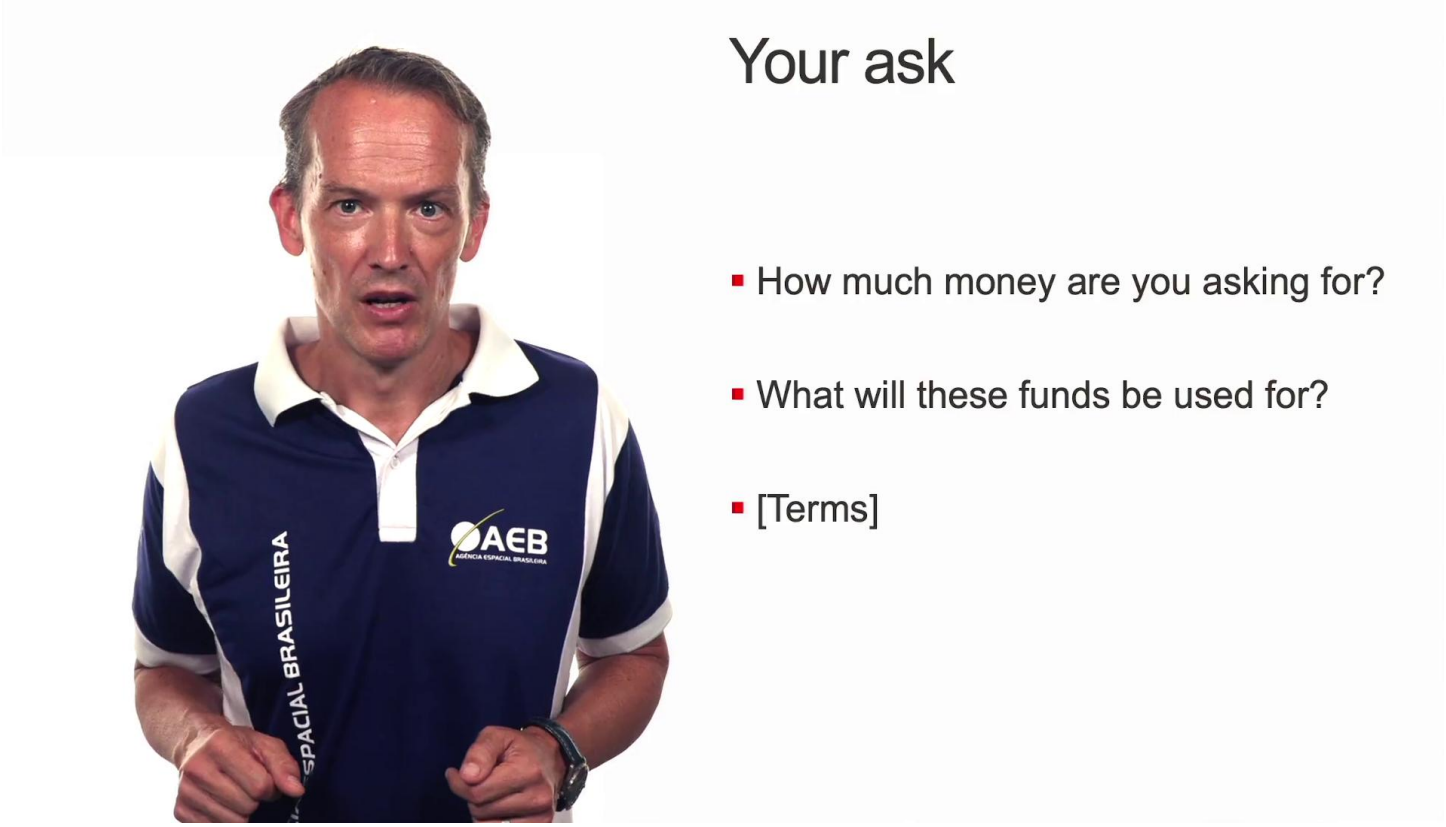
5m 51s

Onto the execution plan. That big vision you lay out in the first part, you need to tell people how you plan on getting there, at least the major steps along the way. Everybody understands that we live in a dynamic environment, and things inevitably have to be adjusted along the way. But you need a plan you can follow at the beginning. And this includes your immediate next steps, and we'll talk about that in a minute, but all the way to what you think the ultimate destiny of your business could be if it works out. So for example, could it be acquired? Are there any logical acquirers? Or could it be listed on a stock exchange? Investors do want to know about this because they want to know how they can eventually get their money back, and of course ideally make a good return on their money. And of course, at some point in time, you have to talk about the numbers with the investor, your market size, and your market share estimates from that section of the presentations together with an explanation of your revenue model, that is, how do you actually make money, for example, is it a subscription model, should provide an estimate of your top line of your revenues your business can generate. Then your required operational expenses and your required investments, all projected over a time frame that is sensible for your chosen business model.

Notes

Summary

6m 58s



Lastly, you need to close your pitch on an ask, what do you actually want from the people you're presenting this to or have sent this presentation to? Like I said at the beginning of this lecture, we're talking about pitching to potential investors here. So the key questions really are how much money are you asking for, and this will depend, among other things, on the stage of your company and it's required execution steps and sequence, as elaborated in your plan section of the pitch, and the financials that you presented in the financial section of the pitch. You neither want to ask for too little nor for too much. We could easily fill an entire course discussing that, but we will have to move on here. Why do you need this money? The so-called question about the use of funds. Investors definitely want to understand that one. Terms that includes, of course, the valuation of your company, the instrument into which the investor is investing, for example, it could be straight equity or a convertible, or something called SAFE, among other options. Any special rights, for example, board representations, and other things. This last part, the terms, doesn't have to necessarily feature in an initial pitch presentation.

Notes

Summary

8m 17s

Your ask

- How much money are you asking for?
- What will these funds be used for?
