Start-Up Boot Camp for University TTO Professionals and Inventors

Session Three: Creating a Solid Business Plan

Presented by:

Hello everyone, my name is Karen and I'd like to welcome you to today's webinar, *Start Up Boot Camp for University Tech Transfer Professionals and Inventors, Session Three, Creating a Solid Business Plan*. To download today's presentation and supplemental materials, go to conference materials on the left hand side of your screen and click on the handouts tab. I would now like to introduce your moderator, Gerard Eldering of InnovateTech Ventures.

Gerard Eldering: Great, thank you, Karen. I'd like to welcome everybody to today's session of the Start Up Boot Camp series. The series has been designed to provide you with the detailed guidance and advice that you need to take your startups beyond survival on to rapid growth and ultimately to that liquidity event. My name is Gerard Eldering and I'll be serving as your moderator. I'm President of InnovateTech Ventures, which is a tech transfer venture creation firm in Washington, DC area. Now, in the first two sessions, we looked at some of the big picture issues around university startups including decisions such as feasibility, how to bootstrap a company, how to do the initial team building and the last session, we focused a lot on the financial aspects.

Today, we're going to talk about business plans, a real cornerstone to start up company and an important part of the process, not so much in necessarily writing the business plan but in really going through the thought process of understanding and analyzing all the challenges that the company's going to face before they get started and I think our speakers will agree that the companies that do a good job of business planning early on have a much, much higher chance of success. We've got another great panel today with a tremendous amount of experience in startups, investing and the university arena and I'd like to briefly introduce each of our panel members. Jim Chung is our new panel member. He is currently director of the Office of Entrepreneurship at George Washington University and there, Jim is responsible for both entrepreneurship programs and technology transfer. Prior to that, he served as the director of Mtech Venture Accelerator at the University of Maryland and Jim also has experience in the venture capital arena. Also on our panel today is Charles Cella. Charles is a patent attorney and co-founder of GTC law firm and he's a recognized thought leader and leading practitioner in both the patenting and licensing fields and works with a lot of startup companies and also on our panel is Paul Rauch. Paul is co-founder of the Evan law group and prosecuted numerous patent applications in a wide variety of technical areas and also works frequently with startup companies. So with that, I'd like to turn it over to our panel members to go through the slides. Actually first, I'd like to mention that we will be – we have a business plan up on the site that you can take a look at and our speakers will be referring to that and then back to the briefing slides from time to time, so I encourage you to take a look at the business plan that's been posted. So, I'll turn it over now to Jim, Paul and Charles.

Jim Chung: The first thing to remember about a business plan, as you are writing it, or as you're helping your inventors develop a business plan, is that you don't want to forget that you are writing for an audience and to understand who that audience is. For the most part, most business plans are being really written for investors but within that investor pool, thinking about what types of investors you are trying to talk to. Are you trying to go directly to venture capitalists? Are you talking to angel investors? What type of angel investors, etc. So the idea here is to really put yourself in the shoes of your potential audience and to tailor your business plan to address the issues that they are going to be concerned with and that they're going to be thinking about. They all have different priorities if they're an angel investor versus a VC versus a strategic, the VC investor or strategic partner, etc. They are going to have different priorities and you need to identify those first before you put the business plan together and then, if you look at the components of what a business plan has, really the most important part of the business plan and the way that the business plan flows is to think about the executive summary and each section, reading into the next and creating enough interest that the reader is going to want to go to that next section.

So, the way that you write a business plan, typically, will start with the most important aspects of what you're trying to get across, the most exciting things that you want the reader to know so that they continue to go from section to section and eventually get the full story of what you are trying to present. So, the executive summary really is where you may win or lose the battle with the potential investors so that has to be very well crafted. Typically, you can even win or lose the reader in the very first sentence so my advice, when you're crafting the executive summary is really to think about that first sentence as the thing that is going to draw in your audience and make them say, "oh, this is pretty cool. This is really exciting, this is something that I want to spend the next hour or two. I'm really digging into and continue" because your audience is typically going to get a ton of these on their desks, crossing their desks every day and they're not going to read most of them. They are just going to read the ones that really capture their imagination so the executive summary is, bottom line is really where you got to grab their attention. Don't start up your business plan saying, you know, the background of this company is it was founded in 1999, whatever, don't start out like that, you know, if you've got something that you think is going to be the best thing since sliced bread, that's where you come out and then, that's where you're going to be making your claims. So that's where you start out with the executive summary.

Then the other points on here, are really sort of the four major areas that you want to be discussing in your business plan and kind of a typical order that you would see them in a business plan but again, you really want to be focusing in on what you think is the most important so the order of this may change. It doesn't have to be

presented in this order but really presented in the way that you think best highlights the strength of your company but typically, most investors are going to be first interested in what the market focused strategy is going to be. What are the market factors that affect whether or not your business, that you're trying to start, is going to be successful? So, typically we start with the market, then we move into what the technology and any kind of proprietary IP that creates some kind of differentiated advantage for the company.

Then, we go into the execution or the team itself and whether or not you have the experience and the knowhow, wherewithal, etc. to execute on the plan that you're outlining and then last, even though it seems kind of intuitive, is the idea of the financial risk and returns. So, how much money can we make from this? Typically that's something you put in at the end, not something that you put up front. So, that's just kind of a general outline for how you would present most business plans. I don't know if my panelists have any other comments before we move to the next slide. Okay, so the next slide is on the idea of managing risk and return and idea here is that most investors are going to be very, are essentially very risk averse people, they're reading your business plan and they're looking for excuses not to continue reading, not to continue funding you. So essentially, the business plan is really about how you are defining and mitigating risk and, in addition to what the potential return might be and at this point, to talk about the first few bullet points, I'm going to hand it over to Paul.

Paul Rauch: So, the business plan, you want to discuss about the amount of planned investment and the nature of that commitment, that investment commitment. It's also about determination of the risk, the risk of the venture, the cost of the determining the risk, the accuracy of that determination, the mitigation of that risk, the cost of that mitigation and the benefits of that mitigation. We'll talk a little bit more later about some of the details of that but it's important that those concepts are captured there.

