BAFTA Games Lecture: Ilkka Paananen
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Nick Button-Brown: Welcome everybody. So, this is my first event as Chair of the Games Committee here at BAFTA and I'm incredibly lucky to be introducing the Annual Games Lecture. This is part of BAFTA's Learning and New Talent programme. This year we'll be delivering as part of this programme about 200 events including in Los Angeles and in Hong Kong. It's also going to be filmed for BAFTA Guru – oh no it's not there sorry – BAFTA Guru which is a wonderful series of events. Please go to BAFTA.org to find out a bit more about that. So, BAFTA is a charity set up to celebrate the very best of creativity and talent, within games, within films, within TV. And, we wanted to find out a little bit more and celebrate one of the most successful companies in the whole creative world. As part of that we asked Ilkka to come and talk to us here. So, actually, enough of my wittering. Please, huge round of applause to welcome our guest tonight, Ilkka Paananen.

[applause]

Ilkka Paananen: Thank you. Thank you very much. Thank you, Nick. Thanks everybody for being here. Thank you for having me here today. It really is a big big honour. Before I came here I looked up who has been here standing on the same stage before me and, you know, names like Peter Molyneux, you know, creator of *Populous*, among many other great things and I personally spent probably a good two to three years at least of my life on that very game so it's incredible to be here.

So, it may surprise you that I'm actually not the game developer as such myself so I can't programme a game. I'm not a graphic artist, I haven't ever designed a game, and actually games became a career for me by accident. So most of my friends at university decided to pursue careers in, say, investment banking. Many of them actually ended up here. Others chose management consulting and I was still the odd one out. How I actually ended up in games… I got really interested in entrepreneurship and I stumbled to this group of people who wanted to found a company and that company just happened to be a games company. And all the other guys

they all were true game developers and creators, and that was all they wanted to do, and they needed somebody to do everything else. And these guys they absolutely couldn't afford to pay any kind of salary, which then led to this fact that I think there was only one applicant for the job. That was me, so I got it, and they made me the CEO, and this is 16 years ago, and that was how I got into this business.

Also, the interesting thing about games, at least in Finland at that time, was that I felt that I probably spent at least the first ten years in my career explaining to other people this choice of career, especially at, sort of, parties organised by families, so, you know, relatives would ask, "Hey Ilkka, so what is if that you are doing these days?" And you start explaining that, "You know, I'm so super excited by this game that we, or our team is building." And then the question comes up and they say "Ok, that's all great, but when are you going to get a real job?" But thankfully that question hasn't appeared in the last two to three years so that's the good news!

So, even if I really do love games and I love to talk about games, since actually I'm not the one who creates games at Supercell, I'm not going to talk too much about games today. I'm actually going to talk about what in my opinion really fuels and enables the creation of great games, and to me that is the people and sort of the culture that these people operate in, and I do believe that we at Supercell we have a pretty unique culture. So today I want to talk about first of all what led to the creation of this culture, what sort of a background. Also what is great about that culture, but probably most interestingly, what's hard about the culture, what is hard about maintaining it and what are some of the challenges, if you will, and then maybe I'm going to very briefly talk about how we see the culture evolving.

So, let's get started. So, but before I get into the Supercell culture, I think I need to give you some background. So as I said, 16 years ago we started this games company, and, you have to remember, so my background. So, I studied industrial engineering at the university, so, you

know, maths, physics, production systems, some economics but all of these topics that require analytical thinking encouraged everywhere. Everything has to be logical. And that really had a big impact on how I wanted to organise and run the company. So, I would almost describe it like, later on, it is easier to talk about it, but I would describe it as a need for control. I tried to have a very organized, logical, well thought out system for every single thing in the company, including the creative process. So never it was like "How do we decide what new games to build?" Or "Which games shall we continue developing? Which ones shall we kill?" And so on, and for every single question like this I always wanted to have a very clear, well thought out logical answer; a very well structured sort of a process. We had… and everything always looked great on paper at those times. And… I guess one way to describe what we had was this.

So up there, there was myself and a few other leaders at the top, and what the light bulb tries to describe is that, you know, we can afford, we have the vision for the types of games that people want to play. They call it 'creative vision', and we exercised what we call the 'creative control', meaning that everybody underneath was there mainly to execute against this vision, and, you know, really building the type of games that we wanted to build and what we thought would be best for the players. And actually at some point we became quite successful. We were one of the top developers in Europe. The first company was called Sumea and then we sold it to a company called Digital Chocolate and it was a really really great time, and actually, funnily enough, the company became more successful and we actually start to hire relatively quickly even more people. There was this growth spurt. On year one I think we had like 40 people and then…

[beeping noise]

…this is not part of the presentation by the way!

[audience laughter]

[more beeping]

Ok… alright
[more audience laughter]

Wait for the next one. So, so, there were 40 people, then two years goes by and all of a sudden we said "Oh my God, there's like 400 people here at the company," and that made everything more complex. So, looking back, growing so quickly, that was a mistake in itself. So it's really really hard to maintain the quality of the people when you grow so quickly, and secondly it's hard to invigorate those people to the culture of your company and at some point the culture of your company starts to shift. But then, moreover, the way we tried to manage this complexity was that we, I mean - again, think about what I just said about trying to be very logical about everything – we tried to introduce even more process to manage the complexity. We introduced more layers of management so they could organize all the people in these beautiful little boxes, and everything just looked really good – again - on paper. But what it really did is that it slowed the company down. It introduced bureaucracy, it introduced slowness to the point that at some point the best creative people get good enough they start to leave.

I want to give you guys two examples of this process that I think were sort of almost adverse that we introduced to the company. The first one was like how we decided to build new games. It was called a 'green light' process. So how do we decide what to build? And we had this 'green light' document. So what we would so is that we would force a producer and a product manager from the games team to write this relatively long document that first described the market need: why is it actually that the consumers want this type of game? What is the estimated market size? What is our share? Then, what is the game about? What is unique about it? Why is it different from the competition? All kinds of competitor analysis, of course the budget and then some kind of revenue forecast, and so forth. And then, what was even worse was that we required - basically for your 'green light' document to have any kind of chance to actually

finally get a green light for production, what you had to do is that you had to get a stamp of approval or recommendation from the sales department, from the marketing department and from finance and so on, and you can sort of guess the rest, so it leads to be a design by committee. You want to do something that everybody is ok with, and needless to say that doesn't really lead to the creation of the best game. It doesn't encourage any kind of risk-taking because if you want to take risks there's always going to be that somebody who says that "I don't believe in this" and then you can't push it through. And more than anything it took a lot of time.

