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Programa Conte sua História (PCSH)

## The value of preserving memories

História de Rune Bjerkestrand

Autor: Museu da Pessoa

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Conte Sua História
Depoimento de Rune Bjerkestrand
Entrevistado por Karen Worcman e Lucas Lara
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P/1 - ...a little bit, and then breathe. So then we can connect... Disconnect...

R - Disconnect?

P/1 - Disconnect from now, from other meetings and then you just pay attention to your breathing and to the noises that come into the room. And I... Still with your eyes closed.

I want you to try to remember the first thing that you can remember in your full life. The first image. The first sound, maybe, or a touch. You don't need a word, just go there. Just try to get the silence of this room. See what was the sound of this memory, if you have [it]. Do you have a specific one? Is it a combined memory?

R - I guess it's from different periods... I know the time?

P/1 - Just go there now and then I will ask, ok?

R - OK.

P/1 - And when you feel the memories, feeling you're there, then you can, in your mind, come back here. Watch yourself there and be back to this room and then just breathe a little bit.

When you feel you are good in this room, then you can open your eyes.

R - So I have to come back?

P/1 - It is a nice place! Back to this room, to the home meeting.

R - Yes. I'm back in this room, back in this room. It's a nice view.

P/1 - It's a nice and quiet room. So I'm starting the interview with Rune Bjerkestrand.

Interviewed by Karen Worcman and Lucas Lara in Svalbard, 11th of February, 2019. Programa Conte Sua História.

- R 22nd of February.

  P/1 What did I say?

  R 11th.
- P/1 Good. Again.

Interview with Rune Bjerkestrand. Interviewed by Karen Worcman and Lucas Lara in Svalbard, 22th of February, 2019. Projeto Conte Sua História, Museu da Pessoa.

So, Rune. I'm going to start asking you again your full name and the date and place where you were born.

- R My name is Rune Bjerkestrand. I was born on the 23rd of February, 1962 at Frei, which is a small municipality island on the Norwegian west coast.
- P/1 And what are the names of your parents?
- R The names of my parents are Inger, my mother, and Uihlein, my father.
- P/1 Do you know some of their story? Where do they come from, where does your family come from?
- R Yes. The family comes from this island so it's a... The name Bjerkestrand is the specific place on that specific island. And it means actually "the beach of the birch tree", the white trees we have in Scandinavia. So Bjerkestrand is "the beach of the birch tree".
- P/1 Do you know how they met, your father and mother? Their family's stories?
- R They met later, they met when I was five, right? Yeah.
- P/1 So how was... Tell me a little bit about your mother. Why did she do?
- R My mother got \_\_\_\_\_ when she was very young. She was only eighteen when she gave birth to me. That's quite early at that time, in the early 60's. That was early and she wasn't married, right? And that's a challenge in early Norway 1962.
- P/1 And then what happened, do you know? Did she tell you the story?
- R Well, I lived with her and I lived in my grandparents there. Then later we moved and then she met my my father, so he adopted me.
- P/1 Did you ever meet your biological father?
- R No.
- P/1 Some of the troubles maybe your mother felt and had, do you know what happened? You know, was she discriminated? What happened to...
- R I don't know [if she was] discriminated, but of course I think it's more the challenge of her parents my grandparents, you know? That this was not typically what you did these days.
- P/1 Do you have any remembrance of this situation? Of living with your grandparents?
- R Yes, very good memories. That's where I traveled back.
- P/1 So tell me where did you travel back to.
- R I traveled back to this place where I was born, on Bjerkestrand, the beach of the birch tree and... I was with my grandfather and he always wanted to give me tasks, to to do things and... Maybe I was like five years or... I don't know, four or five years and I had to mount a lock on the door. So there was a very practical job to do and it was a big job for a small, little boy. I remember I was struggling and I told my grandfather: "This is not possible, this doesn't work." I was about to give up and he said: "No, everything is possible. You just need to want to do it." That's a statement I've been living according to that, you know? If you really want it you can always do it. So I was actually able to mount the lock on the door because he challenged me. "Never give up." And I think that was a very good moment because he was helping me. He was challenging me and he gave me these short sentences and I always remember that sentence. One of the... Maybe one or three sentences that he taught me that is quite helpful.
- P/1 What were the other moments you've had with him that were important moments for you?
- R It's a kind of similar thing. When we did things together and I said, for example: "Well, this is impossible to do." And he said: "Well..." I need to translate this English but "If you believe, you can even move a mountain".