- [Terms]

You can get into this with the people who are truly interested and want to follow-up after the pitch presentation. This concludes our really high level and quick discussion of a pitch outline. Again, we could easily fill an entire course on this topic. There are a lot of materials available online too, including even actual pitch decks of successful companies. For example, in the space sector, if you Google for Spire, And Spire is a prominent Earth observation company initially focused on weather forecast, you will find their pitch deck online. And there's other companies where you can also find a pitch deck. Writing a pitch may seem cumbersome at the out some, but I promise you that just like filling in these other templates we discussed in the last lecture, it's an exercise that's not only necessary because you need it for third parties, but it will give you much more clarity in terms of thinking about your own business, and hence, clarity to yourself about what you want to achieve. And that is worth a lot.

Notes

Summary

9m 30s

Investor types:
understand your audience

Investor type	Typical financing stage(s)	Typical level of industry knowledge	Typical objectives
Friends & family	Pre-seed	low	altruistic, financial
Incubator	Pre-seed	depends	financial
Angels	Pre-seed, seed	depends	altruistic, financial
VCs	Seed onwards	depends	financial
Corporates	Seed onwards	depends	strategic, financial
Other institutional	Later stages	low	financial
Government	Pre-seed onwards	depends	strategic/political

Okay, let's briefly talk about different investor types, and you can see they're listed on the slide here. And this starts with friends and family, and that's literally what the name says. They would typically come in at the pre-seed stage. It would typically be the first money besides your own money that comes into your company. Very often, they would not know a lot about your specific business or even the space industry. They invest for different reasons. They invest because they are your friends and family, and they trust and admire you as a person. Other options at an early stage include structured incubators, which often will take some of your equity in exchange for the incubation process, the structured incubation process, and sometimes some money. Business angels, professional venture capital firms, which can come in at all sorts of stages, starting from the seed stage all the way to almost the pre-IPO stage. Corporates and sometimes in the format of corporate venture capital arms. So it's basically like venture capital firms, but they're attached to a big corporate. So in the space sector, you have, for example, companies like Boeing, Lockheed, Airbus, who all have venture capital divisions.