So, that was the 'green light' process. The other thing that was equally bad were these product reviews which I think we had on a monthly basis. Again, a very well intentioned process. So, the purpose was to give feedback to the game team like on a monthly basis and also make sure that they are on track. And what we... how it went was that the game team would come to the meeting and then everybody would call in. It was a... the meeting grew bigger and bigger and was more and more people who were curious about how the game was doing and then the game team would pitch to the company, everybody else on the call and the meeting that why it should be able to be continued. And again, of course the best games teams and who understood the sales process they would pitch before this official meeting to other key guys separately, and at some point I woke up and realised that actually, like, in any given month, the team is using at least one week of every single month just to prepare for this meeting and because they are preparing they are not actually building the game. And when you sort of really think about it, this type of very well organized model and hierarchical model, it really belongs to sort of manufacturing industries, like assembly lines. So in this type of environment, how quality is defined, it really is all about doing the same thing over and over again – and no mistakes allowed. And then it's in very very stark contrast to what the games industry is all about - or any creative industry. So in fact you want

to innovate. You want to try different things, which by definition it leads to making mistakes. In fact, I would argue that you want to make mistakes because if you're not making mistakes it just tells you that you are not taking enough risk. So, everything is contrary. So, at some point we realised that this doesn't seem to be a good fit. So, finally at some point I realised that, in fact, games is a form of art. It's not a science and it sounds like such a self-evident thing to say here but it took us all of those years to realise it. And really it's like, games as a business, it shouldn't be driven by processes, no matter how well intended they are. And trust me, all those processes we put in place they are very well intended and we had put a lot of thought into them, but the irony is that despite all the thought that we had put into those processes, I think those there had actually started to prevent any great gains and innovation coming from the company.

So, then I think it was one day, it was probably like in the year 2008 I believe… it was one day and somebody from within the company sent me this presentation, this powerpoint deck and it was from a company called Netflix which I'm sure all of you guys know. And obviously a company in a completely different line of business and not in games, but there was a few things that really impressed me about the deck, the deck was about their culture, and I'm sure they had leaked it out on purpose because it was such well-prepared presentation. But anyway, they talked about this culture of freedom and responsibility, and they, what they said in that presentation was that instead of trying to manage complexity by introducing process, manage complexity by hiring better people and then trust those people. I was like "Woah, this is incredible," like why, I mean, because it was almost like the opposite of what we had been doing. And then the other thing that really struck a chord with me on the deck was that, how they talked about the company – that they did not want the company to be a family or like 'kids recreational club' as I think were their exact words. They wanted it to be a sports team. And that was the other thing which really like stuck to my head

and I thought that if I'm ever going to establish of found a new company, this should be the leading idea.

So, I start to talk about this idea to some people who I knew and who later on then would become my co-founders and we start to think about like what if you really would put together a games company like you would put together a professional sports team? So what would it actually mean? So first of all, obviously, you want to get all the best possible players to your team. Like in every single position ideally you want to have a best possible player. But that is not enough. These players must play very well together, they, and, you know, you could almost think that it's a culture that glues them together. Also I start to find out information like how are the best professional sports team ran, what type of philosophy they have, and surprise surprise it turned out that many of the best pro sports teams are the ones where actually the coach actually gives quite a lot of freedom to the players themselves and tries to encourage them to make decisions and involves them in creation of the tactics and so on. And the other thing that is very very clear about professional sports teams is that the real stars of course are the players. It's not the management or even the coaches in the vast majority of cases. It really is – at the end of the day – it's all about the players.

So then we thought that ok, this sounds like a great idea and we got all really excited about it, but then we asked ourselves "ok so how does that change things?" And the very first thing that came to our mind was that "Hey, let's turn this order, let's turn it upside-down. I mean what would happen if instead of the mission being communicated top-down, what if it was bottoms-up? What if the real superstars actually would be the guys and the people who create the games, the game developers themselves? And what if the management and the founders and the leadership and everybody else was there just to make sure that these guys can focus on the actual creation of the games and essentially to make sure that they are as successful as possible? What if that was the sole mission of the

founders and management? Get the best players, or developers in this case. Create the best possible environment for them and then just get out of their way and have these guys focus on their actual work, and create great games.

We also start to think about a company as sort of a platform. Like a platform would enable these people to make the biggest possible impact and just be successful and the other sort of four that have later on got on this and – I've mentioned it in a few interviews – is that actually like my goal at Supercell is that I would like the be least powerful CEO. And what I mean about that is that the less decisions I need to make, it means that the more decisions the guys who actually know these games the best, the more decisions they make, and the more decisions they make because none of the decisions come to the other layers means that these decisions get made a lot lot quicker; there's no approval loops or anything like that and it's quite likely that those decisions are also better because they are made by the people who are closest to whatever it is that they are working on. And actually, in fact, I would argue that the vast vast majority of the best decisions at Supercell are made exactly this way, and those are always the best days at Supercell for me. Is that I actually learn about something great, much much later than it has been decided. I mean, this always makes me so happy because that proves that the model is working. So that's what I mean about being the least powerful CEO.

Also one last note about the role of the CEO. The more time has went by the less I believe in this concept of these like 'hero' CEOs, and it certainly isn't the case at Supercell. I think people, like, lots of time they overemphasize that role. If I think about at least how we have created our best games, I've played a very little role, in fact it really is all about these people who create these great games and that has enabled the company to be successful. And I think sometimes people sort of confuse these two things, so a concept of a leader and leadership, and they think they are kind of the same thing. Because I actually, I'd like to think that at Supercell, everybody

is a leader. I'd like to think that at Supercell we have 200 leaders, 200 entrepreneurs, and, you know, these are people who don't need to be told what to do. They would automatically ideally think what is best for the company. And it may sound a bit idealistic or even naïve but that certainly is the goal of how we want to build the company.