- P/1 So, your grandfather, what did he do in life? What kind of man he was?
- R He was born in 1906. He was a craftsman, more like a carpenter, and he was also a fisherman. So he traveled on the boats on the Norwegian west coast, from south to way up north not as far as well, but on the Norwegian coastline. In those days it was hard work. It was in the 20's and 30's, right? So that was hard work. And actually he... He got very sick. What is that sickness? It's on his lungs... He was very sick and he was almost passing away, but he survived and that was during the War.
- P/1 The First or the Second?
- R The Second World War, that was when he was really sick. But he survived and came back and then... My mother was born in 1944, at the end of the war.
- P/1 And your grandmother, do you have any remembrance of her?
- R Yes. A very strong little woman, very stubborn, as my mother. I thought she had a great sense of humor. She was a little bit dry and... My mother is not so happy with her because... I think she maybe was a little bit tough in the way to raise the children, but for me she was a great grandmother.
- P/1 Do you remember the moment that he moved there, when you met your father? Do you have any...
- R Yes. I remember that very well, actually. That was maybe a year or two after this first picture and then we moved to Drammen, which I have been and... They met and he was working with horses, so he had a lot of horses. We didn't have any experience with horses, we suddenly had to relate to horses.
- P/1 Was it a house or... You had the horses there?
- R It wasn't a farm. Not an active farm, but a horse farm.
- P/1 And then what happened when you arrived there? What was your...
- R Then we moved together. We became a family, first in a very very small little apartment, because my mother was a nurse and she was having a small one person little apartment, all three of us moved in there. So it was quite compact but then some time later we moved into a bigger apartment.
- P/1 And did you have any... Do you have any brothers or sisters?
- R Yes. I mean... Then, of course, my mother married and then the kids came in the roll, the one after the other. So I got three brothers in three years almost, from 69 to 73. Three brothers in four years.
- P/1 Do you remember what changed in your life? What did you feel at that moment, like being a unique kid and then a family? Do you remember what did you feel? How were the differences that happened?
- R I don't really recollect. Oh, of course it's different, because, I mean, you and a woman and then you are four in a very short time, but... No negative differences or...
- Of course, you're busy. The family's busy but, you know, I started in school. That was in 69, when my first brother was born. I started my life in school and you have your friends, at home you have your family and it's growing. It's normal.
- P/1 So tell me about school. How was school? Was there a specific teacher or specific thing, like friends or something you liked to learn in school?
- R Good friends, good memories. Mostly, you know, strong, clear teachers.

I remember, in particular, one episode where we had to learn to play the flute. I don't know what is called, the block flute or, you know, that flute that every school children play. It's, again, a hopeless thing, you know, to get your fingers organized. It should sound like it's proper music and you try... Hopeless. And again, I said to that teacher: "It's impossible."

He said, and this is also one of the sentences I remember... I tell my sons as well, the ones from my grandfather and then this statement from this one music teacher. He said: "Everything in life is possible, except lighting a match from a piece of soap. If you try it it will not work, actually." So I believed him and then I learned to play the block flute as well.

- P/1 So you were very... A kid that was challenged and you moved through challenges. What was the... Do you remember what you wanted, what was your dream then? What did you want to do when you grew up?
- R I don't know if I had a particular dream about a politic... Particular job or something like that, but I was very... Always very curious, always asked a lot of questions and my and my father told me stories... Unfortunately he passed away four years back, but he was blown away that all the

questions I was asking, continuously asking questions about everything.

He was very patient, he always answered, right? He took the time to answer all those questions. I'm born curious and I started very early to take away... Open up technology. If there was a radio that didn't work, I opened it and tried to fix it and I put it together with some spare parts and, of course, the radio didn't work. It was the same with the vacuum cleaner and these things, I always tried to fix things and open up and see what is inside, how does this work.

After some time I was able to start to repair. Not not only open and have too many parts left, but actually make it work again. So it's that curiosity and really not [being] afraid of doing things.

- P/1 What were your preferred things to do when you were in this moment, going to school? Did you like to... What were the other things you liked to do?
- R Also [to] read, always very fond of music. I remember I quite early got a record player, the old-style portable record player where you could have the 78 records and then play music. That was quite early, actually. I don't remember exactly how old when... Maybe eight, nine years or something.
- P/1 Reading was something strong in your life?
- R Yes. I would say I read quite a lot. I was not afraid of reading, like my boys today. I mean, maybe they have not even... Well, the younger one maybe read one book, but the older one, I don't think he's read one full book.

I think is very sad because there is so much... You can create so much imagination in reading and now you... Then you create your own stories and I think that's what I did. I read, then I created my own stories.

I used to spend the summers then on this island with my grandfather parents. In summer, when school... And holidays was there, I left and stayed maybe four weeks, five weeks. I always read, I read magazines and cartoons and books. I learned a lot about the war, because at that time there was a lot of magazines about the war.