Jim Chung: So, the idea of risk is, we've already talked about the different sections but the risk that can come from many different sources so there's, on the market side, whether you've got the right team, product technology, there's regulatory risks also and the financial risks. On the return side, there are different ways that you can be presenting a new technology or a product, etc., service that is better than what's out there and you need to be able to outline how your solution is going to be better than what's out there in terms of being able to generate more revenue, reduce cost, take advantage of the economies of scale or scope or of network affects. So this is essentially what your business plan is about. It's about highlighting the returns and why those returns will be achieved using your technology or your product, etc. and then, what are the risks that are going to stand in the way of being able to achieve those returns and typically again, you can categorize them it's market, team,

product or financial risk and then, finally, the most important part of that is how you mitigate that. So, identifying the risk is not enough, you have to have a plan that shows how you are overcoming the risk that you've identified. Okay? Next slide.

So, after your executive summary, really the key thing that you want to highlight is what I call the problem and solution statement. This is where you're really presenting your value proposition for the company. What is the opportunity here? And by problem, what I'm talking about is not the technical problem, not what's the technical issue that you're trying to solve and this is typically the way that most inventors or many inventors are going to think about when you talk about the problem but I'm talking about the market problem. So what is the market problem that the technology that you're developing, what is that problem that it's addressing? So, you know, one big question – the question that you want to ask yourself and present in this section is how big is this problem? Is this something that is a multibillion dollar opportunity where, if you present a solution out in the market, you're just going to be able to address huge markets or is this kind of a niche product where it's a big problem in a small niche and maybe it's a, you know, you can expect, you know, $10 million a year kind of solution. We want to really kind of get to the size here and you get to that size by just doing a lot of market research and figuring out who your customer is and you do this by doing interviews, by going out and talking to potential customers, by doing customer surveys or focus groups. These are some of the ways that you can go out there, figure out how big the opportunity is, who your potential customers are and how fast that opportunity is growing.

So, this is kind of where you make or break whether or not the reader is going to continue going on cause if you're talking about a small market that's not growing fast and they don't like who your customer is, this is really where they're going to stop. So, think carefully about whether or not this is, you know, whether you're presenting it in the best light. It's also kind of leads to the second – I should have mentioned this earlier – one of the main purposes of writing a business plan for a TTO or for an inventor as well, it's really to jell your own thoughts as to whether this is an opportunity that is really worth pursuing. So if you come to this section and you just don't – you can't answer these questions, it's probably not ready to go forward as a business plan, just as an aside. Then, within this section, you also need to present the solution. So, once you've identified the problem there is X problem out there. How is what you have developed, how is that going to solve the problem? Is it necessary, what is the timing?

Now here, I'm going to refer to the business plan that we've attached to your, I guess, your hand out materials. It's actually a version that's available publicly online, through some business plan software but it's a version

that they've actually edited down and taken out some stuff so it's not the actual business plan but it's a summary version of it but it's for a company called Agamatrix which is a company I invested in, I think about around 2003 and it was started by a couple of fresh PhD, it was actually one was still in the PhD program at MIT and decided to drop out to start this company and the other one was a PhD who had just graduated from Cambridge University but the technology itself was a, what they called electrochemical dynamic – dynamic electrochemical sensor, sensing where they had developed a software solution that was integrated with chemical sensors and they believed that this would create a more accurate and faster way of detecting all kinds of chemicals and first, that was the technology, they had a technology first before they had a problem to solve and they went out and looked around at what the potential problems they could solve would be and they eventually latched onto the blood glucose monitoring market. Now the reason they did this is that it's a huge market, absolutely huge. They looked at who the customer was and they believed and that was blood, those were diabetics and it's a, you know, consumer market but they believed that they would be able to reach those folks and there was plenty of precedent for startups actually being able to do that and they were looking at how fast the opportunity was growing and unfortunately, diabetes is one of the fastest growing diseases in the US and the world and so there was an opportunity here that was not only big but growing with customers that they believed that they could address. Some of the other markets they looked at were industrial chemical sensing, sensing for mining, etc. but those were really much smaller markets. They did not appeal as much. So this is what they latched onto. That's kind of what I encourage you to think about as you get disclosures into your office and think about, well, there's a technology here, what is the market problem that I can solve with this technology and then, that presents your value proposition and what your opportunity is.

So how were these guys solving the problem that they'd identified? Well, what they had developed was a way to, rather than the current state of art back then would just take one sample, using electrical charge of whatever they were trying to test for and then try to determine what was in there, based on the digital signal that they'd gotten from that. What these guys did was use multiple charges at varying voltages and signals, etc. to be able to try to get a more dynamic idea of what the sample was composed of. So this is how they were solving it, they weren't changing anything in the sensor itself, it was all about the software. So that was how they solved this. So what about, whether this was necessary or not? Well, this was actually, believe it or not, a difficult question to answer because a lot of the companies out there were actually, who had been already doing glucose monitoring, said, hey, you know our accuracy is good enough, our time to develop the analysis was fast enough, etc.

So a lot of them really didn't think it was necessary but we did dug a little bit deeper, looked at what the customers were looking for and saw that we thought that there was a real need to be able to increase the accuracy speed and some other aspects of it. The timing of when we were doing, we were probably a little bit earlier than we would have liked because it did take a little bit longer than we had planned and what you'll see in this business plan, if you do go ahead and take a look at it, it took a little bit longer for us to get to market than we had hoped but in the end, I think that our timing was pretty good. We were able to get in there and eventually raised $60 million dollars for this company and the business plan. This is what you're seeing is a very early version of it but since then, it's changed quite a bit but there're, you know, very successful company now, recently signed a bit deal with Sanofi Adventis to be the primary provider of all their blood glucose monitors going forward. So, you know, even though the business plan that you're going to see here is very different from their model, this is the basic value proposition that is presented here has continued to exist and it shows you what a good business plan looks like and effectually leads to another point is that your business plan is always going to be changing. I've never seen a business plan for an early stage company that ended up being their final business model but the analysis and thinking that goes into it, will probably remain valid for a long time.

Then, the next point here is in the problem and solution statement. Not only do you have to identify the problem and explain how your solution is working but you have to show that it's differentiated from other solutions out there. It cannot be just another need to solution. So there's many different ways of being able to differentiate your business plan and your company from others. There's the technology, do you have proprietary technology that is going to block other people from copying what you're doing? Do you have a unique business model that because of certain advantages, you have whether it's the team you've developed, whether it's the relationships you have, whether it's the access to low cost producers in China, whatever it may be, these are the things that you need to be able to talk about in this problem and solution statement to really highlight why this company is the right company to move forward and why other companies are not going to simply be able to copy them or do just follow on and, you know, take from the example of their success and continue on, just from the perspective of an investor into a startup company. The worst thing that can happen and actually should be your view as well is the worst thing that can happen is not that you don't get funded but that you get funded and that you become, you get some success and then a larger player comes in and sees what you're doing and just comes in and takes advantage of all the market preparation, the education that you've gone out to, find customers, etc. and just eat your lunch.