So, you may have seen this sentence before when it comes to Supercell. So the more we thought about it the more we kind of realised that yes, it really is all about these best people and that really like should be the only focus that we have – make sure that we get these best people and create the best environment. Later on actually we decided to change the sentence. Now we actually understand it's actually not about the best individuals, it's about the best teams. Because we noticed when we put together these games teams, it actually is really really interesting how you put them together because you may have like five amazing, amazing developers but for some reason these five just don't work very well together. But then you change maybe two out of the five members of the team and all of a sudden you have an amazing team. And actually it's interesting to talk to say, for example, say, coaches of, say, ice hockey about this thing because I mean in ice hockey, you need to put together these lines. So you have a collection of say 22 players and you need to put together lines of five players. And apparently in ice hockey it's a bit of the same thing, so you, I mean it's not that the best individuals always win these games, it is the best teams and best lines at the end of the day who win the games, and it's very much the same at Supercell how we create these games.

We also decided that, you know, we will just forget this idea that there would be some kind of magic formula or process or strategy about creating hit games, We decided that we were going to focus all the effort on this and on the environment and then we'll just trust that with enough time and some luck something great will come out of it. Then later on we had this idea that, hey, let's call these teams cells, and we thought that how we should think about these teams or cells is

that they are almost like start-ups within a start-up, so almost like independent companies within the greater company, which is actually where the name 'Supercell' comes from so it's just merely a collection of these cells.

So we, the last cornerstone or sort of key believe we has was actually small. So we thought that "ok, we are going to create games for mobile and these other, sort of, mainstream, casual platforms." And the great thing about these platforms is that a very very very small team can actually build a great game. It's, you know, you don't really need all the stuff that you need for example when you are building a AAA, console or PC game. And what is great about small is that because you have so little resources, you're almost forced to focus, I mean you have to focus on the essentials because you just can't afford to do everything so you have to make these choices. Also, when you have a small team of five – which is pretty much how we build these new games – you don't really need management or process or anything. Everybody can be placed in the same room, it's really really fast and easy to communicate, and that makes everything so much more fun and faster and everybody can focus on the work rather than reporting to some other people how they're doing.

So we got really excited about these thoughts and we also thought that "Hey, if we think this way, there has to be lots of other people, really talented people in this world who would think the same way." And in the best case, Supercell would become this talent magnet, like, you know, lots of talented people would love to join us if we are so lucky that we can afford to hire some people.

So, then we got started. This I think is from June 2010, so there was six of us who started the company and we were really lucky quite early on, a little bit later, only in 2010 we were lucky enough to find some seed investors who also believed in our idea of… We actually didn't… when we would pitch the company to investors I don't think we talked all that much about the actual games. We also talked about like what type of company we were, about the build and actually

many of the investors that we got also came from London, so for example, London Venture Partners - I think we have David here from LVP in the audience – initial capital and then a few Finnish angel investors and that's how we sort of got started. And that enabled us to hire a bit more people. We had this room of like 30 square metres and I think we managed to fit like 15 of us in that same room, so exactly two square metres per person. I'm sure we violated all possible employee protection laws and stuff there.

[audience laughter]

And at some point the least productive person had to be moved away. That literally was my desk for I think a couple of weeks before we moved to the new office. But that's from 2010 so actually not that long ago if you think about it.

And… yeah… so this is us today so of course we have been super, super, super lucky. We have been able to put out these four hit games and even of course luck is a big factor. We got started exactly at the right time and so forth, but I do think that the other part of why we have been successful is how we think about, sort of, culture and how the company has been organised. Also, one thing that I should say that I am actually extremely proud of is that we are still almost exactly just 200 people and 200 people may sound big to those of you guys who are running a small, sort of, indie games development company but 200 is way, way, way smaller than I think any of our, sort of, competitors or people who are on the same scale on user metrics and so forth. So we have really stuck to our roots and tried to grow really, really slowly and all of that is because the previous experiences we had at the previous company. So very proud about that.

So I'll cover this really quickly. I think by now it's pretty obvious what is great about this model. So first of all, it's, I do think it's super, super motivating for the right people and you guys are I guess most of you guys are gaming people or most of you would see why. But it really boils down to this thing that there's nothing really stopping you from being

successful and, again, laser focus on just building a great game. And yes, it really has attracted some of the world's best talent to our studio in Helsinki. Actually, if I'm not mistaken I think we employ people in Helsinki who come from 30 – so three zero – different countries all around the world and I think roughly 60% of people these days who we recruit come from outside Finland and I do think that a very big reason is that people want to try what it's like to work in an environment like this. One of my best days actually at Supercell was when one of these people described Supercell as a first company where he has no excuses. You can't really blame processes or you can't management for the simple reason that there is no management and there is no process so really, like, it's really all about you, and that really was like music to my ears as you can imagine.

This is more interesting I'm sure. So what's been hard about building this culture and especially maintaining the culture? So many many things and I'll spend the rest of the talk on those. So the first one is that there is this very big misconception about the model, and the misconception is that Supercell is just like this fun, happy family where everybody can do exactly what they want. We won't caring about the results. So just like this group of happy campers who get to work and do something with hoodies on and they party and there's all of this fun and joy and other stuff. And of course we love our work. We are really passionate about it but we don't love our work because of the parties and stuff. We really do love the work work part of our work! And the thing that some people don't realise is that we set the bar extremely high when it comes to quality, and if something isn't working out we will for sure do something about it. So, if say for example a project isn't working out, it's going to be killed, and you know, we don't really tolerate average at all. In fact, we always – like whatever it is that we do – we always try to shoot for the moon, well knowing that most likely it's going to fail, but for us that's completely ok. We understand that if you are trying to shoot for the moon, like it's the best in the business, but as hard as the games business is, it's quite, it's not very likely that you will hit it.

But that's ok.

We also, like, how we sort of manage all this is that, I mean, I told you guys that, I mean, everything centres around the creative games team, but yet we also set targets. So for example, when we launch a new game, before the game goes out to a, what they call a 'beta' testing period, we always set numerical targets, like what are the metrics the game needs to hit. So we set targets on say retention, user engagement and also monetization. And we tell the intercompany what the targets are so everybody knows. And then the game goes to beta, and if it doesn't hit those targets, the game will be killed, like no matter how much me personally would love the game. And we've done this a number of times. Similarly, we share all of the information at the company. So every single morning, Helsinki time, when people get to work they have this email coming to their inbox, and it lists every single key performance metrics of the company, meaning the user numbers, the revenue, the sessions for retention, you name it. On every single game. Meaning that it's a completely transparent environment. I get the same email as everybody else. And that is one of these glues that keeps us focused and honest with ourselves and everybody always knows what it working and what is not working. And, you know, it goes without saying is that, you know, of course it's fun to publish the metrics when things are going well; it's not as fun to see them when things aren't going well. And everybody knows a games business is full of ups and downs, so you will have those downs and we've certainly had our share as well. So, sometimes it leads to also the creation of this relative high pressure environment, but for the right people it's an extremely motivating and also fun environment to be working.