P/1 -	To do	it was	important for	vou? Or	
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R - I remember reading a series of detective stories - the Hardy brothers, american young detectives. That was always a great fun. Then I read [Gil] Jourdan, his explorations. That was quite early, you know, so I always had the desire to travel around the world and to go to places with funny names. That comes from all that reading, right? I read about it and I didn't know if it was for real or for fantasy, but in the end, you know, I discovered later: "Oh, this place, Kuala Lumpur, in the Donald Duck cartoon is actually existing for real. So I had to go there, right?" I read about Kuala Lumpur in the Mickey Mouse, Donald Duck magazine. When older, I realized: "Oh, it's real, then." Then I go. I read about Captain James Cook and then, of course, I had to go to the Cook Islands.

P/1	_	Did	you	20

R - I went to the Cook Islands, yes, I went there. And that was quite funny, actually, because on these Cook Islands I stayed [in] a lodge, small lodge, which was called Joseph's Lodge. She was a very old woman at that time. This was maybe in the mid-eighties and she was half Norwegian, that lady on the Cook Island. I met her grandchildren and they were quarter Norwegian. It's very strange, but in the end it wasn't that strange, because the Norwegian sailors, they went to the South Seas, the Antarctic, out to hunt for waves. So of course they made a stop on their way back home on the nice Cook Islands and they made acquaintance. So there's a lot of Norwegian DNA in these islands, but it was good to be able to come to the island of Captain Cook and be there, yeah.

I went to a few of those places. Langkawi was a place I read about and then I went one day to Langkawi.

- P/1 Where is Langkawi?
- R It's in Malaysia, an island north in Malaysia. I heard about Hanoi and then, many years later, I also went to Hanoi. Now we even have a client in Hanoi, a partner, so it's interesting. Lots of ideas and inspiration comes from reading.
- P/1 Yes, I agree totally. When you start becoming older, like in your youth, what did happen in your life? Did you change school?
- R We moved, because of this big family with, you know, four hungry boys. We moved again to a bigger apartment, to a different part of town and I didn't really like that, because I was really tied to... This was when I was in the fourth grade and I was tied to my friends and the school, I was a bit... I didn't really want to move school, I didn't like that. So then we agreed: "OK, you can continue to go to the children's school onto sixth grade and then you move." I did that, so I was biking and taking the bus and then those two years... That was fine, fifth and sixth grade, I did that.
- P/1 How old were you?
- R Then I was... What is it like? Eleven, right? Because you start school at seven, so eleven, yeah. At that time we started school at seven, now at six but then it was seven. So [at] eleven and twelve I was biking in summer and taking the bus in winter to that school, which was OK. And then starting in the seventh grade I shifted, but then I already, of course, had some new friends [at the] new place we moved on. It was the most natural thing to do and I got a lot of new friends there as well. It wasn't as scary as I believed in the beginning. I didn't believe it was scary, but I just didn't... Just wanted to continue school where I was.

- P/1 And then what was different in your life?
- R [There was a] big difference, because, I mean, we lived in a small little wallet... The city was the same, but different parts of the city. There was a small apartment block with six flats and now we moved into this huge one with hundred and forty flats, so it was a completely different world. Only in a positive way, but it was completely different.
- P/1 Like different kinds of people?
- R No, different kind of environment. Much more people, maybe much more friends. You grew older, you get older friends. A lot more development, I think.
- P/1 Was that OK?
- R Absolutely OK. I didn't actually have any bad experiences in my life. Most of the things have been good to me.
- P/1 You're very fortunate!
- R Yes, I'm very fortunate.
- P/1 What happened then? You studied and... What were you thinking in life then? Did you want to go to university? Did you want to start working?
- R This only happened a bit later. So you went to the secondary school and three years.

It was always easy for me at school, always easy and I was always interested. I was curious. I was reading and I was studying and this time it didn't have internet, so we needed to go to the library to read books and make presentations. I was always doing well and I was always very curious, so school went very soft and easy for me. I could basically do what I wanted to do: leaving the secondary school, going into the gymnasium.

- P/1 This was a good clue. You like sports.
- R Also sports, yes. But Gymnasium, I mean, is the name of the school.
- P/1 OK. Ginásio.
- R So you have first six [years] and then three [years], then gymnasium is three [years] and you go to college or... Yeah. So that was also great fun. A little bit more challenging than the... At school because it didn't come that... It wasn't that easy anymore, you know, you need to study more. Maybe I wasn't always that good to to study. So, for example, in mathematics and physics, you know, I was not the top... top tier. But in languages and Norwegians and all these things I was always again very curious, so that I...