So this differentiation part is extremely important, thinking about what makes your product or service or technology unique and defensible against other followers who may come after you and try to emulate your success. Okay? Are there any comments from the other, from the others before we go to the next slide?

Charles Cella: This is Charles Cella. The, you know, I think that one of the key components with addressing the market, identifying the market, the go-to market strategy and then ultimately linking that strategy to the IP strategy. So, I'll just briefly make that point and I plan to come back to it but, you know, I think for a business plan, it's not only to present the market strategy but linking it to the IP strategy that turns out to be very powerful and effective business plans and is often a problem in ineffective plans where the value proposition may be presented well but it's not understood how it will be protected or protection may be presented but it's not clear how it's going to be brought to market. So that linkage, I think, turns out to be very important and again, I'll talk a bit more about that in a few minutes.

Jim Chung: Great. Can we go to the next slide, on market factors? Okay, great. So, I already raised some of these issues on the previous slide but just dig into them into some more detail and to talk about the example of Agamatrix here. When you're talking about market opportunity, you really want to highlight what the potential return here is on the market side, where the lapses are and the opportunity in the current and existing competitors out there and for the blood glucose monitor at that time, monitor market at that time was around, as I said, around 2003, so about seven years ago. There had not been really any true advances in the blood glucose monitor within the technology of blood glucose monitors for a long time and the development that had been made recently were really focusing on the chemistry side of the sensors. So these guys really identified an opportunity where they were applying digital signal processing principles to an area where nobody was really looking at software as a potential solution. So there was a huge lapse here, in terms of expertise and even focus by the existing blood glucose monitor companies about what they should be looking at and they were trying to tweak things here and there on their chemical composition, of their biosensors and things like that but there wasn't really making any great strides at the time.

So, what these guys were proposing was really a way to kind of do a quantum leap in terms of the accuracy and speed and sample size of the blood and the ability to screen out things like vitamin C and things which the existing monitors weren't able to address. So they were able to highlight the opportunity and then develop the go to market strategy which I actually think in the business plan, is different from what they eventually did but they tried to describe a go to market strategy where they were explaining well, we've got this great technology, this is how we're going to go out into the market, this is how we're going to get out there and get it into the

hands of consumers. Now, to be honest, I don't know what – I haven't read through the version that's online but the eventual go to market strategy that they adopted was to work with a company called Liberty Medical which is a company that does direct to consumer marketing of the blood glucose monitors by working with the insurance companies to directly pay for the expenses that diabetics would need to incur for the blood glucose monitor itself as well as for the test strips and this would turn out to be a really great go to market strategy for them because as a startup company, they just didn't have the wherewithal to be able to go direct to consumer and Liberty Medical turned out to be the ideal strategic partner for them and so, they were able to identify the opportunity and they were able to go out and find the right market partner to go out there and take out a lot of that market risk that we had identified in the next set of bullet points there, which includes customers, market size, marketing channels, etc.

So, in the business plan, as you're developing it out, you really have to think about, well, how do I go from this great technology to actually getting it into the hands of consumers who opened up their check books and paid for this? How do I deal with all the potential market risk that may arise in terms of well, for this Agamatrix market, it was, you know, getting into the consumer market when being able to advertise, being able to address the millions, literally millions of potential customers out there and how to deal with regulatory issues as well, which required – these guys required FDA approval, granted through a 5, 10K process but still they needed to deal with that and that's all addressed, needs to be addressed in this section of the business plan. Any comments from the other speakers?

Charles Cella: The go-to-market strategy, I think you've already made this point but, you know, I think that it is often wrong in early stage business plans, you know, that, you know, people – there's a risk of being, frankly just uninformed and not in a bad way but, you know, simply not knowing how something's going to be brought to market and I think it can be very helpful to identify stakeholders and their respective interest who are currently in the market as well as, you know, how each of those stakeholders, you know, will either benefit or suffer from bringing the technology to market so that you either tell the story about how you can go around that stakeholder by disrupting them or how you're going to bring them there and I think it's also, you know, critical, in some cases just to select the market, you know, I've seen go to market strategies that were very well developed with a pitch, you know, they picked the wrong market. If you got a client that has lighting technology, that, you know, that had an extremely complex decision about how to go to market, even at the level of selecting which market you would enter into, it could have done anything from your consumer white lighting to colored changing aesthetic lighting for theatres to surgical lighting, etc. and looking at about 42

different markets, you know, they developed a strategy that was fairly sophisticated in that it created option value by retaining the markets that they didn't select as licensing or OEM candidates while selecting two key markets into which they would enter with direct products in a relatively backwater segment of the market where they were less likely to experience competition where prices were higher, margins were higher and had a better chance to have an introductory beachhead.

So I think, you know, telling a story that's a who the stakeholders are, why you believe you can get a beachhead segment captured before the big guys, you know, come in and try to knock you out and sort of telling a story, the sequence is just way through time is, you know, to me, probably the best central point to differentiate the greatness that's planned from one that, frankly, comes across as relatively naïve because, you know, it describes the market at a top level and perhaps even the competition at the top level but doesn't give a really sophisticated plan for navigating through that ecosystem.

Jim Chung: Great, one more point that I actually just got reminded of on this slide is on the market opportunity, one thing that you should, one thing's that very useful is to go out there and find comparables or even better precedence for what you've done that you can show that somebody else has done something beforehand that describes a path to being successful and they were able to identify three companies that had kind of who had gone forward and developed independently, blood glucose monitoring technologies, independent of the larger players out there and were eventually acquired for all three of the ones who'd successfully done it before had been acquired for over a billion dollars. The most recent one was acquired for 3.1 billion dollars just a few years before they re-started this business. So it really highlighted the potential opportunity out there if they were able to execute on the plan that they had described in their business plan. If we could go to the next slide, please?

Okay, so on the technology and product side again, here, what you want to do is highlight the opportunity. I don't have any bullet points under that particular heading because it really depends on the company that you have and what kind of technologies developed. That's something that you have figure out with the inventors on what the real opportunity is there and that could be any number of things that we talked about before, in terms of whether it's being able to reduce cost or if it's increasing the capabilities of existing technology, etc. So, but here's where you really kind of get into the nitty gritty of what the technology and the product can do. One thing that – one cautionary thing I would say here cause most – if you're talking about – since we're talking about startup companies coming out of university TTOs and universities, the tendency for a lot of technical founders is to really focus in on this part and kind of get into the real nitty gritty of, you know, what they're

doing technically but the business plan really isn't the place to start, you know, getting into, you know, those kind of technical details. This is really just a place to be able to highlight the opportunity itself and not necessarily to have to get into the details of the technology. That is for a later point in time if the potential investor decides that they want to start digging into due diligence then that's the point where your inventor will have to talk about that with the investor but not in the business plan. Here you just want to really talk about the technology at a high level and identify what the opportunities are here.