The other and perhaps some of the biggest challenges that we've faced is finding people, great people, who are fit for this type of model. So it goes without saying that this type of environment it's not really for everybody. Like, in small teams you obviously need people who can do almost everything. You don't have the luxury to specialize just on one

thing so you need these generalists, and even in some teams we may not even have a game designer because the whole team is contributing to the game design. Also this whole transparency and high pressure thing that I talked about, I mean, it's not for everybody and you know the fact that there is very little guidance and management… it can be stressful for some people, I mean, because there isn't maybe that sense of, like, control which gives a feeling of safety for a certain type of people. And by the way there's nothing wrong with that but it's not just, those type of people they aren't right for our type of organisational model. So just to give you guys an example how hard it is to find people for this model: last year I believe we hired six developers in total to Helsinki, so that's one developer per two months, and it is just tough, so that's certainly been challenging us to be honest. What seems to be like… funnily enough what seems to be contributing to like our hiring challenges is that quite a big number of people when we talk to them – in events like this for example - they don't think that what I'm describing is true. They don't believe it. They think that this is a PR story that we've created to help recruiting – obviously. And it has happened – like trust me – a number of times – where there is somebody who has been with us two to three months and I meet this somebody at the coffee machine and this person says like "Hey, I have to confess that I actually didn't really believe what you said during the interview process but it seems to be true." And it's great but that really like… I mean… because we really are… we take this extremely seriously and trust me it is true. But you really almost have to spend some time within the environment to appreciate how different it is.

And there's one more thing that, it's not related to hiring developers, it actually also, sometimes hiring other people around the developers is hard as well. Because, like, at Supercell, the heart and centre of the company are the game teams, so it also, like, requires that the people around them have to be a certain type of people. So, for example, you can't really be a, sort of, control freak or you can't have a big ego because the fact is, at the end of the

day, it's the games teams, it's the developers who set the rhythm of the company. And no matter what is your title – and we don't really generally even have titles – I mean, your mission, like outside the games teams is to just, and solely to help the games teams and help the games that they make to be a success and of course serve our players, but that is your job. I mean nobody goes and, you know, tells the games teams what to do. Like no matter what. And sometimes it's hard to find people who truly believe that's the right way to run games companies.

The other thing that's been hard and, probably even personally I would say has been the hardest thing for me, is this notion of focus. And, we've learned the very hard way that focus really is not what you do. It is all the things that you say no to. And as I said, like, our teams are small so that really limits the amount of stuff we can do and you know, you can imagine people like me who get very easily excited about all kinds of new things and I feel that I have like ten great ideas every single day. But at Supercell I really need to say no to every single one of them every single day and very rarely does it happen that one of those ideas actually gets implemented and actually, like, at some point we even, we have a theme at Supercell, and we had some challenges in focusing on certain things and we agreed that, ok, from now on the standard answer to everything is 'no', and maybe at some point some of the best things will turn into 'yes', but you know, that is how we are going to keep the company focused. We've also done these exercises like, ok, let's think about, like, let's try to list all the things we've said 'no' to in the last six months for example, and if there is not enough stuff in that list people get worried. And, it's, this is again like demands a certain type of personality. But, you know, again, it's something that you learn the very very hard way. I don't even want to go to the early days when we got this completely wrong, trying to do too many things. But this is really what enables us in our opinion to deliver the best possible quality for our players because we do very few things but whatever we do, we do it to the best of our abilities.

Of course, the counter argument of course to this by the way would be that the other thing you don't want to do is that you don't want to become a victim of your own success. So on the other hand if you always do the things that you've always done, like nothing new will happen and then you can, sort of, as I said, you can be a victim of your own success. So it's almost a balancing act but still I think this has been hard.

So we talk a lot about 'killing' games and I wanted to just quickly run you through one case. It's a game called *Smash Land* - it was one of my personal favourites of the games that we've ever ever done; it ended up being killed. So, generally we just kill a lot of games, so, to give you guys an idea, so in the last two years we released one game called *Clash Royale* and I think we've killed nine games during that same time, so one out of ten made it. And you know these are not just some early prototypes. Many of these they are very well-developed to an advanced stage. So why do we do that? So one first obvious answer is because we want the games to be the best possible quality, but the other answer is because we want to keep the company as small as possible. I mean our explicit goal is to keep the company as small as possible, but just big enough so that we can pursue our dreams. But, you know, as small as possible. And the problem I mean if you start to launch is that you start to lower the bar on quality. What we are seeing on the games that would mean that we would need more people of course to maintain these games. I mean, in our business venue really it's a game. It's not that you release the game and you move on to something else. No. I mean you release the game, and it's not the end, it's the beginning. That's when it all starts, and you start to, like, you want players to come into your game, and you know. Players come in and you really owe it to the players to keep the game fresh, which means you need to invest more into the game. You need to have player support, to provide customer support for players. Obviously you need to invest in marketing and so on, in community etc. etc. And all of these take people, and, you know, the thing about is that only the very best games deserve all this and

we are not going to grow the company; it would force us to introduce new processes just to maintain games that are average. So that's the reason why we kill these games. But about *Smash Land*. So this was a turn based real time player versus player game that we developed some time back, and you know the thing about this game was that everybody in the company loved it. It wasn't just me. And, you know, it was really, like, close to our hearts. I have very simple played this game a lot with my kids every single time I came home and lots of other people did it as well. And the interesting thing about *Smash Land* was that I'm pretty sure it would have been a top 25 game had we launched it at the time. And it was so close to meeting our metric goals, but it didn't meet them, and, it got killed. And I thought that you guys might be interested to hear like how, how did that happen, and how does a decision, a really tough decision like this get made. So, as all great decisions of course it gets made in a sauna.