I was very interested in class, so with things in class could come very easily to me, the things that were presented that was... Triggered my curiosity. The others, like mathematics, you know you need to actually do a lot more homework. And I did a lot of things, I was playing humble and being very active on the... I got a job as bringing the newspaper, so every day after school I took the bus home and I delivered newspapers. It was the afternoon newspaper - now it's the morning but then it was afternoon. So I started very early to work.

- P/1 How old were you?
- R Starting with the newspaper? Maybe thirteen.
- P/1 Ah, very early.
- R Making my own money, buying my own notes, then I could choose. I didn't have to buy what my mother bought me, which I didn't like, but I could buy this trouser and this jacket.
- P/1 What other kinds of work did you do while you were studying?
- R I was... First, before I got to college, I did summer jobs. I did the newspaper always for many, many years, and then I had summer jobs with my father. He was like the caretaker of the horse race, a big horse race arena. He was the caretaker, so I was working with him in the summers. And I was also working in the municipality, taking care of the soccer fields and all these, you know, cutting the grass and driving around and fixing things. I always did that during summers.

When I left military, I took the driver's license for a bus, so I started driving the bus in... At nights and in weekends.

- P/1 What kind of bus?
- R In the municipality. The local buses. Yeah.
- P/1 So this is where when you were eighteen.

- R This is when I turned nineteen. Yes, so then... No, twenty because you need to be. I took my driver's license at eighteen and when I left the military I took the driver's license for the bus. I needed to be twenty. So I just was twenty and I got a job as a bus driver.
- P/1 And you did... Militaries are obliged? Everyone has to...
- R Yeah, military service.
- P/1 It is obliged? Was it especially something important in your life, to go to the militaries?
- R Not at all important, but quite interesting. Because I was always interested in technology. I applied to get into the communications services, so to help with radio and communications and all these things. I learned typewriting there, because I was doing the the cryptography and the telex for the military, so that was quite helpful. But, of course, in the military there's a lot of stupid things and things that doesn't make logic and I think I was a little bit in opposition. Not negatively, actually, but making some fun things and those fun things were not always appreciated by the...
- P/1 You were making like... Mocking?
- R For example, one morning... Always in the morning you wake up and you're out there and you line up and you salute the flag and yell this at six o'clock in the morning.

I wasn't a platoon leader but, you know, I had this idea: "Let's make some fun." In one morning just put the gas masks on, because everybody used to have gas masks, right? So then my platoon, we all came there with the gas masks on and... Like fifty people lined up: there was another fifteen, another fifteen, so we, in the middle, had the gas mask. It looked quite funny, but the colonel didn't like this, so he commanded us on a run with a gas mask on. Around the cap. And that's two or three kilometers running with the gas masks on. It's pretty heavy.

Luckily I was quite fit, but people started to struggle because they were not really fit and they didn't have enough oxygen, so I basically took command. I wasn't the one in command, but I took command because I felt: "Well, we need to arrive in style. No, we need to arrive organized and with our gas masks on." So basically I told my friends: "OK, let's take a break. Take off the gas mask and breathe. And then you walk without the gas mask, but before we come around the corner we put them on again." Right? So we all arrived in style. And...

After that I was called to the commander's office and I thought: "Shit! This will be trouble." And then he appointed me to be the platoon... I don't think the word is the platoon, but the group, right? The fifty people group. So he instructed me: "Now you are the commander of that group." That was not my intention, I never actually would have any intention of taking command, but it happens just by itself. Also that time, it just happened.

It was actually great fun. The military was great fun. After that I ended up in Oslo in the command center, the Central Command Center. I learned a lot and understood a lot. This was at the middle of the Cold War, so it was a quite interesting experience because I was in the central communication.

- P/1 So this was like when you were nineteen...
- R Nineteen. One year.
- P/1 And you never thought about... "I'm going to be staying here"?
- R No, no. Never.
- P/1 You didn't think military...?
- R No.
- P/1 Did you have any politics ways, thinking about politics in Norway or in the world?
- R Well, I had the period because after the military... Some years after you are called for like a repetition. Then I started to feel bad about doing all this all this killing and these wars and I thought: "Well, I don't want to involve in that. I don't need to shoot people." So then when we were called for that exercise, I think maybe four years after or something, I said: "Well, I'm happy to be here. I can be the cook, I can do all the things but I don't want to carry a gun."

That was a big trouble because then if you make that statement you cannot just be the cook. You cannot just be whatever, you know. Of course, if you say "I don't want to carry a gun" it basically means that you are rejecting the military. So then that I was firm. I said, "No, that's my decision. I don't want to carry a gun. I don't have anything against the military. I don't mind that you carry a gun, but I don't want to do it." So then they sent me home. "You cannot be here."