Notes

Summary

10m 29s

Investor types:
understand your audience

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Friends & family	Pre-seed	low	altruistic, financial
Incubator	Pre-seed	depends	financial
Angels	Pre-seed, seed	depends	altruistic, financial
VCs	Seed onwards	depends	financial
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Corporates typically would, especially if they're from the space sector, they would obviously know the sector very well. For VCs and angels, sometimes they know the space sector, sometimes they don't, and they just follow other people that they think know about the sector. There's also other institutional investors, like professional asset management firms, and private equity firms, and hedge funds, and they tend to come in at much later stages because they need to deploy more capital. Then there's the various funding sources from the governments. And for both the private and the public parts, we will have some documents as part of the course materials, which lay out some available sources of investment.

Notes

Summary

11m 37s

Some common concerns investors have about space

- Deep tech industry – may intimidate
- High capital intensity of some business models (e.g. launch, sat constellations)
- Long timeframe to revenue of some business models
- Scarcity of successful exits to date (?)
- Overlap with a non-space industry

Last slide for the pitching process, we thought it would be valuable to talk about some typical concerns that investors often express with regard to investing in the space sector. And this is based on our collective experience, including my own experience as a venture capital investor trying to raise funds from investors for our venture capital fund, things we have repeatedly heard that investors express about the space sector. Well A, it's quite obviously a deep tech industry, and it simply intimidates some investors, and some investors will choose to completely stay away in the same way that some investors are intimidated by other deep tech sectors like biotech, and just stay away themselves, and maybe outsource it to other intermediaries. There's also parts of space which require some business models in space, which require, we call high capital intensity. This just means you need to invest a lot to get a business up and running. And this is the case pretty much every time you put hardware in space, whether that's a rocket or a satellite constellation. You have to invest a lot of capital, and it may also take quite a long time until you actually generate revenues, which is the third bullet point here.

Notes

Summary

12m 14s

Some common concerns investors have about space

- Deep tech industry – may intimidate
- High capital intensity of some business models (e.g. launch, sat constellations)
- Long timeframe to revenue of some business models
- Scarcity of successful exits to date (?)
- Overlap with a non-space industry

And again, some investors are fine with that, or may even see it as a positive. Other investors don't like it so much. The fourth bullet point. In the past, there was a very common comment by investors. It's just basically, they perceived a scarcity of exits, so of successful outcomes of space startups that actually went all the way to being sold for premium or to listing on the stock exchange, and providing a good return to investors. That is now arguably slowly getting better, and that's the results of things like more and more space companies listing, for example, also via what we call merges with SPAC companies, as well as more M&A activities in the space sector, for example, big aerospace corporates buying smaller startup space companies. The last point here I have to explain a little bit what I called overlap with non-space industry. It's something we're seeing more and more in the space sector, and arguably, it's the main theme of this course here, is leveraging space technology, but for the benefit of some other sector that actually doesn't really have anything to do with the space sector, like insurance or agriculture or many of the other sectors, all of the other sectors you've heard about throughout this course.

Notes

Summary

13m 18s

Some common concerns investors have about space

- Deep tech industry – may intimidate
- High capital intensity of some business models (e.g. launch, sat constellations)
- Long timeframe to revenue of some business models
- Scarcity of successful exits to date (?)
- Overlap with a non-space industry

And the problem for investors here is you have to demonstrate to the investor that you actually understand both parts, right? You need to understand the space part and how you put in place the space technology that you need to create value for the non-space customers, but you also need to demonstrate that you understand the actual target customer industry. So for example, if you're developing a product for the insurance sector, you need to demonstrate that you actually have an understanding of the insurance sector. And the same for agriculture or forestry or oil and gas, and you name it. And as I mentioned in a previous lecture, that's not something we see very common at the moment. At the moment, very often, space startups are run by technical teams who know all about space and have not thought enough about their target sector. But let me stress it again, this is very important. Make sure you're focused on that from the beginning on.

Notes

Summary

14m 28s