[audience laughter]

So I'm sorry that I had to blur the image, it's full of naked men sitting outside the sauna. Wouldn't have been a pretty sight. But anyway, so the team got together. They literally went to the sauna and they decided. I think they had – and I wasn't part of the meeting – but I later on I heard that they had had this really honest discussion. They said, you know, if you could only develop one game for the next few years, is this the game or is it something else? And after a long discussion they had decided that no, it's not this game, we can do better. So, they decided to kill it. And then, they informed the company, and I'm not kidding you, but I was travelling. I knew that they were, sort of, thinking about this but I was travelling about I heard about killing the game. So they didn't even bother to consult me, which is great, that's how Supercell should work. And then, Jonathan who was the lead of that team he decided to email it to 'crew' which means everybody at Supercell and he just thought we might be interested to take a look, and I thought ok, maybe I should reply something, so I did. But this is how we like to do stuff so,

you know, when there's bad news, sharing to everybody, be honest, be transparent, share en masse as early as possible and, you know, then move on. The most beneficial part of this process, however, is this. So, we do try to share the learnings, so this is photo of Jonathan. Every single Friday we get together with the whole company and this is where people give updates on what's going on, and he got up on the stage and talked about like, you know, what worked in the game, what didn't work, what did we learn. And I'm sure many of you guys have heard about this habit but yes, there it is, it's a glass of champagne, and at some point it started as a joke but now it, for some reason, has become a habit. We actually do celebrate these… uh… some people say that we celebrate the failure. We actually don't. We celebrate the learnings from this failure, and we sort of think that they are so valuable that they are worth celebrating with champagne. This is sort of a funny story but we made a sort of a big, we had a big breakthrough moment, I think it was two years ago at an offsite. So, this has been part of Supercell I think the last maybe five years or so, the champagne celebrations of failures. But then, during an offsite somebody asked a question in company Q&A that "Hey, I sort of get that we are celebrating the learnings that come from these failures through champagne, but you know we've been relatively successful so wouldn't it be sort of fun to celebrate these successes too? And we went "Yeah, that's a pretty good point." So these days, when we have successes we drink champagne as well, which has made life a lot more fun by the way.

[audience laughter]

And, you know, like, even though I am joking here, don't be mistaken. I mean, we are not trying to pretend that failing is fun. Because it sucks. It absolutely sucks. Imagine a group of people have invested half a year, or nine months, or a year even of their life to something – a game that everybody loves, or at least the team loves because they got that far. They've invested so much love, energy, hours, tears to the game. Then you put it out, and for some reason players don't like it as much, and it has

to be killed. That absolutely sucks, but still we wanted to create this environment where, sort of, 'failure' would be as safe as possible and even more importantly we would actually learn from these failures. Because I honestly think that Supercell at the end of the day has been built on top of the learnings that come from these failures. And, just, you know, fundamentally, we believe that quality is worth killing for. This is a nice sort of summary picture that, you know, as I said we put out four games that which you can see there so *Clash of Clans, Boom Beach, Hay Day* and *Clash Royale* and then we have tombstones of all the stuff we have killed. But one of the reasons why this is so hard and what is a sort of challenge for us culturally, which was the topic, is that, you, know, imagine that you are at Supercell for three years, and you are a game developer, and none of your games that you touch on get released globally. And you know it has happened, even though we obviously try to rotate people within teams and so on, but if you are, sort, of, really unlucky, because we are in such a hard business it can happen, and obviously it's not fun at all.

This whole champagne celebration thing, by the way, started from celebrating these killed games, but since then we have noticed that it is such a good habit to, kind of, share learnings that we have started to do and apply to other things as well. So, like whenever we have a big failure, where we can actually learn something, say for example a failed marketing campaign, then we always are very transparent about it and toast the champagne for the learnings that come from it. Actually one of my best days - sort of - at Supercell was the day when *Smash Land* was killed because the day when Jonathan gave that update actually just out of coincidence in the same update the person who runs our marketing globally actually gave an update about a marketing campaign that also had failed, like, miserably, from a financial perspective and after those two presentations I just told our people that "Isn't this amazing. We've like really screwed up big time. And here we have the leaders of both teams like completely openly talking about it. And

you know that probably wouldn't happen in that many companies." So it made me very proud. And I think I already mentioned about it but we just think that failure is… it's actually really important to fail. So one of my worst nightmares is that one of these days I'll wake up in the morning and I'll start to think about failures and then I think "Oh ok, actually I can't name any failure in the last year." I mean that would be a disaster because what it would tell me is that we are not taking enough risks, we are not being brave enough, we are not trying new things. Because surely when you take these risks, you are going to fail, I mean, that's by definition. And the risk taking is so so important in our industry because without the risk taking there would be no hit games. So it is really important that you constantly keep on failing too.

So, back to this idea real quick, something we already talked about so, the other very recent thing that we actually had to say no to is this thing. So it's called Clash Con, this is an image from last year's Clash Con. So Clash Con is this fan event we organize for the players and I have to say that last year we had people from I think more than 33 countries I believe, who all travelled to Helsinki to sort of participate in Clash Con in clan wars, just celebrating the games and just to have fun. Absolutely one of my best days again that I've had at the company. Just amazing to see the passion and the energy and how much people love the games. And… but… this year… a few weeks back we started to have real discussions with both the *Clash of Clans* team and the *Clash Royale* team, and the fact was that, you know, that when we kind of really looked truth into the eye, we don't have the resources to organize a really great Clash Con this year. I mean, we really need to focus all the small teams and the small resources that we have on the teams. We need to focus them on the game. We very much feel that these games, we can make them much much better for the players that play, and if that means that we have to kill Clash Con, no matter how much we and the players love it, at the end of the day it's going to be best for the games and therefore it's going to be best for the

players if we don't do it. So we decided not to do it. An extremely hard decision which we communicated to the players quite soon thereafter. And luckily a large part of them understood. But you know it's really, like, it's really, like again one of those decisions that I think took a lot of guts from the game teams to decide this is not what we are going to do.

So, what else is fun at Supercell? So, a few more things I wanted to talk about. One is that it's a very game theme-centric culture. I mean that was why the company was founded in the first place so it shouldn't come as a surprise. But, you know, in that type of culture, it's sometimes surprisingly hard to achieve consensus, and sometimes it leads to these incredibly heated, heated discussions and, like, just a few examples. So, one thing that unifies both *Boom Beach* and actually *Clash Royale* is that at some point during the development of those two games almost everybody else, except those game teams, wanted to kill those games. So I literally remember this meeting this meeting with the *Boom Beach* team where we had like the game leads from every other team in the room with the *Boom Beach* team and every single person in that room – with the exception of the *Boom Beach* guys – wanted to kill their game. And then I remember that we're having this discussion like, ok, what are we gonna do? So the consensus thinks that this game shouldn't be released and the project should be killed. But the team really believes in it. So what do we do? And then in the end where we ended up was if we now kill this game, that is the end of Supercell, because it means that the team in fact doesn't get to make the decisions, so despite everybody else disagreeing, the team was allowed to continue and thank god we made that decision. And funnily enough, *Clash Royale* was a massive hit when it came out. They accept the same thing was true about that game. Quite early on almost no one else – except again the team – believed in that game, And, you know, these are the cases where calls were truly being tested.