And then I was called for interviews with the police and a lot of things and I ended up in a kind of civil service.

- P/1 What did you do?
- R I ended up in the county administration, doing investigation on protection of rivers.
- P/1 Interesting!
- R That was also interesting, was interesting learning. But then I realized I can never ever work in the public administration, because it was so

boring. So that was nothing for me. It was interesting because I know: "This is not for me. I can't work in places like this."

- P/1 OK. Now what was... Did you go to university?
- R Yes. I went to Bergen University. I went to the Engineering university. At that time it was different. University was like, you know, the more academic subjects, but the Engineering School was the engineers. I took the Bachelor of Engineering in Cybernetics Automation Process Control.
- P/1 You went straight to technology.
- R Straight to technology. I did that for three years and somehow I wasn't really interested in starting reckons so I took the first year on the Bachelor of Business Administration. I went straight from technology to business and I never regret that because that was a mind opener. It was a fantastic place, it was a private university at that time, well recognized, that had this bachelor in Business Administration. It was three years, I took the first year and you get the degree. I started working as an engineer, then I came back again to that university and overtime I completed that Bachelor of Business Administration as well.
- P/1 So then you've studied Administration too.
- R Business Administration. Yeah. Not administration but more business, marketing and business.
- P/1 And during this time then you were already working?
- R I was working in parallel as an engineer, so I got a job as a project engineer, doing automation of buildings, security, heating, ventilation, all these things. And then later on industrial automation, you know, paper factories and different kinds of...
- P/1 What kind... Did you go to the university at night?
- R Yes, night. And... I think I actually did it... I did it also when I did that civil service. I did the first year full time and then I did a half year unit but over a year and then I did the other half year unit over a year. So yes, it was during the night.

Then I did one half year unit full time somehow during transition from one job to the other, I don't really remember now. But always like that: work, go back to school, work, go back to school.

- P/1 You were not living with your family anymore.
- R No, then I was living with my now wife. We met, uh... Quite early. Actually, we went together in that Business Administration.
- P/1 So you met her at school.
- R No, I met her before, actually. We met way before. Yeah, I knew her from.. Because we played handball, so I knew her, actually she was from.. She was maybe twelve, fourteen almost or something.
- P/1 So you started having like dating very early. Is she your first girlfriend, more or less?
- R No, but maybe from.. When she was eighteen... Yeah... Seventeen.
- P/1 And then you move in together.
- R Yeah.
- P/1 But why you say 'after wife', because...
- R Now she's my wife. We're married.
- P/1 You're married.
- R In the end, we're married.
- P/1 That's a big difference is when you married or...?
- R Not really, because we lived together for quite a few years, right? So it wasn't such a big difference.
- P/1 And did you have kids? What happened to you, what was going on in your family life.
- R We had kids late because... Well, I'm 57 tomorrow and my son is nineteen in March. We married twenty years back, so we... I was 37. He was born when I was 38.
- P/1 So you have two kids.

- R Two boys.
- P/1 Two boys. Is this something important in your life, all your family life? How is it? How are you... Your work and family is combined?
- R I work a lot. I mean I work a lot, too much. But we have a... I think...

I mean, now the kids are so big, right? It's difficult to get their attention. They're doing their own things, but I have a very very nice wife that has been extremely supportive because I've been an entrepreneur. I established... Well, we established a first company when I was... That must be back in 88, right? So I was in the mid 20s. That was the first company and then we did some business along with some friends, so I've always been doing a lot of activities in parallel to school and normal work. Related or non-related activities.

- P/1 Can you tell me a little bit about your entrepeneurship life? How it started and what were the main things you did.
- R It started with some some friends from the... Business Administration studies where we've got an opportunity to start a company that was reselling insurances and finance solutions. And we thought it was a great idea. We just did it.

We didn't really have a clue but, you know, we had our bachelor's degrees and we thought: "Well, we can do this." And we did it. We just started it, opened it and made it reasonably well.

But then most of us were going back to all the studies. Two of my friends went to the US to take their master's [degrees] and the other guy didn't want to do it, so then we just sold it off. That was the first thing. And then we used the money we earned in buying some property and developing some property, so this... And then there was... We were a group of four and then it was \_\_\_\_\_\_, me and another one that ended up starting PIQL, back in 2002.