On the side of identifying risks on the next point there, you just have to be able to say well, you know, you have to realize that the technology is often at a very early stage of development. You have to be able to identify that, that there are risks out there and the tendency, I think, of most technical founders is that, you know, they want to gloss these over or they want to, you know, just talk about how great their technology is but a strong business plan will be able to identify what the potential risks are and to explain how you're going to be dealing with those risks to minimize them to the greatest extent possible and try to remove that risk for your potential investors.

So you have to remember that these investors – that most investors are pretty savvy folks, they understand the markets and probably understand the markets even better than your inventor does. So they'll be able to figure a lot of the risks on their own and if you're not self identifying those risks, they're going to wonder how deeply you've thought about the commercializability of what you're doing. So, I don't think it's ever a good idea to try to gloss over risks and the technical risks in the hope that your readers' not going to figure them out on their own because even worse than not getting funded by an investor is to, you know, go through all the – I mean, if you're not going to get invested in by an investor, you want to do it early on rather than go through all the pain and time consuming process of due diligence so you really just want to be able to raise these upfront. So, things like, you know, how much development is still required? Is what we're doing really going to be cost effective? The materials that we're looking at using, are they easily accessible? Are they too expensive? Are they politically unstable areas? You know, those kinds of things, you know, whether, you know, how advanced the design is, whether it's feasible, what are the time lines, etc., etc., etc. So being able to identify these risks and you know, you don't have to raise up everything under the sun here but what you want to do is highlight the kinds of things that you think your potential investor would be worried about and thinking about.

So, once you do the – once you identify the risk, then you want to talk about how you've decided that you're going to mitigate those risks, you know, whether you've developed, you know, prototypes, proofs of concept, what you're doing to secure your supply chain, if we're talking about insecure materials or you know,

expensive materials. So once you identify the risk, also explaining how you're going to mitigate those risks and I know someone wanted to make another comment here before we move on to the next slide. Is that you, Charles or Paul?

Charles Cella: Yes, it was. So here I think the point I would make relates just to prototyping and you know, specifically that you know, companies very often move, I think, too far down the value chain or too far down the path of development to attempting to deliver full products to market when, in fact, a prototype or proof of concept technology, can be a product in and of itself in an OEM model of going to market. Just to stick with the example of the lighting company that I described, they brought to market end products in some markets like the swimming pool market where the expertise and distribution of a few oligopolistic players made it very difficult to compete but when they unrolled certain, almost worked back in their development cycle to a previous iteration, they discovered that they had an excellent OEM module that could be brought to market within those same markets turning their very powerful competitors into very powerful OEM customers and ultimately, licensees. So, thinking about whether a prototype, a rapid prototyping is increasingly easy in today's world with offshore prototyping capabilities, thinking about whether just a prototype is the product with an OEM business model, is a point that I think people very often miss as they're thinking about mitigation and one of the things that, you know, that can happen with a good prototype, you know, is it can give you a sidetrack or a milestone that can give investors confidence if they have at least something that's investible and it's produced value even if the company isn't ultimately going to be able to win a battle with a giant in a large market.

Jim Chung: Great. So, the next slide kind of fits under the technology and product factors as well but because it's intellectual property and that's what most OTTs are, you know, experts in and are most concerned with, we broke this out into a separate slide and I think Charles is going jump in here and talk about the first few couple bullet points and then Paul is going to jump in.

Charles Cella; Yeah, I'll start and I force you out of you earlier with the point that the intellectual property, value proposition, first and foremost needs to align with and support the business story and I would say, again, in my practice I spend a considerable fraction of my time representing venture capital companies that are evaluating a potential startups, many of which come out of universities. I work in the Boston area so we've got sort of a hot bed of production out of MIT and Harvard and other places. Probably the single biggest factor that we find in reviewing those portfolios, you know, is a lack of mapping of the IP to the business plan. Very frequently, the intellectual property covers a technology and often a very specific element of a technology but fails to cover the alternative technologies that could have been covered with a broader claim that's less

technology centric and more market centric. So thinking about how the intellectual property can potentially cover the market, not just the product, you know, is a very important factor, even at the early stage of building a business plan.

Paul Rauch: Sorry, Charles, just jump in and sort of illustrate what you're saying with a concrete example from Algamatrix, really, very early on they identified some of the adjacent areas that they believe that they would have to be addressing in the blood glucose monitor area, went out there and found a partner that had a portfolio of patents that they believed would be necessary in the future to be able to really create a full solution on the Lancet side so they went out and found a partner and even though they didn't need the patents right away, they knew that they would need them two or three years down the line, created a partnership and it's, you know, swapping of patents and knowhow and that partner eventually also became one of the biggest investors in Agamatrix so, but they saw the value of being able to create this portfolio, as Charles was just identifying and you know, that was really critical to their future success. So sorry for interrupting you, Charles, just wanted to add as..

Charles Cella: No, not at all. I think it's a great point and you know, that is unusual to see in the early stages and really, a great example seizing the opportunity to understand the IP that's relevant to the market, rather than just the IP around a particular technology and VCs are becoming increasingly focused on, you know, who owns the space, not just in terms of intellectual property, not just whether particular intellectual property is covered and not just whether specific products are covered but rather, you know, what is the distribution of patents across the space and there are very often partnering or even purchase opportunities that are available early on which may be still available later but in a much more expensive mode, if the company has become wealthy and has revenues and the like where patent licenses are often much more expensive.

So thinking about the traditional protection of products and technology is very important but telling a story about how that maps to the market and knowing what other IP is there and what you need to say about it, from the point of view of value is something that, even at the early stage of a business plan can be very effective and again, I would say is very frequently completely missing from businesses that come out of universities and I think it's one of the challenges they face relative to venture teams that are built sort of, you know, around IP that's made it developed within the company, as opposed to being brought across the board from the university and into a commercialization environment. Those portfolios do look different and it's especially in their degree of market focus that they are so different. So, I think that now, Paul is going to speak about some of the risk mitigation side of IPs.