Also, we had a case some time back where we actually, a few years back, when we were about to execute our first

outdoor advertising campaign in New York, so I think we had bought a lot of media space from the New York subway. And since that was the first time we were doing it, we had no idea what type of effort would be involved to create all of this high resolution material for these advertising spaces. And basically what happened was we managed to get there in time but then the deadline was there and the day came, the game team came to us and to the marketing team and said "Hey, this is like, Ok, but it certainly isn't great. We are not proud of this and therefore we think that we shouldn't do it." And then obviously everybody else was like "What are you talking about? We've just paid a huge amount of money for this campaign. It's our first one ever. I mean, you possibly can't suggest that we have to kill this campaign. Imagine the amount of money that will just go down the toilet. It's not as if you get refunds in this business." But then they say, "But hey, let's go back to our values. Our number one value is quality, and the other value is it's all about the team. So if you now will go and proceed with this campaign, it's against the culture." And then yeah, as painful as it was to admit, I mean these guys they are right. The campaign was cancelled. We obviously lost a lot of money in doing so but again, we thought that actually the culture is more important. Yes, in the short term we would have made a lot more money had we just put the campaign out, I'm sure. I don't think actually that many people would have noticed except the game team but, you know, the team is so important to us and the culture is so important to us that we are ready to make these short term sacrifices for the best, what is for the best long term. But the story doesn't stop there. In so many companies that I know, that decision would have been made quite silently and you know it had been forgotten there. But what happened was the guy who again like was responsible for this from the marketing side. The next time he - and he worked from San Francisco - the next time he came to Helsinki, what this guy did was that he invited everybody, I mean everybody from Helsinki obviously to this meeting and like, a place like this, and he presented the entire case to them, and he told them

exactly how much money what had been lost and, you know, what we had learnt from that. And again, it's one of those moments that you realise there's something really special about this - what we've built. But again, like it's hard, it's not easy.

The second thing I'll just quickly mention is that sometimes these games teams can also become a bottleneck. So if the games teams need to decide and approve everything then we've actually created the opposite from what I've just told you guys about. So actually, and this is quite recently, we've actually started this experiment therapy which we call a 'trust' experiment which means that you don't need to get approval from anyone and that also applies to the relationship between marketing and me, and the games teams.

So that's sort of supposed to give you guys a glimpse of what's… about the culture. So what led to the creation of the culture, what's great about it and what's hard about it. So, very quickly, like how do we see this evolving? So one idea that we've had for the future is that by now we feel that we understand our culture quite well, so we understand the pros and cons well. And then we thought, sort of, it's a very obvious next step about where we take the culture, and this one idea what we've got pretty interested about and excited about is would there be a way to somehow give access to this type of thing thinking to more game developers like around the globe? And of course the bottleneck here is not everybody unfortunately wants to move to Helsinki and live there and develop games. I mean, many people do, but not all. Obviously not everybody who is part of the world's best talent are willing to do that. So right now what we are thinking about very actively and very interested about is to look for other teams in other locations who would be interested in joining this type of environment and obviously since we are able to make this work internally and we don't really mess with the teams, we believe that we can also make it work with external teams. So that's something that we feel we could take this forward at some point when we find the right teams.

So I wanna like end with this thought that… the question that we get asked and I especially get asked a lot is, you know, since we've been successful, I get this question a lot but, "Hey, so, do you think that you guys can sustain this success that you've had? And you know, do you think that the next year will be even better than this year?" And so on. It really is interesting because if I'm really honest to myself like, if I just think about the next year. I mean, do I know what does the revenue and what do the user numbers look like for the company next year? And the honest answer is no, I don't. I just, I mean, of course I could make a guess, but the truth is that this business is so hard to forecast that I really don't have any idea. So I don't know about the next year because for us, next year, that's short term. If somebody were to ask me, "Hey, how do you think the business will be doing ten years from now?" I can say with extremely big confidence that I'm sure it's going to be much much better. But at the same time when you are in the games business you should understand that it's the nature of the games business that there are these ups and downs, ups and downs, but if you take longer, a perspective that is long enough, then hopefully like in aggregate things will really grow up. And you know, like, we sort of built the Supercell organizational model on the culture. Like taking this into account. This is exactly how we built it so this is why, even if you are passionate about games I mean, at the end of the day, the most important thing about Supercell is the people and the culture. Because we just believe that if we can sustain that, nurture it, make it even better, then if we take a long enough perspective, I can then more great games will come out of it and these games can hopefully be a part of the rich history of games. So really it is all about people. Thank you very much.

[audience applause]

Keza MacDonald: Hello everybody, my name is Keza Macdonald. I'm the editor of the games website *Kotaku* in the UK. I am here to shepherd the Q&A part of the evening with Ilkka. Just before we do I just wanted to thank you again for that

extremely enlightening insight into how Supercell is run. I actually visited Supercell in, I believe, either late 2011 or early 2012 when you were just out of 30 metre squared room. So it's obviously been quite the five years for you in the meantime. We should have about 25 minutes for questions, so I'll start with a couple and then open it to the floor. I wanted to talk quickly about your personal connection with games, because we've learned a lot about how your company is structured and how the games that are made at Supercell have become successful, but what was it that drew you, like as a young person, what was it that drew you to video games? You mentioned *Populous*.

IP: Yeah, well I think it's probably like the usual story, so, uh, many of my friends had the Commodore 64. My dad actually, he wouldn't buy it for whatever reason but he bought the… if you guys remember, it was XD, like this 0888 processor, beautiful like four colour CJA screen and I played all the games I possibly could play on that computer and of course at my friends'. And actually, it actually it really got to this point at some point because the screens were so bad at the time that I played so much of it that for some reason my eyes started to flicker and my mum actually took me to the doctor. Said that hey this guy is spending way too much time on computer games and I, but I played a lot at that time, like some of my other favourites were, like, a bit later on there are games, I always for some reason have loved like simulation games, so I loved *Civilisation, SimCity*, those type of games. And at some point I got to the RTS games, so I played a lot, I played *Dune II* which I think was one of the first ones in the genre of those type of games. And then I'm a big sports fan so I played a lot of like *Pro Evolution Soccer* and, uh, and NHL ice hockey games and so forth.