- P/1 So when was the... How was the beginning of the idea of PIQL?
- R The beginning of the idea of PIQL came... I was working in a company that developed projectors, data and video projectors. [A] Norwegian very innovative company that was very, very early in the market with these technologies. And when this becomes a commodity, projectors become a commodity, everybody has it all over the place. You know, the manufacturing has moved to China and Taiwan and Japan. And then the Norwegian tech... The technology companies cannot compete because our prices are too high. So we were looking in that company to see if we can deploy our technology other places. And what we did was digital imaging, so basically getting some digital data. We put it on the screen. So looking at the application of that core competence and the core technology I came across, you know, the opportunity to project an image on film, rather than projecting it on wall, projected on film. Because the film industry was about to become digital, so they started to use instead of the normal film cameras, you know, they use digital cameras, like you guys are doing, all right? But then still you needed to have the content on film because the cinemas used film. So we we set out to bridge the gap between the digital production side and the analogue distribution sites to connect that. So then we established a company based on an idea to make a machine that took these digital images and put them on film hundred times faster than anyone else.
- P/1 So this was your company, your...
- R That was the fundament for starting PIQL.
- P/1 Was that PIQL already?
- R It was not PIQL. The same company, same formal organization, but with a different name. At that time we were going into the cinema industry, so we called it... It was innovation in the cinema industry, so we called it Cinnovation, Cinema Innovation. [The] name Cinnovation was established. What made the product in record time.

We didn't have any clue about film. I didn't know... I took pictures but I didn't know film technology. We didn't have any clue about the film industry or the film market. We just had this vision: if we can make this product that can be a hundred times faster than anything else, it should be possible to make it into the market.

- P/1 So was it possible?
- R It was possible.
- P/1 How was... What did you do to make it possible?
- R First of all, we were not rich. We needed to make some investments, so we took some savings and my friend and I put those money and then... We made the very basic mockup of the whole thing. And based on that mockup we went to the Innovation Norway, which is helping entrepreneurs and they got [us] the first grant, 20,000 euros. From that we built a little prototype and we came back and we showed it. They said: "Oh, you've made it. Good!"

We got another grant of 20,000 euros, so we could take it a step further and then we went to the first potential client, which was the field laboratory in Oslo. We presented the idea and they were very skeptical because they understood that we didn't understand anything about their industry. But somehow there was one person there that was curious about this technology that we had, so we got them interested. To make a long story short: we were able to connect this funding body, the Innovation Norway, with the potential client, the lab in Oslo, and we got them to finance one third each. Those one third each we can go to an investor, get an investor to come with the rest of the money. We didn't have any money, we didn't have any product, we didn't have any real client but we got them, the potential client and the funding body to sit around the same table. 'Okay. If you could be interested as a client we could be interested to support on the clients' 'OK, if you are interested

to finance we might be interested."

So that was a nice way to bring together and...

- P/1 And what the product, the real...?
- R The product was a machine, the Cinnovator, the cinema terminator, that would transfer digital image and sound to film at the real time speed, 24 frames per second. And that was a hundred times faster than any machine at that time. Because that lab in Oslo did some of these productions and they used ten days and ten nights to take a film from digital to reel \_\_\_\_\_. We could do the same thing like this, in ninety minutes. So they really like the idea.
- P/1 So, what happened then?
- R We developed the machine and we developed that in less than one year. We brought it to a trade show in Amsterdam. We got a lot of attention, because we just came out of nowhere.
- P/1 Or Norway. (risos)
- R Norway, nowhere...

Then we were actually able to get into Hollywood.

- P/1 From that meeting in Amsterdam?
- R From that meeting in Amsterdam. We signed the letter of intent with the company in Hollywood because we had informed them that we were there and they signed a letter of intent. In the end, they didn't end up to buy the machine for many reasons but we got other clients in Hollywood. And when you have Hollywood as a client and they trust your technology and all the blockbusters, you know the...

I was very proud, for example, when I could bring my two sons to the local cinema in Drammen for the premiere of "The Pirates of Caribbean" and that movie was made on that machine in Hollywood. Amazing quality because our machine, in addition to the speed, it made the best looking pictures on film.

- P/1 And your business model was to sell the machine.
- R We sold the machine at that time. Yes.
- P/1 This was your idea, to sell the machine so...
- R No, it was really not my idea. And this is where I regret. Well I cannot really regret because I didn't know too much that time but I had the idea to do a business where we could charge for the use. So for every little picture you pay a little cent, but unfortunately one of the owners, together with my founding partner, they went to Hollywood and they asked the client: "What could you be willing to pay for this machine?" The client didn't really answer and then our chairman said: "Well, would two million dollars be too much?" "No. Sounds like a good price." And then the price point on the machine was set and our investors believe they could make billions. all right? So we set the price point on the machine which was very high, which only a few companies could pay.

Hollywood could pay two million dollars. And I rather wanted to have a very low price covering our cost and then get it out. They start to use it because of the capacity of the speed and the quality. There will be so much pictures going through that it would be much more money coming back to the company. I proposed this to the board and to the owners but they said "No no no no. Now we will produce this machine and we will make billions." But it didn't go like that.