Paul Rauch: So, when we're looking at competition risk, we're thinking about our competitors and when we're starting out we don't know who those competitors necessarily are but we can identify the markets, we can identify potential big players that would want to jump into that area. So, the first thing that's most important about a patent is that it protect the exact copying. We don't always know what our product is exactly going to be, so we have to be real careful here. So we want to think about the scope of patent protection, you don't want that scope to be gigantic because that's going to be well beyond what the needs of the company are going to be but we will be concerned somewhat with patentability and whether we can patent the thing that we're planning on focusing on and maybe a little bit of breadth beyond that.

A second thing to consider is the timing of the patent issuance. You have no rights in a patent until it issues. So, we don't really need those rights until sales and marketing has begun. Those are the activities that the patent will allow us to stop others from doing so the timing of the patent issuance can be important. There are a lot of different ways to control the issuance of a patent and that's something that is - more details of which can be talked about later. Then once we've identified this competition risk, how can we reduce it? How can we control it? How can we manage it? Well, one thing to do is more patents to develop a patent portfolio and one of the things that was just mentioned is thinking about the patents that are going to stop the competing products. One strategy that's very popular is referred to as the picket fence strategy where we have our core intellectual property, our core patents that cover our products, that cover the things that are pretty much identical to our products or cover the variations of our products that we view are going to be important as the company develops.

On the other hand, we should not overlook those other ways of solving the same problem that if they were explored, might in fact, turn out to be just as efficient or just as economically competitive, may be better. These are things that we chose not to pursue. It can be of great value to write what we call skinny or thin patents, paper patents where there's really very little underlying research or work that explores these different ideas or ways of solving this problem. In this sense, we can develop a portfolio, a whole collection of patents that help protect not only our product but create barriers to entry by competing companies. Something important to remember and we'll talk about that in a few more moments is that the cost to obtain the patent is often far less than the cost to determine the liability created by those patents by a future competitor. So it allows you to invest money today that by the time the product is ready to go to market or were at a much more advanced stage to a potential competitor, it can look extraordinarily expensive, simply determine the risk. We want to think about foreign patent applications. If our market is just the United States, or we have a commodity product that

requires sales to the United States in order to be economically competitive, then those foreign patents may not be important but if our market, if a very important market is, Europe, e.g., or Japan or China, then we need to seek those foreign patents. There's also important things about the timing of the foreign patent applications. I mention here the Paris Convention and the PCT applications. Those are two different routes that can be used in combination or separately to seek foreign protection. They have advantages and disadvantages. The Paris Convention use the Paris Convention. We have a one year time from when the file in the United States. On the other hand, if we combine the Paris Convention together with the PCT, we can delay our cost about entering into these foreign patent offices by as much as 30 months or more in different jurisdictions. This can be very important. Do we need the patent now or do we need the patent only a number of years from now?

Today, we have what's called the patent prosecution highway. This is an agreement between the United States Patent Office and foreign patent offices and also between foreign patent offices which allows us to expedite the examination of patents. The US PTO also currently is considering, they're asking for comments about it, considering variations on the US system that will allow applicants to delay the issuance of their patents or to accelerate the issuance of their patents. So there's a lot of ability here to time when a patent issues. All these things can be used to mitigate the completion risk once we've identified it.

Moving on a little bit, freedom to operate opinions. What I've got written here is not appropriate for a business plan. Freedom to operate is something that everybody is concerned with but it's a very expensive determination and it needs to be a timely determination and it is usually not appropriate in a business plan. Why? Well, number one, it's extraordinarily expensive. A freedom to operate search which is just to discover the patents that are relevant, can cost about $10,000. Freedom to operate analysis out of all those patents that have been identified as important, can run anywhere from 30 to 100,000 dollars per patent. This kind of money is far, far too much money at this earliest stage and it's important to not be pressured into spending this enormous amount of money too early on in the process. You'll end up using up the money that's much better used in other areas. There's other reasons why that freedom to operate is not appropriate at this early stage of the business. One is lack of accuracy. First off, new patents can issue. The way the patent systems works, we often do not know about the existence of other people's patents for 18 months from when they file their patent applications and even once they're filed and we know about it, we don't know the scope that they're going to achieve in those patent offices. So, if we do a freedom to operate analysis on things too early, we could, in fact, miss the most important stuff that will matter in the future. Another thing is that the business model or the product design can change over time. Also, the markets that are important to our business may change over time. So, at the initial

stages of the business plan, we see things one way but as time goes on, the path's developed, changes to the market place take place, things are going to change and if we did not have the right information when we did our freedom to operate analysis, then it may, in fact, have asked the wrong questions and turned out to have been worthless.

There are alternatives to help us address some of these issues and mitigate them in the process and satisfy potential stakeholders. One I mentioned a little bit earlier is developing a patent portfolio, this picket fence strategy. Although filing too many patents can be overly expensive, a handful can make a lot of sense, especially if we're looking at patents that we don't have a lot of investment in, that don't directly address our product but essentially help block future competitors. That's that picket fence strategy I mentioned a little bit earlier.

Business insurance. Managed business insurance will actually protect a company against accusations of infringing other people's patents. That's an important thing to consider and your business insurance can assist you there. It's very important if you're going to rely on that, that you study your business insurance and confirm that it will protect you against those issues. We can avoid what we call willful infringement. Willful infringement is the situation where the court determines that not only were you aware of the patent, you purposely went out and infringed, essentially disregarded other people's rights. This is important because it could result in triple damages. So we can mitigate willful infringement. This is a changing area of the law right now. Traditionally, an opinion of counsel was sufficient to help you avoid this willful infringement. Basically, counsel tells you that there's some defect in the intellectual property or that it doesn't cover the things you're planning on doing. Lastly, there's of course, licensing. We can get other parties to give us the rights so that there is no accusation of infringement and help avoid that problem altogether. I'm going to turn this over now.

Jim Chung: Okay, great. So, the next slide on Execution and Team is often probably, I would say, the most difficult section for these early stage startup companies coming out of universities to have a really strong argument on, cause what you're trying to do here is talk about how your team is going to be able to execute on the plan and unless you've gone out there and brought in some very senior management folks and, I mean, if your founders are the inventors, then it can often be hard to try to make tell the story coherently and with conviction but it's an important story to be able to tell so here, what you want to be able to do is highlight the strength of your team and how they're going to be able to execute on the strategy that you outlined earlier in the business plan. Some of the risks that may come up when people look at your team and whether they connect with you obviously is going to be management capabilities.