KM: One of the things you mentioned which I think probably struck a chord with everyone in the room is the "When are you getting a real job?" question, which I think every single person whose worked in games on any level has had at least five years of that. So I think we can say now, like as you alluded to, that

games are understood as a business now, you know when we're talking to especially our older family members, like, people understand that games are understood, like as a business, as a viable business. Do you think they're understood culturally yet? Or do you think there's still time before people understand it culturally?

IP: I think it depends a bit on the country, so, so I, well, thanks to organisations like BAFTA, you guys clearly understand it but I think there's still some way to go in there, I think it… but I think it's slowly sinking in many other countries as well. But I think it's going to take still some time for people to truly appreciate it.

KM: Speaking of local culture, one thing that you tend to notice when you visit Helsinki, and you look at the game dev culture, is that the smaller companies and the huge companies tend to have a kind of communal approach. How is the game development culture in Helsinki? How does it work?

IP: I think it's fantastic and it's probably one of the biggest reasons for the success of the whole city as one of the game development hubs I guess in the world these days so it's a very tight community, I'm not exaggerating when I say that it really is. It used to be a relatively small family and now it's a very big family and just as a concrete example for example they still get together, I think every month into what they call 'pub nights'. And I believe I should appreciate that but, you know, I… and it started maybe 13 years ago… I still remember we were able to fit almost all participants around like one or two like bigger tables, and then I think last month it was our turn to organize and I think we had like 600 people coming in. And what's really great about the community is that nobody thinks other companies as competitors. I mean, all information that can be shared will be shared and people are helping each other out and as you pointed out, big companies are helping small companies and, you know, for example, like we love to make introductions to platform holders like Apple and Google and so on for the smaller guys if they can't find their ways in and if they see them again that's

a person they like, and I guess it's a very strong belief that success can lift everybody. It's not a zero sum game, and it's very true. I remember when we were starting, the fact that Rovio were so successful was of a massive benefit for us. It made raising money so much easier because we could point out a success from Helsinki. And then of course I am hoping that our success then has inspired others and helped others.

KM: Great, well in order to make the best use of our remaining time we'd like to open up questions to the floor. I believe we have a roaming mic somewhere? Do we? I'm going to guess yes. If you have a question just raise your hand and someone will find you with a microphone.

Q: Hello, Nicolas Lovell from Games Brief. Uh, it's got a lot more competitive than it was when you started. Could you start Supercell now? And would you, with what you know?

IP: I think you could. And I certainly would. Uh, you're absolutely right, of course, it's more competitive these days, and by the way, I wouldn't start Supercell doing exactly what we do, meaning exactly the type of games that we've already done, but I think if you put together a small group of great developers and you start to work on something that doesn't really exist in the market – and I think there are still a lot of possibilities there - and of course it's harder these days than it was when we started, so we were either as I said very lucky with the timing and everything, so it's harder but it's definitely not impossible in my opinion.

Q: That was a terrific lecture by the way. Thank you very much. My question was now, seeing that you've had an awful lot of success, you're obviously sticking to your cultural goals really strongly. How did you stick to those before you had that initial success? Because if you're in that situation where you take investment, you haven't yet had a big hit, I would imagine it's much harder to say no to things? So, what was that like, before you hit 2012?

IP: Well actually, this may be hard to believe but I actually think, so, well the short history of Supercell was that, I mean, we were only, like for the first two years we were good or even great only at two things. We were really great at raising money and we were great at hiring great people, but all the games that we did, like, I mean, nothing seemed to work. I mean, we killed so many games and put games out and there just wasn't interest from the players. I even think that at some point we were probably known as this group, at least in Helsinki, we were perceived as these guys that are, ok, these guys have raised a lot of money, they have all of these experienced people and yet they just can't do… they just can't put anything great out. But, you know, I think like it's easier to make those really hard decisions when you know you have to, but if you don't change something, eventually the company will run out of money and you just, you go bankrupt. So, it's actually like, harder to make those hard decisions when you don't have to. And that in our case was the last three to four years. Take the case of *Smash Land*. I mean it would have been probably a relatively profitable game for us. It wouldn't have had a big impact on the company, relatively speaking, but it would have been a nice, sort of, profitable little project and yet we still killed it because it didn't reach our level of ambition. So I think that actually making those hard decisions it's much harder when you don't actually have to make them.

KM: So, would, in the earlier years, if it were 2012 and you hand *Smash Land* do you reckon that it also would have been killed then or do you reckon that it would have come out?

IP: That's a good question. Uh… I think the chances are that it might have come out. So, because, I mean, back in 2012 it would have come out before *Hay Day*, I think it's quite likely that we would still we running it today, because I mean we had absolutely no taste of success, like whatsoever, before, before *Hay Day*.

KM: I imagine that would have affected how the team felt about the project.

IP: Yeah, exactly. Because like at that point, like compared to any other product we had put out, *Smash Land* would have been like a massive success because, just because everything else, like basically had failed miserably. But you know but then it's of course, I mean, I think what's nice about Supercell is that, you know, after *Hay Day* and it's bestselling *Clash of Clans* and then maybe later on *Boom Beach* like the bar, like, gets, keeps rising all the time. It sort of keeps life interesting.

KM: We have one in the middle here.

Q: Hi, yeah, another question about company culture. It's obviously one thing having your own company culture when you are an independent business, but you have had obviously two different owners, you've got SoftBank, you've got Tencent. How do you maintain that culture when you have pressure from someone who's outside, who might have a completely different culture to you and who has completely different expectations?

IP: So for us it's best when we… so we've sort of been lucky like since we became successful we've had the luxury that, because we've never been in the situation where we would need to take somebody on board. We've never been in the situation where we have to raise money. Since we did our serious raise with Accel Partners we haven't really raised money for the company, we've done this like secondary transactions for various reasons, but not to raise money for the company and only because we found people who we feel that they are very aligned. And it's also the case with both Softbank and Tencent. It's not only that we feel that we are very aligned, those guys, or that were aligned with Softbank, and are very aligned with Tencent, but we've also made sure that they have protected our interests in contractual terms as well. Both with SoftBank and now with Tencent like it really is that we are founders of the company and… who have control of the company. And both SoftBank and Tencent they are both smart enough companies that they understand that a company like ours… you know… it really does not… if they would start to mess up the culture then they would destroy the most valuable thing that exists about Supercell. I mean then if they did that then they're investment would be a really bad one. We haven't really faced and pressures whatsoever. Not from SoftBank, not from Tencent on this so I guess we have been lucky in that sense. But I would give an advice to everybody if you raise VSE money then of course you get great help and advice like from best investors like I for example I'd say that we were very lucky to have like for example London Venture Partners on board and they were super helpful for us in the early days, but yet at the end of the day don't forget that it is your company, at the end of the day, it's your company. You are the founders and you should decide on matters that relate to culture, I mean, nobody else knows it better than you do and that's important to keep in mind. And I would argue that all the best investors that I know, they completely understand that that's the case.