- P/1 So then you sold some machines.
- R We sold quite a few machines and we are actually shipping today the last machine.
- P/1 So you still have this business!
- R Very few, very few... But because there was a crisis, the financial crisis in 2009. And also we had "Avatar" coming, which was 3D and that completely changed the film industry overnight, so from film it went to digital, within a year or two, all across the world. Because if you wanted to show 3-D you needed to have a digital projector, you couldn't use film. The film market, it basically disappeared. That was when we started to look at, investigating into the PIQL technology.
- P/1 OK. So this business was going to end and then how it was...
- R Because I came from digital projection. And I remember we were thinking about making a digital cinema projector back in 99, 98. But at that time we were struggling with our cost efficiency, so the board decided on: "We don't want to do that", so we... It was too much investment that time, but I saw... That is also one of the ideas for this machine for the film industry, because I saw this transition. And many players in the industry said: "OK, in 1998", they said, "the cinema will be digital in just two or three years." That didn't happen. It took almost... From that time, it took... 98, it took like twelve years for it to happen.
- So I knew, when I started the Cinnovation company and made the Cinnovator, that we would have a time window of eight to ten years to sell machines. I already started to think quite early, you know, could there be alternative use of this technology? Because we made an extremely

comprehensive technology development to make that machine. It's a very sophisticated advanced machine, with a lot of different technologies, including mechanics, optics, electronics, software etcetera. So we started already.

The machine was launched in 2004 in Amsterdam. And we started to make the real sales to Hollywood in 2006. And I think already in 2007 I started to think about this: how can we use this in a different way?

P/1 - And then, when you... How you start PIQL for real?

R - So in 2009 we started. There is the first research predicts, to investigate if we could convert film to a digital storage film. Film has been carrying visual images for hundred and forty years and it's a fantastic information carrier to bring visual information from the past to the future, like picture, motion picture. Even sound can be on film. It's a great information carrier, so if we could convert that to store the bits and bytes we would know that it's trusted. It has a good longevity.

So the study, initially, was to see: "Can we write...?" Because we were already, with that previous machine, receiving the bits and bytes for the images. So, rather than writing it on the film as an image, now produce it as bits and bytes hitting the film. So that was the core idea and then we start out to find out if it could be done. We investigated all the films in the world. "Yes, this could be done." And since then, in ten years, 35 million euro invested in technology development around our technology.

P/1 - That was also you brought together this funding to do...?

R - We brought technology partners, research partners. We brought manufacturing partners, all to develop different components around the solution. So it's very, very comprehensive in width and in depth R&D over ten years that has given us this technology.

P/1 - So when you... What's your... You got all together and when did it start? Just before you say your vision, how you combine the Arctic into this story to bring things here? How this way got into the story?

R - By chance, just by chance. A lot of the things happens by chance and it happens because you feel in your gut, you feel in your heart that there are some things right. And by luck, because I always continue to do my education. So even, you know, when I started started Cinnovation I did master's programs, I did my... Three different master's programs. I didn't get to do the thesis but if I do that I will also have the master's of... Master management, something.. So the last managed master training session and of course I did, well supported by the Norwegian Research Council. They invited us as an innovative SME to participate in this program at the Norwegian University and at Stanford and Berkeley and there we met some guys from the Norwegian Bioeconomic Research Institute University, that was doing preservation of living plants. Here at Svalbard you have the Seed Vault. You preserve the seeds, but for those plants that doesn't grow from a seed, but need to grow from a living plant, like banana, like strawberry, raspberry. You know, they're not seeds because if you plant a strawberry seed it's not a strawberry plant. Or a potato, same thing. It needs to be preserved either on the huge greenhouses or huge lands. But the alternative way is to take a little tiny little shoot tip from the plant, clean it from bacteria and virus and deep freeze it in liquid nitrogen, 196 degrees minus. And then up to 5 years, 50 years you thaw it up and you can grow and you plant to grow food.

The challenge then when you have the tank with liquid nitrogen and the plant is where are the data, where's the information about this plant. It's completely disconnected. So even after fifty years you don't know what this is. You don't know how to grow it, you don't know how to cook it, you don't know anything. So we came up with a concept of co-preservation of living plants and related data in the same container. We developed our technology to be support, to be deep frozen and then we thaw up the data together with the plant and we have the information on the plant together.