So, to the extent possible, my recommendation is that you don't try to do a startup company with just the inventors as founders. You really need to go out there and find people, recruit people to team up with your inventors who had previous startup experience and have done it before. This was actually my previous job, up at the University of Maryland before I joined George Washington University, just a couple of months ago, was really just centered around this, was providing management expertise to the startup companies that I was working with and try and recruit teams, experienced team members to join the companies and to get them out there before we started approaching investors. So, back then as an interim CEO alongside the inventor/founders and built the company up, write the business plan, etc. so I know that this is something that's becoming more popular at a lot of universities but something that felt that it's not that common quite yet but something that I think is hugely valuable and if you don't have that capability in-house, being able to go out there and find management team members to come in to your, come in and work with your inventors is, I think, very important. So, the risk that you need to address as you're writing this business plan is how are you going to be able to mitigate any management experience deficiencies that you have on your team? Let's assume that you are able to get some experienced management folks together. Some of the other things that they're going to have – you're going to have to address is, you know, are these guys going to be able to work together? Do they have a history of having worked together? I would see if they do have a history of working together sometimes that helps mitigate the risk that they won't be able to get along. Are they able to learn? A lot of times you're not going to find a management team that has exactly the previous experience that you're looking for but are they able to learn? Is it something that they've shown facility at that previously, of going to the markets or, etc. Whether or not your founders have a shared vision for how the company should develop and what direction they're going in and how deep and broad your talent pool is on your management team.

So, how do you mitigate these strategies? Well, you know, the bottom line is really just brining in experienced people so going out there and finding management team people. If you can't bring in the management team people? Well, get them on your advisory board. Develop that, develop the expertise around your company that will help explain away the execution risk that all startups have inherently by being startup companies. Now, to give you an example of what we did with Agamatrix, as we were developing up our business plan, you know, as I mentioned before, the company was started up by a PhD from Cambridge who had just graduated and a PhD student at MIT who dropped out of the program and both of them had worked together on a previous startup that actually we had invested in as well. That flamed out after a couple of years and they were still very green. We had enough faith in them that we decided to invest in them again but we knew that they needed a more experienced management team, especially with experience in the space that they were trying to enter. So, what

we did, is we went out and looked at the – I mentioned early the three previous companies that had gone ahead in this area and had exited and we tracked down the management teams for those previous startup companies and we just approached them and said, "hey, you know, we've got this great, really great idea, would you be interested in joining, you know, of joining our team?" And we were fortunate enough to attract two guys from the old Inverness team which had sold to Johnson & Johnson a few years earlier and got one of them to join our Board of Directors and invest and the other one who joined on as CEO. So we were able to add some of those grey hairs with guys who had experience specifically in the industry and the market that we were trying to approach and who had startup experience building it up before. So, trying to go out there and just be very aggressive about finding management team members that you can bring in, who can bring that experience in, I think is extremely crucial.

On the technical side, we had two young guys who were, while they were technical whizzes, just did not have a whole bunch of experience, you know, running labs or doing the kind of technology development but they were, you know, they were pioneers in this area of electrochemical, dynamic electrochemical sensors. What we did is we went out and we canvassed the entire, really all the way around the world to try to find out who the experts were in this area and you know, they were primarily in the academic world and we just went out and hired them all. So we hired guy from Australia, we hired some guys in England and just brought them into the team and by that way, if we were able to kind of create a monopoly on the technical expertise in this area as well and again, that was something that we, you know, explicitly laid out as a plan in our business plan and went out and executed on that and that was what really, I think, was critical to our success in raising money and going forward with the company.

So, those are some the kinds, that's an example of what you can do to try to address the deficiencies that you might have in your team early on. Just really being aggressive about trying to find the talent that you need and bringing them onto your team. Any other comments from other panelists before I move on to financials?

Charles Cella: I think that you've made the point well that the team is critical. We've found it again an area that often a real challenge because there are often upstanding technology founders, you know, coming out of university situations in particular but finding the right management team is very important. We've developed a relationship with one of the long time recruiting firms that has placed CEOs throughout the Fortune 500 and often find that there's a degree of subtlety in identifying the right people who have exactly the right kind of market experience and connections that map to the business strategy and it's often – I found it eye opening myself, you know, how subtle differences between people who have the grey hair and have the experience at a

particular industry can really drive whether that person is appropriate for this particular company, this particular go to market strategy at overall corporate strategy. So, again, you know getting some very skilled professional help from an advisory point of view in building that early team, is something that we've seen be very, very effective even again, at this business planning stage.

Jim Chung: Okay, then the final slide, I mean the final section of your business plan typically is on financials and here, it's really tough to be able to present a very credible financial plan this early on. So, one of the reasons why, even though this is the bottom line about whether or not someone's going to invest in you, we typically put this at the end because it's the least credible section cause it's just hard to be able to project with any kind of accuracy what your financials are going to look like in three to five years but it's still a very important exercise that you can show your potential investors that you've thought through the mechanics of what it would cost to develop your product and your company, what kind of resources you need, what the expenses will be, how much revenue you think you can generate and all those kind of stuff. Almost more as an exercise to show that you've thought about it and that your assumptions about how things moving forward are reasonable that you've done, that they keep thinking and the homework to be able to figure these things out rather as something that your investors are really going to say, okay, well you guys are projecting, you know, $40 million in revenue in year three and they're going – that has to be what happen. I think that most sophisticated investors realize that this is just an attempt at being able to outline what it might take to execute on the plan that you're talking about, rather than as a real forecast that you would expect from a more developed company.

So, that being said, you still need to be able to highlight what the potential opportunity is and this is going to feedback into the research that you've done into what the market size is, having a realistic idea of what the addressable market might be and here, I'm not talking about being able to say things like, you know, we, the blood glucose monitoring market is, I don't know, a 10 billion dollar annual market and we are going to capture 20% of it in, you know, in four years. Those kinds of analysis just don't really make much sense because if you look at all the different business plans out there who are addressing this market, they may all be seeing the same thing so you may have 100 companies out there saying, we're going to capture 10% of the market and not all of them are going to be right, obviously. So, that kind of analysis just doesn't really work. What you want to be able to do is, when you highlight the opportunity, talk about specific opportunities from the ground up and take an inductive approach where you're saying, well, we've identified these particular customers or we have these particular relationships and being able to build a credible story for how you're going to be able to build up your