Q: I thought *Clash Royale* was really innovative and it seems like during production you empower the teams a lot. I wonder where the original ideas come from. Do you have internal games jams? Do you have games pitches when you are off site? How does it work?

IP: That's a fantastic question and there is a really great story about this, most people don't know that *Clash Royale*, early on, was inspired by this internal prototype. I think we called it *The Summoners*, it was developed by a guy who is still with us, I guy called Jon Franzas at the time and he developed that prototype before *Clash of Clans* came out. At that time I still remember the discussion some somebody, probably me, in the room saying that this real time PVP won't ever work so let's just forget this and so it didn't get followed and when *Clash* came out and *Hay Day* came out we were so busy with everything that we had in our hands and so we didn't do anything with that prototype. But then many years later, two of the founders, a guy called Niko and Visa, they took this prototype and used it as an inspiration, and then they developed something that the code name, I think was Scrawl. And again, as I

just told you, with the first version, most people were wanting to kill the prototype, and there was not so much excitement. But then a few of us believed in the game, they joined the Scrawl team, and then they did this bigger prototype. And I still remember this day, I went to the lunch cafeteria area and it was literally impossible to talk in this lunch area about anything else but Scrawl. You could just feel the excitement in the lunch area. And then there were some changes in the team composition and in the end they were looking for what would be the right theme for the game, and somebody suggested, hey, don't we have the perfect theme in *Clash of Clans* actually and it would fit this game mechanic just perfectly. So they decided to adopt it, and that was the birth of *Clash Royale* as we know it today.

KM: I think we have time for one more question, maybe two if we are lucky, how about back there?

Q: What might Supercell learn from *Pokémon GO*, in terms of quality, in terms of augmented reality and in terms of licensing and branding

IP: A huge amount I'm sure. It's just a fantastic game, it's been so so inspiring to see the success of that game. I think it has taken the mobile game to a whole different level. It just proves what is the true size and potential in this market when you launch something super innovative, and of course when you have a strong brand to support it. I like to think about it, like thanks to *Pokémon GO* so many new people have probably tried this type of mobile game for the first time in their life. It's hopefully going to be so much easier for the next company to do an AR game, to release it, thanks to the success of this game. I think the lesson for everybody is instead of copying what everybody else is doing, try something different and be brave, innovate, and put the game out. Obviously they probably they didn't expect it to be as successful as it was, and I'm sure all the other *Pokémon GO* players in addition to myself have experienced this server issues and so on, but it really hasn't prevented the game being massively successful and of course

the team is working hard to fix them. I think there is a tremendous amount of lessons to be learned for the whole industry, and frankly I think its inspiring, it's really great that somebody comes in and raises the bar for the rest of us so that's fantastic.

KM: Hypothetically, would Supercell consider working with a Disney brand or something, should the opportunity arise, or would you still want to retain your own creative properties?

IP: Well never say never, but when I think about our teams, what really gets them excited is things that they work on things that they create from scratch. But you know, if we did have a team that were absolutely passionate about a certain type of brand and they really really wanted to do it, then per our culture, they would be free to do so.

KM: I think you need to find a team that is obsessed with Disney princesses, its free money.

IP: Yep, if you say so.

KM: Genuinely millions of little girls would play it, it doesn't matter what you do with it. We have got time for one more question from the audience, let's go with this one

Q: If there is anything you could ask the platform holders, the Googles and the Apples to do, to help the industry grow, what would you ask for?

IP: You would be surprised. To the credit of the platform holders, they actually ask us this exact same question quite regularly, which I applaud them for. Honestly, our answer is please don't change because in the grand scheme of things we think that it is working. So all the fundamentals are working so don't change any of the fundamentals, but then you can improve of course lots of stuff. So say you can improve the approval times, they could be shorter and I am sure that some people are frustrated about that. And the other thing that we often express is that we would love to get more data on how people behave on the App Store level it's almost like a black box. Of course,

you know how many installs we get but boy wouldn't we like to understand better some of the click through rates and the user funnels and so forth. But my personal opinion is that, and maybe I have more tolerance than others as I saw what the world looked like back in 2002 we were selling mobile games to telecom operators. I remember the days of the WAP decks and how those worked and therefore I think I have a lot of appreciation of what both Google and Apple have built and how they have democratised the app distribution, so I'm a big fan. So I would say don't change the fundamentals but keep on improving, and hopefully at an accelerating pace.

KM: I think we might be able to squeeze in one last question if it is a short one. Who has a short one, let's go with this gentlemen.

Q: Hello. You have characters in your games and you have worlds, are there other stories to be told about those things outside games? I am sure that you could have done a TV thing or a film but you haven't. Is that a deliberate decision, or do you think there may be some potential for non-game stuff?

IP: I certainly think there is potential and obviously this has been a hot topic for us, especially with *Clash of Clans* and the characters in there. And we have even done some things, so if you guys check out for example a website called Clashorama, so we are actually working with the three original writers of *The Simpsons* TV show to create *Clash* related content like comics and animations and so on which I think are great. And there maybe something else coming from that front, but you know still the most important thing for us again is the value of focus and quality and trying to be laser focused on making the games better. That, combined with the small size of the team and the company really limits what we can do, even though there has been all kinds of interesting ideas. But I would say that still this year you will see a bit more from us on that side but you know again we are not going to go crazy and do all kinds of things, we are going to do a few things but whatever comes out I hope our

players will really like it and think that it is really authentic to the brand and of high quality.

KM: OK I think we are just about out of time. I have been asked to remind you that there is a champagne reception in the bar, as if anybody would forget that. But yes, that is where you should make your way to when you exit the room. I just want to thank Ilkka very much again, please join me in thanking him for this fantastic talk.

(Applause)