In this project, we learned about the Seed Vault, which is the mission to preserve the world's seed to secure food in the future. So then I thought: "Maybe it could be a good idea to preserve the world's information in this location, for the benefit of the world, so that the future people of this earth can have access to this information." Digital data is very fragile, you know it's very risky. It's floating up there somewhere but, you know, just like a blast... Actually the sun can delete all the data on Earth. If there is a solar storm, it has such a strong magnetism that can wipe out all the service and the memories take sensed off. If we put it here, on our technology, deep inside a mountain in the permafrost, it can actually, in principle, last forever.

So that was the idea and then... Well, we have the technology, but we don't really have the secure mountain world, so we contacted the Norwegian governmental mining company up here and we planted the little seed with them about this idea. They're very skeptical in the beginning, because they're mining company. Mining people, right? [About] I.T., they don't have a clue, but after a while: "Maybe a good idea, let's try it." OK. They were interested to give it a try. This was in, I think in December 2016 and I called our joint friend Roberto Carmenati in Brazil and I said: "Roberto, we have this idea about this Arctic Vault. Do you think you'll find any clients in Brazil that would be interested to deposit data?" "Great idea. Let me check." And at that time we had a very good dialogue with the National Archives in Rio, Brazil and the managing director at that time, Ricardo Marcos. I was in Rio, met him. "A really great idea. Let's do it." And we asked our Mexican partner, which have a good contact with the Mexican National Archive, H.E.M. Mexico and their I.T. director and managing director. "Oh, great idea. Let's do it." So then suddenly we had two international clients and we thought: "We need a Norwegian client." And he asked one of our first Norwegian clients. "Do you like this idea?" "Yes, I like this idea. Let's do it." OK.

So then, [in] 27th of March, a few months later, we inaugurated the Arctic World Archive Russian 0.1 in the mind number 3 in Svalbard and it created an amazing interest, globally. It took us by surprise totally, because we didn't think about marketing, we didn't think about press. We had the local representative of the Norwegian TV too, he came and by chance, though also the local newspaper came. And then, after two weeks, there was 700 unique articles online about this Artic Vault Archive. "There must be something here." (pausa)

...started to develop the idea a bit further. And I think it really can make a difference since then every day isn't in use that data useful state has corrupted, there is more threats and more risk in the world now than it was a few years back.

I mean, you have these precedents and dictators around the world that, you know, really... I was growing up during the Cold War and you felt everything was unsure and unstable, but then we had... Then came Gorbachev and Ronald Reagan and you had Helmut Kohl, right? These three guys are breaking down the cold, breaking down the wall and everybody was looking very positively on things, but suddenly it changes again,

right? Very quickly.

P/1 - Yes.

- R The whole scenario changes and you need to reflect. What about... Now they are fighting wars with data, right? They are stealing data, faking data, deleting data to secure their positions and they don't care about what is truth, the truth or not. So I think in order to have a place where you can be sure that these data cannot be accessed, they cannot be hacked, they can cannot be deleted... They are there to tell the real story. I think it's a good thing.
- P/1 What's your vision for this now? What do you want to get? Do you have a clear vision?
- R I would like this to become the Noah's Arc of the world's irreplaceable information, so that if something happens everybody in the world knows that here, up in the north, up in the Arctic, in this very geopolitical stable island there is a copy of everything that has a value for future mankind. We have the seeds here, which will secure the food, and we have the information, which will give people a reference point in the past, because there is no future without any past. If we have a reference point from the past, we can see a future and we have food to go into that future. Well, this is the Noah's Arc, the modern variant. Does it make sense?

P/1 - Totally.

R - And now we started to engage with institutions and organizations worldwide which also think the same. It's important to keep this information and I think that the Person's Museum is making an amazing job. I saw some of the videos you presented, Lucas, to us before. It's very touching and it's very important to bring these stories into the future.

I see my kids. They are great kids, amazing kids, but there are too much into their phones and their virtual reality. So I think it's really important to bring them the real reality, the real humans that had real problems and real dreams and real visions and the real ability to do things. I think is really important piece of work that you do.

P/1 - Anything else you want to say?

R - No. My life is not very interesting like tens of thousands of stories that you have in your gallery. But maybe what I can say is that I have proven by myself. A small man from a very small city and you know that you've been there is not big in a small country without having any clue about film, without having any clue about film technology or film industry can actually go out with a vision, an idea and conquer and actually change the film market globally. I'm very proud of that. I'm very proud to let my kids understand. I'm also trying to help them to understand that they can do things if they want. So if I can convey something is that if you have a dream and if you want to do something, it's up to you. You need to generate that inner force and you can generate that inner force, there's no limit.

You can get people to believe on your idea. You can get people to come on your side to join your mission as long as it's a good one. As long it is a good mission. You can get it. Make it work.

Bad missions will always fail. Good missions depends on you.

P/1 - Thank you.

R - Thank you.