revenue that way and on the cost side, that you're able to really figure out, what does it really cost to be able to build a factory in China to be able to do these test trips for our blood glucose monitor. What is the revenue share or how are we going to pay our partners to be able to provide this, you know, when we're very short on resources at this point? So, being able to highlight the potential revenue opportunities there to be able to accurately, as possible, identify what your potential costs are going to be is what you hear. Lay out that plan but you also have to be able to identify what potential risks are that might throw a monkey wrench into the projections that you're forecasting and that might be things, you know, things you want to identify here is how much money you have to raise, whether you can raise it a timely fashion, etc., what your key assumptions are around your financial plan, what your, you know, where those functions are coming from? Are you doing that from comparables analysis? Have you actually gone out and talked to your potential suppliers, etc. and then to explain how you're mitigating any of those risks that are coming up. So are you approaching the right sources of funding? Have you identified the right suppliers, you know, the guys who are cost effective yet have sufficient quality to be able to meet your needs, etc. Typically what you're doing here, in the financial section is you're showing some pro forma financials, three to five years out. Any longer than that becomes kind of science fiction so I don't recommend doing some kind of 10-year plan but just, you know, being able to provide a level of detail for three to five years to show that you've done the background research, that you've thought about it and that you've got a credible plan for executing on the business plan that you described in the earlier sections. Any comments from the rest of the panel?

Charles Cella: One thought that I have that comes to mind, especially in the university context is that there can be a real benefit from what I call sort of the standing on shoulders and giants effect, that in the financials, not only having forward looking financials but also having some indication and this may not be strictly in the financials but more of presentation within the narrative of the business plan of the amount of investment that's been made historically, in the technology and that investment, you know, can include taking advantage of, you know, lab and testing equipment, you know, very often it may involve literally millions of dollars if you count all the brain power that the testing equipment, the grants and the like that have gone into a technology and this is a place where I think university companies are very advantaged, you know, in some areas, you know, there are disadvantages just because this is the place where I think university generated companies really shine, you know, in that investors are always looking for a bargain and if they feel like they can get, for a reasonable investment, sort of a purchase of a huge range of past developed technology intellectual property expertise, products, you know, they feel like they're getting in and leveraging that past investments, are they presenting

that. I've seen that be very effective for some of our clients that have come out of universities and defense contractors, e.g.

Jim Chung: So the final slide is actually just a list of different mistakes to avoid as you're developing your business plan and the first one, I think the technology of looking for a solution is, I'm sure, one that you heard before but I think it probably is the most common mistake for business plans coming out of universities is that they're often technologies looking for solution, meaning that you've developed a technology that's really cool in and of itself but that there hasn't been a market problem that it can be shown to sell. So this is the point that I made early on at the very beginning of this presentation on being able to outline what's the problem solution is, what the value proposition is at the very beginning and your potential investors are going to be very explicitly looking for this as well because this is – they recognize this as one of the most common problems of university startups as well. So being able to really not just focus on the technology which is what a lot of inventor/founders like to do but really focusing in on what are the market problems and how you're able to solve those.

The next bullet point there on assumed market share. I actually made that point in the previous slide. You can't just say, oh there's a three billion dollar market and we're going to capture just two percent of it, you know, that just doesn't work. You need to be able to come up with a bottom up validation for why you are able to capture what your targets are and to really understand who your customers are and I think this is probably the second most common problem that I've seen with startup companies coming out of the university is that there's an assumption by a lot of inventor/founders that, you know, it's something that's really cool and your customers going to just buy it without really understanding what your customers looking for and what their priorities are. So being able to identify your customer and really being able to explain why that customer is going open up their wallet and pay you, pay for your solution. Then there's the nice to have versus need to have solutions. Obviously you want to be in the second category of having a need to have solution and if you're not there, you got to really think carefully about whether or not you've developed the right business plan or whether this is something that you really want to move forward with as a startup company coming out of the OTT.

The fourth one there is I can't believe how many times I've seen this but and I actually think my guys who wrote the business plan for Agamatrix maybe even have set of version of this but saying we have no competition, you know, that's just never true, even if there may not be anybody else who had dynamic electrochemical sensors out there, there are people who have substitutes or they have other solutions out there

that may solve the problem in a different way and not exactly the same way you do but they are still competition and you have to be able to address them and explain why you're able to overcome their offerings.

The next bullet point there is that oftentimes you'll see no clear revenue model or path to profitability. This is really a tough thing for a lot of inventor/founders to figure out, you know, how am I actually making money off of this. Even though you may establish the value proposition, you still have to figure out how do you get that product or service into the hands of your customer and identify those channels for doing that and even beyond being able to identify how you – the channels for getting the product into the customers' hand is how do you translate those revenue sales into profitability, you know, whether or not you're able to eventually overcome the high cost of doing a startup over time through you know, cost reduction, through economies of scale, through whatever.

Next point there is Incomplete Team, made this point earlier that a lot of startups coming out of universities are strong on the technical side but weak on the business side so being able to go out there and identify what your weaknesses are, beyond just whether or not you have any business guys on your team but whether or not you have the people who can execute on your channel strategy or to be able to take care of your FDA approval process, etc. The next point is that a lot of business plans have no metrics to measure the progress, meaning how do you know if you're being successful or not as you're going along in developing your business model, your business plan. A lot of investors are going to want to do milestones and tiered investments for what they're doing, if they decide to invest in you. So putting some thought early on into what the metrics are to be able to measure your progress over time is really important, not just for the investors but also for yourself to figure out, you know, what needs to be done, where priorities need to be set, etc.

Lack of focus. I know this is another common problem with, actually all startups in that they try to tackle too much. They'll chase revenue, they'll like lose focus of what they're doing and it's important to be flexible and be able to roll with the punches and to be able to take advantage of new market opportunities but there's a real – I think the bigger danger for most startups at this stage is that they're focused on too many markets or too many products or trying to put too many features into the products that they're developing and I know, Charles, you had a point that you wanted to make there as well.

Charles Cella: Yeah, you know, I think that lack of focus is a big problem but you know, I've also, as hinted at by the OEM example I gave earlier, seeing companies overly focus on a particular product or a particular market opportunity where later on, they discovered that certain backing up and zooming out a bit from that

initial focus and recognizing, e.g., that an OEM platform that could be delivered across two or three different markets segments may be a more viable business plan than picking a particular segment and trying to get all the way to market within that given segment and so, you know, I know I'm repeating myself a bit here but just to say that you know, I think that people often underestimate the power of those OEM type models where they may be able to deliver most of a product possibly even just to prototype coupled with a strong IP portfolio and get to market through channel partners, you know, rather than focusing down on that very end product or end market opportunity. So lack of focus, definitely an issue but overly point focused approach can be problematic as well.

Jim Chung: Okay and the next point is failure to address risk head on and I already touched on this earlier that, you know, your audience is typically a very sophisticated, smart audience and they're going to be, you know, your business plans going to raise questions with them about what the potential risks are. They're looking for excuses not to invest in their company cause they've got a, you know, another 10 business plans that they've got to read, sitting on their desk. So if you are not addressing the risk head on in explaining how your strategy for mitigating them, they're going to assume well, this team doesn't really know what they're doing, they haven't really done their hard thinking. I'm just going to move on to the next one.

So rather than trying to gloss over a risk, I think it's very important to try to address them from the beginning in your business plan and then, the next point I want to make is actually not on here but it's something that I've been, that's been coming up a lot more recently with people that I've been talking to and I've been realize it's a been a real problem for a lot of people doing business plans that even though there is a lot of things that you have to consider when you're writing your business plan, I wouldn't spend too much time with actual crafting of the writing of your business plan. That seems to be a sort of a gating factor or sort of a bottleneck for a lot of startup companies is the actual writing of the business plan. The stuff that we've outlined in addressing the business plan, writing this plan, is really more the stuff that you should be thinking about anyway and the business plan itself should just be a place where you're writing down these thoughts that you've already done because you've done the hard thinking about how you want to advance your technology as a startup company. So, you know, wordsmithing, worrying about, you know, spelling and I mean, that stuff's important but, you know, that, the actual crafting and writing of a business plan, I don't think you should agonize too much over that and then the last couple points, I think, was something Paul wants to talk about.

Paul Rauch: Yes, I just think it's really important to balance the cost, the expense of risk determination with the level of investment and the time to market. I have seen time and again where at very early stages, there's an

enormous amount of pressure to do these very expensive risk determinations, particularly in the freedom to operate area, you know, we can address some of the risks but many of them we just cannot access accurately and in a reasonable way to justify the cost of it. So it's important to be aware of it and it's important to understand that it's out there but don't be pressured into spending large amounts of money on it too early on in the process. That's it for that.

Gerard Eldering: Well, great, great, well, Jim, Paul and Charles, that was a great presentation and I think gave a very good, very solid overview of the whole business line process and brought up a lot of the issues that folks have to deal with. So I'm going to ask Karen to move us over to our Q&A session now. We have one question in the chat box right now that I want to pose to our panel. It's from one of our university listeners and they ask for a startup company if they don't have the cash to hire a management team, how do you bring a management team in but still protect the company for the risk that that management team might not deliver, might not produce results and Jim, I'm going to ask you to start us off on that one.

Jim Chung: Well, I was thinking most situations, universities and startups are not going to have the cash to really be able to hired a management team to come in at this early stage so typically the way that you're going to bring somebody in is through equity involvement and again, there's a risk when you're bringing somebody in based on equity that they're not going to deliver and that's a tough situation but really, the best way to deal with that is to have some kind of vesting and some milestones in place where the equity that the management team is going to earn. Typically what I did when I was trying to bring startup management people in was finding people who weren't necessarily interested in salaries themselves but were actually bringing money with them to the table and putting some of their own skin in the game beyond just the salaries so know those people are hard to find but typically, those are the best people if you can find them to bring them on. So, short of that, finding somebody who's able to do that, I would say it's just really about vesting their equity and then having some milestones so that you're able to measure their performance and if they're not measuring up to get rid of them and find somebody else.

Gerard Eldering: Okay and to our panel, I want to throw out another question. I've seen some blog articles and some discussions online about not really writing a business plan today, some people making assertions that your investors really just want to see an executive summary, a PowerPoint briefing and a spreadsheet and that's all you need nowadays, that things have changed and I just wanted to ask for reaction to that and again, Jim, I'll ask you for your response.

Jim Chung: Yeah, I would say that that's right to a certain extent. I mean, there's a lot of investors out there that aren't that interested in reading a business plan but as the last point I made on the previous slide was that, you know, business plan is really a place for you just to jot down what you're thinking about in terms of your business model strategy and that it's just a good idea to do it even if your investor may not be necessarily reading your business plan but they will if they decide that they want to pursue due diligence, they're going to be asking you these questions so you should have the answers ready for that kind of a conversation and that's why I think the business plan is valuable as long as you don't see it as the end all and be all of that writing process but just a place for you to be putting down your thoughts on how you're going to moving the company forward. That being said, there's also some investors though out there that really do want to see the business plan because that's the way they operate, they like to see it on paper, they like to have a more methodical approach to investing and they want to have that business plan so I think that even if not all investors are going to require it, the sizeable number of investors out there that do, even if they don't, you need to have done that thinking and that thought process and be ready for the questions, if you get to the next stage.

Paul Rauch: And as you're – Paul here, I just think it also helps you crystallize a lot of the elements of your thoughts and bring all the important pieces together and not leave anything undone. It gives you a framework that even if people don't want to see the full business plan, you will be prepared to answer the questions that they're going to ask.

Gerard Eldering; Panel, I got one more question for you. We've talked a lot today about the written business plan. Have you seen situations where a group has prepared a very well written plan but just blows it in the presentation? They just can't get up in front of the group whether it's a small group or a large audience. Is that a risk and how can the business plan writers avoid that?

Paul Rauch: Well, I mean, I think that's a very common problem, especially when you've got the inventor/founders getting up there and kind of focusing in on the wrong thing and focusing on the technology. I don't really know how to address that. I mean, you've got to do a lot of coaching and a lot of prepping for the presentations and you know, I would talk to your – I would do the presentations in front of a friendly group of advisors or mentors or people who may be able to help you out and prep you for the real deal but, you know, it's tough, it has a lot to do with just the skill set of the person presenting.

Gerard Eldering: Right and Charles, I know you've seen a lot of pitches. Have you seen that happen before?

Charles Cella: No doubt, absolutely so, yep.

Gerard Eldering: Well, it look like we're about out of time for our session here today so we're going to go ahead and wrap it up here but it was a great discussion and excellent presentation from the panelists. I want to thank all our panelists for their time and their insights and sharing their experience with us and also for our audience members for participating. We've got another great session planned for next week on Thursday. In that session, we're going to talk in depth about the funding sources. So if you think of today's discussion about the business plan is kind of preparing you for that discussion with the investors, we've got a VC coming in, and angel investors and some other great folks that will help talk to us about all the different funding sources and how we can go after those and we hope that everyone can join us. Thank you very much.